National Stakeholder Consultations on Water: Supporting the Post-2015 Development Agenda

China

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The Country Consultation Report on Water in the Post-2015 Development

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I. Importance of Water in National Development

The facts of mismatch between water resources and population, uneven distribution of rainfall in time and space as well as the fast growth of the social and economic development lead to serious problems of water. Affected by industrialization, urbanization and global climate change, China, as the largest developing country in the world, is facing more challenges of water resources, including flood and drought disasters, water scarcity and pollution as well as water and soil erosion.

Firstly, the urbanization in China has fast driven forward in the next 20 years. By 2030, the urbanization rate will increase to 70% from 51% at present. With this rate, the population will grow up to more than 300 million and total urban population will be over 1 billion. This trend raises higher demands on improving water quality and ensuring water supply and prevention of the floods in some cities with dense population and concentrated social properties. Therefore, the contradiction between water demand and supply is so prominent that leads to more pressures on safe water supply.

Secondly, in an extensive mode of economic development, some regions have serious ecological problems as a result of over and disordered development of water resources. Furthermore, the increasing discharge of waste water exacerbates the difficulty of water governance and protection of water ecological environment. The aim of improving water efficiency and protection of water ecology and environment is harder to achieve.

Thirdly, the mismatch among more population, less land and scare water is increasingly apparent. The agricultural water infrastructures are less advanced so that they can hardly accomplish the national food security. Fourthly, the impact of global climate change intensifies extreme weather events, including heavy rainfall and extraordinary typhoon, the regional severe drought, the heat waves and severe droughts in some regions. The countermeasures of water disasters are more complex and arduous due to the more frequent floods and droughts.

II. Key Priorities for Sustainable Development of Water

1. More Investment from public budget for water sector

Chinese government takes water development as the public welfares and basic infrastructure. The Government improves the central and local fund-raising channels for water development. According to the government policy, the 10% of the revenue from the land transfer should be used for rural water development in order to increase the financial support and also widely attract more social investments in water development. The investments in water development of China in 2011 and 2012 were 54.9 billion US dollars and 64.5 billion US dollars respectively. The total investment would be or more than 636 billion dollars from 2011 to 2020.

2. Secure safe drinking water for urban and rural areas

From 2001 to 2009, China had solved the safety problems of drinking water for 195 million people, accounting for 51% of the 379 million who were inaccessible to safe drinking water in 2000, six years ahead of schedule to achieve the goal of United Nations Millennium Declaration "in 2015 without sustainable access to safe drinking water reduce by half the proportion of the population and basic sanitation target". In the next years till 2030, taking the people-oriented principle, the focuses will be on the comprehensive solutions to the security of drinking water for rural people. The centralized water supply in rural areas will benefit the rural population up to about 90%. The actions will greatly improve the water supply rate, raise the level of water supply security, increase the rate of sewage treatment and the standards of water sources and quality in larger scale. The initial establishment of basic health system for urban and rural people would enable everyone to be in access to basic public health facilities and services. The results of better quality and efficiency of service will enhance the satisfaction of the people and also bridge the gap of health resources imbalance in different areas.

3. Control the discharge of pollutants to rivers and lakes

By 2030, the major water pollutant emissions will significantly reduce. The control of water pollutant emission will be improved in key regions and industries. Particularly, the total discharge control of nitrogen and phosphorus must be implemented in certain lakes and reservoirs of eutrophication as well as in the coastal areas that are fragile to red tide. The total discharge control over heavy metal pollution is implemented in key protection areas. Any new projects related to nonferrous metals, paper, printing and dyeing, chemical, leather and other items are banned in key river basins and origin of rivers. The improvement of urban sewage treatment and the sewage pipe network construction will promote the separation of rain water and sewage. And the construction of sewage treatment plant in counties and key towns will speed up. By 2030, the new urban sewage pipes will be about 160,000 km with new sewage treatment capacity of 42 million tons. Therefore, all counties and key towns will have sewage treatment capacity and the rate of urban sewage treatment will be 85%.

The water source protection areas for centralized urban drinking water supply will be approved, the illegal construction projects in the protection zone and the pollutants discharge outlet prohibited and the prevention and control of water pollution in key river basins will be the focuses. The environmental management and restoration in and the standardized development of the water source areas will be promoted. The supervision of toxic and hazardous substances in water source protection areas must be strengthened. By 2030, the protection measures will be completed through a set of systems for water quality analysis of centralized drinking water sources at prefectural level, the drinking water source environmental information disclosure, the risk prevention and emergency warning, groundwater pollution investigation and evaluation to promote groundwater pollution prevention and control as well as completing groundwater zoning for pollution control, prevention and control or general protection.

4. Strenthening Protection and restoration of water ecology

By 2030, the integrity of the major river water systems, the connectivity between lakes and rivers as well as the hydrological processes continuity will be maintained. Over 95% of water function zones will reach the standards.The ecological and environmental flow in rivers will be basically ensured. Groundwater level of more than 50% of over-exploitation zones will be restored. The water and soil erosion control rate will be more than 50%. The water ecosystems are effectively restored in ecologically fragile areas. The water resources protection and rivers and lakes health systems will be completed. A healthy aquatic ecosystem that is adaptive to sustainable economic and social development has will be shaped.

The ecological protection areas should be established, particularly, in the key water source conservation districts. In these districts, the measures of protection and management must eliminate all social and economic behaviors or production methods that are pejorative to the ecological protection areas in order to protect local natural vegetation, or prohibit overgrazing, disorderly mining, deforestation and land reclamation. The water ecological restoration must be strengthened. The restoration of ecosystem consists of the rehabilitation and restoration of forests, grasslands and wetlands in water conservation districts. It needs to promote new aquatic ecosystems and water pollution incident emergency management and its ecological restoration research. It is also suggested to attach importance to water conservation body; protect embankments and accomplish rehabilitation in natural ways to leave more space for rivers and lakes.

The wetland protection will be enhanced by improving the institutions and promoting the capacity building in wetland natural reservations, improving construction quality and management level, establishing wetland protection areas, protecting the existing natural wetlands as well as restoring the degraded wetlands with engineering measures such as returning the reclaimed wetlands. Other protective measures also cover the construction of biological pathways, the protection of important aquatic habitat, biological channel and coastal vegetation in the process of water resources development, river course regulation, coastal line use and river sand mining in order to maintain the river habitat

diversity and ecological corridors characteristics.

5. ***Strengthen Rehabilitation of Farmland irrigation Systems to Sustain Food Security***

Work on irrigation systems rehabilitation and improvement will be strengthened so as to increase the comprehensive agricultural productivity.Combining the rehabilitation of the existing systems and building the new ones, the task of transforming all the large- and medium-sized irrigation systems for water-saving will be completed by 2020 and some new irrigation systems will also be built in regions where conditions are feasible. The replacement or rehabilitation of large- and medium-sized pumping stations will be speeded up and the key water-logging areas better managed. The ditches will be transformed for saving water and the supplementary field structures improved.as well to solve the “last point” irrigation for farmlands. The scope of key counties for small-size irrigation will be enlarged. The different types of small size water works will be built wherever possible to improve water- storage capacity and disaster-relief in hilly areas. The highly efficient and water-saving irrigation technology will be popularized and extended to raise water-use efficiency and benefits and to ensure that the efficient water-use rate increased to over 0.55 by 2020. The development of water-saving irrigation will be taken as a fundamental measure and the basic condition for developing the modern agriculture.

Taking the water-shortage northern part of the country as the key areas, the water-saving irrigation technology such piping water-conveyance, sprinkler irrigation and micro-irrigation will be popularized and the water-saving irrigation and dry farming agriculture developed. In the four provinces of the northeast, the campaign of water-saving and food-increasing will be carried out to increase 3,333,333 hectares of water-saving irrigation areas and even up to 6,666,667 hectares before 2015. The system of controlling the total consumtion of agricultural irrigation water and quoto-based management will be established or improved. The production of water-saving irrigation facilities will be promoted to a larger scale and industrialized.

6. ***Strengthen the integrated water resources management***

The capacity building for the integrated water resources management should be strengthened. The participation of stakeholders in water resources management should be encouraged. The effective public supervision mechanism should be established. And the government information will be shared. The integrated water resources management system combining river basin management and regional administration management will be accomplished by unified planning, distribution and regulation of water resources in river basins after the establishment of participatory, democratic consultation and joint decision-making mechanisms. Further improvements also involve in the integration of urban and rural water supply by means of strengthening the integrated management of administrative regions, combining the assessment, planning, distribution, regulation, conservation and protection of urban and rural water resources, coordinating the construction of water source areas, flood control, drainage, supply and demand, conservation, discharge and sewage treatment and reuse .

7. Response to climate change

By 2030, for the target of protecting the people's lives and safety, the flood and drought control and disaster reduction as well as water resources security system adapted to the socio-economic development and future trends will be set up.

The safeguard systems for flood and drought control and disaster reduction will be basically established measures by strengthening the improvement of weaknesses on flood control in the key areas or geologically fragile areas to mountain flash floods and some small and medium-sized rivers and small dangerous reservoirs. The risk management systems will be basically set up.

The adaptive management and the non-engineering construction will be strengthened by improving the flood and drought monitoring and forecasting and early warning system, improving the management of emergency engineering system, combining the professional and the social rescue team for flood and drought emergency, improving the material reserve system for the post-disaster reconstruction, enhancing emergency management capabilities and improving plans for the extreme events.

The reserves of water resources will be increased strategically by working out the water resources ensurance plans for the specific circumstances in the special period, setting up emergency water source areas through different ways according to the conditions in each region, strictly controlling over total groundwater extraction in areas where water is short and prohibiting deep extraction for increasing strategically the groundwater reserves, strengthening the ecological protection and water conservation of water conservation zones and constructing the backbone water projects to increase water storage capacity of river basins.

III. WRM Monitoring and Reporting Issues

1. Identify accountabilities for water resources management

The responsibility and appraisal system for most stringent water resources management will be further improved and also the main indicators for water development, conservation and protection will be introduced into comprehensive assessment system of local economic and social development.

The items, process, methods and rewards and penalties of the appraisal for implementing the most stringent water resources management system will be worked out. The per unit water consumption for GDP and coefficient of irrigation water use will be introduced into the comprehensive evaluation system of the local economic and social development. The appraisal for the local achievements will be done based on the work of the conclusion of the pilot areas. The appraisal results will be taken as an important basis for comprehensive evaluation of the local government leaders and the heads of the relevant companies. The monitoring and checking results of local

governments in implementing the most stringent water management system will be combined into government performance evaluation index system with a tracking system of accountabilities.

2. ***Improve water resources monitoring system***

The facilities for measuring and monitoring water- taking, drainage and sewage outlet into the rivers and lakes will be further improved. The monitoring and measuring capacity for the trans-provincial control crosssections of the major rivers and groundwater quantity and quality monitoring capacity-building and that of the water function zones will be strengthened to enhance emergency monitoring capability. The national water resources management information system will be established and promoted and the water resources monitoring and management platforms set up at the central, river basin and local levels for better monitoring, evaluation and appraisal of the control indicators. And the monitoring, early warning and management capabilities will be comprehensively improved. More attention will be put to improve the monitoring of water resources and water metering system, standardize the statistical systems and the monitoring and enhance the convergence and integration of data.

3. ***Advance survey, assessment and reporting system for water resources***

The investigation and assessment of drinking water sources in rural areas will be carried out. The identification of rural drinking water source protection areas and the scope of protection will be promoted. The evaluation index system for water ecological and environmental quality will be studied and set up to comprehensively evaluate the safety of the aquatic ecosystems and work out the measures for controlling water pollution and securing aquatic ecosystems.

The monitoring and evaluation index system of water regime, soil moisture and ecological information will be strengthened and the monitoring and evaluation index system set up. The basic research will be promoted. The feedback system on water dispatching assessment and water dispatching management system will be established. The assessment for rivers and lakes health will be strengthened by carrying out the regular or irregular dynamic evaluation on the health of the rivers and lakes and the coordinated assessment on the hydrological integrity and connectivity, chemical integrity, biological integrity and functional integrity of the rivers and lakes.

The reporting system for important issues of water resources will be further improved by defining in accordance with the principles of combining the river basins and administrative management the main responsibility bodies, time limits and the reporting channels and carrying out the accountabilities system.

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