



中国三峡
China Three Gorges Corporation

2018

Sustainability Report



A Pillar of a Great Nation A Contributor to the World

A great nation must have its own real pillar.

From the Three Gorges Project, a century-old dream of China, to the Kaleta Hydropower Station, the Pearl in West Africa, From large-scale hydropower projects, the parallel development of wind power and photovoltaic power generation, to offshore wind power development,

We are committed to improving the accessibility to global clean energy and promoting the transformation of energy production and utilization modes,

Thus contributing to achieving the Sustainable Development Goals (SDGs),

All of which show that pillars are indispensable for a better world.

From the construction of super-large hydropower projects around the world to the operation and management of clusters of mega-sized power stations,

From localization of giant hydro-turbine generator sets to driving intelligent manufacture in the whole hydroelectric industry chain,

From introduction, digestion and absorption of world cutting-edge technologies to re-innovation, and from technical specifications to standards of hydropower industry,

We drive China's clean energy equipment manufacturing industry to a higher level,

All of which show that pillars are indispensable for independent innovation.

By giving full play to the comprehensive benefits of Three Gorges Complex such as flood control, drought relief, shipping and power generation,

Constructing the Yangtze River Economic Belt, assisting resettled residents from the reservoir areas to have a stable and good life, and achieving targeted poverty alleviation,

We promote the well-coordinated environmental conservation in the Yangtze River Basin and cope with global climate change,

All of which show that pillars are indispensable for protecting our people and motherland.

In the past twenty-five years, we have been staying true to our original aspiration and shouldering our mission through Party building.

With exquisite craftsmanship and good moral character,

We forge ahead with determination,

In a bid to serve our nation and people's livelihood.

Bearing in mind the great trust of President Xi Jinping at a new starting point,

We will continue to deepen the reform as a state-owned enterprise and grow steadily and rapidly;

And by playing a role as a pillar of China,

We will continue to take on our duty for the national rejuvenation and human progress.

The successful completion and operation of the Three Gorges Project has realized the dream of generations of Chinese people to develop and utilize the resources of the Three Gorges, and has become an important symbol of China's development since the reform and opening up. This serves as an example of the superiority of the Chinese socialist system in concentrating its efforts on solving major problems, shows the wisdom and creativity of the Chinese people, and reflects the growing prosperity of the Chinese nation. The real pillar of a great nation must be firmly seized by the country itself. Core and key technology can't be obtained by begging; instead, we must strive to grasp it by ourselves.

-- By President Xi Jinping during his inspection visit to the Three Gorges Dam



Contents

Message from the Chairman	02
An Interview with the President	04
About China Three Gorges Corporation	06
CSR Feature Story:	12
25-year Commitment to the Mission with CSR leadership to Play a Vital Role in National Development	
Chapter I. Consolidating Basis and Laying a Solid Foundation for a Pillar of a Great Nation	16
Strengthening Party Leadership	18
Excellent Operation and Management	22
Sticking to Independent Innovation	24
Cultivating Craftsmen for the Great Nation	28
Chapter II Being a Pillar of a Great Nation through Innovation and Solid Work	32
Play a Fundamental Role in Guaranteeing and Furthering the Development of the Yangtze Economic Belt	34
Play a Backbone Role in Promoting Well-coordinated Environmental Conservation in the Yangtze River Basin	42
Play a Leading Role in Leading China'S Hydropower Industry to "Go Global"	50
Play a Constructive Role in Promoting the Industrial Upgrading of Clean Energy	60
Play a Demonstrative Role in Deepening Soe Reform	68
Play an Exemplary Role in Assuming Social Responsibility	74
Chapter 3: Delivering the Value of National Pillar to the World	88
Improving the Transparency of Accountability Information	90
Improving the Governance of Sustainable Development	92
Making Contribution to SDGs	93
Communicating Key Sustainable Performance	94
Benchmarking GRI Standards	99
Promoting Sustainable Actions in 2019	100
Third-party Evaluation	102
Feedback Form	103
About This Report	104



Message from the Chairman

A Pillar of a Great Nation

A Contributor to the World

2018 marks the 40th anniversary of China's reform and opening up and also the 25th anniversary of the founding of CTG, and also it was a milestone in CTG's history. In 2018, during his inspection to the Three Gorges Project, President Xi Jinping stressed the Three Gorges Project was a national pillar and spoke highly of the importance of the Three Gorges Project as "the symbol of China's achievements since the Reform & Opening-up as well as the examples of the superiority of socialism in pooling resources to address major problems, the wisdom and creativity of Chinese people as well as prosperity and strength of the Chinese nation" in his keynote speech, which symbolized the highest affirmation and recognition to the Three Gorges Project and CTG. In 2018, China approved CTG's new strategic development positioning, and made clear demand that CTG should actively serve the country's major strategy and give full play to the "Six Roles", all of which charted a new course in the new era. In 2018, we adhered to the general principle of pursuing progress while ensuring stability at work, earnestly implemented the requirements for high-quality development, and achieved simultaneous improvement in scale, efficiency and quality, making due contribution to the stable national economy growth, reform, restructuring, benefiting people's livelihood, and risk prevention. In 2018, while conducting lean operation to obtain huge comprehensive benefits in flood control, shipping, and water resources utilization, etc., the TGP Hydropower Station set a new record for the annual power generation of a single power station, and presented a remarkable achievement as a present to the 40th anniversary of the reform and opening up.

Dream goes forward as time flies. Looking back on the 25-year development process, all the staff of CTG, under the strong leadership of the CPC Central Committee and the State Council, and with the help and guidance of relevant ministries and local Party committees and governments, have stayed true to the mission, forged ahead with enthusiasm and perseverance, and realized a transformation from a hydropower company into the world's leading clean energy

group. As a result, CTG played a nationally prominent role in protecting the interest of people, stabilizing the nation, pursuing green development and delivering benefits to all the stakeholders through global mega hydropower projects, and achieved political efficacy, economic effectiveness and social benefits, thus boosting the high quality development of China's economy and society.

The national pillar assumes its due obligation. A national pillar is directly tied to national destiny as well as the rise and fall of a nation. Since the reform and opening up, especially since the 18th CPC National Congress, CTG has given full play of the role of "ballast stone" and "backbone" for national development. In the past 25 years, we have been committed to growing bigger, stronger and better for being the most reliable force of the Party and the nation; through high-quality construction and high-efficiency operation of the Three Gorges Project, we have successfully honored the historical mission endowed by the Party and the nation. Upholding the national strategy, we have made great efforts to build one national pillar, and upholding the philosophy of ecology as priority and green development, we played a key role in promoting well-coordinated environmental conservation in the Yangtze River Basin. We unswervingly deepen the reform to explore valuable experience for the SOEs and state-owned assets reform in a comprehensive way. We stayed committed to the strict governance of the Party and contributed to the reform and development.

Innovation drives the development of national pillars. "The real pillar of a great nation must be firmly seized by the country itself. Core and key technology can't be obtained by begging; instead, we must strive to grasp it by ourselves." In the past 25 years, CTG has tided over difficulties and achieved huge development. Through the mode of introduction, localization and re-innovation, the core and key technologies have been firmly grasped in our own hands. Only the national pillar could pool the unique advantage of China's concentrated efforts to make huge

stride, and it also plays a powerful traction role in transforming from "Made in China" to "Created by China", therefore gaining more momentum for the national rejuvenation. Through the construction of large-scale hydropower projects such as the Three Gorges, Xiluodu, Xiangjiaba and Baihetan, the design, R&D and manufacturing capacity of China's hydro-generators have successfully increased from 320 MW to 1,000 MW, significantly upgrading China's hydropower project construction and management level and the technological capability in the fields of large unit equipment, power transmission and transformation projects. All of these lead to the leapfrog development of China's hydropower from "a followers" to "a leader". Through the strategy of being an offshore wind power leader, CTG has mastered the core technology of offshore wind turbine manufacturing and boosted rapid development of China's offshore wind power industry.

A national pillar benefits all. A just cause should be pursued for the common good. Today, global challenges such as energy crisis, climate change, and poverty have become increasingly prominent. The world of "Global Village" has determined that it is difficult for an individual to manage or solve the challenges alone. As the world's largest hydropower group and China's largest clean energy group, CTG integrated the New Three Gorges Dream, the Chinese Dream and the World Dream by upholding the philosophy of sustainable development, "Great virtue is like water that nurtures the world". By benefiting people through energy interconnection, CTG shouldered the responsibilities for national rejuvenation and human progress. By adhering to the principle of achieving shared growth through joint consultation and collaboration, following the market law and international rules, and upholding openness and transparency, CTG promoted the mutual beneficial cooperation in energy with countries along the "Belt and Road", assisted in improving global energy security capabilities, and devoted itself to bringing affordable power, so as to contribute its wisdom as a pillar of the great nation in accelerating the building of a global clean, low carbon, safe and efficient modern energy system.

Besides, CTG regards mountains, rivers, forests, fields, lakes and human being as a community of life, and follows a green and low carbon path in the whole process of clean energy development, construction and operation, striving to promote global energy structure adjustment and contribute its solution to coping with the climate change and environmental pollution. Moreover, CTG vows to realize common prosperity with the regions where it operates by actively participating in community development, fueling local economic development and demonstrating its social responsibility so as to achieve high-quality, sustainable and common development and contribute its power to building a more inclusive, beautiful world.

2019 welcomes the 70th anniversary of the People's Republic of China and also a crucial year for building a well-off society in an all-round way. Embarking on the journey of building a world-class model enterprise, CTG will, under the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, conscientiously study and implement the spirit in the keynote speech made by President Xi Jinping during his inspection of the Three Gorges Project and in the symposium on promoting the development of the Yangtze River Economic Belt, as well as the new strategic development positioning set for CTG, profoundly interpret the significance of the "Six Roles", and thoroughly practice the new development philosophy to build itself into a world-class clean energy group. In addition, CTG will serve the national strategies in a wider scope and at a higher level, and make new contributions to securing the victory of building a moderately prosperous society in all aspects so as to greet the 70th anniversary of the People's Republic of China with outstanding achievements.



雷鸣山

Lei Mingshan

Board Chairman and Secretary of the CPC Leadership Group of China Three Gorges Corporation (CTG)

An Interview with the President

Q The year 2018 was the 40th anniversary of China's reform and opening up and the 25th anniversary of the establishment of CTG. What measures did CTG take to achieve new highs for all indicators of business development and make new contributions to the steady growth of the national economy?

As a large backbone central state-owned enterprise(SOE), CTG has deeply studied and implemented Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era and the guiding principles of the Report to the 19th CPC National Congress, resolutely implemented the decisions of the CPC Central Party Committee and the State Council, and comprehensively promoted the work of risk prevention, strict supervision, deepening reform, leverage reduction, cost reduction, profitability improvement and main business enhancement, etc.; as a result, we achieved new highs for main indicators of production and operation. We upheld the underlying principle of pursuing progress while ensuring stability, and thoroughly implemented new development concepts, to firmly promote high-quality development, and thus posted new highs in relevant indicators. The annual output of power generation reached 290.2 TWh, with a total operating income of RMB 93.9 billion and a total profit of RMB 42.4 billion. The indicators of overall labor productivity, per capita profit, per capita contribution of profit and taxes, and cost and expense ratios continued to come out top among central SOEs. For 11 consecutive years, CTG was rated as a Grade A enterprise in the annual performance assessment of the State-owned Assets Supervision and Administration Commission of the State Council (SASAC), making new contributions to the stable growth of the national economy, promoting reform, restructuring, and benefiting the people's livelihood and risk prevention.

Q In 2018, President Xi Jinping pointed out during his inspection of the Three Gorges Project that "the pillar of a great nation must be firmly seized by the country itself." How does CTG manage and operate the Three Gorges Project with high standards?

Constructing, operating and managing well the Three Gorges Project (TGP) is an important political task entrusted to CTG by the Party and the nation. In 2018, CTG brought into full play the comprehensive benefits of the Three Gorges Project in flood control, shipping, power generation, water replenishment and ecological protection, etc. The Three Gorges Reservoir played an important role in flood control and disaster mitigation in the middle and lower reaches of the Yangtze River through a scientific flood control dispatching mechanism to retain and store the floodwater and reduce the peak flooding in multi-round, and retained more than 2 billion cubic meters of floodwater on an accumulative basis. The navigation efficiency of the Three Gorges ship locks has been greatly improved by implementing the four-stage operation at the 156-meter water level, downstream-going ships staying for lockage in the first lock chamber, the renovation of upstream and downstream berthing facilities, and the use of new floating bollard, etc. As a result, the annual freight volume through the Three Gorges ship locks reached a new high of 142 million tons; after putting into operation, the Three Gorges ship lifts have been fully functioning as rapid passages through the dam, with more than 154,000 passengers, over 4,000 ships and more than 1.5 million tons of cargo through the ship lifts per year, thus expanding the navigation benefits of the Three Gorges Project. Through actively carrying out joint operation of the reservoir group and optimal dispatching of small and medium-sized floods, etc., the annual power output of the TGP Hydropower Station increased by about 5.6 TWh, and more than 101.6 TWh of green electricity was produced, which set a new record for the annual output of a single hydropower station in China, making new contributions to the development of the Yangtze River Economic Belt, the construction of a clean, low-carbon, safe and efficient energy system and the building of a beautiful Yangtze River and a beautiful China.

Q In 2018, President Xi Jinping pointed out at the Symposium on Further Promoting the Development of the Yangtze River Economic Belt that "CTG should play its due role and actively participate in the ecological restoration and environmental protection of the Yangtze River Economic Belt." How can CTG play a key role in promoting well-coordinated environmental conservation efforts in the Yangtze River Basin?

CTG resolutely implements the major decisions of the CPC Central Committee, and continuously improves our political awareness. We go all out for the well-coordinated environmental conservation efforts in the Yangtze River Basin, and deeply engage in the high-quality development of the Yangtze River Economic Belt. Guided and supported by relevant ministries and commissions, provinces and municipalities along the Yangtze River, CTG has signed cooperation agreements or carried out exchanges with relevant provinces and municipalities, well-known enterprises, scientific research institutes and financial institutions, thus laying a foundation for the rapid and orderly implementation of pilot work. We set up the Yangtze Ecology and Environment Co., Ltd. to integrate internal and external resources, and vigorously foster core business competence for the ecological protection industry. Starting from urban sewage treatment, we focus on exploring new modes and new mechanisms to promote the implementation of pilot projects in an all-round way and as a result, the role of pilot projects has been manifested preliminarily. We actively built the ecological protection engineering research center and green investment fund to provide technical and financial support for the well-coordinated environmental conservation in the Yangtze River Basin. We explored sustainable market-oriented business models and prepared to establish the Yangtze River Protection Industry Alliance to foster the well-coordinated environmental conservation in the Yangtze River Basin by the whole industrial chain.

Q 2018 was a crucial year for us to secure the victory of building a moderately prosperous society in all aspects. What key measures did CTG take in poverty alleviation? And what achievements were made?

CTG actively fulfills its corporate social responsibility by supporting national fixed-pointed targeted poverty alleviation, aiding Xinjiang, Tibet and Qinghai, assisting ethnic minorities in Sichuan and Yunnan Provinces, and resettled residents in reservoir and dam areas, as well as engaging in public welfare undertaking, etc. We have invested a total of over RMB 5.3 billion, benefiting more than 80 districts, counties and 12 ethnic minorities in 31 provinces and municipalities throughout the country. Especially, we actively helped Nujiang Prefecture and Liangshan Prefecture, both belonging to the extremely poverty-stricken areas in the "three districts and three prefectures" of China, in our poverty alleviation work. In 2018, CTG focused on targeted poverty alleviation work. Main leaders took the lead in doing investigations in fixed-point poverty alleviation regions and provided guidance, helping long-term partners Wushan County of Chongqing City and Wan'an County of Jiangxi Province successfully lift out of poverty. We made every effort to provide targeted assistance to ethnic minorities in Sichuan and Yunnan Provinces, with a total of RMB 2.7 billion allocated, which has helped 150,000 poor people successfully lift out of poverty. Besides, we successfully implemented a number of branded projects such as "Summer Camp for Children from the Reservoir Area to Three Gorges" "Three Gorges Scholarship Program" and the "Educational Aid to Xinjiang Program", etc., and won the "Chinese Charity Award" again, fully demonstrating the image of a responsible central SOE.



王林

Wang Lin
President and Deputy Secretary of the CPC Leadership
Group of China Three Gorges Corporation



Three Gorges Project

About China Three Gorges Corporation

China Three Gorges Project Corporation was founded on September 27, 1993 with the approval of the State Council. On September 27, 2009, it was renamed as China Three Gorges Corporation (CTG). Following a restructuring of its corporate system, CTG became a solely state-owned company headquartered in Beijing. CTG's strategic positioning: to actively serve the major national strategies such as the development of the Yangtze River Economic Belt and the "Belt and Road Initiative"; play a backbone role in the integration into the Yangtze River Economic Belt in an in-depth manner and the well-coordinated environmental conservation in the Yangtze River Basin; provide basic guarantee for promoting regional sustainable development; take the lead in promoting the upgrade and innovation of the clean energy industry; and continue deepening the reform of the enterprise so as to

speed up the process of developing CTG into a world-class transnational clean energy group with strong innovation capabilities and global competitiveness. CTG's main business covers the construction and management of hydropower projects, power generation, international investment and contracting, the development of wind and solar power, amongst other renewable energies, the comprehensive development and utilization of water resources, and the relevant professional technical services. After over 20 years of sustainable, high-quality and rapid development, CTG has become the largest clean energy group in China and the largest hydropower development and operation enterprise in the world.

70,300 MW

Consolidated installed capacity in operation reached

128 GW

Total installed capacity reached
Including consolidated installed capacity in operation, minority-equity based capacity and under-construction capacity

14 %

Consolidated hydropower installed capacity accounts for 14% of China's total hydropower installed capacity

750.4 billion RMB

Total Assets

96 %

Consolidated installed capacity for renewable clean energy in operation accounts for

290.2 TWh

Annual Power Generation

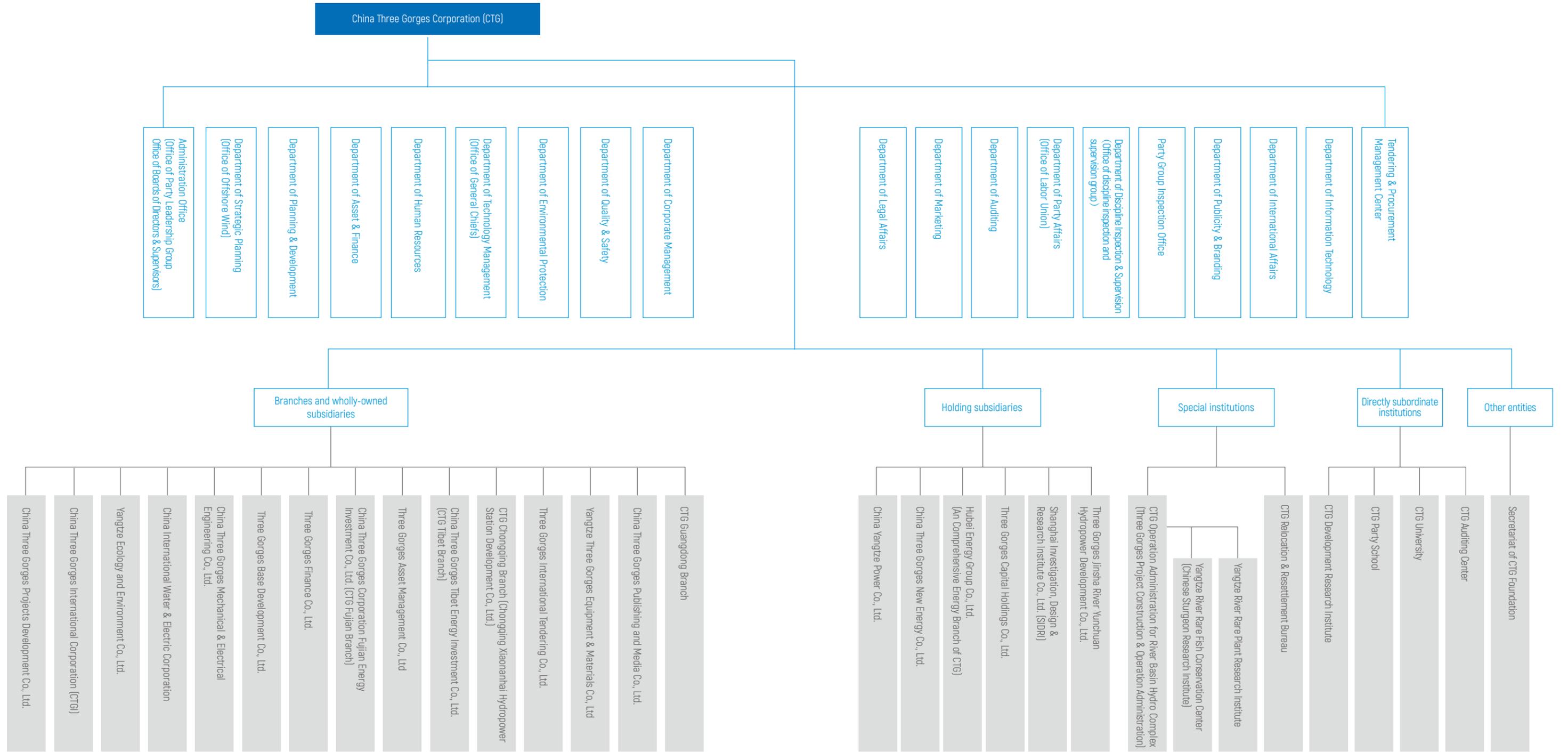
93.9 billion RMB

Operating Revenue

47.27 %

Asset-liability Ratio

CTG was rated as Grade A enterprise in the Annual Performance Assessment of SASAC for **11** consecutive years



Organizational structure

Development strategy

CTG is undertaking a new mission for the new era and expecting to achieve new developments along its journey. Bearing the current situation in mind, CTG keeps in view its mission and has enriched and modified its original strategic objectives. We seek to respond to issues in the new era with our actions, trying to shift from delivering great projects to becoming a great enterprise and trying to serve national strategies at a higher level and within a greater scope. By doing so, we aim to play a bigger role in the overall development strategy, make greater contributions to the Party and people, and satisfy our responsibility to them through our constant endeavors.

Core philosophy

CTG's spirit for the new era: Assume responsibility for the nation, promote people's well-being;
respect life and nature;
stay true and pragmatic and embrace innovation;
be open, inclusive, seek win-win cooperation;
be honest and professional

Core values: Dedication, responsibility, innovation and harmony

Mission: Managing the Three Gorges Project, protecting the Yangtze River, dedicating clean energy and building a beautiful home together

Vision: to be a world-class multinational clean energy group

six roles

- Play a fundamental role in guaranteeing and furthering the development of the Yangtze Economic Belt
- Play a backbone role in promoting well-coordinated environmental conservation in the Yangtze River Basin
- Play a leading role in leading China's hydropower industry to "go global"
- Play a constructive role in promoting the industrial upgrading of clean energy
- Play a demonstrative role in deepening SOE reform
- Play an exemplary role in assuming social responsibility

25-year
Commitment to the Mission with
CSR leadership to Play a Vital Role
in National Development

CSR Feature Story

2018 marked the 40th anniversary of China's reform and opening up and the 25th anniversary of the founding of CTG. It was also an important year for CTG to assume new missions, start a new journey and make new contributions at a new starting point. Over the past 25 years, we have always been adhering to the conviction that we should take up responsibility and do our duty for the country. We have always been working hard to operate and manage the pillar of the great nation so as to accelerate building CTG into a world-class clean energy group.



Three Gorges Project

Building a Stronger Chinese Brand in Hydropower

Over the past 25 years, CTG has been steadfast in building itself into a bigger, better and stronger enterprise. We have realized the leapfrog development from the Three Gorges to the Yangtze River, from the Yangtze River to the ocean, from Yichang, Hubei Province to the whole country, and from China to the world, creating a Chinese brand in the hydropower industry.

Building More Pillars for the Great Nation

Over the past 25 years, CTG has constructed and operated the high quality and efficient Three Gorges Project and other world-class giant hydropower stations, such as Xiluodu and Xiangjiaba, and has overcome a series of world-level engineering and technical problems, which establish China's leading position in the hydropower industry in the world.

33

Number of the hydropower stations constructed and operated by CTG around the globe

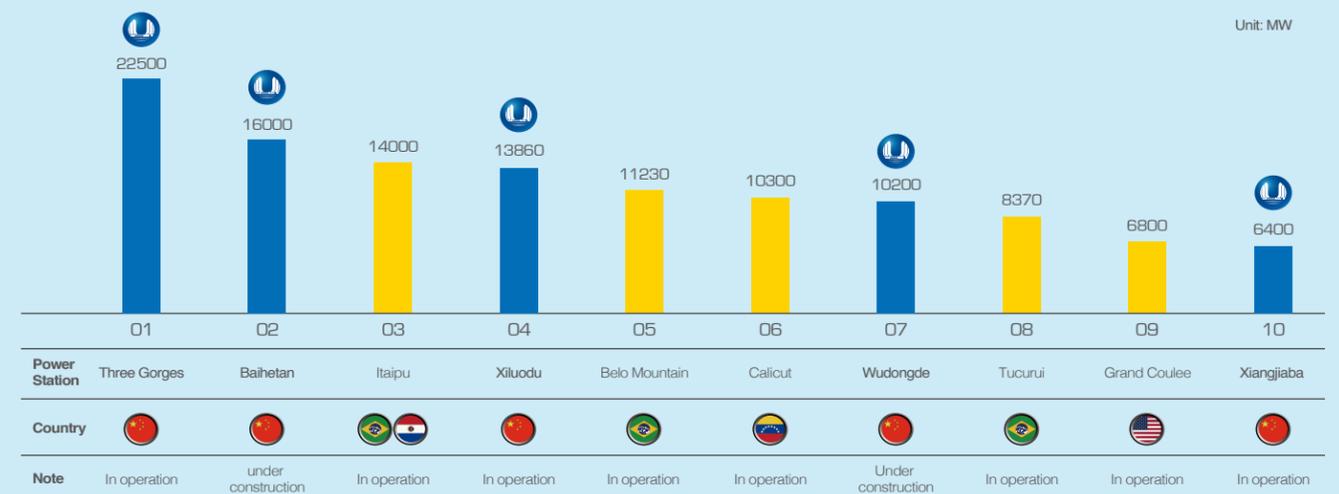
934

Invention patents owned by Three Gorges Project

135

Quality Standards owned by Three Gorges Project

By 2020, 1/2 of the top ten hydropower stations in the world will be built, operated and managed by CTG.





Protecting a More Beautiful Yangtze River Basin

Over the past 25 years, CTG has been steadfastly practicing the concept of ecological priority and green development, and following the road of clean energy development while planning and implementing engineering construction, environmental protection and ecological restoration simultaneously. The Corporation also devotes to building the ecological protection business sector, participating in the well-coordinated environmental conservation in the Yangtze River Basin, and deeply engaging in the high-quality development of the Yangtze River Economic Belt.

Creating Cleaner Electrical Energy

Over the past 25 years, CTG has been vigorously developing clean energy such as hydropower, wind and solar power, to assist the national energy structure adjustment, and contribute to building a clean, low-carbon, safe and efficient energy structure system and addressing global climate change.

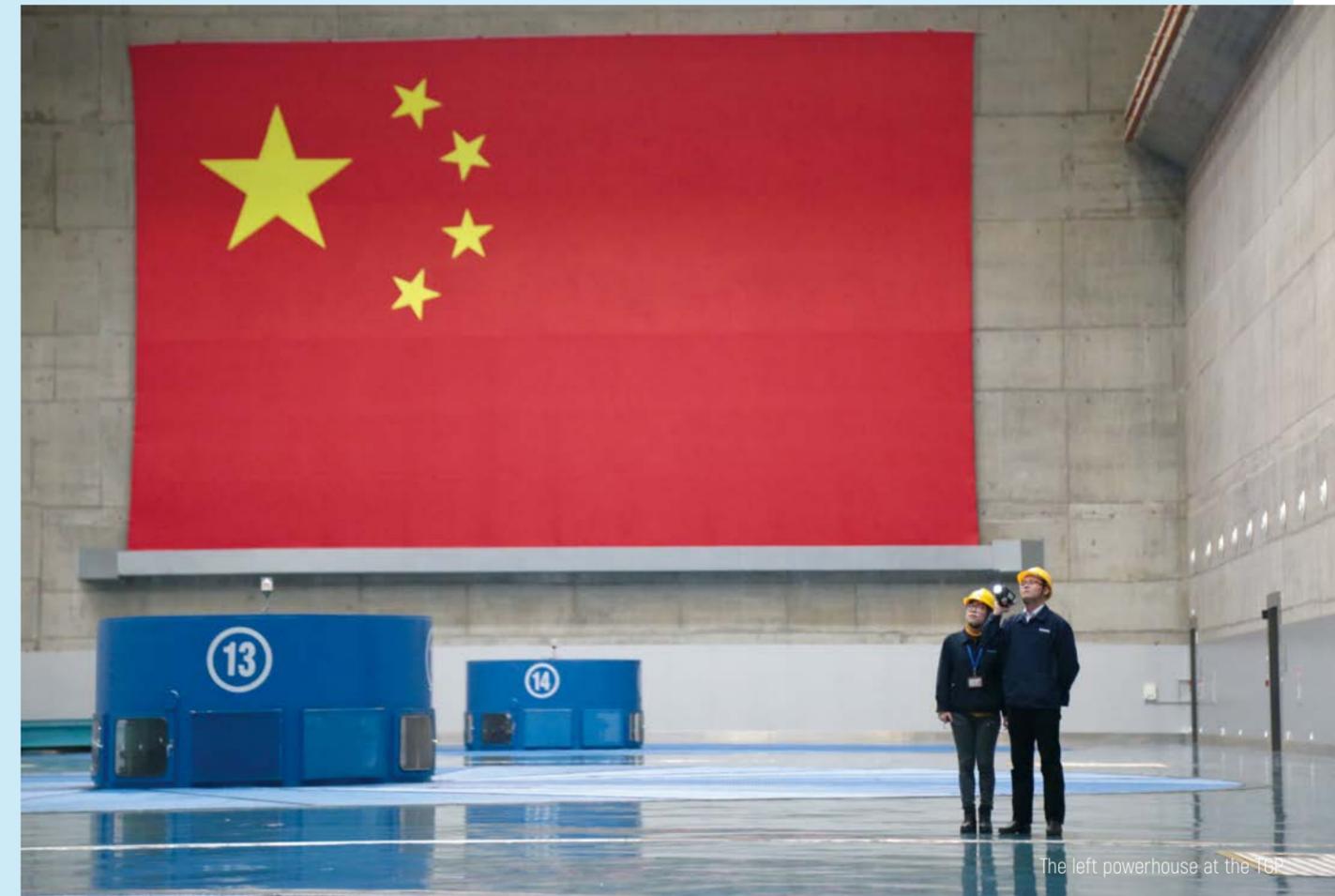
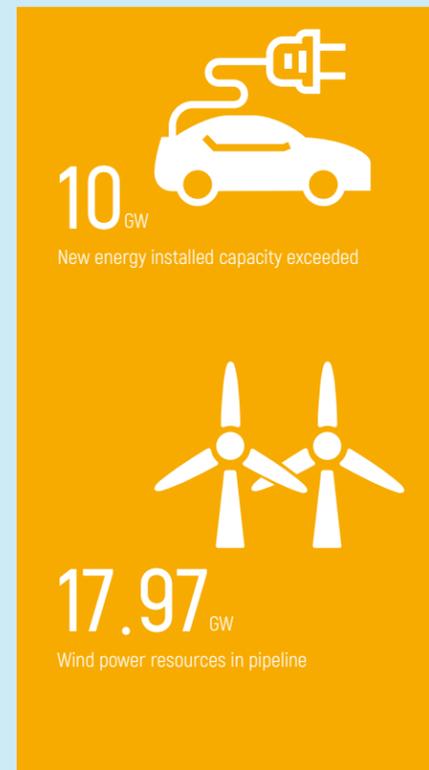
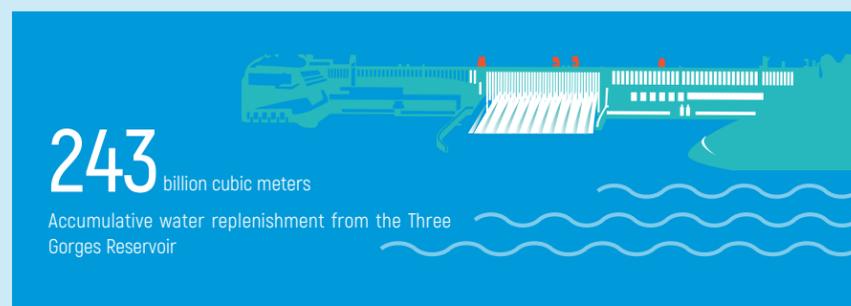
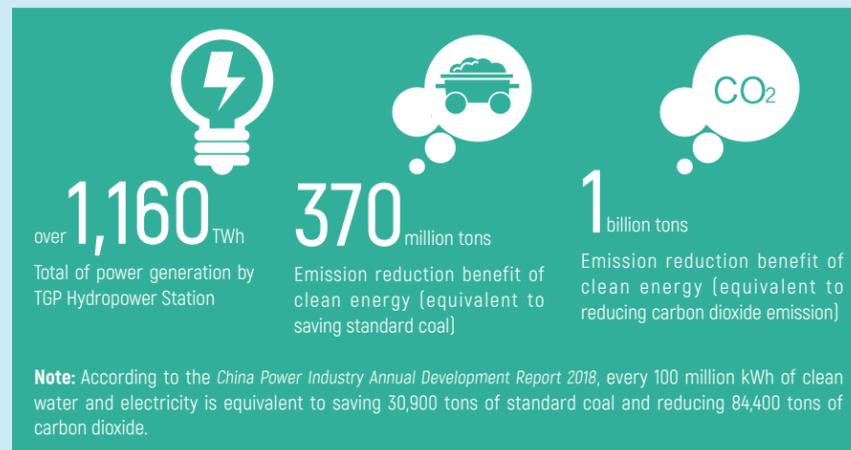
Gathering Greater Momentum for Deepening Reform in an All-round Way

Over the past 25 years, CTG has been resolutely implementing the "1+N" policy system for the reform of state-owned assets and SOEs, promoting centralized management and control by CTG, segmentation of CTG businesses, specialization of business sectors and a market-oriented approach for the specialized businesses, as well as a global vision for the market. In this way business sectors like construction and consultation, power generation, ecological protection, river basin dispatching and operation, international investment and contracting, new energy development and operation, capital operation and financial services as well as asset management and base services have been formed.

Taking up Greater Social Responsibility

Over the past 25 years, CTG has been actively fulfilling its political and social responsibilities as a central SOE, unremittingly pushing forward poverty alleviation, and earnestly helping the people in poverty-stricken areas with their development, thus resolutely contributing its share to the battle against poverty and the realization of a moderately prosperous society on schedule.

over RMB **5.3** billion
Accumulative capital invested in poverty alleviation



01

CONSOLIDATING BASIS AND LAYING A SOLID FOUNDATION FOR A PILLAR OF A GREAT NATION



Strengthening Party Leadership

Studying and Implementing Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era and the Spirit of the 19th CPC National Congress

- Thirteen study meetings were convened for Theory Center Group of CTG's Party Leadership Group on theoretical learning to promptly implement the spirit of the important meetings of the Party Central Committee and relevant institutional documents.
- Organizing training classes on learning and implementing Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, so as to achieve full coverage of Party members and leading cadres at and above the department level.
- Studying, publicizing and implementing the spirit of President Xi Jinping's important speech on inspecting the TGP, organizing over 1,000 thematic Party Day activities at Party branches of various levels, and setting off a learning boom.

Strengthening Party Construction in an All-round Way

Strengthening Political Construction

Guided by political construction, we give full play to the core role of the Party Committee, the role of fighting fort of the grassroots Party organizations, and the role of exemplary vanguard of the Party members.

Strengthening the Ideology Construction

Strengthening education and warning. Revising and improving the *Disciplinary Measures for Employees' Violation of Disciplines and Regulations*, compiling the *Collection of Cases of Disciplinary Alarm Bells*.

Strengthening the Organization Construction

Strengthening the construction of basic organizations. Guiding the timely establishment of Party organizations at newly established secondary units and projects, and urging grass-roots Party organizations to carry out reelection on time.

Strengthening the Party's Work Style Construction

Deepening the implementation of the spirit of the eight provisions of CPC Central Committee. Deepening and detailing the requirements for the construction of work style and carrying out the regulation of formalism and bureaucracy.

Strengthening the Discipline Construction

Strictly implementing the system of democratic life meeting and practicing criticism and self-criticism.

Strengthening Institutional Construction

Formulating a series of systems such as the *Provisions of the CTG's Party Leadership Group on Resolutely Safeguarding the Authority and Centralized and Unified Leadership of the Party Central Committee* to timely transform the requirements of the Party Central Committee's deployments into concrete means and measures for Party management and enterprise governance.

Stepping up Efforts in Building the Party Conduct and Clean Governance

Promoting Inspections

- Establishing the Party Group Inspection Office and strengthening the building of the organization and cadre troop in charge of inspection and patrol.
- Conscientiously conducting inspection tours on headquarters functional departments, carrying out routine inspections on newly-established units, and proactively promoting special inspection tour in key overseas regions.
- Carrying out "follow-up" after inspection and rectification work, consolidating and enhancing the full coverage of inspection, and urging all units to take immediate actions and make immediate rectifications.
- Promoting secondary units to conduct political inspection in an orderly manner to effectively improve the leadership and guidance for inspection work.

Intensifying Efforts to Prevent Corruption

- Perfecting the leadership mechanism and formulating the *Discipline Inspection and Supervision Management System* to facilitate grassroots unites to implement "Two Responsibilities".
- Improving the institutional construction and issuing *Compilation of Anti-Corruption Work System* to grassroots unites in order to guide the construction of the Party conduct and clean governance.
- Deepening special inspection tour to conduct on-site inspection on the construction of the Party conduct and of clean governance at secondary units and focus on special inspection on key areas including poverty alleviation projects.
- Strengthening corruption risk supervision in key areas and the supervision of the whole process of selecting and employing personnel.
- Conducting research on corruption risk supervision to summarize anti-corruption work experience, thus formulating CTG's Study on the Supervision of Overseas Business Corruption Risk.



Studying and Publicizing the Spirit of President Xi Jinping's Important Speech Delivered during His Inspection of the Three Gorges Project

In April 2018, President Xi Jinping inspected the TGP and delivered an important speech. CTG drafted and issued the Notice on Promoting Learning and Implementing the Spirit of President Xi Jinping's Important Speech on Inspecting the TGP, convened CTG Cadre Conference to convey the spirit of important speech delivered by President Xi Jinping, and organized all cadres and staff to listen to and watch live reports from the mainstream media. Grass-roots Party organizations of various levels held symposiums titled "Staying True to the Mission and Forging Ahead", sharing meetings and thematic Party Day activities, offered on-the-spot teaching courses of "Learning Leader's Speech, Perceiving Leader's Entrusting Words and Following Leaders' Footsteps", arousing a wave of learning and implementing the spirit of President Xi Jinping's important speech throughout CTG.

Actively Carrying out Special Inspections in Key Areas in Overseas Business

Special inspections have played a sword role, and facilitated the overseas Party organization construction, stricter governance of the Party as well as prevention and mitigation of overseas business major risks.



16

Number of Suggestions on Overseas Special Inspection



President Xi Jinping and the staff of TGP shook hands

Excellent Operation and Management

Refining Corporate Governance

- Integrating Party leadership into the corporate governance structure by unifying the enhancement and improvement of Party leadership with the establishment of a modern enterprise system, so as to effectively guarantee the roles of the Party Leadership Group, Boards of Directors and other governance bodies.
- Perfecting the corporate governance system and working mechanism featuring "transparent structure, well-defined rights and liabilities, coordinated operations, and effective checks and balances".
- Actively promoting the construction of the board of directors and standardize its operation. In 2018, 10 Board of Directors meetings were held, a total of 31 proposals were approved, 5 report matters were debriefed and 10 investigations were organized for outside directors.



Lei Mingshan, Chairman



Wang Lin, Director



Ding Zhongzhi, Outside Director



Wang Zhisen, Outside Director



Li Yanbin, Outside Director



Zhang Yuanrong, Outside Director



Cai Yongzhong, Worker Director

Members of the Board of Directors

Promoting Cost Reduction and Benefit Increase

- Making overall plans for the construction of the Center of Shared Services and starting the construction of the Center of Shared Financial Services.
- Promoting the governance of loss-making subsidiaries and keeping actual management within three levels.
- Adhering to strict economy by rigorously controlling public funds, with the "three public expenses" (using public funds to travel overseas, purchase cars and host meetings) declining for six consecutive years.
- Strictly controlling financing cost; the comprehensive financing cost rate in 2018 was 4.37%.

Strengthening Compliance Management

- Implementing the *Trial Guidelines for Compliance Management of Central SOEs* to strengthen compliance management in an all-round way.
- Strengthening the awareness of compliant operation and improving the ability to prevent compliance risks.

Improving Risk Management

- Perfecting the overall risk management system, strengthening the establishment of the organizational system against risks, and implementing subject accountability of risk management.
- Continuous optimizing risk assessment mechanism, realizing comprehensive coverage and formulation of control measures, highlighting key measures.
- Strengthening the control of major risky processes, dynamically tracking major changes in risks, and urging the implementation of risk control measures.
- Perfecting the organizational system of legal work, improving the legal risk prevention mechanism, and laying a solid bottom line for legal risk prevention.

Improving Quality and Safety Management

- **Perfecting the Safety Management System**
- Upgrading the system of "QEOMS" (Quality, Environment, Occupational Health & Safety) in accordance with the principle of "full coverage of main business, subordinate organizations and business process".
- **Improving the Safety Management System**
- Revising the quality and safety management systems, as well as *Reward and Punishment Management Measures on Project Quality*.
- Revising the *Reward and Punishment Management Measures on Project Safety* as well as the policies on quality and safety evaluation.
- **Implementing Classified Safety Supervision and Management**
- Implementing the SASAC's requirements of classified supervision of work safety by adjusting the classification of safety supervision and the weight of safety assessment and setting up safety management organizations in an all-round way.

Sticking to Independent Innovation

Establishing an Open and Innovative Platform

- Building the Central Research Institute of CTG, and establishing five platforms for independent innovation in science and technology on new energy, electromechanical technology, hydropower, ecological and environmental protection and intelligent energy.
- Establishing an open collaborative innovation network, supporting mass entrepreneurship and innovation, integrating the innovative power of the whole industry chain to carry out major technology integration and application.

Improving an Incentive Mechanism for Innovation

- One project won the Second Prize of National Award for Technological Invention, two projects won the Second Prize of State Science and Technology Progress Award, 15 projects received technological award from industrial associations, and the Three Gorges Project was submitted to apply for the National Science & Technology Progress Award Special Award.
- Six advanced units for science and technology management, 24 innovation teams (Outstanding Award) and 31 innovation teams (Encouragement Award) were recognized, and six outstanding innovation teams, including China Yangtze Power Co., Ltd., exchanged their experience.
- Rewarding 995 scientific and technological innovation fruits with a total amount of RMB 4.7052 million, which was up by 34% compared with 2017.

Enhancing Scientific Research

- Actively responding to national strategies and the enterprise development need, CTG carried out scientific research on the construction of large hydropower projects, optimal operation of cascade hydropower stations in the basin, and development of offshore wind power, etc.
- The fully-coupled dynamic analysis of the floating offshore wind power platform and its device R&D project were approved and received RMB 20 million of financial funds. CTG allocated more than RMB 100 million for the application demonstration of the project R&D fruits.
- Three another national scientific research projects were listed in the key R&D programs, and totally, CTG has undertaken 31 national technical R&D projects during the 13th Five-Year Plan period with the RMB 150 million of R&D fund.

Strengthening leadership in technical standards

- CTG was approved to draft 2 national standards, i.e., Standard for Operation and Management of Hydropower Projects and Basic Terminology of Hydropower Stations.
- Setting up projects in 33 industry standards. In the field of hydropower and new energy, CTG was responsible for formulating or revising over 1/3 industry standard plans.
- With the standards for offshore wind power and large hydropower projects taking the majority, CTG was approved to draft 75 standards including the Design Guidelines for Offshore Wind Farms in Cold Areas, and the Design Guidelines for Composite Bucket Foundation for Offshore Wind Farm Projects.

Focusing on Intellectual Property Protection

- 361 patent applications: 105 inventions and 256 utility models
- 310 authorized patents: 32 inventions and 278 utility models
- 58 registration software copyrights



Continuously Enforcing Internal Audit Supervision and Improving the Audit Mechanism

In accordance with the supervision requirements on state-owned assets and state-owned enterprises, CTG continuously improves its internal audit management mechanism, and steps up the audit supervision on key areas of production and operation, high-risk areas and key links of internal control, playing an effective role in error detection and correction, decision support, value adding, etc.

We earnestly act in accordance with the requirements on strengthening the supervision of state-owned assets and state-owned enterprises proposed by the CPC Central Committee and the State Council and actively improve its internal audit management mechanism.



The effective implementation of major policy measures and decisions made by the CPC central government and CTG is on the top of our internal audit agenda, so we conduct audits on the implementation of major policies and measures as well as important decision requirements.

We carry out reviews on audit rectification to conduct comprehensive self-check and key spot checks on the correction and rectifications of issues identified during the audit, and push and remind the correction of the issues that are not rectified as required.

Strengthening the audit supervision on key business and links through internal control evaluation, economic responsibility audit and special audit, etc.

Building an Open Technological Innovation System

CTG has strengthened its cooperation with universities and scientific research institutes to work on the major technical, economic, social, ecological and humanistic issues to be solved in the development of clean energy and the well-coordinated environmental conservation in the Yangtze River Basin, and has been exploring the establishment of an open and market-orientated technological innovation system in which enterprises are the main players, and industry, universities, academia and application will be integrated.

Building Core Competence of Giant Hydro-generators

Through technology introduction, localization, re-innovation, integration and original innovation, CTG has made the TGP Hydropower Station capable of the independent design, manufacturing and installation of 700 MW hydro-generators, promoting the leapfrog development of China's hydropower equipment manufacturing industry in seven years, which would have normally taken three decades. On this basis, through independent innovation, Xiluodu Hydropower Station and Xiangjiaba Hydropower Station have realized the independent design, manufacturing and installation of 800 MW hydro-generators with the largest single unit capacity in the world, as well as the domestic manufacturing of supporting equipment and raw materials. Wudongde and Baihetan hydropower stations have further carried out scientific research on one GW hydro-generators, and the technical performance and reliability indexes of units have reached the international leading level.

Enhancing Management Innovation Ability

CTG systematically carries out the evaluation of management innovation achievements to summarize advanced management concepts and experiences, management methods and means, promote management innovation ability and enhance the scientific and modern management, which makes management innovation play an active role in promoting reform and development, improving quality and efficiency, as well as transformation and upgrading of management innovation. In 2018, CTG organized the evaluation of management innovation achievements (2015-2017), completed the collection, material audit and evaluation of 69 achievements, and certified 33 achievements as management innovation achievements of CTG.



The Three Gorges Project leads the development of hydropower industry

Cultivating Craftsmen for the Great Nation

Ensuring the Interests of Employees

- Strictly abiding by relevant laws and regulations of China and the region where the project operates, and comply with international conventions related to human rights and labor rights.
- Adhering to equal employment, eliminating all forms of discrimination and respecting the diversity of employees.
- Strengthening democratic management, sincerely handling proposals from the workers' congress, and safeguarding employees' rights to know, participate and supervise.
- Formulating salary incentive and salary growth mechanism to promote a reasonable, scientific and standardized salary system.

Caring for Employee Life

- Organizing and carrying out cultural and sports activities covering singing, sports and other fields to enrich employee's spare time life.
- Visiting and assisting employees in difficulty and retired employees.

Attaching Importance to Occupational Health

- Carrying out health diagnosis and treatment services for front-line employees, organizing and planning sports activities, carrying out occupational health education activities, organizing special lectures on occupational disease prevention to help employees strengthen occupational disease prevention.
- Carrying out mental health counseling activities, providing psychological counseling for front-line employees, holding special lectures and expert on-site counseling.

Strengthening Training and Development

- Building a compound talent training mode based on job training and exchange of posts vertically and with centralized training and personalized cultivation horizontally.
- Strengthening the training of professional talent in the construction and operation of hydropower projects as well as international operations.
- Cooperating with universities such as Hohai University to train professionals in water resources and hydropower.
- Carrying out training activities of various forms in an all-round way, such as those organized by CTG, by subsidiaries, by grass-roots units and external training, network learning, etc.
- Improving the overall quality and professional ability of employees through high-frequency, full-coverage staff training; 46 off-job training classes such as "rotational training class for management backbones" were held.



Excelsior craftsmen for the Great Nation

Setting Up Examples for Employees

In 2018, CTG awarded 10 teams the honorary title of "Red Flag Team", 20 employees the honorary title of "Outstanding Employee", and four foreign employees the "Special Award for Foreign Employee". It encouraged outstanding employees and teams to play a demonstration and leading role through sharing and exchanging experiences and to promote the ability enhancement of the whole staff.



Commendated foreign employee



Staff singing contest themed with "Forging Ahead with the Entrusted Matter in Mind"

Staff Singing Contest Held

In 2018, CTG held a staff singing contest themed with "Forging Ahead with the Entrusted Matter in Mind" in celebration of 40th anniversary of China's reform and opening up and the 25th anniversary of the founding of CTG. The singing contest, mainly featuring theme songs about the "Chinese Dream" and original songs from CTG, eulogized the development achievements of the great motherland in the form of chorus and recitation and carried forward the spirit of CTG in the new era. More than 300 employees attended the contest.

Establishing CTG University to Cultivate First-class Talent

In order to promote the implementation of enterprise strategy and cultivate first-class international talent teams, CTG has set up an enterprise university, CTG University, to enhance staff competence and cultivate talent at all levels by building a platform for learning and innovation. In 2018, by drawing the advanced experience of first-class enterprise universities at home and abroad, CTG University focused on the talent training system, teaching management system and the team building of teachers at all levels, striving to cultivate and improve its competence in teaching, research, curriculum design, organization and implementation for better talent training.

Strong Partners Cultivate Professional Talent in Water Resources and Hydropower

CTG deepened its cooperation with Hohai University and set up an adult education base of Hohai University at the CTG University to provide intellectual support for personnel training, foster talent for the Belt and Road Initiative and "Going Global" hydropower development strategy and cultivate innovative power.

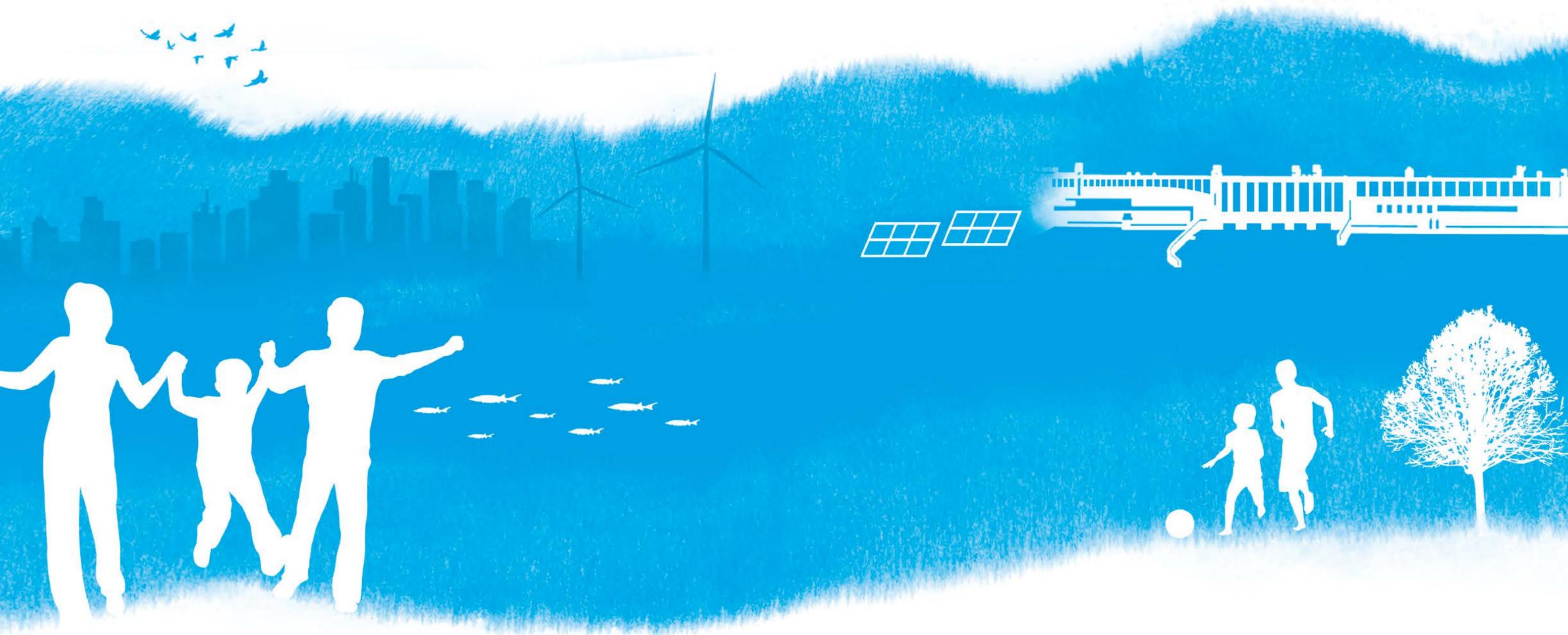


Members of the Suaipiti Water Conservancy Project in Guinea



Members of the CTG-EDP youth talent training program

02 BEING A PILLAR OF A GREAT NATION THROUGH INNOVATION AND SOLID WORK



PLAY A FUNDAMENTAL ROLE IN GUARANTEEING AND FURTHERING THE DEVELOPMENT OF THE YANGTZE ECONOMIC BELT

Management philosophy

- Giving full play to the role of TGP as an ecological project and livelihood project and effectively promoting the development of the Yangtze River Economic Belt through knowing water, utilizing water, and conserving water.

Management objectives

- Giving full play to the comprehensive benefits in flood control, shipping, power generation and ecological protection of the TGP, Gezhouba, Xiluodu, Xiangjiaba and other hydropower projects through engineering measures or technical means and scientific regulation, so as to further improve the capabilities of guaranteeing the flood control safety, ecological safety, shipping safety, water supply safety and energy safety in the Yangtze River Basin.

Management strategies

- Building two world-class mega-sized power stations (Wudongde and Baihetan) according to high quality standards.
- Operating efficiently the cascade hydropower stations with the TGP as the core.
- Promoting the establishment of a joint dispatching mechanism of cascade hydropower stations in the Yangtze River Basin for comprehensive utilization of water resources.



Today, I witness how the Chinese people turn flood disasters into resources through the Three Gorges Project, which is a great project and an embodiment of the wisdom and strength of the Chinese people.

--Alpha Condé, Guinean President

Under the command of the State Flood Control and Drought Relief Headquarters and the Yangtze River Flood Control Headquarters, CTG has been playing an important role in guaranteeing the flood control safety, water resources security, water ecological environmental protection and green energy security in the Yangtze River Basin through scientific dispatching and optimal operation.

--E Jinping, Secretary of the Party Committee and Minister of Ministry of Water Resources

Since the trial impoundment, the Three Gorges Project has played an important role in flood control, and achieved great benefits in both flood control and disaster reduction. It has become the key backbone of the flood control system in the Yangtze River Basin.

--Zhang Chuhan, academician of the Chinese Academy of Sciences

Over the past 20 years, CTG has been rooted in Hubei, and has deeply been involved in the reform, opening up and innovative development of Hubei Province. It invested in many projects in Hubei. Next, we hope that the two sides will establish a daily liaison and consultation mechanism, carry out wider and deeper exchanges and cooperation in the well-coordinated environmental conservation in the Yangtze River Basin, and jointly make greater contributions to the development of the Yangtze River Economic Belt.

--Wang Xiaodong, Deputy Secretary of the CPC Committee and Governor of Hubei Province

Implementing Safety Production

Carrying Out Risk Identification, Management and Control

- Based on hazard identification and risk assessment, management and control measures were formulated and implemented in different tiers and grades.

Strengthening the Investigation and Management of Hidden Dangers

- Pushing forward the construction of the Dual Prevention Mechanism for safety risk control and potential risks identification, and carrying out the "five major safety risks" control and potential risks identification, organizing internal and external experts to carry out special inspections of production safety, flight inspection of construction machinery, quality problems and other special inspections.

Carrying Out Safety Education and Training

- Giving full play to the role of education and supervision of the safety training, six special training sessions on quality and safety were conducted in 2018, more than 10 related external training sessions were organized, and more than 700 trainees.



Ensuring Lean Operation

Carrying out Diagnostic Operation

- Deepening diagnostic operation and equipment condition assessment, carrying out annual repair and daily maintenance to eliminating deficiencies; the main reliability indicators of hydro-generators are generally better than the industry level.

Strengthening Equipment Inspection

- Accurately grasping the safety status of equipment, focusing on strengthening equipment inspection, tracking, monitoring and maintenance.

Implementing Meticulous Maintenance

- Through careful maintenance, reducing the loss caused by unnecessary shutdown maintenance to ensure the continuous, safe and stable operation of the power plant.

Carrying out Quality Project Construction

Set a Model of Eco-friendly Projects

- Applying the most advanced environmental protection philosophy and technological means, replicating and applying advanced environmental protection philosophy, technologies, experiences and modes to the well-coordinated environmental conservation in the Yangtze River Basin.

Set a Model of Innovation Projects

- Mastering the core and key technologies for pillars of a great nation, developing new technologies, new equipment, new materials and new technics, promoting the effective conversion of key technological achievements into productivity.

Building a Model of High-quality Projects

- strengthening quality and risk management of hydropower projects and process management, effectively promoting "standardized" management of project construction, stage management and construction technology, eliminating all defects and flaws with a "zero tolerance" attitude.

Set a Model of Livelihood Projects

- Closely combining project construction with local economic and social development.

Set a Model of Integrity Projects

- Abiding by the self-requirements of honesty, integrity and dedication, promoting the work of Party building throughout the projects.



Giving Full Play to Comprehensive Benefits



Flood Control in the Yangtze River Basin

- Ten-year excellent "performance" of 175-meter trial impoundment operation of the TGP.
- Innovatively optimizing flood control dispatching in terms of compensative dispatching modes and water storage in advance at the end of flood season.



Building a Golden Waterway

- Actively promoting the work of rotational maintenance, renewal and renovation of ship lock equipment and facilities and the work of expanding the capacity and tapping the potential of the ship locks to ensure its smooth operation as the "expressway on water" of the Yangtze River.
- With the most technically difficult vertical ship lift in the world, the navigation capacity of the TGP Complex was improved.



Providing Clean Power

- Implementing accurate dispatching, maximizing the use of water resources, and realizing water-saving additional electricity generation.
- For the first time, annual power generation of the TGP Hydropower Station exceeded **100** TWh.



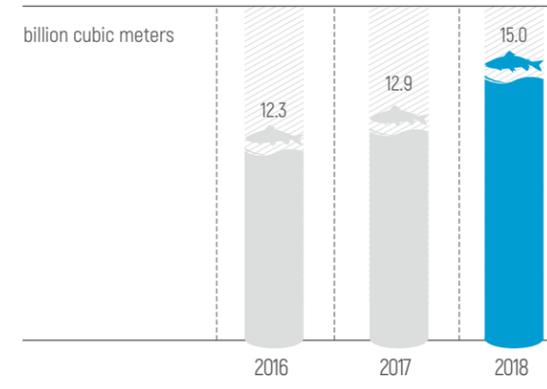
Assisting Drought Alleviation and Water Replenishment

- Timely dispatching and replenishing water for people's production and life in the middle and lower reaches of the Yangtze River.
- In 2018, the cumulative amount of water replenished was about 22.67 billion cubic meters.

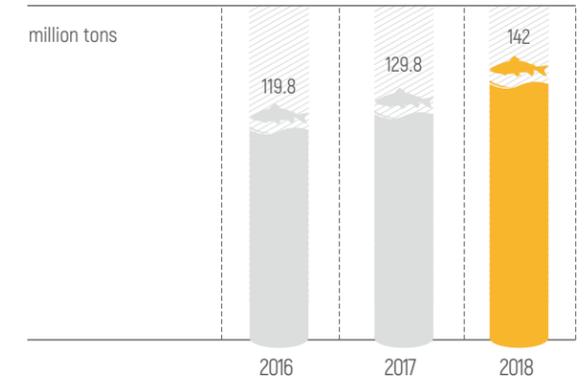


Promoting Ecological Protection

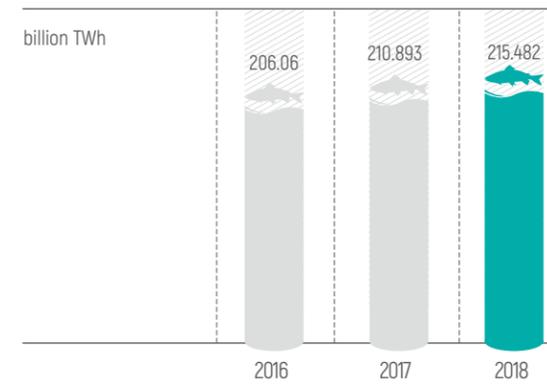
- Carrying out experimental ecological regulation aimed at promoting the reproduction and spawning of the four major breeds of Chinese domestic fish in the Yangtze River.
- Doing a good job of soil and water conservation to prevent water loss and soil erosion, and formulating control plans for disturbed land to reduce the impact on water and soil.
- In 2018, the total number of eggs spawned by the four major Chinese domestic fishes was **1.33** billion according to monitoring results at Yidu section.



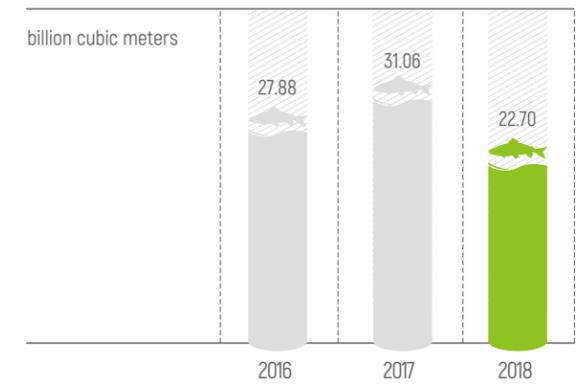
Flood retention volume by the cascade reservoirs in the Yangtze River Basin in the past three years



Freight volume passing through the Three Gorges ship locks

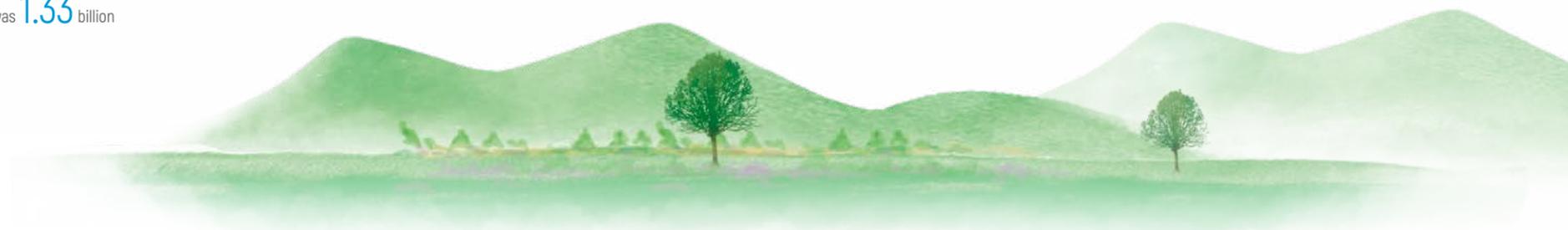


Hydropower generation of cascade hydropower stations in the past three years



Water replenishment of cascade reservoirs in the Yangtze River Basin in the past three years

Note: Cascade reservoirs in the Yangtze River Basin mean the cascade hydropower stations in the Yangtze River Basin operated by CTG.



The TGP Hydropower Station Sets a New Record of Annual Power Generation of a Single Power Station in China



Note: According to the data from the National Bureau of Statistics, China's GDP is RMB 90.03 trillion in 2018, while the total electricity consumption is 6,844.9 TWh according to the National Energy Administration, so it can be estimated that the electricity consumption of one kWh can support creating RMB 13.15 of GDP.

Making Innovations in Safety Management and Technologies

Make innovations in the quality safety supervision mechanism

CTG improves the standardization level of supervision via establishing inspection work standards by means of formulating checklists based on specialties. The Corporation proposes the plan of building the dam safety management system based on the principle of "unified platform, standards and management", and integrates internal and external resources to enhance the quality and safety supervision by adopting the mode of quality safety supervision and inspection entrustment.

Broaden the scientific innovation channels for work safety

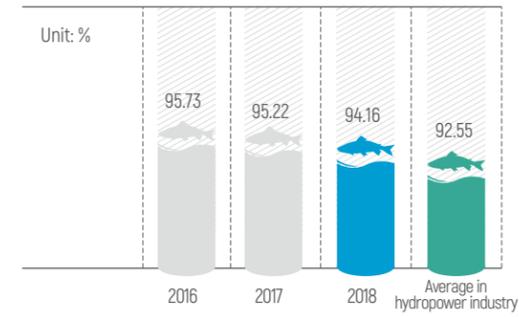
CTG conducts scientific innovations on work safety among workers, with 13 scientific research projects on work safety, including "Research on Behaviors and Optimization of Fire Safety Evacuation for the TGP Ship Lift" and "Innovative Applications of Big Data Technologies in Installation and Commissioning Work Safety Management of 1,000-MW Units", included into the annual research plan.

Promote the application of safety innovation results

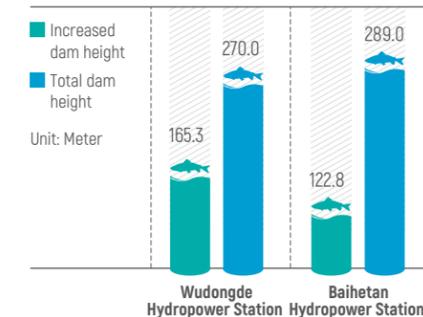
CTG initiates the research on the potential risks identification on WeChat platform to realize the connection with the work safety management information system. The WeChat safety hazard investigation system (WeSafety) has been widely used in Baihetan and Wudongde projects, etc., and started to expand its application to offshore wind power and overseas business.

Building High-quality Project Construction Model

CTG, aiming at creating excellent projects, innovative projects, green projects, projects for the livelihood, projects with integrity and putting safety and quality first, promotes the construction of two hydropower stations with high standards and strict requirements, striving to build them into a model of a pillar for China in the new era. By the end of 2018, Wudongde Hydropower Station has completed a total investment of RMB 51.4 billion with the average dam height increased by 165.3 meters, while the Baihetan Hydropower Station completed RMB 52.215 billion with the average dam height increased by 122.8 meters.



Average equivalent availability factor of hydro-generators



The construction progress of Wudongde and Baihetan hydropower stations

0

No accident with serious casualty, no personal injury accident with the primary responsibility assumed by CTG, and no safety incident with great social impact.

Zero Unplanned Power Outage

The 700-MW generating units of the TGP Hydropower Station, as well as the Gezhouba Hydropower Station, the Xiangjiaba Hydropower Station, and the cascade hydropower stations in the Qingjiang River Basin realized "Zero Unplanned Power Outage".



PLAY A BACKBONE ROLE IN PROMOTING WELL-COORDINATED ENVIRONMENTAL CONSERVATION IN THE YANGTZE RIVER BASIN

Management philosophy

- Beholding the ideal of creating a "whole basin, whole life cycle, open and scientific research-oriented protection of environment", CTG realizes major historical transition from "Build the Three Gorges project and develop the Yangtze River" to "Manage the Three Gorges project and protect the Yangtze River".

Management objectives

- CTG develops and strengthens the ecological and environmental protection industry in the Yangtze River Economic Belt through marketized, specialized and corporatized operations, so as to play a key role in the deep integration into the development of the Yangtze River Economic Belt and the ecological conservation of the Yangtze River, and better accomplish the new tasks and missions assigned by the State.

Management strategies

- With the goal of fundamentally improving the quality of the water environment, and taking urban sewage treatment as the entry point, we will implement pilot projects in pilot cities first
- Established Yangtze Ecology and Environment Co., Ltd., established China Yangtze River Green Development Investment Fund, established a national environmental engineering research center, and established Yangtze River eco-environmental protection industry alliance and special funds
- Bringing technology, talents and capabilities to the Yangtze River Economic Belt through cooperation, mergers and acquisitions and shareholdings



CTG in the Eye of Others

CTG acted in accordance with the spirit outlined in President Xi Jinping's speech on symposium on promoting the development of the Yangtze River Economic Belt, made determined advances and worked hard in promoting well-coordinated environmental conservation in the Yangtze River Basin, which is a good beginning with remarkable results.

-- **Hu Zucai**, Member of Party Leadership Group and Deputy Director of the National Development and Reform Commission

As the largest clean energy group in China, CTG, in accordance with decisions made by the CPC Central Committee and the State Council, has implemented the well-coordinated environmental conservation in the Yangtze River Basin systematically at both the macro and micro levels, which demonstrates that CTG is a green model company with strong senses of social responsibility and mission and committed to meeting the growing needs of people's well-being.

-- **Zhou Ji**, Member of the Standing Committee of CPC Hubei Provincial Committee and Secretary of CPC Yichang Municipal Committee

CTG has become the world's largest hydropower development companies and one of China's largest clean energy groups. CTG and POWERCHINA, two large central SOEs that are relevant and complementary in business, have a broad and good foundation for cooperation.

-- **Yan Zhiyong**, Chairman of Power Construction Corporation of China (POWERCHINA)

Whole-process Environmental Protection

Environment Management

Conducting environment management in all business, during whole process, and establishing an environment management system consisted of the "QEOHS (Quality, Environment, Occupational Health & Safety)" system, the Group-wide environmental management system, the comprehensive risk management and internal control system as well as emergency environment management system, which provide support to each other.

Clean & Low-carbon

- Building a clean, low-carbon, safe and efficient energy system.
- Actively promoting green and low-carbon production, and thus having achieved a zero discharge of sewage and waste water in Baihetan Hydropower Station, and near-zero emission of flue gas in Ezhou Power Plant.

Full Participation in Promoting Well-Coordinated Environmental Conservation in the Yangtze River Basin

Establishing a Collaborative Environmental Governance and Ecological Protection Platform

- Building five platforms, i.e., the company entity, the green development fund, the engineering center, the industry alliance and the special fund.
- Establishing Yangtze Ecology and Environment Co., Ltd. as the platform for implementing the ecological protection task of CTG.

Enhancing Top-Level Design

- Formulating the "CTG Work Program for Promoting Well-coordinated Environmental Conservation in the Yangtze River Basin in 2018".
- Giving play to the role of CTG's Leading Team for Well-coordinated Environmental Conservation in the Yangtze River Basin as the organizational structure, coordinating and promoting the environmental conservation in the Yangtze River Basin.
- Enhancing daily communication with external organizations including governments, to promote collaborations.

Ecological Protection

- Defining and building ecological restoration areas for preserving water and soil, and starting the ecological rehabilitation project of the Fish Habitat in Heishui River Basin.
- Building four fish breeding and releasing stations, i.e., Wudongde, Xiangjiaba, Chongqing and Chishui River.
- Establishing and improving the artificial breeding technology system of Chinese sturgeons, making breakthroughs in the artificial domestication and reproduction technology for rare and endemic fishes in the Yangtze River Basin.
- Establishing the conservation base for rare and precious plants in the Three Gorges area with the highest number of species and largest area in China.

Saving & Recycling

- Promoting conservation and recycling of resource, and achieving resource recycling by constantly reducing energy and material consumption through precise operation management and technological innovation.

241.69^{TWh}

Total power generation of clean energy of CTG

77.70^{million tons}

Equivalent to saving standard coal

199.45^{million tons}

Equivalent to reducing carbon dioxide emission

Exploring Innovation Mechanism and Models

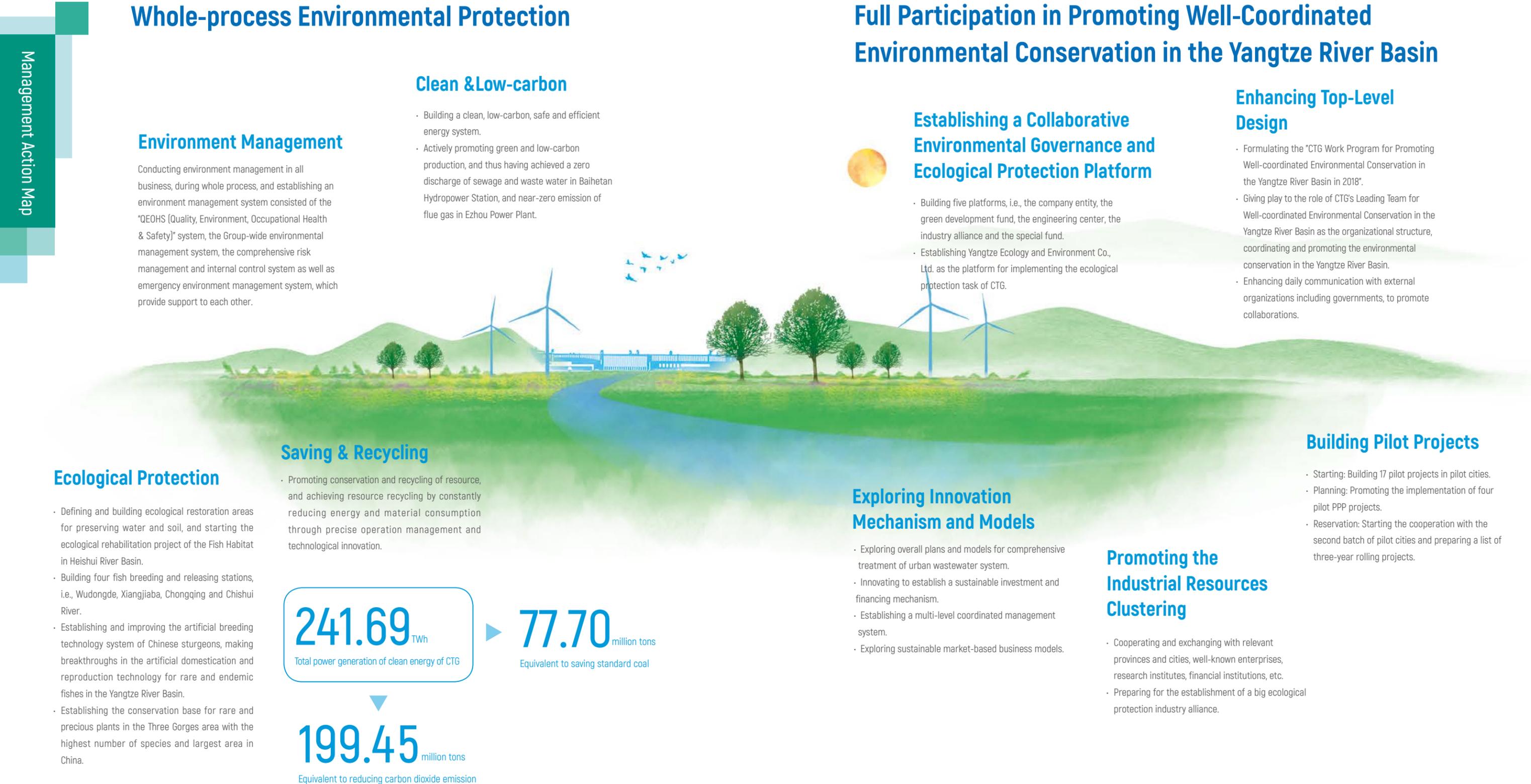
- Exploring overall plans and models for comprehensive treatment of urban wastewater system.
- Innovating to establish a sustainable investment and financing mechanism.
- Establishing a multi-level coordinated management system.
- Exploring sustainable market-based business models.

Promoting the Industrial Resources Clustering

- Cooperating and exchanging with relevant provinces and cities, well-known enterprises, research institutes, financial institutions, etc.
- Preparing for the establishment of a big ecological protection industry alliance.

Building Pilot Projects

- Starting: Building 17 pilot projects in pilot cities.
- Planning: Promoting the implementation of four pilot PPP projects.
- Reservation: Starting the cooperation with the second batch of pilot cities and preparing a list of three-year rolling projects.

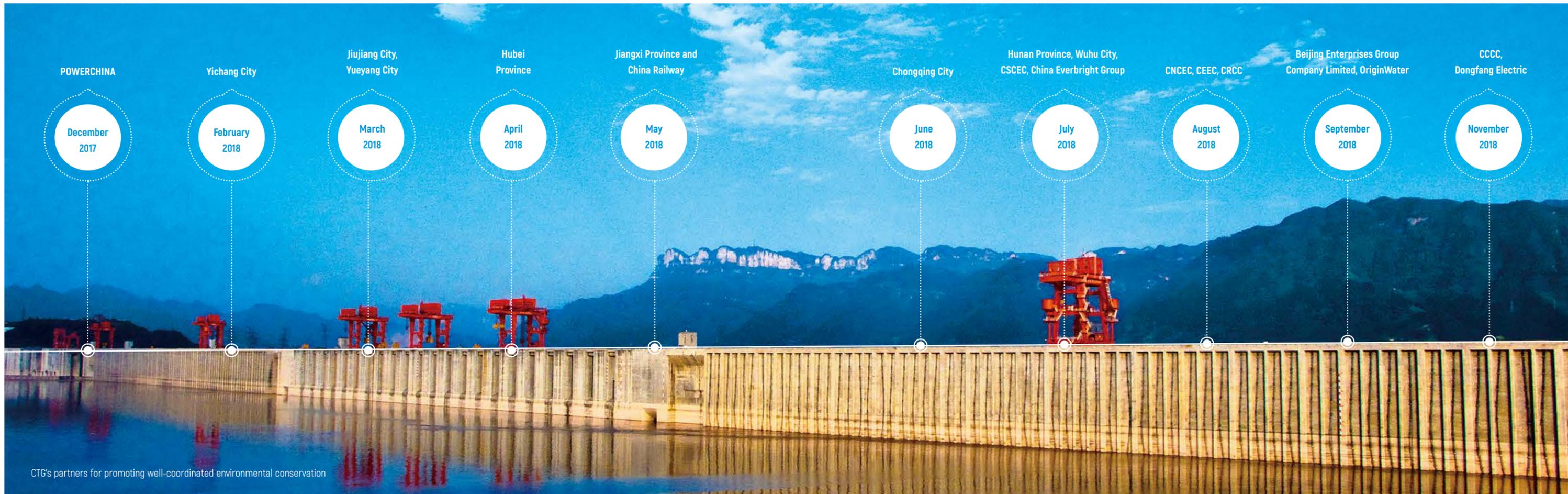
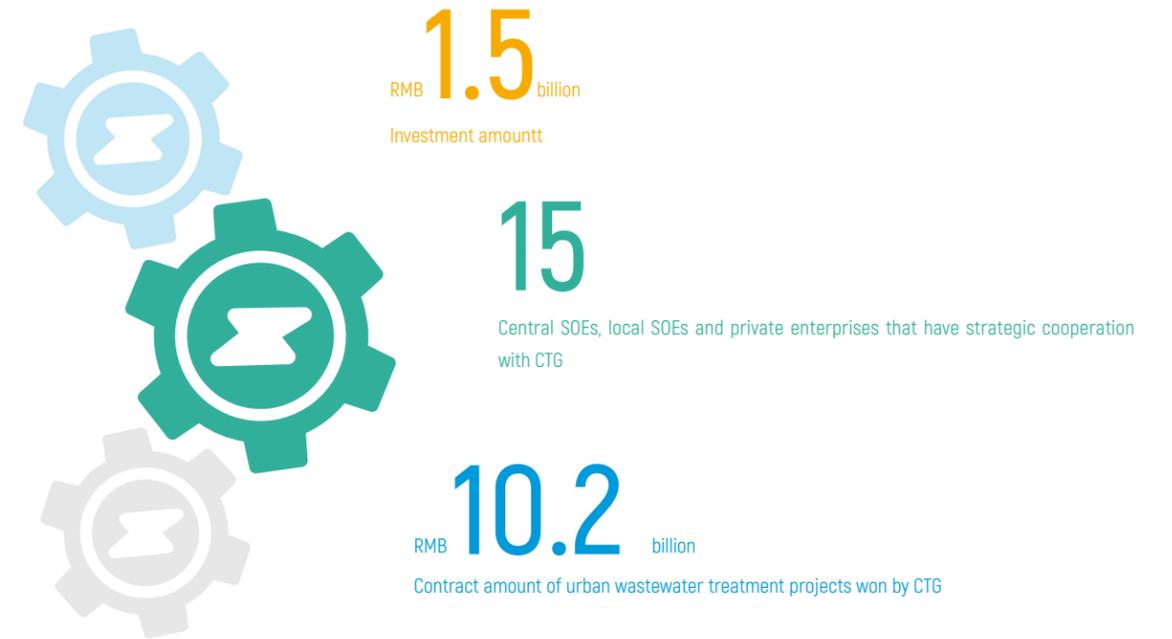


Hubei Energy Group Creates a “Near-zero Emission” Power Plant

In the Phase III project of Ezhou Power Plant under Hubei Energy Group Co., Ltd., the most advanced near-zero emission technologies such as the “Three-chamber and five-electric-field electrostatic dust removal + wet electric dust removal” process was adopted to control the smoke emission concentration within 10mg/m³, and the environmental protection level reaches or exceed the highest emission standards in China, realizing “nearly zero emission” of flue gas. Adopting low-temperature flue gas waste heat evaporation zero-emission process, the wastewater treatment facility is designed according to the “zero emission” standard, and the production wastewater and domestic sewage are all treated and reused instead of being discharged, thus realizing “zero emission”.

Exploring New Models and Mechanisms for Urban Wastewater Treatment in the Yangtze River Basin

Starting from urban wastewater treatment, CTG actively fosters the strategic cooperation agreements with four pilot provinces of Hubei, Chongqing, Hunan and Jiangxi and four pilot cities of Yichang, Jiujiang, Wuhu and Yueyang. CTG also promotes the strategic cooperation with well-known enterprises, financial groups, research institutes and other organizations in the areas such as promoting ecological rehabilitation of the Yangtze River, environmental protection and transformation & upgrade as well as development and utilization of clean energy, jointly exploring sustainable and replicable new models and mechanisms for urban wastewater treatment along the Yangtze River Economic Belt.

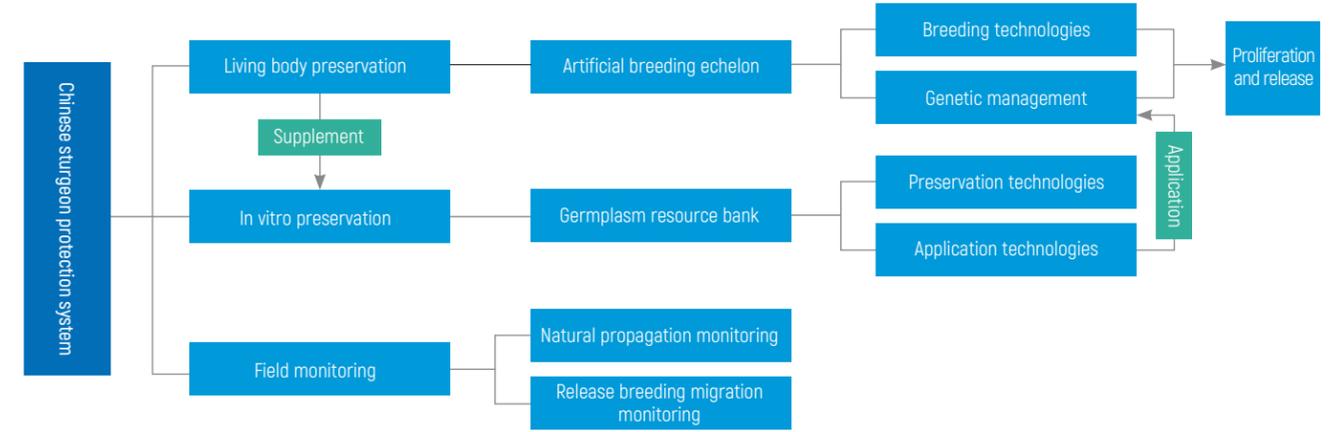


Protecting the Fish Habitat in Heishui River Basin

In 2018, the Ecological Rehabilitation Project of Heishui River entered the construction stage, the overall design report, construction drawing design and ecological rehabilitation tracking & monitoring effect evaluation implementation plan were completed, and the project construction and ecological background monitoring were launched, thus ensuring the practical and effective implementation of various ecological protection measures.

Establishing the Chinese sturgeon breeding migration monitoring system

By integrating sonar monitoring, Internet and wireless transmission technologies, Chinese Sturgeon Research Institute has established a breeding migration monitoring system for released Chinese sturgeons, which covers 1,800 km of the middle and lower reaches of the Yangtze River from Yichang to the Estuary, and is the most extensive and comprehensive real-time fish release effect monitoring and evaluation system. The monitoring results indicate that artificial proliferation and release play an important role in supplementing the natural resources of Chinese sturgeons. In 2018, the 60th Chinese sturgeons releasing activity since its establishment was implemented by Chinese Sturgeon Research Institute. By the end of 2018, more than five million Chinese sturgeons had been released to the Yangtze River.



Three Gorges Chinese sturgeons releasing activity held in 2018

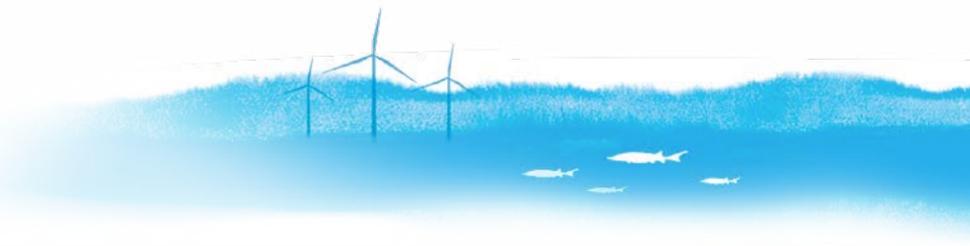
60

Total Chinese sturgeon releasing activities implemented

Over 5 million

Total Chinese sturgeons released

Note: The statistical range is as of the end of 2018.



PLAY A LEADING ROLE IN LEADING CHINA'S HYDROPOWER INDUSTRY TO "GO GLOBAL"

Management philosophy

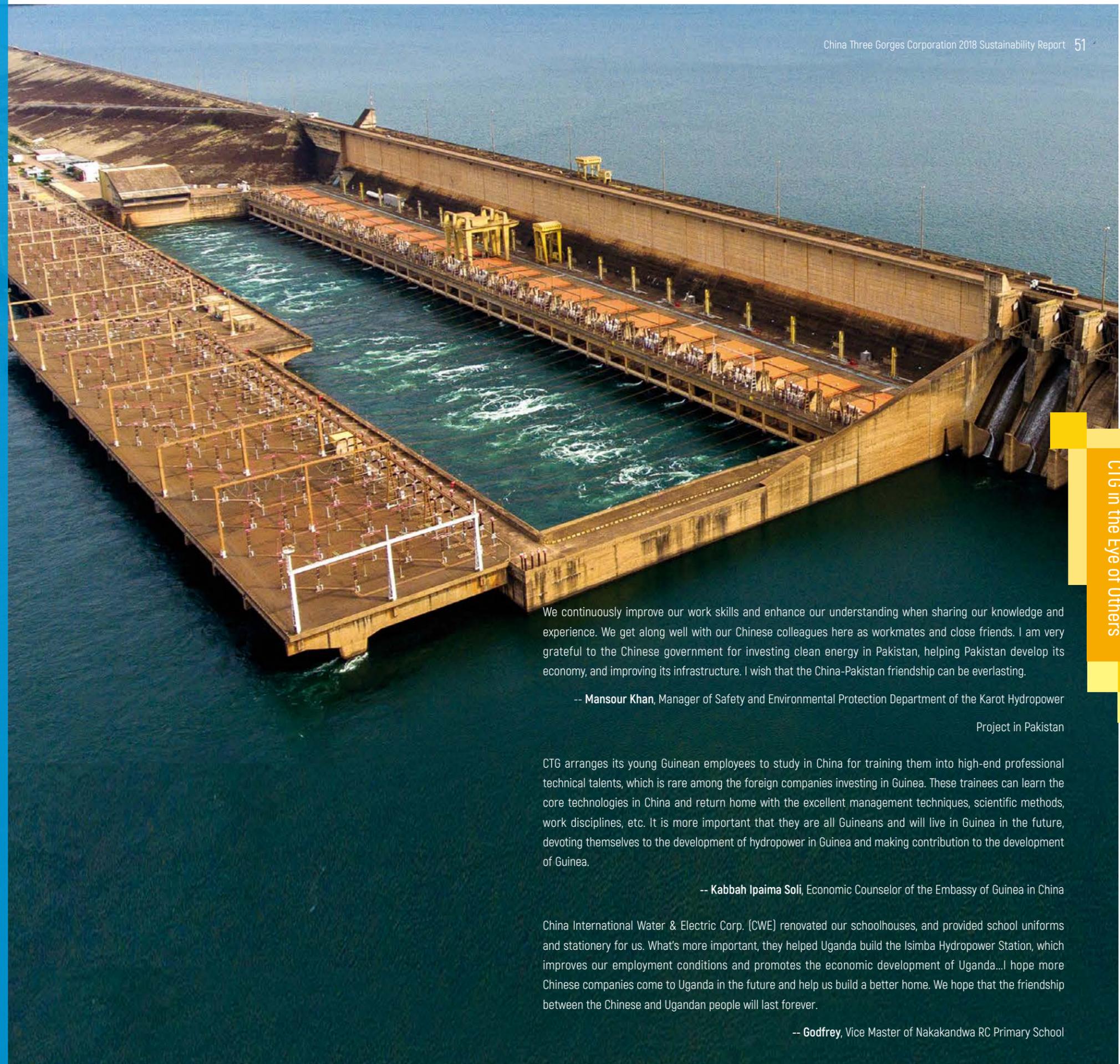
- ❖ To achieve shared growth through joint consultation and collaboration, CTG is an active adherent to the "Going Global" strategy and the Belt and Road Initiative, driving China's entire hydropower industrial chain of China to "Go Global".

Management objectives

- ❖ By promoting orderly cooperation and transformation, we will combine China's leading hydropower enterprises with national strengths, and enhance China's hydropower equipment and technology and industry standards, in order to upgrade the industry and compete globally.

Management strategies:

- ❖ Giving full play to industrial investment capacity and advantages from industrial chain integration.
- ❖ Building the "Going Global" platform for upstream and downstream enterprises within the hydropower industrial chain through industrial alliances or joint ventures.
- ❖ Establishing a platform for international cooperation with key domestic equipment manufacturers with project development as the carrier.



We continuously improve our work skills and enhance our understanding when sharing our knowledge and experience. We get along well with our Chinese colleagues here as workmates and close friends. I am very grateful to the Chinese government for investing clean energy in Pakistan, helping Pakistan develop its economy, and improving its infrastructure. I wish that the China-Pakistan friendship can be everlasting.

-- **Mansour Khan**, Manager of Safety and Environmental Protection Department of the Karot Hydropower Project in Pakistan

CTG arranges its young Guinean employees to study in China for training them into high-end professional technical talents, which is rare among the foreign companies investing in Guinea. These trainees can learn the core technologies in China and return home with the excellent management techniques, scientific methods, work disciplines, etc. It is more important that they are all Guineans and will live in Guinea in the future, devoting themselves to the development of hydropower in Guinea and making contribution to the development of Guinea.

-- **Kabbah Ipaima Soli**, Economic Counselor of the Embassy of Guinea in China

China International Water & Electric Corp. (CWE) renovated our schoolhouses, and provided school uniforms and stationery for us. What's more important, they helped Uganda build the Isimba Hydropower Station, which improves our employment conditions and promotes the economic development of Uganda...I hope more Chinese companies come to Uganda in the future and help us build a better home. We hope that the friendship between the Chinese and Ugandan people will last forever.

-- **Godfrey**, Vice Master of Nakakandwa RC Primary School

Steadily Operating International Business

Enhancing Investment in and Operation of Overseas Clean Energy Projects

- The first unit (No. 2) of the Isimba Hydropower Station in Uganda started successfully.
- The Xiang Khouang-Nasetong 500 kV Power Transmission and Transformation Project in Laos entered stringing phase.
- The power generation capacity of Kaleta Hydropower Station reached 739.6893 GWh.
- The power generation capacity of Phase I and II of the wind power project in Pakistan have exceeded 100 GWh per year.
- The river closure of the Karot Hydropower Station in Pakistan, the Pak Beng 1 Hydropower Station in Laos, and the San Gaban III Hydropower Project in Peru were completed.
- CTG signed cooperation agreement or memorandum of understanding with 4 countries.
- CTG completed the delivery of part or 100% equity of 3 overseas companies.
- CTG enhanced the equity management of EDP by increasing its stake to 23.27%.

47

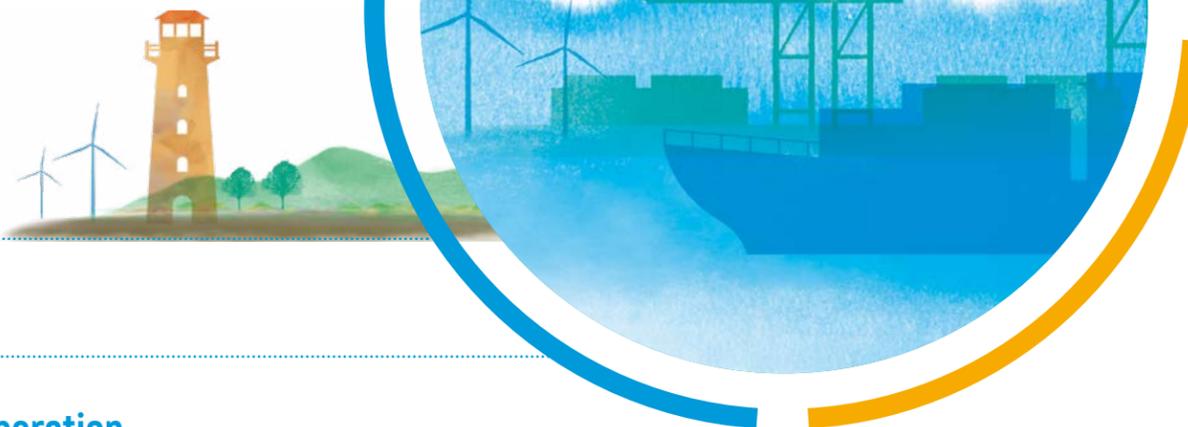
Countries and regions covered by CTG's projects

Boosting Overseas Energy Infrastructure Construction

- CTG introduced the Chinese standards and the Three Gorges standards into the rehabilitation work of the Ilha Solteria and Jupia Hydropower Stations in Brazil.

Over **100** TWh
Overseas power generation in total

More than **68** billion RMB
Overseas investment in total



Enhancing Overseas Localized Operation

- China Three Gorges (Europe) S.A. has total assets of 5.302 billion euros and a net asset of 1.45 billion euros.

Giving Back to Local Development

Promoting local Employment

- During the construction peak, the Isimba Hydropower Station and the Karot Hydropower Station provided a total of 5,300 jobs for local residents.

Protecting Local Environment

- CTG Brasil released a total of 3.6 million fish fries in the Paranapanema River and the Parana River.
- WindMW donated 1,000 euros to an environmental protection society in Germany.

Supporting Local Education Development

- CTG established scholarships and education fund programs for training local talent.
- CTG donated teaching equipment and stationery to improve educational facilities.
- CTG Brasil sponsors special lectures, seminars and other activities about environmental protection and sustainability.

Deepening International Exchange

Making Full Use of the International Exchange and Cooperation Platforms

- CTG renewed the Cooperation Memorandum 2018-2023 with The Nature Conservancy.
- Technical Committee on Reservoir Resettlement of ICOLD was officially established, of which CTG is the chairman unit.
- The Technical Committee on Joint Operation of Hydropower Stations and Reservoirs of ICOLD, of which CTG is the chairman unit, held working conference.
- CTG led the research on water-related topics of IEA.
- CTG participated in the development of IEC international standards.
- China Yangtze Power Co., Ltd and ITAIPU Binacional conducted special exchanges.

Making Full Use of International Stage

- CTG hosted the Beijing Forum on Hydropower and Future Energy Systems and the 75th Board of Directors Meeting of the International Hydropower Association (IHA).
- CTG participated in the Forum on Global Production Capacity and Business Cooperation 2018.
- CTG hosted the Sino-German Exchange Meeting on Cooperation in Third Markets.
- 65 CTG employees were invited to attend international conferences or events in related fields.
- 13 professional papers were selected to be presented on international industry conferences.

River Closure of the Karot Hydropower Station in Pakistan Succeeded

On September 22, 2018, the river closure of the Karot Hydropower Project in Pakistan, which is being constructed by CTG, succeeded, and the project entered the overall construction stage. This project will bring over USD 300 million export of China's superior mechanical and electrical equipment, and will provide nearly 2,300 jobs to local people during the construction peak, which will benefit the local job market and economic development.



River Closure of the Karot Hydropower Project in Pakistan succeeds



Local employees in Uganda

Isimba Hydropower Station in Uganda Successfully Connected to the Grid and Commissioned

On December 31, 2018, the first unit of the Isimba Hydropower Station in Uganda was successfully connected to the grid and commissioned. With this project put into operation, the annual power generation of Uganda will increase by about 19%, which will not only solve the local power shortage problem, but also bring advanced China's hydropower technologies to Uganda, thus promoting the development of local hydropower industry, training technical talent in the hydropower industry and promoting local employment.

About **3,000**

Jobs provided for local residents during construction peak

About **19%**

Increase in total annual power output of Uganda



Isimba Hydropower Station

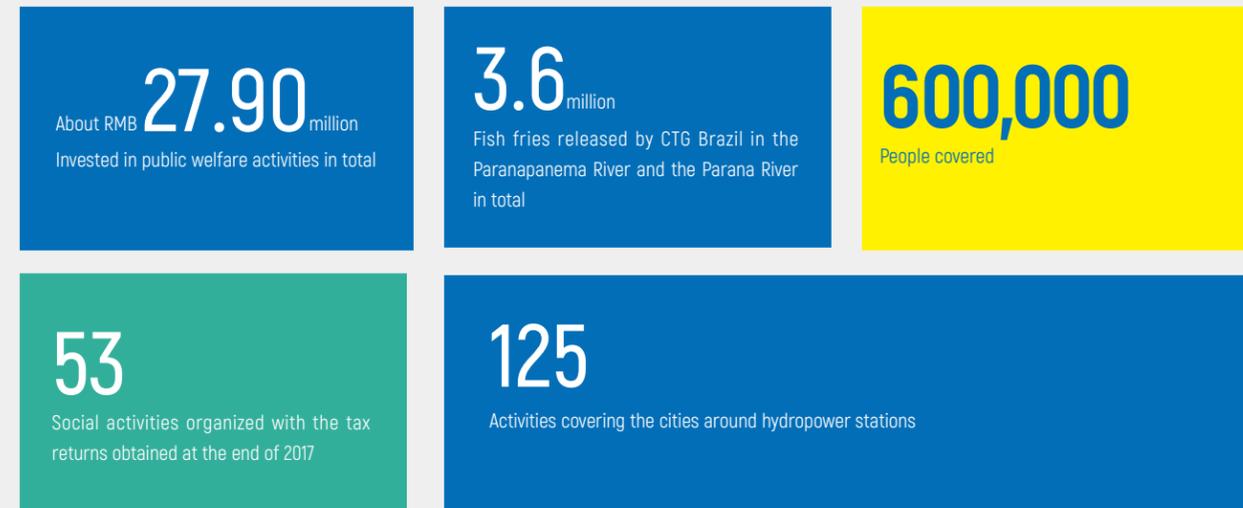


**ADOTE
UMA ÁRVORE**
ADOPT A TREE

CTG Brasil Advocates Local Sustainable Production and Lifestyle

In 2018, CTG Brasil, combining the philosophy of “Long-term cooperation, integration into local community, balance and coordination, mutual benefit and win-win result” and the purport of “popularizing science and culture”, made innovation and planning with the focus on ecological protection, cultural education, environmental education, and popular science education about hydropower station and volunteer activities, to advocate sustainable production and lifestyle. These corporate social responsibility activities covered São Paulo, where CTG Brasil is based, and the cities around CTG Brasil’s 14 hydropower stations.

The performing tour of “Uli Lui and the Magic Cans” was held in 125 cities, making it the public welfare drama covering the most cities provided by CTG Brasil. This drama explained the garbage collection methods through vivid performance, publicizing the importance of resource recovery and environmental protection.



Note: The statistics comes from the annual data of 2018.



The fish breeding and release by CTG Brasil



CTG Brasil employees organized the birthday party for children in refuge



Stage photo of "Uli Lui and the Magic Cans"

Enhancing Mutually Beneficial Cooperation in Overseas Energy Development

- Adhering to the principle of achieving shared growth through joint consultation and collaboration, CTG is deeply involved in global hydropower industry cooperation, expands overseas development planning actively, and participates in global clean energy development proactively, promoting the development of global clean energy industry.
- CTG and EDP signed the *Cooperation Agreement Between CTG and EDP*.
- CTG and Voith signed the *Strategic Cooperation Agreement on Zengzo Hydropower Project in Angola*.
- CTG and the Government of Burkina Faso signed the *Memorandum of Understanding on Niangoloko-Duagadougou 225 kV Power Transmission and Transformation Project*.
- CTG and ANDRITZ Group signed the *Memorandum of Understanding on Deepening Cooperation in the Field of Renewable Energy*.



Lei Mingshan, Board Chairman and Secretary of the Party Leadership Group of CTG and Antonio Mexia, CEO of EDP, sign the *Cooperation Agreement Between CTG and EDP*.

Establishing a Global Model of China's Hydropower Industry

CTG always responsibly participates in the construction of hydropower projects around the world, and actively works with all parties to provide comprehensive digital solutions for the owners and EPC general contractors overseas, to help improve the local clean energy infrastructure, increase the total local installed capacity of hydropower, and help the local people achieve energy self-sufficiency, thus becoming a model of China's hydropower industry. Four hydropower projects built by CTG, i.e., Kaleta Hydropower Station in Guinea and the Merowe Dam, the Roseires Dam and the Dam Complex of Upper Atbara Project in Sudan, were printed on the banknotes of the two countries as the background.



Wang Lin (President and Deputy Secretary of the Party Leadership Group of CTG) and the representative of Voith Group sign the *Strategic Cooperation Agreement on Zengzo Hydropower Project in Angola*.

Further reading



1971 version



2010 version



2015 version

In 1971, the Kinkon Hydropower Station in Guinea built by CWE was printed on the 50 Guinean sylv banknotes. It was the first time that a project built by CTG was printed on a foreign currency. In addition, the Kinkon Hydropower Station in Guinea appeared on 5000 Guinean francs in 2010 and 2015 respectively.



2002 version

The Nam Leuk Hydropower Station in Laos appeared on the 20,000 Lao Kip banknote of Laos in 2002.



2015 version

In 2015, Kaleta Hydropower Station was printed on the 20,000 Guinean franc banknote (2015 version). The new 20,000 Guinean franc banknote (2019 version) will continue to use the image of Kaleta Hydropower Station as the background.



2019 version

In 2019, the Merowe Dam, the Roseires Dam and the Dam Complex of Upper Atbara Project in Sudan, were printed on the 100 Sudanese pound.

PLAY A CONSTRUCTIVE ROLE IN PROMOTING THE INDUSTRIAL UPGRADING OF CLEAN ENERGY

Management philosophy

- CTG is committed to building a world-class clean energy group, and playing a leading role in promoting the industrial upgrading of clean energy according to the requirements of national energy strategy and energy supply-side structural reforms.

Management objectives

- During the 13th Five-Year Plan period, CTG plans to put the offshore wind power installed capacity of 4.5 GW into operation and connect it to the grid, and strives to become the leader in terms of scale, management, technology, standard, talent and brand, so as to promote the large-scale development and sustainable development of offshore wind power in China.

Management strategies

- Continuously improving the core competence and influence in the hydropower industry.
- Accelerating the cluster development of offshore wind power.
- Actively exploring new technologies, models and forms of energy development.



CTG in the Eye of Others

China's world-leading innovative ideas and technologies in the intelligent construction of mass concrete structures have solved this worldwide problem successfully.

-- **Liu Berga**, Honorary Chairman of International Commission on Large Dams (ICOLD)

The successful practice of the Three Gorges Project has greatly improved the overall technological level of China's water conservancy and hydropower construction, playing a significant role in promoting the technological advancement of the global water conservancy and hydropower industry.

-- **Niu Xinqiang**, Academician of the Chinese Academy of Engineering

By cooperating with CTG, we optimized and adjusted the regional energy structure with the floating photovoltaic project as the entry point, concentrating on our efforts to build Panji District into a new green energy base of Huainan.

-- **Li Xu**, Member of the Standing Committee of CPC Panji District Committee and Deputy District Mayor of Panji District

Development of Clean Energy

Promoting Integration of Industry and Finance

- CTG adheres to marketized financing, with fund platforms at home and abroad operating well.
- Based on the principle that finance serves the real economy and the characteristics of the hydropower industry, CTG drives the capital investment.
- CTG adheres to the business strategy of allocating resources in the international and domestic markets.

Promoting Industrial Upgrading

- CTG builds five independent technological innovation platforms, i.e., new energy, electromechanical technology, general hydropower, ecological protection, and smart energy.
- CTG establishes an intelligent standard system for hydropower projects.
- CTG establishes a technical standard system for offshore wind power.

48

Standards included in the intelligent standard system for hydropower projects

158

Standards included in the technical standard system for offshore wind power

Driving Value Sharing

Supply Chain Management

- CTG continuously optimizes the management process and establishes an institutional system covering all processes at home and abroad.
- CTG organizes online supplier meetings to introduce the overall situation and the management requirements such as integrity, quality and safety of the tender and procurement projects.
- CTG conducts credit evaluations of suppliers.

8,041

suppliers evaluated

37

among which 37 found to have operated dishonestly and put into the "Blacklist"

97.4%

Open procurement rate

100%

centralized procurement rate increased

Promoting Win-win Cooperation

- CTG collaborates with equipment manufacturers, construction companies, etc. with major projects as the carriers to drive innovation and development.
- CTG organized and participated in the first China International Import Expo, and invited GE, ABB, AZZ and other overseas partners to participate in the exhibition and signing contracts.
- CTG conducts multi-level exchange and interaction with European countries advanced in offshore wind power such as Denmark, Germany, the UK, Norway and the Netherlands.

Promoting New Energy Development

Leading Offshore Wind Power

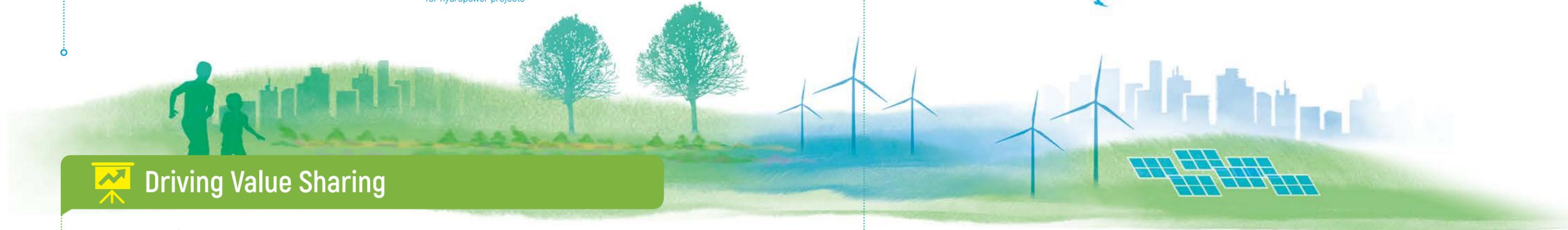
- CTG promotes the large-scale development of offshore wind power in China, adopting the home-made offshore wind turbine with the largest single-unit installed capacity in China.
- CTG entered the world-leading European offshore wind power market, and acquired 10% stake of the Moray offshore wind power project in the UK.
- CTG carries out comprehensive benchmarking exchanges and learning training to promote the leading position in construction, management, technology, standards, talent and brands.

Optimizing Onshore Wind Power

- CTG is fully engaged in the bidding of wind power projects, actively seeking the opportunities of developing large-scale regional bases with good resource conditions and transmission channels.
- CTG, insisting to combine independent development with cooperation and M&A, make more efforts in decentralized wind power in central and southeast regions of China.

Making Innovation in Photovoltaic Power Generation

- CTG actively participates in the grid parity demonstration project, with the first large grid parity demonstration photovoltaic project in China connected to the grid in Golmud of Qinghai Province.
- CTG explores the scale development of floating photovoltaic, practicing the "PV+" development model.



Steadily Promoting the Combination of Onshore and Offshore Wind and Solar Power Generation

Focusing on the strategic goal of "developing wind and solar power" and "becoming a leader in offshore wind power" and adhering to the development idea of "Combination of onshore and offshore wind and solar power generation", CTG develops new energy as its second pillar, continuously deepening reform and innovation to fully release the driving force for development.

Offshore Wind Power

- The 220 KV offshore booster station of the CTG's Dalian Zhuanghe Offshore Wind Power Project, the first off-shore wind power project in Northeast China, was installed successfully.
- The first batch of generators in Jiangsu Dafeng Offshore Wind Power Project, the offshore wind power project with the largest offshore distance in China, were successfully connected to the grid and commissioned.
- All the generators of Xinghua Bay Stage I Project, the first international pilot wind farm in the world, were successfully connected to the grid and commissioned.
- Technological research and development were carried out in large-capacity wind turbines, new material blades, basic seabed research, remote diagnosis, etc.
- An industrial cluster was formed in CTG's International Offshore Wind Power Industrial Park in Fujian, the first whole industrial chain offshore wind power industrial park in China, where the largest offshore wind turbine in the Asia-Pacific Region rolled off the production line.

Photovoltaic Power

- CTG's Golmud 500MW Photovoltaic Power Station, the first large-scale grid parity photovoltaic project in China and the largest one-time built photovoltaic "Pacemaker" project in China, was officially connected to the grid and commissioned.

Onshore Wind Power

- The Qinghai Xitieshan Wind Power Project was officially connected to the grid and commissioned, making the total installed capacity of CTG's grid-connected new energy projects exceed 10 GW.

Further reading



Scan the QR code to watch the video about *Dalian Zhuanghe Offshore Wind Power Project*

10^{GW}

Total installed capacity of new energy sector

16.3^{TWh}

Total annual new energy power generation

7.5^{GW}

Approved new installed capacity of offshore wind power

17.97^{GW}

Total offshore wind power resources acquired

Entering the World's Largest Offshore Wind Power Market

The offshore wind power market of the UK is world-leading. In December 2018, CTG completed acquisition of a 10% stake in Moray Offshore (UK) Wind Power Project, officially becoming a shareholder of the Moray project. This share acquisition was a new milestone in the cooperation between CTG and EDP in exploring third-party markets, through which CTG entered the world's largest offshore wind power market.

Further reading

The Moray Offshore Wind Farm is located in the waters of the Moray Bay, Scotland, the UK, whose offshore distance is about 31 kilometers, and the water depth is about 37 to 54 meters. The installed capacity of the project is 950 MW. In September 2017, the Moray project successfully won the Contract For Differences (CfD) of the UK; and in December 2018, the financing of the Moray project is completed and the construction started. It is expected to start power generation in 2022.



Location map of the Moray Offshore Wind Project in the UK

The first

PV grid parity power station in China

About **1** TWh

Annual power output after completion and putting into operation

630,000

Urban and rural families can meet their electricity demand

Further reading



Scan the QR code to watch the video about *Golmud 500 MW Photovoltaic Power Station*



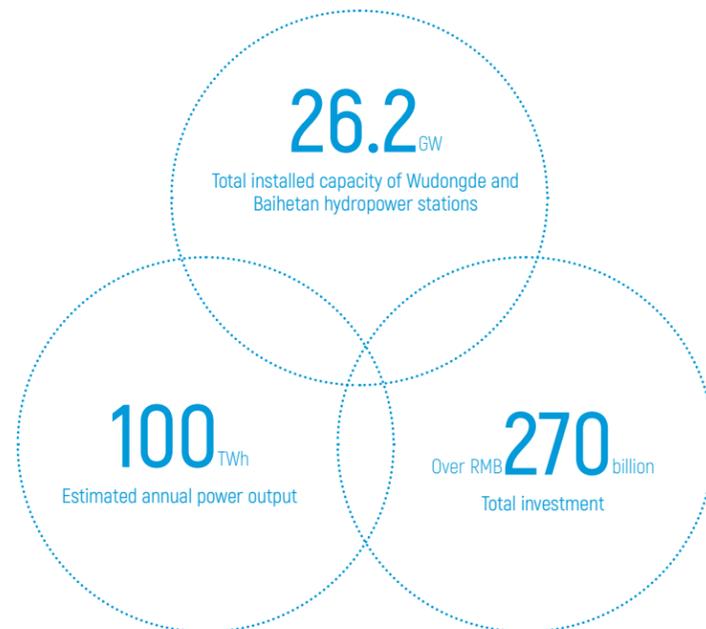
Scan the QR code to watch the video about *Birth of Quality Rotor of 1,000-MW Generator Units in Baihetan Hydropower Station*

Setting a Precedent of the PV Grid Parity Project in China

On December 29, 2018, CTG's Golmud 500MW Photovoltaic Power Station was officially connected to the grid and commissioned. With a total installed capacity of 500 MW and a total investment of over RMB 2.1 billion, this power station is the first large-scale grid parity photovoltaic project in China and the largest one-time built photovoltaic "Pacemaker" project in China. The average electricity tariff of this project is RMB 0.316/kWh, lower than the on-grid tariff of desulfurized thermal power in Qinghai Province (RMB 0.3247/kWh), which means that the affordable clean energy officially enters households to replace coal power. This project set a precedent for PV grid parity in China.

Realizing the Localization of the Whole Industrial Chain of Large Hydro-generators

In 2018, CTG promoted the construction of Wudongde and Baihetan Hydropower Stations with high standards and strict requirements, made innovations and breakthroughs in the integral hoisting, welding and management of small embedded electromechanical parts, and realized the localization of the entire industrial chain, i.e., the design, raw material supply and equipment manufacturing, of large hydro-generators. In this way, CTG made efforts to build the two hydropower stations into a model of pillars for the nation in the new era, which is of great significance for improving the equipment manufacturing capability of China and consolidating the leading position of China in the global hydropower industry.



Holding the Online Supplier Conference in the Third Consecutive Year

In May 2018, CTG held the supplier conference in the form of online video, on which the requirements on tendering & procurement management, quality and safety management and integrity management as well as bidding notes were presented, and typical cases in 2017 and the outcomes were reported. A total of 3,200 suppliers participated in the conference via online video and interacted with each other on the Internet.

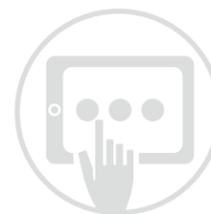
By holding the online supplier conference, CTG actively responded to the eight provisions and its implementation rules made by the CPC Central Committee. In this manner, CTG found an innovative conference mode, saved conference costs, lowered the threshold for suppliers to participate in, and expanded the participants range, which also helps the suppliers better understand CTG.

Further reading

Since 2014, China Three Gorges Group has carried out a comprehensive clean-up of past bidding projects, issued "three bans" on bidding and procurement, and improved the system of bidding procurement management, and implemented "unified bidding institutions, unified bidding texts, and unified evaluation for bidding and procurement of the whole group. The management of the standard rules and the unified awarding process will realize the whole process of bidding procurement management and comprehensive coverage within and outside the country.

Promote the standardization and standardization of bidding procurement management:

It issued 144 standard procurement documents, covering the scope of the main bidding procurement business, promoting the standardized management of bidding procurement, and continuously improving the applicability of documents and improving the quality and efficiency of the work through comprehensive evaluation and dynamic revision.



Realize the informatization of bidding procurement management:

Develop and launch an online e-procurement platform to form a unified, standardized and open information platform for the society and the group. At the same time, continuously optimize the functions of the e-procurement platform, realize the docking with the national bidding and bidding public service platform, and push the bidding information.

About **3200** Suppliers participated



Scan the QR code to watch the news about *Online supplier conference*

PLAY A DEMONSTRATIVE ROLE IN DEEPENING SOE REFORM

Management philosophy

- We thoroughly studied the spirit of the speech made by President Xi Jinping during his inspection of the Three Gorges Project, and resolutely implemented the CPC Central Committee and the State Council's series of major decisions on deepening the SOE reform and the reform of the electric power system as well as the guiding principles of the "1+N" series documents on the SOE reform. Based on this, we forged ahead to drive the SOE reform and strived to play an exemplary role in this reform.

Management objectives

- Being a stronger, better and bigger company by adhering to market-oriented reform, CTG improves our management level and market-oriented management capabilities in an all-round way, and makes CTG better, stronger and bigger by combining the top-down and bottom-up reforms in an interactive manner, so as to take more responsibility, play a more significant role, and make greater contributions in serving national strategy, striving to build CTG into a pillar for the nation in "becoming the six forces", fostering a world-class clean energy group with global competitiveness.

Management strategies

- We will strive to become a world-class clean energy group and a model of international companies by learning from others and improving state-owned capital allocation and operation efficiency. We will redouble our efforts to dominate international resource allocation, lead global industry technology development, and become a pioneering enterprise with more voice and influence in global industry development. We will strive to be a leader in total factor productivity, labor productivity, key performance indicators such as net asset yield, capital value preservation and increase, and product and service quality. We are committed to being a model practitioner of green development, an example of social responsibility fulfillment and a sample of world renowned brand images.
- We will continue deepening the reform of the system and mechanism to enhance CTG's vitality, control, influence and risk resistance capacity and accelerate the implementation of various reform plans.
- We will focus on the main industrial business, optimize the industrial layout structure, and take the lead in promoting the upgrading and innovation of the clean energy industry.



During the construction of the TGP, CTG insists on deepening reforms, organizes project construction with market economy mechanisms, and continuously explores and improves the project construction management mechanism with CTG characteristics. As the responsibility body for project development, CTG organizes project construction in accordance with the principles of market economy, standardizes tendering & bidding management and contract management, gives full play to the organization and coordination role of project entities, and organizes all parties to establish a new type of production relationship that is both competitive and collaborative, thus guaranteeing that the construction goals of projects are achieved on schedule.

-- **Li Yong'an**, Former President and Secretary of the CPC Leadership Group of CTG

First, the candidate enterprise plays a dominant role in the international resource allocation, leads the technology development in the global industry, has the right to speak and influence in the development of global industry, and has a world-renowned brand image. Second, the candidate enterprise is an industry group company with prominent main business and relatively evident competitive advantages. Third, the candidate enterprise has relatively outstanding advantages in corporate governance and international resource allocation, and has the basic conditions for becoming a world-class company.

-- The standards of selecting candidates by the SASAC for creating world-class model enterprises

Carry out Pilot Research on Creating World-class Model Enterprises

Carry out pilot research on creating world-class model enterprises, conduct benchmarking analysis in 5 aspects such as economies of scale, global resource allocation and leading global technology development, and propose preliminary advice for creating world-class model enterprises.

Implementing the Spirit of President Xi Jinping's Important Speech on Inspecting the TGP

Thoroughly study the spirit of the speech delivered by President Xi during the inspection of the TGP and the symposium on promoting the development of the Yangtze River Economic Belt, and formulate 84 specific measures to deepen the reform of SOEs in six aspects.

Comprehensively Promoted the Work of Reform

Continue to deepen institutional and mechanism reforms and accelerate the implementation of various reform programs. China Yangtze Power Co., Ltd and Three Gorges Capital Holdings Co., Ltd were included into the enterprise list of "SOE and Central SOE Reform Action" Work Program (to select top 100 central SOE subsidiaries and top 100 local mainstay SOEs) by SASAC.

Carry out Special Research on Major Reforms

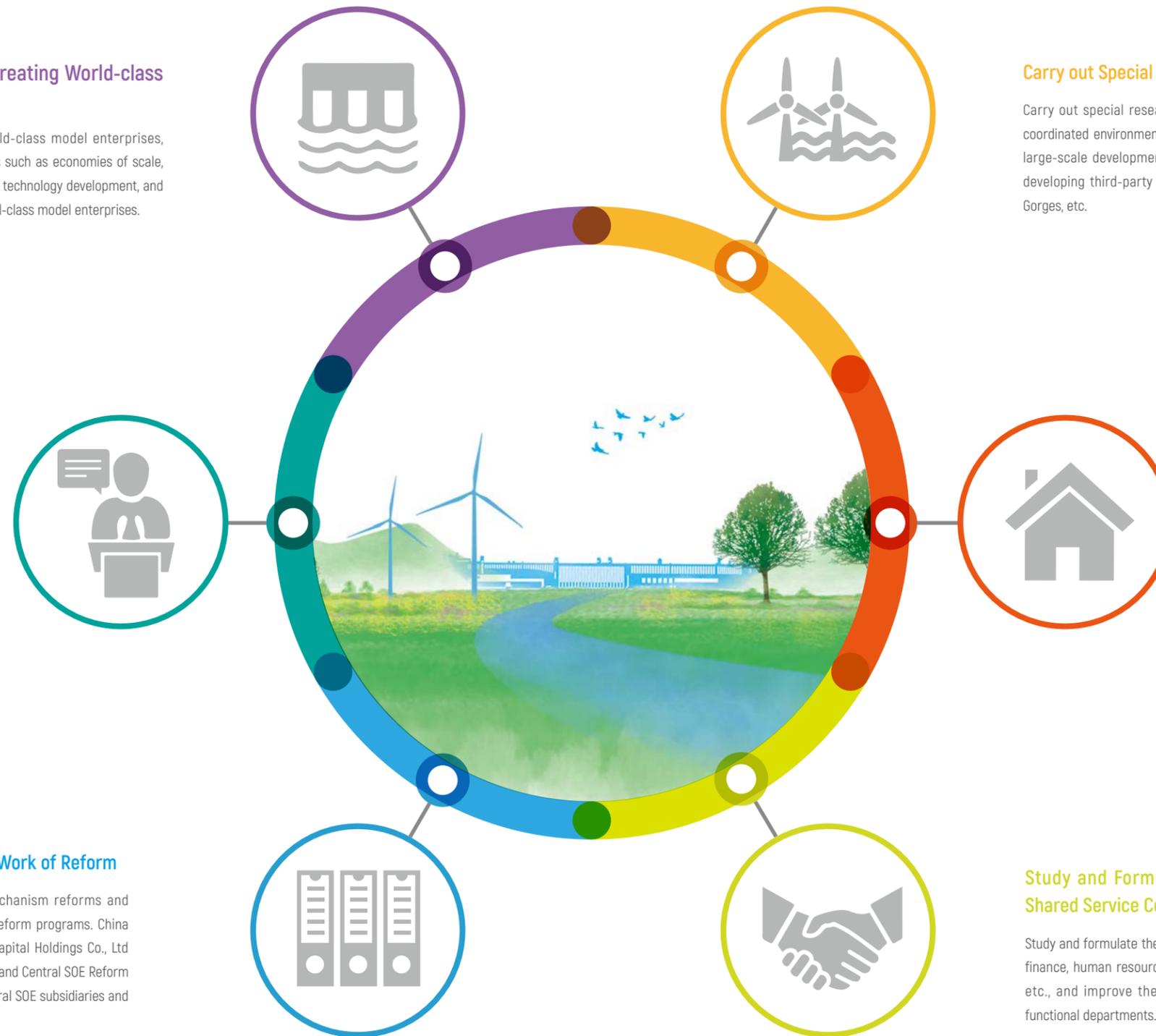
Carry out special research on major reforms such as the well-coordinated environmental conservation in the Yangtze River Basin, large-scale development of offshore wind power, cooperation in developing third-party markets, and new waterway of the Three Gorges, etc.

Complete the Handover of "Water, Electricity & Gas Supply and Property Management" on Schedule

Relevant state policies about separating social functions from enterprises, and completed the handover of "water, electricity & gas supply and property management" for 16,299 households in 29 family districts in Beijing, Shanghai, Wuhan, and Yichang, etc.

Study and Formulate the Overall Planning of the Shared Service Center

Study and formulate the overall planning of the shared service center of finance, human resources, tendering & bidding, materials, information, etc., and improve the efficiency of collaboration among internal functional departments.



Accelerating the Building of a World-Class Model Enterprise

Developing the world-class model enterprises with global competitiveness was a major decision made on the 19th CPC National Congress for the reform and development of SOEs. In 2018, CTG was selected as one of the 10 candidates of "Creating World-class Model Enterprises" by SASAC. Taking this opportunity, CTG will accelerate to formulate the top-level design and roadmaps so as to make a high-quality implementation plan for creating world-class model enterprise.

Benchmarking world-class enterprises, objectively analyzing the competitive advantages and disadvantages, and identifying shortcomings and prominent problems.

Sticking to the combination of problem orientation and goal orientation to propose scientific, reasonable, realistic and feasible measures.

Promoting the implementation of all measures solidly and orderly, and striving to make substantive breakthroughs in some sub-divisions and key links in three years and achieve remarkable results on the whole, effectively playing a leading and demonstration role.

Promoting Mixed Ownership Reform

CTG actively participates in the mixed ownership reform. By means of capital operation, CTG fosters market- and future-oriented core competitiveness, promotes our subsidiaries to establish modern enterprise systems, and strives to make breakthroughs in the areas of advantages, key links, etc.

Improve the mechanism that gross payroll is subject to company growth, and initiate the pilot professional manager system, thus continuously stimulating the internal vigor of the enterprise.

Promote China Yangtze Power to jointly explore the reform measures such as diversification of ownership structure, standardization of corporate governance, marketization of incentives and constraints, etc.

Promote China Three Gorges New Energy Co., Ltd. to introduce eight strategic investors via public listing in the mode of capital increase and share expansion. The new investors hold 30% of the shares after the capital increase, with RMB 9.8 billion of external funds introduced in total, and the asset-liability ratio lowered by about 10%.



Power Generation Central Control Room

PLAY AN EXEMPLARY ROLE IN ASSUMING SOCIAL RESPONSIBILITY

Management philosophy

- Studying and practicing President Xi Jinping's important statements on the poverty alleviation, CTG is an active adherent to China's poverty alleviation policies. The Corporation assumes the social responsibilities as a central SOE and plays an exemplary role in fight against poverty.

Management objectives

- CTG gives play to the role of hydropower project construction in driving local economic development with the focus on fixed-pointed poverty alleviation counties as well as areas in extreme poverty and the local residents, helping to lift the poverty-stricken counties out of poverty and supporting China in winning the anti-poverty war and building a moderately prosperous society in all aspects, so as to become a significant contributor to guarantee and improve people's well-being.

Management strategies

- Continuously devoted to the fixed-point poverty alleviation.
- Aiding Xinjiang, Tibet and Qinghai actively.
- Helping the minority groups in Sichuan and Yunnan lift out of poverty effectively.
- Providing solid assistance to resettled residents in the reservoir areas.



CTG has set up a "Green Channel" for targeted poverty alleviation in Yunnan, fully demonstrating CTG's sincere care and support for the ethnic minority areas.

--Chen Hao, Secretary of the CPC Yunnan Provincial Committee and Governor of Yunnan Province

CTG and Sichuan Province have signed a cooperation agreement for supporting the poverty alleviation in Liangshan Yi Autonomous Prefecture to implement targeted poverty alleviation and poverty eradication projects in poverty-stricken villages, demonstrating CTG's responsibility as a large SOE in supporting poverty alleviation and deep friendship with the masses in the minority areas of Sichuan Province.

--Wang Dongming, Former Secretary of the CPC Sichuan Provincial Committee

Without the help of the government and CTG, I will have no chance to live in such a good house in my life! The Ajiawangdi Village is completely changed. I really hope that I can live longer and enjoy the life like this!

--Tuo Ganbo, Former Village Group Head of Ajiawangdi Village

Devoting to Resettlement of Residents

Adhering to the hydropower development philosophy of "Building a hydropower station to facilitate local economy, improve the environment and benefit resettled residents", CTG, abiding by national laws and regulations and cooperating with governments at all levels around the reservoir area, promotes development-oriented resettlement and follow-up assistance for resettled residents, fulfilling the social responsibilities of the builder of hydropower projects.

In 2018, the resettlement work in the reservoir area of the Wudongde Hydropower Station involved 5 towns and 13 villages in Huidong County of Sichuan Province and Wuding County of Yunnan Province. In order to realize the goal of "moving out for secure resettlement to develop and become rich", the two counties planned to guide resettled residents to guarantee their livelihood, increase industrial types, enhance land remediation and improve infrastructure construction through production arrangement, so as to improve the living conditions of the resettled residents.

22

Resettlement sites started to construct

477

Resettlement houses roofed or completed



Improving the Poverty Alleviation Mechanism

Enhancing organizational leadership

CTG establishes and improves the poverty alleviation system to promote the establishment of poverty alleviation organizations by various departments and subsidiaries, thus aligning the efforts for poverty alleviation; we conduct research and supervision to guide and promote the fixed-point poverty alleviation work, conscientiously fulfilling the duties of the first responsible person in this aspect; and organize special work meetings to determine and deploy fixed-point poverty alleviation work.

Improving poverty alleviation management

CTG enhances the construction of the poverty alleviation system, and has formulated the CTG's Management System for Fulfilling Social Responsibilities; we also refine the management of poverty alleviation projects to promote the branding and enhance the life cycle management accordingly; we devote great efforts to poverty alleviation by including Yangtze Power, China Three Gorges International Corporation, Three Gorges Capital Holdings Co., Ltd and other member companies as assistance bodies to increase investment in poverty alleviation.

Improving poverty alleviation capabilities

CTG organizes repeatedly special study on President Xi Jinping's important statements on poverty alleviation, and provides training classes for poverty alleviation officials and project supervisors to further improve their professional quality, and enhance the communication and exchanges with universities and advisory bodies on poverty alleviation.

Making innovations in poverty alleviation modes

CTG makes innovation in poverty alleviation by providing support and boosting the self-sufficient development capability. We help people increase confidence in their own ability to lift themselves out of poverty and see that they can access the education they need to do so. Based on the needs of local governments and the characteristics of the aid targets, and relying on the local resource advantages, we implement poverty alleviation through industry development, medical care and education support, constantly broadening channels for assistance.

Conducting supervision and inspection

CTG carries out special management of work style issues solidly and enhances supervision and inspection by establishing and sending three supervision and inspection teams to the Three Gorges Reservoir Area, the Jinsha River Reservoir Area and 4 fixed-point poverty alleviation counties to supervise, inspect and revisit the poverty alleviation projects implemented in 2017.

Enhancing exchange and communication

CTG deliberately plans and implements a series of poverty alleviation publicity reports, releases the series of public welfare promotion films, public welfare project albums and publicity manuals of CTG Foundation themed "Great virtue is like water that nurtures the world", prepares CTG's first white paper on targeted poverty alleviation, thus summarizing and communicating the poverty alleviation work in multiple forms and from multiple perspectives.



6

Special work meetings on fixed-point poverty alleviation held



250

Projects implemented



RMB 1.412 billion

Funded in the whole year



CTG received the 10th "China Charity Award"

Dedicated to Fixed-point Poverty Alleviation

CTG resolutely implements the decisions made by of the CPC Central Committee and the State Council on poverty alleviation and is dedicated to targeted poverty alleviation and poverty elimination, playing a more significant role in fighting against poverty. In 2018, CTG continued to increase financial input from RMB 4.5 million to RMB 7.5 million per county, with year-on-year growth by 67%. CTG also made innovations in poverty alleviation modes, implementing consumption-oriented poverty alleviation for the first time at a standard of no less than RMB 500,000 in each county, and actively explored industry-oriented poverty alleviation such as wind power, photovoltaics and tourism.

Pulling Wushan County and Wan'an County out of Poverty by Targeted Poverty Alleviation

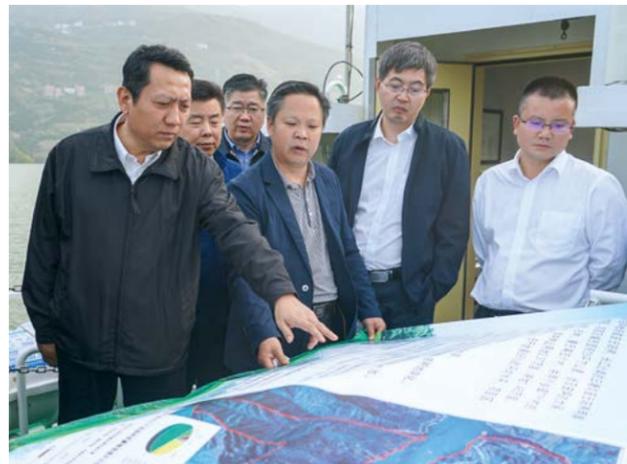
Since 2002, CTG has helped Wushan County of Chongqing Municipality, a state-level poverty-stricken county, eradicate poverty through measures such as building resettlement sites for poverty alleviation relocation and supporting infrastructure, aiding in the construction of drinking water facilities and roads in villages and towns, introducing photovoltaic industry, promoting pillar industries for Wushan County, developing rural tourism industry, aiding in the construction of teaching buildings of the vocational education center, etc.

Since 2003, CTG has been helping Wan'an County of Ji'an City, Jiangxi Province. We have formulated a poverty alleviation policy focusing on "education-oriented poverty alleviation supplemented by aiding in infrastructure construction" to improve the education and cultural level of financially-challenged residents through measures such as aiding in construction of educational facilities and kindergartens, donating for education, building new "Villager Libraries" etc.

RMB **30.4478** million
For fixed-point poverty alleviation



Chairman Lei Mingshan conducts investigation in Danqian Middle School in Wan'an County, Jiangxi Province



President Wang Lin conducts investigation of ecological protection projects in Fengjie County, Chongqing

Consumption-oriented Poverty Alleviation Helps Agricultural Products Find a Way to the Market

The CTG Base Development Company and the Catering Management Branch of CTG Industrial Company has helped agricultural products find a way to the market by means of mass purchase of preserved vegetables and developing preserved vegetable food, solving the practical difficulties for the resettled residents in the Chongqing Fengjie reservoir area and promoting the targeted poverty alleviation work. China Three Gorges New Energy Co., Ltd., Three Gorges Capital Holdings Co., Ltd. and other units actively promote the poverty alleviation model of "purchase instead of donation", and purchase local agricultural and sideline products such as green pomelo and navel orange in Wan'an County as support for six local leading enterprises and cooperatives, and more than 120 financially-challenged families are directly benefited.

5,000 kg
Preserved vegetables purchased

RMB **2.1204** million
For consumption-oriented poverty alleviation

Broom Industry Helps Bairin Left Banner Eradicate Poverty

CTG supports Bairin Left Banner in providing skill training for farmers to pull them out of poverty and help them master professional skills and gain advantages for employment, thus guaranteeing long-term economic interest of farmers. A total of RMB 500,000 was input as the training funds to train 400 women with the skills of making brooms, 50 women with housekeeping, and 50 women with hand embroidery.



Supporting the construction of Xianqiao Resettlement Site in Liangping Township, Wushan County, Chongqing



Conducting broom-making training in Qijia Village of Bairin Left Banner, Inner Mongolia Autonomous Region

Aiding Xinjiang, Tibet and Qinghai Actively

CTG helps the country implement the poverty alleviation by continuing to aid Xinjiang, Tibet and Qinghai and increasing support for the minority areas and border areas.

Benefiting Thousands of Students with Educational Aid in Xinjiang

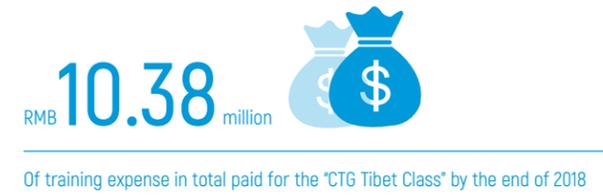
Adhering to the concept of education-oriented poverty alleviation, CTG plans to invest RMB 10 million of education funds for aiding Xinjiang each year for three consecutive years since 2018 to help to address the education problems for children from farmer and herdsman families in Pishan County.

CTG Tibet Class Cultivates More Local Technical Talent

CTG continued to support the "CTG Tibet Class" with a training expense of RMB 2.31 million in 2018 and RMB 10.38 million in total. The first 21 students have graduated and entered CTG's subsidiaries in Tibet.

Increasing the Aid to Qinghai with Photovoltaic Industry

CTG actively develops wind power and photovoltaic resources in Qinghai Province and increases industrial aid for Qinghai. In 2018, two new wind power and photovoltaic projects were built, with a total installed capacity of 600 MW and an investment over RMB 1.08 billion.



Subsidy allocating ceremony for students from colleges and universities in Pishan County, Xinjiang



On-boarding Welcome for students of CTG Tibet Class



Herdsman turn on electric lamp in Haixi Prefecture, Qinghai Province

Working Together to Help Ethnic Minority Groups in Sichuan and Yunnan

Responding to the call of the CPC Central Committee to fight against poverty, CTG implements the goal of "No worry of food and clothing and guarantees for compulsory education, basic medical care and safe housing". CTG works with the governments at all levels in Sichuan and Yunnan to establish an effective working mechanism and put it into the areas in extreme poverty, i.e., Tibet, Kashi Prefecture, Hotan Prefecture, Kizilsu Kirghiz Autonomous Prefecture and Akesu Prefecture of Xinjiang, and Tibetan areas of Qinghai, Sichuan, Yunnan and Gansu, as well as Linxia Hui Autonomous Prefecture of Gansu, Liangshan Yi Autonomous Prefecture of Sichuan and Nujiang of the Lisu Autonomous Prefecture of Yunnan, initially establishing the CTG model under which a central SOE helps to lift the whole minority groups out of poverty.



Supporting the construction of Dahua Village, Yuexi County, Liangshan Prefecture, Sichuan



Songke villagers are playing Song of Welcoming Guests in Jingjiang County, Yunnan Province



Supporting the construction of Featured Jingpo Villages in Jingjiang County, Yunnan Province

Assisting the Poverty Alleviation in Liangshan Yi Autonomous Prefecture of Sichuan Province



Helping Three Minorities with Less Population in Yunnan get Rid of Poverty



Note: The statistical range is as of the end of 2018.

Continuing to Provide Assistance to the Reservoir Areas

Upholding the philosophy of "building a hydropower station, facilitating local economy, improving local environment, and benefiting resettled residents", CTG continues to enhance its efforts for paired support and assistance to the reservoir areas, making new contributions to building harmonious and stable reservoir areas with prosperous economy and beautiful environment.



RMB **14.5** million

For paired assistance for Yiling District of Yichang



RMB **9** million

For paired assistance for Zigui County of Yichang



RMB **340** million

For post-resettlement support and industrial development in Qianjiang District, Fuling District and Wanzhou District of Chongqing

Supporting for the Three Gorges Reservoir Area

In Yiling District, Zigui County, Changyang County and Xingshan County of Yichang City, Hubei Province, CTG provides assistance in infrastructure construction, characteristic industry cultivation, education development, medical and health aid, and ecological protection, etc., which promotes the economic and social development in the Three Gorges Reservoir area.

Helping to Improve Public Services in Zigui County

In 2018, CTG concentrated funds to support the development of education and medical care in Zigui County of Yichang, investing RMB 3 million in the new accommodation building project of Moping Township Junior School in Zigui County, RMB 3 million in the new outpatient building project of Jiuwanxi Health Center and RMB 2.5 million yuan in the Health Poverty Alleviation Fund, which improved the public services for local resettled residents.

Promoting Post-resettlement Support and Industrial Development in Three Districts of Chongqing

CTG donated RMB 340 million to Qianjiang District, Fuling District and Wanzhou District of Chongqing to promote local economic development, cultivate characteristic industries and enhance the self-sufficient development capability, thus assisting the resettled residents to have a stable life.



Supporting the construction of the morning market tea base in Yiling District of Yichang



Supporting the construction of Jiuwanxi Health Center in Zigui County of Yichang

Supporting the Jinsha River Reservoir Area



By elaborately using the Jinsha River Hydropower Fund, and focusing on education and industrial assistance, CTG plans and implements social responsibility projects with emphasis on the project implementation, successfully carrying out the Three Gorges Seed Fund, Summer Camp for Children from the Reservoir Area to Three Gorges CTG Educational Assistance and other featured projects, through which CTG has explored a targeted poverty alleviation model combining poverty alleviation, skill training and educational assistance.

74 million
RMB
Donated by Jinsha River
Hydropower Fund

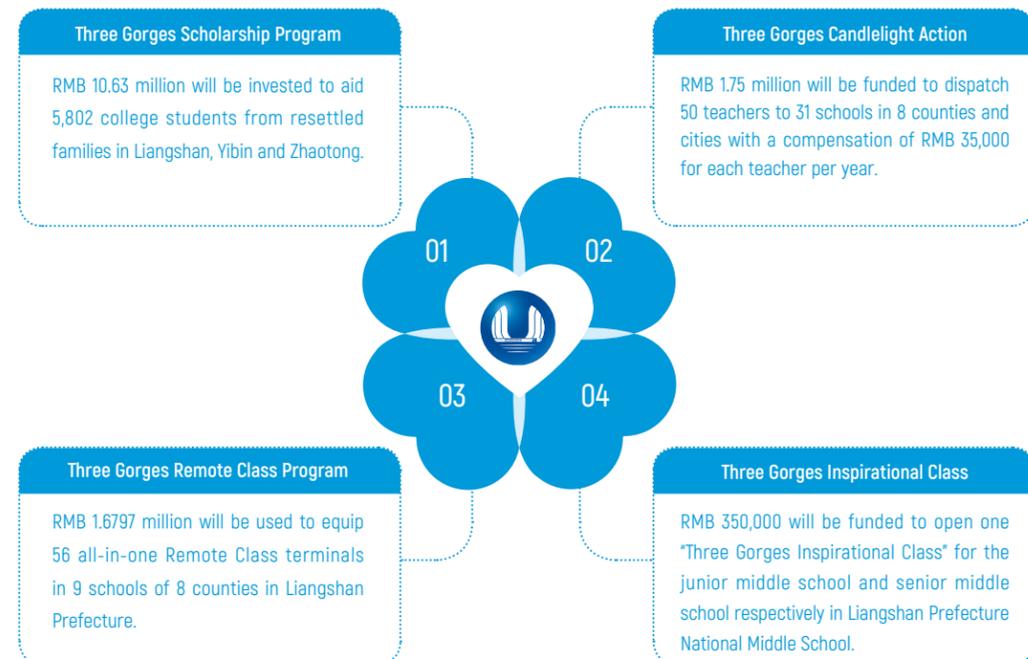
97
Projects implemented

Hosting the "Summer Camp for Children from the Reservoir Area to Three Gorges"

On July 8, 2018, CTG hosted the "Summer Camp for Children from the Reservoir Area to Three Gorges" with the theme of "Meeting in Three Gorges and Igniting Your Dreams" in the Three Gorges Dam area. In the four days of the campaign, 315 primary and secondary school students from 12 ethnic groups visited the TGP Hydropower Station to broaden their horizon. They witnessed the great achievements made by the motherland, thus enhancing their sense of national pride and patriotism, stimulating their enthusiasm for learning and their dreams to fight for the great rejuvenation of the Chinese nation.

Exploring New Education-oriented Poverty Alleviation Modes in the Jinsha River Reservoir Area via CTG Educational Support Program

By implementing the Three Gorges Scholarship Program, the Three Gorges Remote Class Program, Three Gorges Candlelight Action and Three Gorges Inspirational Class in Liangshan Prefecture of Sichuan Province, CTG plans to fund RMB 35 million in 2018-2020 to help 9 counties and cities, including Leibo County and Jinyang County of Liangshan Prefecture which were related to four hydropower stations in the lower reaches of the Jinsha River, improve local education conditions, which will benefit 10,220 students in 8 counties and 1 city of Liangshan Prefecture.



Three Gorges Seed Fund Awarded the "Livelihood Demonstration Project 2018"

Since 2012, CTG has donated a total of RMB 12 million to Yibin City, and supported 78 resettlement villages (communities), with 199,000 residents aided directly, and more than 100,000 local residents indirectly benefited (including those involved in related work and programs, etc.). This project was selected as the "Livelihood Demonstration Project 2018" by the People's Daily.



5.7 million
RMB
"Seed Fund" donated in 2018

199,000
Residents aided directly



"Summer Camp for Children from the Reservoir Area to Three Gorges"



Launching Ceremony of the Three Gorges Educational Support Program for Liangshan Prefecture



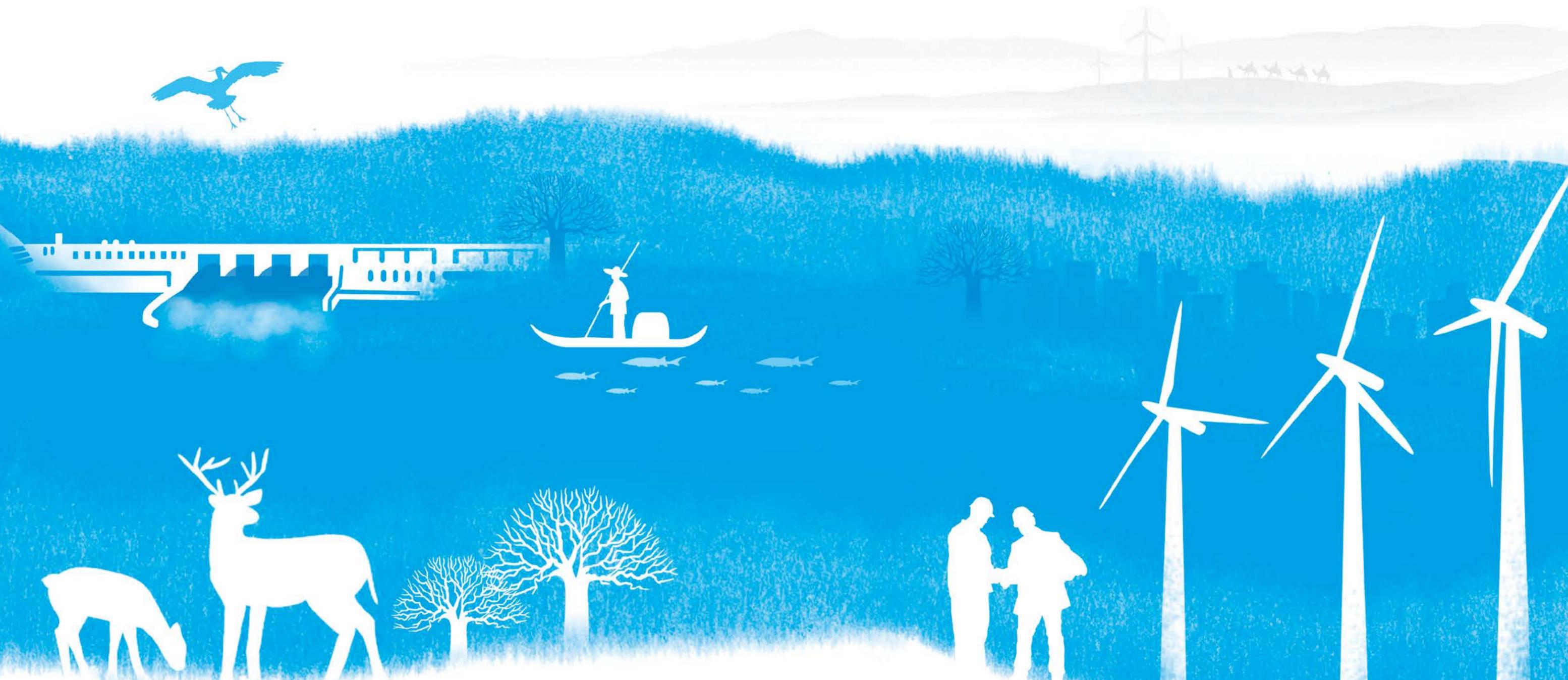
Pre-employment Training of Three Gorges Candlelight Action 2018



The second quality development activity of the Three Gorges Inspirational Class

03

DELIVERING THE VALUE OF NATIONAL PILLAR TO THE WORLD



Improving the Transparency of Accountability Information

CTG attaches importance to identifying core stakeholders and their key expectations, and try to meet their expectations in practice. Besides, CTG continues to enrich communication channels and carriers for stakeholders, guarantees stakeholders' rights to know, participate and supervise, and continuous improve the social responsibility management and practice, thus optimizing the comprehensive value for stakeholders.

Stakeholders	Core Appeals	Communication Activities
Investors	<ul style="list-style-type: none"> Maintenance and appreciation of investment Supervision and assessment Compliance management 	<ul style="list-style-type: none"> CTG published <i>the China Three Gorges Corporation Annual Report, China Three Gorges Corporation Annual Report on Environmental Protection, China Three Gorges Corporation Informatization Annual Report, the Yangtze River and Three Gorges Project Ecology and Environmental Monitoring Bulletin, Social Responsibility Report of China Yangtze Power Co., Ltd., Social Responsibility Report of Hubei Energy Group Co., Ltd., etc.</i> The number of followers of "CTG official WeChat account" reached 39,759.
Resettled people in reservoir area	<ul style="list-style-type: none"> Arranging resettlement in cooperation with the government Promoting the sustainable development of resettled people 	<ul style="list-style-type: none"> CTG invested heavily on resettlement of residents as well as poverty alleviation in the Three Gorges Reservoir area and the Jinsha River Reservoir area.
Community	<ul style="list-style-type: none"> Charity Promoting economic and social development 	<ul style="list-style-type: none"> CTG provides assistance to the reservoir areas, minorities in Sichuan and Yunnan as well as Xinjiang and Tibet. "China Three Gorges Corporation" news has entered the Toutiao.com, Yidianzixun.com and thecover.cn, with the cumulative reads exceeds 5 million people.
Employees	<ul style="list-style-type: none"> Protecting labor rights and interests Salary and welfare Career Development 	<ul style="list-style-type: none"> CTG carried out democracy activities among employees and held workers' congress.
Customers	<ul style="list-style-type: none"> Coordinated development Win-win cooperation Stable and safe electric power 	<ul style="list-style-type: none"> CTG's annual power generation reached 290.2 billion kWh.

Stakeholders	Core Appeals	Communication Activities
Environment	<ul style="list-style-type: none"> Ecological Protection Energy conservation and emission reduction Responding to climate change 	<ul style="list-style-type: none"> CTG prepared the 14th Annual Report on Environmental Protection, which objectively reflected the environmental performance of CTG and answered the questions of stakeholders in a truthful and comprehensive manner. Carried out the Yangtze River Three Gorges Chinese Sturgeon Release Program in 2018.
Partners	<ul style="list-style-type: none"> Fair operation Responsible procurement Win-win cooperation 	<ul style="list-style-type: none"> CTG signed a strategic cooperation framework agreement with Tsinghua University. CTG signed the Cooperation Agreement between CTG and EDP with Energias De Portugal.
Provinces and cities in Yangtze River Basin	<ul style="list-style-type: none"> Flood control and drought relief Improving shipping 	<ul style="list-style-type: none"> CTG facilitated the cooperation between enterprises and local governments to promote well-coordinated environmental conservation in the Yangtze River Economic Belt.

Further Reading



2017 China Three Gorges Corporation Annual Report



China Three Gorges Corporation Annual Report on Environmental Protection 2018



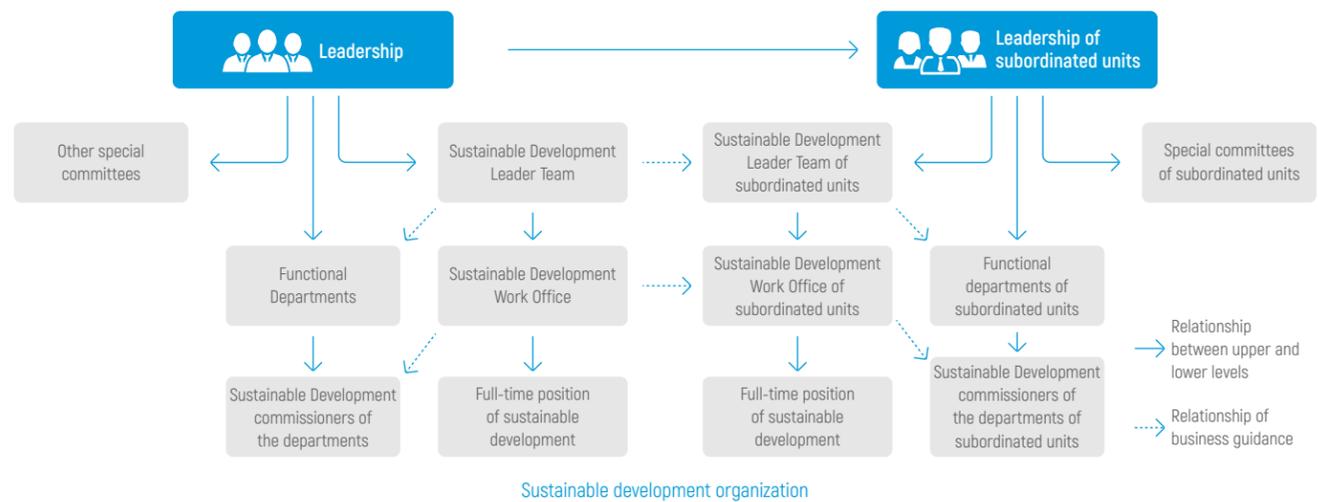
China Three Gorges Corporation Informatization Annual Report 2017



The Yangtze River and Three Gorges Project Ecology and Environmental Monitoring Report 2018

Improving the Governance of Sustainable Development

CTG actively implements the Social Responsibility Plan of CTG during the 13th Five-Year Plan. Through enhancing social responsibility capacity, making innovation in project management, and promoting social responsibility informatization, and continuously innovating the methods and manners integrating social responsibility concepts and requirements into the management and operation of company, CTG has laid solid foundation for responsibility management for achieving sustainable development.



Improving the sustainability governance. Formulating Social Responsibility Plan of CTG, to further improve sustainability working mechanism, paving the way for stricter regulation and management.

Intensifying sustainability capability training. Holding workshops for poverty relief officials and project managers to improve their professional competence; conducting seminars with industry consultancy to broaden mindset and uplift management level.

Making innovations in sustainability project management. Carrying out "review" and special inspections on sustainability projects, exploring management modes of characteristic projects and strengthening the management in the entire life cycle of projects.

Strengthening management of sustainability capital. Carefully allocating annual fiscal budget to make better expenditure and revenue arrangement; coordinating fund donation and appropriation plan to ensure capital security and effectiveness.

Disseminating sustainability projects. Responding to the National Poverty Alleviation Day and targeted poverty alleviation programs, actively promoting the coverage on poverty alleviation projects through all-media coverage including CTG website, the CTG Foundation official website, the TGP News, the CTG official WeChat account, the CTG public welfare WeChat account; publicizing "Travel of Children from the Reservoir Area to Three Gorges", "Three Gorges Seed Fund " and other 4 educational assistance projects alongside the Jinsha River by state-run news media and local mainstream media.

Promoting the sustainability information disclosure among subordinate enterprises. Actively pushing forward the sustainability information disclosure among subordinate enterprises, publishing the Report on Social Responsibility of China Yangtze Power Co., Ltd., and Report on Social Responsibility of HuBei Energy Group Co., Ltd., etc.

Making Contribution to SDGs

Sustainable Development Goals	Typical Measures and Actions of CTG	Sustainable Development Goals	Typical Measures and Actions of CTG
	<ul style="list-style-type: none"> Carefully carrying out poverty alleviation, counterpart support, aiding Tibet and aiding Tibet, and strengthening the poverty alleviation of Sichuan and Yunnan ethnic minorities, and continuing to carry out poverty alleviation and development in the Three Gorges reservoir area and Jinshajiang reservoir area. 		<ul style="list-style-type: none"> Establishing the "Three Gorges Seed Fund" to support the short-term quick development of planting, breeding, processing and service industry.
	<ul style="list-style-type: none"> Attaching importance to the occupational health of employees, especially front-line employees, actively promoting the three-standard integrated system of quality, environment and occupational health and safety, and regularly organizing medical examinations for employees. 		<ul style="list-style-type: none"> Focusing on educational poverty alleviation, providing equal opportunities for students in backward areas through constructing education infrastructure, establishing scholarships and subsidies, organizing activities such as "Summer Camp for Children from the Reservoir Area to Three Gorges" etc., in supported areas.
	<ul style="list-style-type: none"> Adhering to equal and compliant employment and prohibiting sex discrimination. Establishing Love Mommy rooms and nursing rooms for convenience of female employees in nursing period. 		<ul style="list-style-type: none"> Guaranteeing water supply for agricultural irrigation and people's daily life in the Yangtze River Basin during dry seasons as an important reservoir of freshwater resources. Attaching importance to water environmental protection during project construction and comprehensively promoting the prevention and control of water pollution.
	<ul style="list-style-type: none"> Promoting the construction of two power stations in Wudongde and Baihetan based on the Three Gorges, Gezhouba, Xiluodu and Xiangjiaba Hydropower Stations. Vigorously developing new energy sources such as offshore wind power, onshore wind power and photovoltaic power generation, with an offshore wind farm cluster taking shape. Golmud 500 MW Photovoltaic Power Station is the first large-scale grid parity photovoltaic project in China. 		<ul style="list-style-type: none"> Respecting and guaranteeing the legitimate rights and interests of employees, and paying social insurance on time in full amount and prohibits forced labor. Actively serving the "Belt and Road" initiative to lead China's hydropower industry to "Go Global".
	<ul style="list-style-type: none"> Building model projects with high quality, standard and technology content. Taking scientific and technological innovations as an important driver for business development and participating in the formulation of national and industrial standards. 		<ul style="list-style-type: none"> Keeping up with the coordinated development strategy of the Beijing, Tianjin, and Hebei region, and supporting the green coordinated development of the Beijing, Tianjin, and Hebei region. Operating overseas business with the concept of "long-term development and local operation", and actively promoting local employment and hiring local employees.
	<ul style="list-style-type: none"> Conducting in-depth investigation and management of hidden dangers, intensifying safety education and training, implementing flood and disaster prevention measures, and adopting strict accident investigation and accountability system. 		<ul style="list-style-type: none"> Continuously increasing power generation capacity.
	<ul style="list-style-type: none"> Expanding the development and utilization of clean energy such as hydropower, wind power and solar energy, and constantly exploring various development modes of wind energy, solar energy, water energy and storage batteries, so as to provide clean energy to society. 		<ul style="list-style-type: none"> Ecological Restoration Project of Heishui River is under construction in order to protect Fish Habitat.
	<ul style="list-style-type: none"> Protection and research on rare and endemic plants in areas affected by hydropower development work in the hydropower development. 		<ul style="list-style-type: none"> Improving the Party conduct and integrity construction, and comprehensively strengthening the Party discipline in an in-depth manner. Adhering to the principle of managing the enterprise according to the laws and operating in compliance, and fully incorporating the requirements for managing enterprise according to the laws and the general counsel system into CTG's articles of association.
	<ul style="list-style-type: none"> Collaborating with enterprises along the industry chain to create a "Chinese alliance" and successfully explore an international business mode of "integrating the entire domestic industrial chain for going global with the Three Gorges as the brand and CTG as the leading player". Accelerating to establish a cooperation and coordination system for the well-coordinated environmental conservation of the Yangtze River between the enterprise and local governments for implementing the relevant national policies. 		

Communicating Key Sustainable Performance

Economic Performance

Responsibility of shareholders

Indexes	2016	2017	2018
Revenue (RMB billion)	78.310	90.003	93.938
Revenue growth rate (%)	23.29	14.93	4.36
Net profit growth rate (%)	10.33	7.88	2.92
Return on net assets (%)	9.68	9.51	9.16

Technological Innovation

Indexes	2016	2017	2018
Investment on technology and R&D (RMB million)	1,790.6245	2,258.5818	1,875.1524
Number of staff in science and technology (persons)	2,653	2,753	2,266
Proportion of staff in science and technology (%)	11.4	12.0	10.7
Applying patents (number)	382	338	361
New patents (number)	327	251	310
Major innovation awards (number)	18	20	30

Management of supply chain

Indexes	2016	2017	2018
Performance rate of business contract (%)	100	100	100
Proportion of responsible procurement (%)	100	100	100
Number of suppliers	8,393	17,327	24,701
Number of annual new suppliers	4,538	8,934	7,374
Number of annual supplier evaluations	5,277	7,137	8,041

Power generation abroad

Indexes	2016	2017	2018
Total consolidated capacity (MW)	8,534	8,534	8,658
Hydropower capacity (MW)	8,178	8,178	8,204
Wind power capacity (MW)	338	338	437
Solar photovoltaic power capacity (MW)	18	18	18
Minority-equity based capacity (MW)	6,130	8,180	8,580
Under-construction capacity (MW)	820	980	880
Hydropower under-construction capacity (MW)	720	880	880
Wind power under-construction capacity (MW)	100	100	0
Photovoltaic power under-construction capacity (MW)	20	0	0
Gross generation (GWh)	25,430	38,020	37,890
Hydropower generation (GWh)	24,770	36,630	36,380
Wind power generation (GWh)	20	1,360	1,480
Solar photovoltaic power generation (GWh)	30	30	30

Power generation

Key indicators	2016	2017	2018
Total consolidated capacity (GW)	69.029	70.017	70.302
Hydropower capacity (GW)	58.820	58.820	57.646
Wind power capacity (GW)	5.465	5.770	6.380
Photovoltaic power capacity (GW)	2.282	2.798	3.646
Thermal power capacity (GW)	2.462	2.630	2.630
Minority-equity based capacity (GW)	15.08	19.10	21.69
Under-construction capacity (GW)	33.69	35.27	35.51
Hydropower under-construction capacity (GW)	31.170	31.335	31.168
Wind power under-construction capacity (GW)	0.315	1.736	1.777
Photovoltaic power under-construction capacity (MW)	20	202	566
Proportion of clean energy capacity in total capacity (%)	96.4	96.2	96.3
Gross generation (TWh)	262.63	284.56	290.16
Hydropower generation (TWh)	243.11	260.91	261.74
Wind power generation (TWh)	8.12	11.55	13.87
Photovoltaic power generation (TWh)	2.32	3.15	3.98
Thermal power generation (TWh)	9.08	8.95	10.57

Environmental Performance

Key indicators	2016	2017	2018
Total investment in environmental protection (including water and soil conservation) (RMB million)	930	890	1,283
Assessment proportion of environmental and social impacts on undergoing new projects (%)	100	100	100
Emission reduction benefit of clean energy in China (equals to emission reduction of carbon dioxide, per million ton)	182.71	188.4596	199.4495
Emission reduction benefit of clean energy in China (equals to saving the use of standard coal, per million ton)	71.1769	74.128	77.6975

Social Performance

Government responsibility

Key indicators	2016	2017	2018
Total taxes (RMB million)	22,543	26,200	22,396
Proportion of legal review on corporate rules and regulations (%)	100	100	100
Proportion of legal review on corporate economic contracts (%)	100	100	100
Proportion of legal review on significant corporate economic decisions (%)	100	100	100

Employee responsibility

Key indicators	2016	2017	2018
Number of on-duty staff	23,359	22,946	23,404
Coverage of social insurance (%)	100	100	100
Membership rate of Labor Union (%)	98.1	98.1	98.77
Paid annual leave per capita (day)	9.3	11	9.3
Signing rate of labor contract (%)	100	100	100
Completion rate of proposals in the Workers' Congress	100	100	100
Occupational injury rate (%)	0	0	0
Occupational disease rate (%)	0	0	0
Coverage of health insurance (%)	100	100	100
Female employees' returning rate after maternity leave (%)	100	100	100
Employees training investment (RMB million)	38.75	37.00	47.24
Total training hours	3,981,583	3,492,010	3,640,884
Number of trainees (person-times)	174,144	190,189	202,071
Employee satisfaction (%)	100	100	100

Comprehensive Benefits

Key indicators	2016	2017	2018
Total flood retention volume (billion m ³)	12.3	12.9	15.0
Total days of water supplement for middle and lower reaches of the Yangtze River in dry season (day)	170	177	153
Water supplementing amount for middle and lower reaches of the Yangtze River in dry season(billion m ³)	27.88	31.06	22.70
Actual loading freight volume of Three Gorges lock (million ton)	119.8	129.8	142

Work safety

Key indicators	2016	2017	2018
Number of contingency plans	1,794	4,679	1,257
Number of emergency drills	815	1,262	1,756
Number of trainees (person-times)	35,283	88,586	98,625
Investment in work safety (RMB million)	469	572	565
Number of casualties	0	0	0
Major equipment accidents (time)	0	0	0
Unplanned outages (time)	21	18	17
Average Unit Equivalent Availability Coefficient (%)	95.73	94.52	93.17

Community engagement

Key indicators	2016	2017	2018
Total amount of donations (RMB million)	1,300	1,383	1,412
Young volunteers' service participation (person-times)	40,000	43,000	43,700
Voluntary service time (hour)	270,000	290,000	295,000
Number of voluntary service team	53	57	57
Number of voluntary service bases	181	181	183
Number of registered volunteers	9,679	9,414	9,866

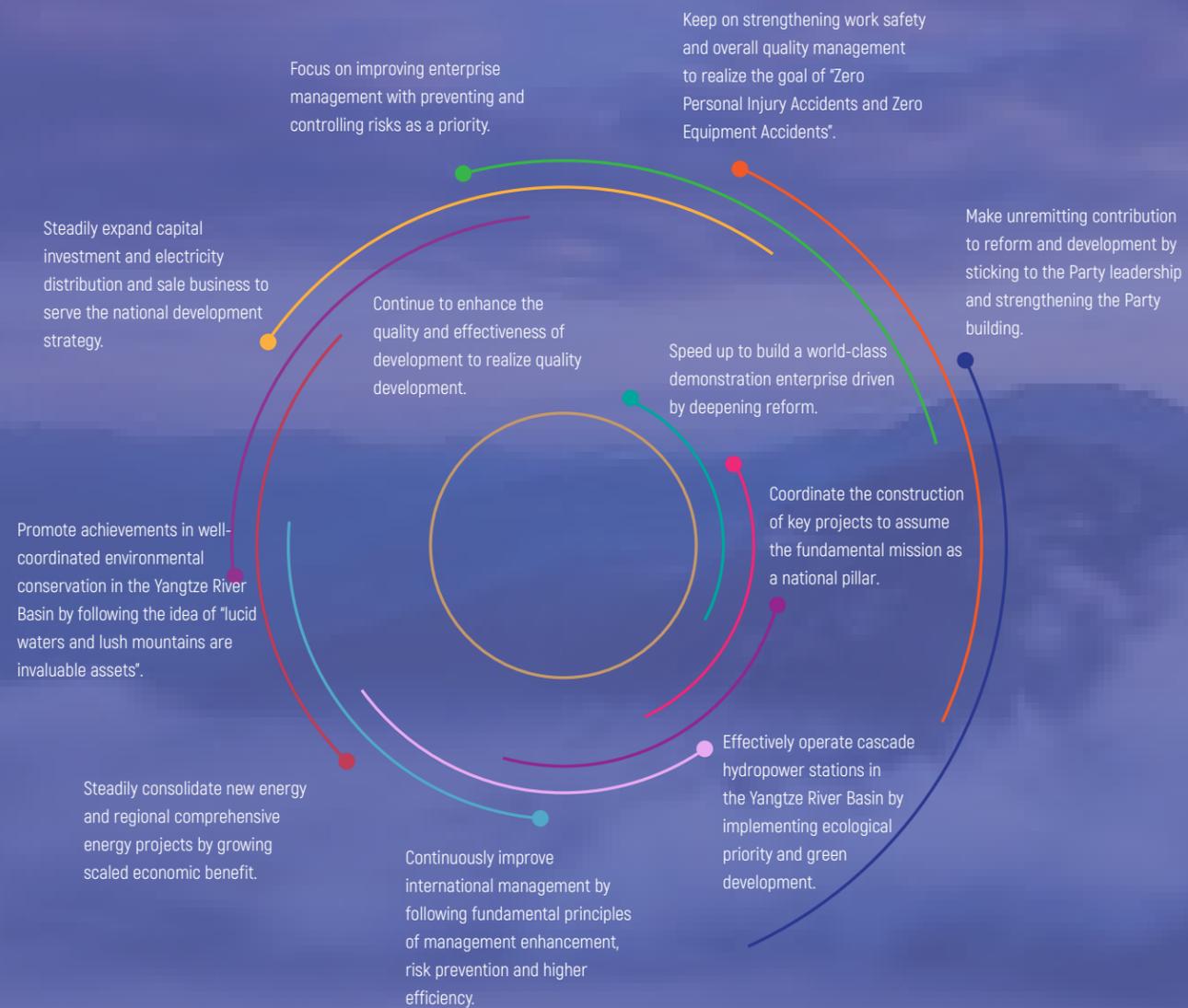
Benchmarking GRI Standards

This Report contains GRI Standards disclosures.

Key indicators	2018
Message from the Chairman	GRI
An Interview with the President	102-14
About China Three Gorges Corporation	102-15
Improving the governance of sustainable development	102-1,102-2,102-3,102-5,102-6,102-17,102-18
Solid work over the past five years	\
Consolidating Basis and Laying a Solid Foundation for a Pillar of a Great Nation	
Strengthening Party Leadership	205-2
Excellent Operation and Management	102-22,102-23
Sticking to Independent Innovation	203-2
Cultivating Craftsmen for the Great Nation	201-3,401-2,404-2,406-1,407-1
Being a Pillar of a Great Nation through Innovation and Solid Work	
Play A Fundamental Role In Guaranteeing And Furthering The Development Of The Yangtze Economic Belt	103-2,201-2,203-1,203-2,416-1
Play A Backbone Role In Promoting Well-Coordinated Environmental Conservation In The Yangtze River Basin	103-2,304-1
Play A Leading Role In Leading China's Hydropower Industry To "Go Global"	103-2,201-1,203-1,203-2
Play A Constructive Role In Promoting The Industrial Upgrading Of Clean Energy	103-2,414-1,414-2
Play A Demonstrative Role In Deepening Soe Reform	103-2,413-1
Play An Exemplary Role In Assuming Social Responsibility	103-2,203-1,415-1
Delivering the value of national pillar to the world	
Improving the transparency of accountability information	102-40,102-42,102-43,102-44
Improving the governance of sustainable development	102-16,102-17
Making contribution to SDG sustainability goals	\
Communicating key sustainable performance	201-1,401-1,403-2
Benchmarking GRI Standards	102-55
Promoting sustainable actions in 2019	\
Third-party evaluation	102-56
Feedback Form	102-53
About This Report	102-46,102-49,102-50,102-52,102-53,102-54

Promoting Sustainable Actions in 2019

In 2019, under the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, GTG will study and act in line with the guiding principles of the 19th CPC National Congress and the message delivered in the keynote speech of President Xi Jinping during his inspection on the Three Gorges Project. We will keep in mind our mission, and forge ahead in spite of difficulties to practice new development philosophy, pursue high-quality development and earnestly fulfill new mission entrusted by the Party and the nation, by which we can build ourselves into a world-class clean energy group and greet the 70th anniversary of the People's Republic of China with remarkable achievements.



Third-party Evaluation

This is the ninth sustainability report released by China Three Gorges Corporation. The report, featuring concise word, clear charts and informative content, systematically highlights CTG's highlights and achievements in economy, society and environment and reflects CTG's sense of mission of "building the Three Gorges Project, protecting the Yangtze River resources, providing clean energy and building a better homeland", and its responsibility and duty as a world class group.

A clear and distinct structure gives full expression of sustainable development connotation. Following CTG's latest strategic mission, the report structurally reflects "Six Roles" in its main body, demonstrating its "fundamental role in guaranteeing and furthering the development of the Yangtze River Economic Belt", "backbone role in promoting well-coordinated environmental conservation in the Yangtze River Basin", "leading role in leading China's hydropower industry to 'go global'", "constructive role in promoting the industrial transformation and upgrading of clean energy", "demonstration role in deepening SOE reform", and "exemplary role in assuming social responsibility". It also actively integrates the sustainability issue with its major businesses, demonstrating that CTG values stakeholders' expectations as equally as corporate development. In this manner, CTG promotes sustainable development of the global economy, society, and environment through its sustainable development.

Focusing on hot topics to embody CTG's sustainability duty. The report focuses on hot topics and current events. In the "CSR Feature Story: 25-year Commitment to the Mission with CSR leadership to Play a Vital Role in National Development", the report systematically summarizes CTG's key practices and remarkable achievements since its founding 25 years ago upon the 40th anniversary of China's reform and opening up. All these achievements demonstrate CTG works painstakingly with a steadfast conviction of assuming responsibilities for the nation and builds a famous hydropower brand of China and plays a nationally prominent role in creating a clean energy, guarding the beautiful Yangtze River, and deepening reform and assuming social responsibility, etc., under leadership of the Party.

Vivid presentation format brings better reading experience. With more inclusive attitude and more amiable words, the report communicates with the readers in a candid and effective manner. The newly added column "CTG in the Eye of Others" provides a platform where all stakeholders can express themselves, thus closing the distance between CTG and its stakeholders. With a clear and distinct structure, the report displays management philosophy, objective and strategy in the opening part of each chapter, so that readers could rapidly find key information. The report continues the ink painting style with more sense of design through using illustrations flexibly. With clear diagrams and bright design style, the report gives readers a relaxing and enjoyable reading experience.

2019 marks the 70th anniversary of the People's Republic of China and a critical year of building a moderately prosperous society in an all-round way. Hopefully CTG will earnestly fulfill the new mission entrusted by the Party and nation, speed up the building of a world-class clean energy group, promote the integration of sustainable development and the operation management, deliver more benefits to stakeholders while seeking its development, and contribute Chinese wisdom for the sustainable development of world clean energy industry.

Zhai Qi

Deputy Secretary-general of China Business Council for Sustainable Development (CBCSD)

Feedback Form

Dear Readers:

Thank you for reading the 2018 Sustainability Report of China Three Gorges Corporation. We hope to receive your feedback on our social responsibility work and this report. Your suggestions are an important for our continuous improvement of CSR management and practice. You can fill in this form or cut this form below and send the feedback to us by letter, email, or fax. Your valuable opinions will be appreciated.

Please tick "✓" the corresponding answer.

1. Do you think this report reflects the significant impact of CTG on the economy, society and the environment?

Yes

Maybe

No

2. Do you think the stakeholders and their relationship with CTG identified in the report is accurate and comprehensive?

Yes

Maybe

No

3. Do you think the information disclosed in this report is comprehensive?

Yes

Maybe

No

4. Do you think the information disclosed in this report is readable?

Yes

Maybe

No

Open questions

1. What other issues or topics do you think should be disclosed in this report?

2. What other improvements can we make to this report?

E-mail: szbg@ctg.com.cn

Address: Building B, No.1, Yuyuantan South Road, Haidian District, Beijing

About This Report

Reporting Period

This report covers the period from January 1, 2018 to December 31, 2018 and also includes additional content and information that predates the stated reporting period.

Reporting Cycle

This is an annual report and it is also the ninth Sustainability Report released by China Three Gorges Corporation since 2010.

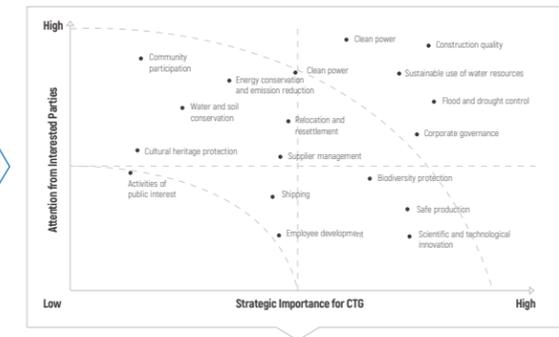
Compliance Conformance

This report was compiled in accordance with *ISO 26000: Guidance on Social Responsibility(2010)*, the *GRI Standards* by the Global Reporting Initiative (GRI), *GB/T 36001-2015: Guidance on Social Responsibility Reporting and Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-CSR4.0)* by the Chinese Academy of Social Sciences.

Recognition

Main sources	Topics
<ul style="list-style-type: none"> The proposals of the democratic life meetings for employees and the employee representative meetings The attention from clients like power grid enterprises The feedback on the official CTG website The collection of opinions of migrants The communication with local governments and the signing of strategic cooperation agreements The opinions and feedbacks at the communication meetings for suppliers The collection of opinions of communities The comments on environmental impact The opinions from such NGOs as WWF and TNC The seminars in the hydropower industry The feedback from hydropower experts The participation in the making of industrial standards The participation in international and industrial organizations 	<ul style="list-style-type: none"> Development strategy Corporate governance International operation Construction quality Community participation Supplier management Responsibility purchase Combat with climate change Employee rights protection Remuneration and welfare Human rights protection Law observance and compliance Transparent operation Employment management Employee development Energy conservation and emission reduction Biodiversity protection Sustainable use of water resources Water and soil conservation Protection of cultural heritage Flood and drought control Shipping Clean power Relocation and resettlement Scientific and technological innovation Environment management Making of industrial standards Activities of public interest

Sorting



Verification

Internal	External
<ul style="list-style-type: none"> Review by social responsibility management institutions Review by related departments and subordinate companies Examination and approval by company leaders 	<ul style="list-style-type: none"> Participation of NGOs Participation of the third-party consulting institutions Report rating Communication meetings for interested parties

Terms of References

China Three Gorges Corporation will be referred to herein as "CTG", "the Corporation" and "we".

Reporting Scope

This report covers CTG as a whole.

Data Sources

The data cited in this report derives from *China Three Gorges Corporation Annual Report 2018*, official documents of CTG, and statistics reports.

Reliability Assurance

Information disclosed in this report is verified, reliable, and timely and is aligned with CTG's strategy for sustainable development. It addresses the major concerns of the stakeholders in this report, and it also summarizes CTG's Corporate Social Responsibility (CSR) performance.

Obtaining the Report

This Report is available in Chinese and English versions and in print and electronic formats. For hard copies, please email szbg@ctg.com.cn or call+86-10-57081850. For electronic copy, please visit this website: www.ctg.com.cn, or scan the QR code on the back cover of the print format to download.

 This report is printed on recycled paper



Scan this QR code to read
this report online



CTG Philanthropy

China Three Gorges Corporation

Address: Building B,1#,Yuyuantan South Road, Haidian District, Beijing

Website: www.ctg.com.cn

Fax: 010-57082000

Tel: 010-57081850

Email: szbg@ctg.com.cn

Post Code: 100038