

# **1** Management System

## 1.1 Water Management System Mechanism

Water resources are owned by the state. The ownership of water resources is exercised by the State Council on behalf of the State. The state operates a management system that combines watershed management with regional administrative management of water resources.

The Ministry of Water Resources, as an important department of the State Council in charge of national water administration, has in recent years continued to uphold the general situation of serving economic and social development, to deepen institutional reforms, and to promote functional transformation. We are continuously improving the water administration mechanism according to the principle of optimization, coordination and efficiency.

### 1.1.1 The Water Conservancy Function System is Constantly Improved

With the continuous economic and social development, the strategic importance of water conservancy continues to be elevated. The focus of water administrative management involves water conservancy project construction and operation management, river and lake management and water ecological protection, flood & drought prevention and so on. We are committed to providing water security for economic and social development. Especially since the year of 2013, we stick to



implementing President Xi Jinping's key spirits on water management and the water management policy of the new era— "prioritizing water saving, spatial balance, systematic governance, and giving full play to the role of government and market". We have accelerated functional transformation, and after the institution restructuring in 2018, we have further strengthened integrated management, augmented the unified management of the construction and operation of major water conservancy projects and water resources allocation and dispatching, reinforced the duties of the most stringent water resources management, water conservation, river and lake management and protection, and taken further steps to focus on our major responsibilities and core businesses. On the basis of maintaining the integrity of the duties of the main body of the Ministry of Water Resources, some duties have been realigned in order to give full play to the professional and management expertise of all relevant departments and thus to establish a coordinate and efficient operational mechanism of the Ministry of Water Resources and related departments taking their respective responsibilities while remaining consistent with one another. The Ministry of Water Resources has set up a functional system with water management as the core, covering water resources development, utilization, conservation, protection, allocation and dispatch.

# 1.1.2 Water Administrative Agencies are Continuously Improved

The Ministry of Water Resources has undergone many institutional reforms, especially the institutional reform in 2018, in which the former Executive Office of Three Gorges Project Construction Committee of the State Council, Office of the South-to-North Water Diversion Project Commission of the State Council were merged into the Ministry of Water Resources. Improvements in the organizations and institutions of the Ministry of Water Resources have been remarkable. At present, there are 22 divisions within the Ministry of Water Resources: the General Office, the Department of Planning and Programming, the Department of Policy, Law and Regulation, the Department of Finance, the Department of Human Resources, the Department of Water Resources Management, National Office of Water Conservation, the Department of Water Project Construction Management, the Department of River and Lake Management, the

Department of Soil and Water Conservation, the Department of Rural Water and Hydropower, the Department of Water Project Resettlement, the Department of Supervision, the Department of Flood and Drought Disaster Prevention, the Department of Hydrology, the Department of Three Gorges Project Management, the Department of South-to-North Water Diversion Project Management, the Department of Water Diversion Management, the Department of International Cooperation, Science and Technology, etc. Additionally, the state implements a water resources management system that combines river basin management with regional administrative management. The Ministry of Water Resources has set up river basin management institutions in seven river basins—Yangtze River, Yellow River, Huaihe River, Haihe River, Pearl River, Songhuajiang-Liaohe River and Taihu Lake, exercising water administrative responsibilities according to the law within the scope of jurisdiction. Besides, river management agencies that extend to the grassroots level have been established in the Yellow River Basin, Huaihe River Basin, and Haihe River Basin. After over 70 years of development, the "1+7+N" water administrative structure of the Ministry of Water Resources, the river basin management organizations and the river management agencies at all levels guarantee effective implementation of water-related administrative responsibility in major river basins. Besides, the Ministry of Water Resources attaches great importance to the role of water conservancy associations and currently there are 15 associations managed by, or affiliated to, the Ministry of Water Resources.

## 1.1.3 Supporting Institutions Continue to be Strengthened

Currently, there are 27 directly-affiliated institutions to support the Ministry of Water Resources. Their scope of business includes providing comprehensive technical support and guarantee for all water conservancy business areas concerning hydrology and water resources monitoring and forecasting, water conservancy planning and design, water conservancy science and technology research and development and application, water conservancy publicity and education, water conservancy policy research, drinking water safety in rural areas, water conservancy project construction and management, water resources management, water conservation, river and lake management protection, soil and water conservation, etc.

# 1.2 Main Functions of the Ministry of Water Resources

- 1.2.1 Ensure water resources are rationally developed and utilized. Formulate water resources development strategies, plans and policies; provide draft legislation and promulgate water administrative rules and regulations; make integrated river basin management plans and flood control plans for major rivers and lakes.
- 1.2.2 Coordinate and secure domestic, industrial and ecological water uses. Organize the implementation of the most stringent water management system; undertake integrated water resources management and supervision; formulate long-term supply and demand planning and water allocation plans for national and interregional waters and supervise their implementation; be responsible for water resource dispatching of important river basins, regions and major water transfer projects; organize and undertake survey and assessment of water resources, as well as survey of hydropower resources in accordance with relevant provisions; allocate water among major river basins, regions and key water diversion projects; implement the system of water permit, the charging system of water resource fees and systems of water resources assessment and flood assessment. Provide guidance for the water supply work of water industry and towns.
- 1.2.3 Originate relevant systems for water conservancy construction according to regulations and organize implementation. Make proposals for total investment in water projects with fixed assets and plans of national fiscal funds; review and verify fixed assets investment projects within the national plan and the scale of a yearly plan in accordance with the authorization granted by the State Council. Put forward and organize the implementation of the Central Government's water project investment plan.
- **1.2.4** Take charge of water resource protection. Organize and draft water resource protection plans; provide guidance on the protection of drinking water sources, exploitation and utilization of groundwater as well as management and protection of groundwater resources. Organize and guide the comprehensive remediation of groundwater over-exploitation areas.



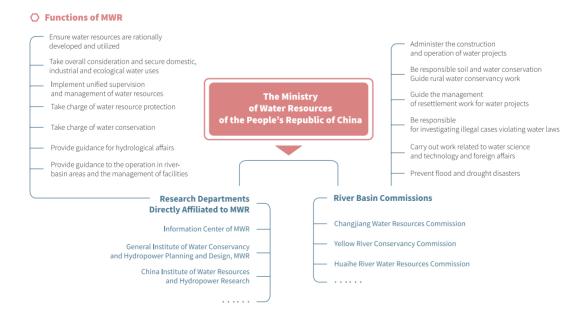
- 1.2.5 Take charge of water conservation. Draft water-saving policies; organize water conservation planning and supervise its implementation; develop relevant standards. Organize the implementation of management systems such as total water use control; guide and promote the building of water-saving society.
- 1.2.6 Provide guidance for hydrological affairs. Take charge of monitoring of water resources, construction and management of national hydrological station network; undertake monitoring of water quantity and quality of rivers, lakes, reservoirs and underground water; release hydrological data and water resources information, forecasting and national water resources bulletin. Carry out the investigation and evaluation of water resources and hydropower resources and the monitoring and early warning of water resources carrying capacity according to regulations.
- 1.2.7 Provide guidance to the management, protection and comprehensive utilization of water infrastructures, water bodies and shorelines. Guide the management, development and protection of major rivers, lakes, estuaries and coast beaches; give directions to the ecological protection, restoration, the ecological flow and water management, and the connection of rivers and lakes.
- **1.2.8** Guide and supervise the construction and operation management of water projects. Organize and implement the construction and management



of controllable backbone or key water projects that cross the boundary of regions and watersheds; initiate and coordinate the implementation of relevant policies and measures for the operation of the Three Gorges Project, the operation of the South-to-North Water Diversion Project and the construction of follow-up projects; guide and supervise the safe operation of projects; organize related jobs for engineering acceptance; oversee and guide the construction of local supporting projects.

- 1.2.9 Be responsible for control of soil and water losses. Work out soil and water conservation plans and supervise their practice; enforce comprehensive measures for erosion prevention, monitoring and forecasting, and periodical notification; take charge of the supervision and management of soil and water conservation in construction projects; provide guidance for the implementation of national key water and soil conservation projects.
- 1.2.10 Guide rural water conservancy work. Organize the construction and transformation of large and medium-sized irrigation and drainage projects; provide guidance on the construction and management of projects for safe drinking water supply and water-saving irrigation; coordinate water development activities in range areas, and establish a socialized rural water service system; offer directions to the exploitation of hydropower resources in rural areas, small hydropower transformation and rural electrification of hydropower.

- 1.2.11 Guide the management of resettlement work for water projects. Work out policies related to water project resettlement and supervise their practice; organize the implementation of systems concerning acceptance, supervision and evaluation of water project resettlement; guide and supervise the implementation of the follow-up support policies for reservoir migrants; streamline and supervise the support work of the resettlement of the Three Gorges Project and the South- to-North Water Diversion Project; coordinate and promote partnership assistance and other work.
- 1.2.12 Be responsible for investigating illegal cases violating water laws, mediate and arbitrate inter-sector and inter-province water disputes, and provide guidance on the enforcement and execution of water-related laws and regulations. Take charge of the safe operation of the water conservancy industry in accordance with relevant laws; organize and guide the safety supervision of reservoirs, hydropower dams and rural hydropower stations; guide the supervision and management of the water conservancy construction market; organize the implementation of supervision of water conservancy project construction.
- 1.2.13 Carry out work related to water science and technology and foreign affairs involving water issues by undertaking quality supervision, draft and promulgate the technical standards, specifications and codes of the water sector and supervise their practice. Handle foreign affairs concerning trans-boundary rivers.



- 1.2.14 Take charge of satisfying the relevant requirements of comprehensive disaster prevention and mitigation planning; organize the preparation of flood and drought disaster prevention planning and protection standards and guide their implementation. Undertake flood and drought monitoring and early warning, arrange the preparation of flood prevention and drought relief dispatching and emergency water dispatching schemes for major rivers and lakes and key water projects; submit the scheme according to the correct procedure and put it into action; provide technical guidance on emergency rescue of water hazards; undertake the important water project dispatching work during the typhoon defense.
- **1.2.15** Complete other tasks assigned by the Central Committee of the Communist Party of China and the State Council of the People's Republic of China.
- 1.2.16 Transform the functions. The Ministry of Water Resources should earnestly strengthen the rational utilization, optimal allocation and conservation of water resources. Adhere to the priority of water saving; shift from increasing supply to paying more attention to demand management; strictly control the total amount of water and improve water efficiency. Adhere to the priority of protection, strengthen the management and protection of water resources, water bodies and water conservancy projects, and maintain the health and beauty of rivers and lakes. Adhere to the priority of overall planning and taking all factors into consideration, ensure rational use of water and sustainable exploitation of water resources, and safeguard water security for the economic and social development.

# **2** Policies and Legislation

#### 2.1 Fundamental Condition

China's water conservancy legislation extends from complying with the

initial problems of radical recovery from water disasters and building water conservancy to effectively solve the further problems of water shortage, water ecological damage, and water environmental pollution, ensuring national water safety. Especially since the reform and opening up, the construction of water conservancy policies and regulations has been pushed forward in an all-round way. A large number of water conservancy policies and regulations have been promulgated one after another. Thus, the system of water laws has been gradually improved, which can be divided into three stages.

#### The First Stage (1978 — 1987)

In order to establish a legal system for water control and management by law as soon as possible, the Ministry of Water Resources began to draft the water law of the People's Republic of China in April 1978 and initiated legislative work on soil and water conservation as well as water source protection. By the mid-1980s, many important achievements had been made. In 1984, the standing committee of the National People's Congress promulgated *The Law on Prevention and Control of Water Pollution*; in 1982 and 1985, the State Council released *Soil and Water Conservation Regulation* and *Water Engineering Regulation of Water Fee Calculation, Collection and Management*. Later, a number of regulations and normative documents were issued by the Ministry of Water Resources, such as *Management Rules for River Embankment Projects*, *Interim Regulations on Irrigation Area Management, Management Regulations on Water Resources and Hydropower Projects*, etc. Nearly 50 local water



Water Law of the People's Republic of China, the principle law for the regulation of water-related activities, which was promulgated and put into effect on January 21,1988

regulations were introduced, covering the management and protection of water resources, water project management, water fee calculation management, irrigation and water conservancy projects, small hydropower development, rural drinking water projects, land acquisition of water conservancy projects and resettlement compensation, etc. The laws and regulations were available in some areas of water management. During this period, the water legislation was mainly embodied in some single laws, but there was no overall plan.

#### The Second Stage (1988 — 2001)

On January 21, 1988, the first basic law regulating water-related activities—Water Law of the People's Republic of China—was promulgated, marking an era of water resources management by law. In 1989, the Ministry of Water Resources formulated the Overall Plan of Water Law and Regulation System and adopted different measures to implement it. Water conservancy legislation has gradually been standardized and the legislative process has been greatly accelerated. The Soil and Water Conservation Law was announced in 1991 and The Flood Control Law was announced in 1997.

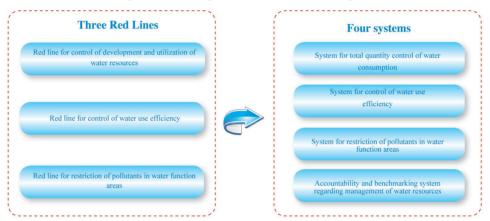
In order to implement various systems, governments at all levels and water administrative departments have stepped up the construction of supporting systems. Many administrative regulations and rules, such as Regulations on River Management, Measures for the Implementation of Water License Systems and Relevant Provisions on the Management of

- A system of water resources management laws and regulations has been formed. The Water Law, Flood Control Law, Soil and Water Conservation Law, Law on Prevention and Control of Water Pollution are the main ones with other water conservancy laws and regulations as supporting parts.
- A total of 850 technical standards for the water conservancy industry have been issued.



#### Control Indices of "Three Red Lines"

| Control index of "Three Red<br>Lines"(y)   | Water use quantity of national total (billion m <sup>3</sup> ) | Water consumption for industrial added<br>value (m³) per<br>10 000 yuan RMB | Effective utilization coefficient of farmland irrigation water | Water quality compliance rate<br>in key water function zones of<br>rivers and lakes |
|--|--|---|--|---|
| 2015                                       | 635  | decrease by 30% from 2010 level   | > 0.53   | 60%   |
| 2020                                       | 670  | < 65*   | > 0.55   | 80%   |
| 2030                                       | 700  | < 40*   | > 0.6  | 95%   |
| * Calculated by the constant price of 2000 |  |   |  |   |



Construction Projects within the Scope of River Management, have been promulgated and implemented successively. In 1997, the State Council issued Interim Measures for the Administration of Raising and Using Fund for Water Conservancy Construction and Industrial Policies for Water Conservancy. Overall progress has also been made in the construction of local water regulations. More than 700 local water regulations and regulatory documents have been promulgated, and the water legislative system is becoming more and more complete. The proclamation and implementation of the above water conservancy policies and regulations have had a significant and far-reaching impact on the development of water conservancy.

#### The Third Stage (2002 — now)

In the 21st century, China's construction of the law system has been advanced in depth. Speeding up the construction of ruling the country by law has become one of the focuses of national work. On August 29, 2002, Water Law was revised and passed by the 29th Session of the Standing Committee of the Ninth National People's Congress and came into force on October 1, 2002. The new Water Law legalized and institutionalized the state's water control policies in the new era, adhered to the strategy



of sustainable development, established the water control concept of harmonious coexistence between man and nature, strengthened the integrated management of water resources, and highlighted the allocation, conservation, management and protection of water resources. In order to implement the new *Water Law*, the Ministry of Water Resources revised *The Overall Plan of Water Regulation System* in 2006 and 2013, highlighting the institution construction of allocation, conservation, management and protection of water resources.

Currently, China has established a relatively complete system of water laws and regulations with *Water Law* as the core, including 6 laws, 26 administrative regulations and 55 regulations of the Ministry of Water Resources, covering all fields of water conservancy work. Under the framework of *Water Law*, *Law on Prevention and Control of Water Pollution*, *Regulations on Water Permission and Collection of Water Resources Fees* and *Regulations on Water Supply Management of the South-to-North Water Diversion Project*, the water resources management system has been ranged from planning, allocation, dispatching, water permit and paid use to conservation and protection. Under the framework of *Water Law*, *Regulation on River Management* and *Regulation on Sand Production in the Yangtze River*, river-management system has included scope delineation of river course, river-related activities control,

sand production management as well as river protection. Under the framework of Flood Control Law, Flood Control Regulations and Drought Relief Regulations, flood control and flood fighting, drought relief and disaster reduction, flood storage and detention area management, and protection of flood control engineering facilities have been involved in. Represented by Regulations on Compensation for Land Expropriation and Resettlement for Large and Medium-sized Water Conservancy and Hydropower Projects and Regulations on Farmland Water Conservancy, the water conservancy project construction and management system includes land expropriation and resettlement, quality and safety, operation and management, etc. The system of prevention and control of soil erosion is based on Soil and Water Conservation Law. The basin protection and governance system is represented by Yangtze River Protection Law and Yellow River Protection Law. A comprehensive groundwater control system is outlined by Regulations on Groundwater Management. The water regulation system is based on *The Constitution*. It not only adapts to the national conditions and water system and reflects the characteristics of water conservancy, but also strengthens cohesion and coordination with other laws and regulations. At the same time, local governments at all levels have continuously strengthened the construction of the water regulation system and achieved remarkable results. Over 1000 local regulations and government regulations have been issued, laying a solid institutional foundation for the comprehensive management of water according to the law.

# 2.2 Developmental Strategy and Main Measures

Entering a new era, water conservancy legislation adheres to the guidance of President Xi Jinping's "Thought on the Rule of Law", which practices the implementation outline for the construction of a government under the rule of law, and closely centers on the implementation of the major development strategies of the Party and the country. We are earnestly carrying through Xin Jinping's key spirits on water management, focusing on the idea of "prioritizing water saving, spatial balance, systematic governance, and equal attention to market and government" and the objectives and tasks of high-quality water conservancy development in the new era, strengthening the legal management of water conservancy system and mechanism, and invariably sticking to promoting reform

under the rule of law, improving the rule of law in reforms. We will continue to use the law to standardize all aspects of water conservancy reform and development, accelerate the establishment and improvement of a complete system of laws and regulations on water conservation, and therefore better play the role of the rule of law as a guarantee to consolidate the foundation, stabilize expectations and benefit the people in the long term.

#### 2.2.1 Strengthening Legislation in Key Fields

Comprehensively promote the amendments, abolishment, interpretation and compilation of water-related laws and regulations, speed up the revision of basic laws, such as *Water Law* and *Flood Control Law*, facilitate the introduction of water conservation regulations, river sand mining management regulations and other regulations as soon as possible, pay special attention to the construction of supporting systems of laws and regulations such as *Yangtze River Protection Law*, *Yellow River Protection Law*, and *Regulations on Groundwater Management*, carry out the amendment of laws and regulations on safety management of rivers and lakes, flood storage and detention area, reservoirs and dams, and improve the rules and regulations in key areas of water conservancy.

# 2.2.2 Enhancing the Quality and Efficiency of Legislation

We make laws in a scientific, democratic and legislative way, improve the system of collecting, demonstrating, reviewing, investigating and evaluating legislative projects. We carry out in-depth research on legislation, major system design and problematic issues, enhance the quality of legislation, strengthen the pertinence, systematism, operability and effectiveness of legislation, fortify legislative coordination, increase public participation, properly handle the demands of all parties, establish and refine the risk prevention mechanism of water conservancy legislation. Meanwhile, risk assessment is taken into account through the whole process of legislation.

# 2.2.3 Comprehensively Reinforcing Legal Management of Systems and Mechanisms

Focusing on the actual need to promote high-quality development of water conservancy in the new era, we are seriously implementing *Guiding* 



The Hukou Waterfall Which is Located in the Yellow River on the Shanxi-Shaanxi Border

Opinions on Strengthening the Legal Management of Water Conservancy System and Mechanism and the five-year implementation plan. We have laid down key points for formulating annual work to strengthen the legal management of water conservancy system and mechanism, outlined



detailed task measures and clear division of labor arrangements, and promoted the integrated construction of system, mechanism and rule of law, so that a systematic and coordinated water regulation system will gradually come into being.

