
Nominee Statement for Mr. Wang Aiguo

Since 2010, Mr. Wang Aiguo has been working as the Director General of the Department of Irrigation, Drainage and Rural Water Supply under the Ministry of Water Resources and the Chairman of the Chinese National Committee on Irrigation and Drainage. Mr. Wang has been in charge of formulating the policy on water-saving irrigation, planning and implementing the water-saving irrigation projects, promoting the concepts and thinking on modernized transformation of irrigation schemes, enhancing the awareness of water-saving irrigation, and extending water-saving irrigation technology in China.

Mr. Wang Aiguo is well aware of the importance of saving water resource in agriculture. During the past seven years, he has been responsible for promoting the construction of auxiliary facilities and the upgrade of water-saving equipment in large-scale irrigation schemes, and demonstration of field water-saving irrigation technologies. He has been working vigorously to develop water-saving irrigation so as to ensure the efficient and sustainable utilization of water resources and to achieve more crops per drop of water. Mr. Wang is a leader in the field of water-saving irrigation in China, and has accumulated rich experience in the field of water saving irrigation. The main related activities and achievements of Mr. Wang for promoting water saving irrigation are as followings:

1. Innovation for management practices

1) Working out policies on promoting the development of water-saving irrigation

Since 2010 Mr. Wang Aiguo has led a working group to draft document on

policies for promoting the development of water saving irrigation. The document was accepted by Central Government and included in the *Outline of the National Agricultural Water Conservation Program (2012 - 2020)* issued by Central Government of China. Development of water saving irrigation was implemented as one of the key national policy for efficient and sustainable water management. In 2011 the No.1 Document issued by the Central Government has emphasized the vigorous development of water-saving irrigation for more than 10 years on end. Enterprises, village-level organizations and individuals are encouraged to invest in water-saving irrigation facilities with financial subsidy from government for the purchase of water-saving irrigation equipment.

Mr. Wang Aiguo has also successfully led a team for formulating the Regulations for Irrigation and Drainage to accelerate the development of irrigation and drainage, to improve the comprehensive agricultural production capacity, and to ensure the national food security. The Regulations are put into force as of July 1, 2016. (See Supporting Document 1)

2) Working out plans for water-saving irrigation development

Mr. Wang Aiguo has made great efforts to formulate the *National Plan for Developing Modern Irrigation*, and *National Plan for Building Auxiliary Facilities and Updating Water-Saving Equipment in Large and Medium Scale Irrigation Schemes and Water-saving Transformation of Large and Medium Scale Irrigation Schemes*, *National Plan for Auxiliary Water-saving Transformation Project in Medium-sized Irrigation Schemes*, *Plan for Water-saving Irrigation in Pastureland*, *National Plan for Developing Water-saving Irrigation*, *Plan for Upgrading Large-scale Pump Stations for Irrigation and Drainage*, *Implementation Plan for Saving Water and Increasing Grain Output in Four Provinces and Autonomous Regions in Northeast China*, *Overall Plan for*

Saving Water and Avoiding Over-extraction of Groundwater to Develop Highly Efficient Water-saving Irrigation in North China, Overall Plan for Saving Water and Increasing Efficiency to Develop Highly Efficient Water-saving Irrigation in North-west China, and Overall Plan for Saving Water and Reducing Non-point pollution to Develop Highly Efficient Water-saving Irrigation in South China. These Plans have laid foundation for the development pattern, strategy, mode, management and investment concerning the nationwide development of water-saving irrigation.

3) Promoting the investment in water-saving irrigation projects by Central Government

Mr. Wang Aiguo has worked actively to increase the investment from the Central Government in water-saving irrigation projects. The Central Government has arranged 30 to 50 billion RMB (1 USD= 6.9 RMB) annually for developing water-saving irrigation projects, with the focus on water-saving transformation of large and medium-sized irrigation schemes, large-scale development of efficient water-saving irrigation on farm, and upgrading large-scale pump stations for irrigation or drainage.

As a result, the rapid development of efficient water-saving irrigation has been promoted in different regions with different focuses, such as saving water and increasing grain output in northeast China, saving water and increasing cash revenue in northwest China, saving water and increasing water use efficiency in north China, and saving water and reducing runoff and pollution from farmland in south China. In particular, the action for saving water and increasing grain output, which was launched in northeast China in 2012, has developed during the past four years efficient water-saving irrigation area of 2.53 million hectare by integrating contiguous pieces of land, developing sprinkling irrigation and micro irrigation. Together with adopting advanced agro-techniques and agricultural mechanization, such as laser control leveling

equipment, comprehensive grain production capacity and efficient water resource utilization have been promoted, which is the base for the development of modern agriculture.

2. How the innovation saves water

As the person responsible for the development of water-saving irrigation in China, Mr. Wang Aiguo has taken measures and efforts to implement the policy for developing water-saving irrigation, organizing the plan for developing water-saving irrigation nationwide, increasing the financial input to construct water-saving irrigation project, and promoting the sound operation of the agricultural water-saving irrigation project. As the result, significant achievements have been made.

During the past 7 years when he serves as the Director General, the water-saving irrigation area in China has increased by 10.2 million hectares, irrigation water application quota per hectare in the China has been reduced from 5910m³ to 5610m³, irrigation water use efficiency has been increased from 47.6% to 53.6%, and water use efficiency has been increased by 12.6 %. Each year about 3.06 billion m³ of water is saved due to the development of water-saving irrigation in China.

With the development of water saving irrigation, the development of related industries has been boosted. Water-saving irrigation development accelerates the innovation of water-saving irrigation technology. At present, there are more than 2,000 manufacturers specialized in water-saving irrigation equipment and materials in China, and the equipment and materials annually produced by them can equip more than 2 million hectare irrigated area. This manufacturing capacity has formed a firm foundation for the further development of water saving irrigation in China.

3. How the innovation was introduced and spread

1) Launching large-scale training programs for adopting water-saving irrigation technology

Technical training programs for different regions, at different levels and with different focuses are conducted. The focuses of the training programs include: technology and application management of sprinkling irrigation, micro irrigation and pressurized water supply technology, management technology for irrigation, new technology and new materials application for saving water, IT application in irrigation schemes, calculation and analysis of the water use efficiency in irrigation, construction and management of water-saving irrigation projects, and others. Each year more than 10 training sessions are organized with more than 1,000 trainees.

2) Enhancing the management of water-saving irrigation projects

Mr. Wang Aiguo has made great efforts to promote the control irrigation quota management in China so as to control total water use for irrigation. The construction of the facilities for monitoring the amount of the water used in agricultural irrigation has been strengthened. Vigorous efforts are made to promote formulating organizations of water use cooperation among farmers and to upgrade water management at farmland level. Comprehensive reform on agricultural water prices was launched, and user service system specialized in water-saving irrigation projects has been established; the supervision over products is intensified so as to ensure the healthy development of the water-saving products. The experimental research on irrigation and drainage has been strengthened and the relevant research achievements are put into practical use.

3) Evaluation of national demonstration counties for efficient water-saving irrigation

With a view of promoting the large-scale and integrated development of efficient water-saving irrigation with distinctive regional characteristics, efforts were made to construct the national demonstration counties for efficient water-saving irrigation across the country. To assess the effectiveness of the national demonstration counties for efficient water-saving irrigation, six national demonstration counties were selected for assessment. The appraisal plays a sound role in driving the development of efficient water-saving irrigation across the country and guides the development of water-saving irrigation into the direction of “having advanced facilities, exercising scientific management, providing qualified service and operating in a satisfactory way.”

4. Scope for further expansion of the innovation

With the rapid social and economic development water shortage and water competition among sectors is getting increasingly serious. Central Government has put water saving measure as the top priority to solve the water shortage problem. As the largest water user, agricultural irrigation sector is expected to save more water by further extending efficient water saving irrigation technology and practices. The innovation management practices made by Mr. Wang Aiguo will be further extended with the speed of increasing efficient water-saving irrigation area by 1.33 million hectares per year; the water use efficiency in China will reach 55% by 2030. With modernization of irrigation schemes and development of water saving area the total amount of the water used for agricultural irrigation will be controlled below 372 billion cubic meters in China.

To achieve the above targets, the following measures will be taken:

1) Efforts will be intensified to promote the implementation of Outline of the National Agricultural Water Conservation Program (2012 - 2020), to

implement the responsibilities of governments at various levels, to incorporate the water-saving irrigation indicator into the government assessment system; to promote the comprehensive reform of agricultural water prices by carrying out the system of controlling the total amount of the water used and the quota management system.

2) Modernization of irrigation schemes will be carried out. Efforts will be made to promote the implementation of the plan for developing modern irrigation across the country; to increase investment in modernized transformation and construction of irrigation areas in accordance with the objectives and requirements of agricultural modernization. Meanwhile, the application of information technology will be promoted in irrigation schemes, and the construction of modernized water-saving irrigation schemes characterized by complete functions, advanced equipment and relatively sound ecological environment will be completed.

3) Large-scale development of efficient water-saving irrigation will be promoted in light of local conditions. In the years to come, focus will be put on launching the action of regional large-scale development of efficient water-saving irrigation in North-west China, North China, North-east China and South China for the respective purposes of saving water and increasing efficiency, saving water and avoiding over-extraction of groundwater, saving water and increasing grain output, and saving water and reducing surface runoff. Emphasis will be put on developing seepage control of canal in canal irrigation area, and low-pressure pipeline water supply irrigation will be developed in light of local conditions. Vigorous efforts will be made to construct water-saving irrigation project by collecting rainwater in hilly areas. Controlled irrigation technology will be promoted in major paddy rice areas.

4) Effective models of water-saving irrigation project operation and management will be established. Efforts will be made to explore the effective

way and model of implementing graded responsibility and classified management; the establishment of a mechanism of reasonably apportioning the expenses for operating and maintaining the project will be accelerated to realize the long-term and sound operation of the project. The water management service organization and capacity building at grass-roots level will be strengthened; the development of farmer's water user cooperation organization will be regulated; and service organizations specialized in irrigation experiment and irrigation and drainage will be established and improved.

5) Irrigation and drainage technical support system will be improved. Efforts will be made to promote the large-scale and industrialized development of irrigation technology and equipment; vigorous efforts will be made to study and develop water-saving irrigation technology and equipment that are in consistent with China's national conditions and are of high quality and low prices, with the aim of promoting the comprehensive integration and large-scale and industrialized development of efficient water-saving irrigation technology and equipment. The technical training will be conducted in full accordance with the scientific irrigation system, taking into account the need of crops for water and the appropriate amount of water for irrigation at appropriate time in light of the soil moisture content. The applications of IT, automation control of irrigation schemes, and the technical research will also be strengthened.