

Brief Introduction on Standardization for Water Sector in China

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Introduction of China's Water Management Standardization

- 1 Reinforcing the construction of Water Management regulations and safeguarding the execution according to related legislations.

In November 2003, according to < Standardization Law of People's Republic of China > and < Statutes for Implementation of Standardization Law of People's Republic of China >, the Ministry of Water resources issued <Regulations for Water Management Standardization> stipulating the proposal, formulation, issuance and reexamination for hydraulic technical standards, defining organizations and institutions engaged in standardization management and their responsibilities, and providing technical documents for instruction, so as to upgrade and reinforce the water management standardization

- 2 Perfecting the system of hydraulic technical standards

Issued in 2001, <System for Hydraulic Technical Standards > contains 615 items, including 113 State level, 502 trade level, 4 international level compiled by Chinese water sector and 51 national standard substances, which covering main technical fields of water management, and providing reference to the establishment and management of water standards.

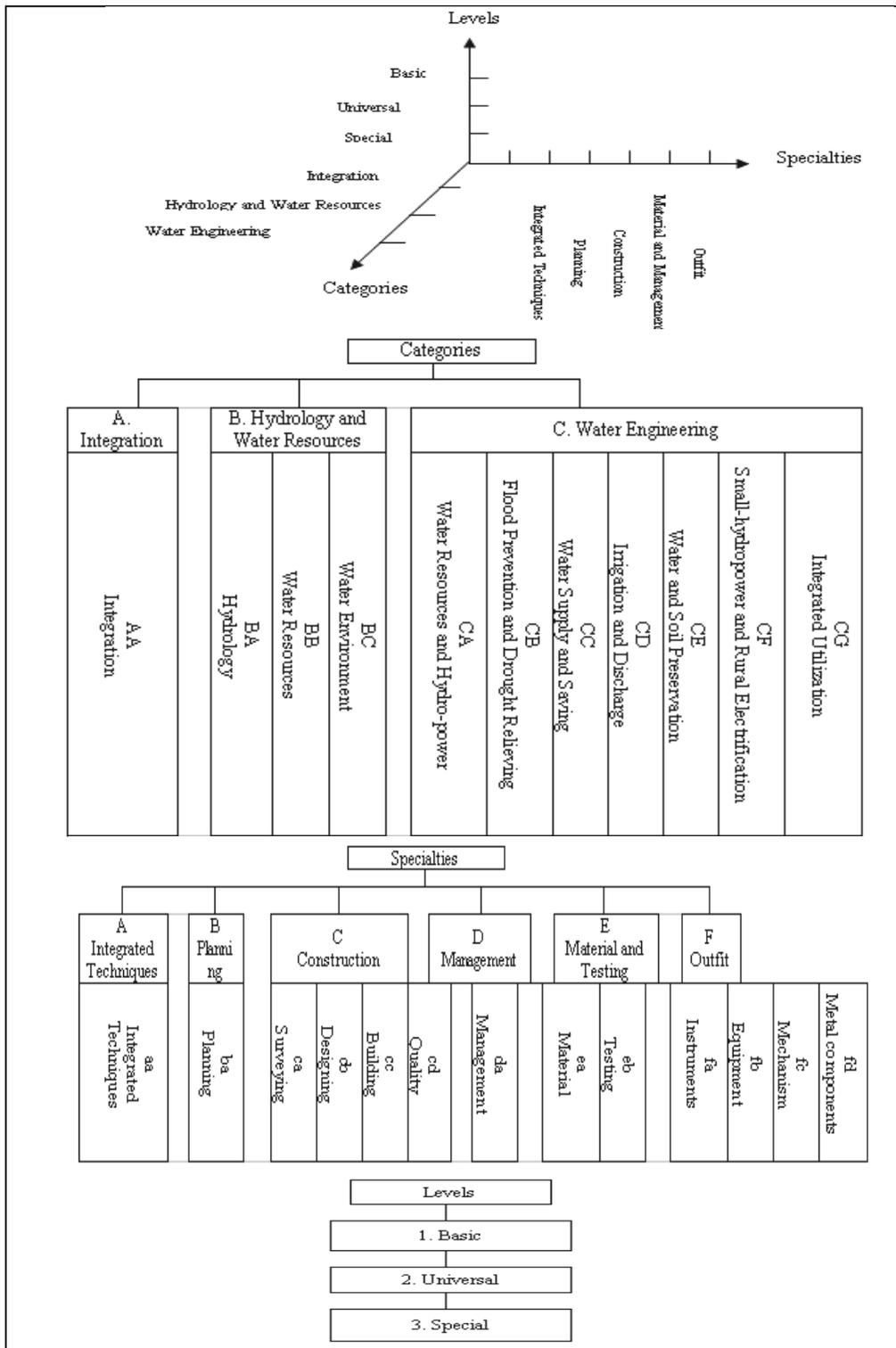


Fig. 1. Framework for Water Management Technical Standard System

In order to accelerate water management informationization through the technical supporting, Ministry of Water Resources compiled and issued <Manual for Water Management Informationization Standards (1)> on the basis of <System for Hydraulic Technical Standards >, absorbing 71 new items concerning water management techniques. Besides, from the situation quota in the water sector, based on sufficient demonstration, 18 items for water resources, construction management, water and soil conservation and migration were also supplemented to the original system.

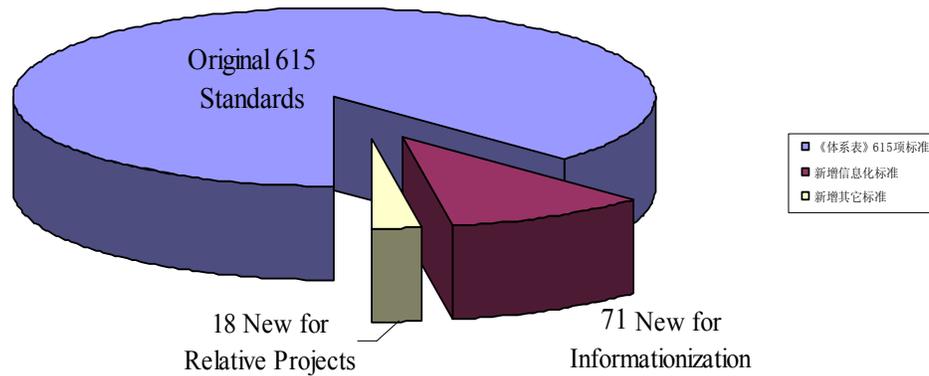


Fig. 2. Configuration of water management technical standard system

3 Increasing Fund Input

Water Resources Ministers' Working meeting in February 2002 decided to carry out "the Third Five-year Project", by which investment of RMB 500million Yuan was put into the establishment of 500 standards within 5 years. Mainly arranged by MWR, with energetic support from State Standard Commission, Ministry of Construction and Ministry of Science and Technology, this amount of fund was utilized appropriately. Organs concerned also increased outlay for standardization. For example, 1:1.5 and 1:1 were respectively adopted by Department of Migration and Nanjing Hydraulic Research Institute to deploy fund.

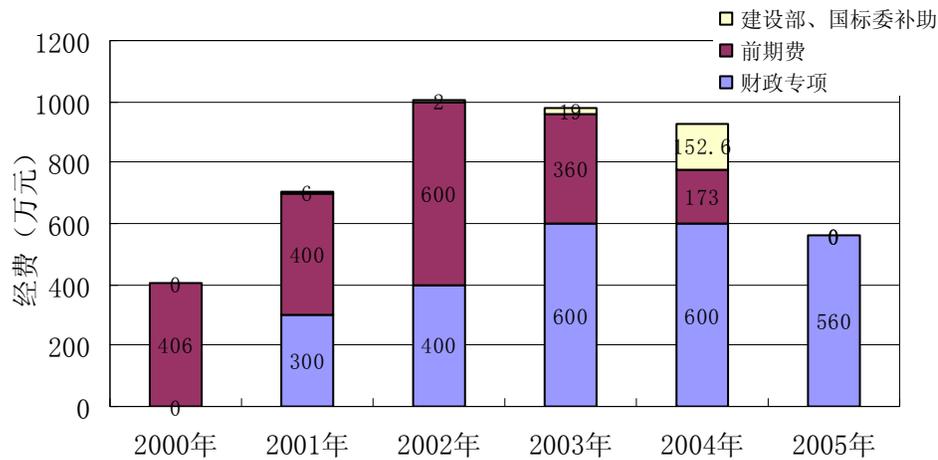


Fig. 3. Drawing 2 Yearly outlay allocation

4 Exploring in System Reforming

In order to implement <Regulations for Engineering Quality Management>, MWR organized experts to compile <Compulsory Provisions for Engineering Standardization> (aiming at hydraulic projects). In light of problems emerged during the execution, MWR revised and completed the provisions. Such a document is obligatory prescriptions every hydraulic project must obey to throughout the whole process of construction, including important contents concerning property safety, personal health, environmental protection, and other interests.

MWR has also probed into the determination of compulsory provisions within technical standards of hydraulic products.

5 Strengthening Framework and Group Construction

In the reform, water management standardization was further clarified as a function of the government, and was attached more importance on. Special institutions was established successively, such as Department of Standardization subordinate to Chinese Hydraulic Engineering Society, Standards Research Center of China Institute of Water Resources and Hydropower Research, and Consulting and Serving Center for Water Resources and Hydropower Standards subject to China WaterPower Press. Water Resources & Hydropower Planning and Design General Institute set up a post of full-time deputy director general to preside standardization work. Professional commissions for water management standardization like compulsory provisions consultation committees are also in preparing. As such, a management mode for standardization in water sector will be perfected gradually, which regulated by administration and supported by technology.

Contact and cooperation with International agencies were reinforced, i.e., International Standardization Organization, International Irrigation Commission, and so on.

6 Carrying out the Promotion and Implementation of Standards Comprehensively.

Specialized by authority, practicability, and integrality, <Water Technical Standards Collection> in 10 volumes and 33 books was formally published. As <Full Text Retrieval System for Water Resources and Hydropower Technical Standards> was updated every year, online project for the

standards were fulfilled. Under such situation, a normal serving platform integrating paper documentation, electronic texts, and network interface were preliminarily formed. Activities for promoting and implementing <Compulsory Provisions for Engineering Standardization> (aiming at hydraulic projects), <Regulations for Water Technical Standards Compiling>, and standards for water and soil preservation, water saving and irrigation, water resources management, and rural electrification, were carried out extensively nationwide, attended by over 10,000 people, and accompanied by delightful results.

7 Intensifying Researching

From the new status of one of participants in WTO, MWR organized experts to work on the subject: “Influence of China’s Participating in WTO on Water Management Standardization and countermeasures Study”, achievements and results of which have attracted abroad attention and sufficient affirmation.

We organized some units including China Institute of Water Resources and Hydropower Research to apply for and obtained two projects to Ministry of Science and Technology, namely “Study on Technical Standards and System of Water Resources Sustainable Utilization” and “Research on Technical Standard System for Water Resources Sustainable Utilization”. Both projects are of great importance in further completing standard system for water sector, and resolving problems as low level of water management standardization.

8 Upgrading the Administrating on Water Management Standardization

Strictly adhering to <Supervision Provisions on Water Management Standardization>, the compiling of standards insisted on 2-meeting-examination in phases of drafting and approval, full-text online of four phases: drafting, commenting, censoring and approval for accepting opinions from all fronts, and technical approving and format reexamination in approval phase. As a result, quality of standards was enhanced obviously.

With the enlargement of coverage, targets of standardization have extended from traditional ones: hydrology, engineering surveying, design, and construction to domains of project construction management, water saving, and water resources conservation and management. Approximately 30 standards issued annually have harvested favorable social and economic benefits, such as the issuance of <Technical Standards for Injury prevention in Hydraulic Projects> which induced robust reflection.

After years of development, the information system of water management standardization has been increasingly comprehensive, providing important technical backup to day-to-day work.