References


Epilogue

It has been a challenging but exciting undertaking to conduct the study on the “Water Science & Technology in China: A Roadmap to 2050”. In the study process the expert team reviewed and compiled large amount of domestic and international literature and information on water resource exploitation, utilization and conservation, and related science & technology development. By organizing workshop and expert consultation, a great deal of valuable information had been got for understanding the current state, dynamics, and trend of water resource and related science & technology development both at home and abroad, and, in particular, revisited China’s water resource issue and its development trend in future different periods of time from the global perspective. The strategic requirements, development goals, and key science & technology issues and key technologies for China’s science & technology development in the field of water resource till 2050 had been identified based on the current state of and the country need in national social and economic development, and in accordance with basic characteristics and objective laws of science & technology development in the field of water resource.

There remains uncertainty in many issues and the analysis of some issues is far from thoroughness due to the constraint of time available for the study and the complexity of issues being studied, thus requiring further study on some issues in future. 1. The climate change has profound impact on water issue. However, this report only gives a outlined description without making detailed analysis and summary on such specific issues as the impact of climate change on global and regional water cycles, the continued rising temperature and its consequences, etc.; 2. Human activities have broad, profound but specific impact on water issue. Nevertheless, this report could not cover all of these aspects. In the report, there is only a brief mentioning of such issues as the impact of large-scale reservoir and hydro power without giving more detailed analysis and discussion; 3. There is only preliminary analysis on water ecology issue including water ecosystem and biodiversity. Some experts pointed out that the core of the water issue is the “health” of water ecosystem, of which one indicator is the integrity of its biodiversity. Therefore, conserving the biodiversity is, indeed, conserving the “health” of water ecosystem, and conserving the service function of water ecosystem, which is one of the key factors in addressing all water issues. All issues mentioned above merit strengthened study in future.
It should be pointed out that water issue is of profound connotation and broad denotation, in which some specific issues are the focuses of debate in academic circle. This report as an outlook for China’s science & technology development in the field of water resources till 2050 has to touch upon some controversial issues on which the expressed viewpoints may be biased or may not be in a systematic manner; the identified science & technology issues or key technologies in the report may prove to be less important and even mistaken. In view of this possibility, this report will serve as an academic exploration to initiate and encourage discussion on issues concerned. Such issues as the application of methodologies related to “roadmap”; shift from water supply management to water demand management; how to appropriately assess the role and contribution of such factors as technical advance in water saving, water price policy, market mechanism, and awareness raising in water saving are focuses of debate in academic circle, on which the final conclusion could not be got in short time or never be got, thus meriting our further study. Fortunately, the research team will continue the study on issues in water resource field based on the results of this report, and would like to cooperate with other research institutions and experts to contribute to jointly addressing China’s water issues and realizing the sustainable social and economic development in China.

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