Impacts of COVID-19 Pandemic on Agricultural Water Management and Countermeasures in China

DANG Ping
Ministry of Water Resources
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I. Chinese government prioritizes irrigation and drainage development

• The development of irrigation and drainage has always been one of the top priorities of the Chinese government. With the investment of large amount of resources, the construction and modernization of irrigation and drainage infrastructures have made significant progress. By the end of 2020, irrigated area in China has exceeded 69 million hectares. 75% of food crops and 90% of cash crops are produced by the irrigated area which is only half of the total cultivated area.
I. Chinese government prioritizes irrigation and drainage development

- With the constant improvement of the physical conditions and management system of irrigation and drainage projects, China’s agricultural water management capacity has been enhanced.

- The water-measuring facilities at the headworks of irrigations schemes and inlets of main and branch canals have been upgraded, laying a solid foundation for the control of irrigation water.

- China has been investing heavily in the construction of water-saving irrigation infrastructures. Highly-efficient water saving irrigated area has exceeded 23 million hectares. The effective utilization coefficient of irrigation water nationwide has reached 0.565.

- Improved irrigation and drainage has greatly boosted the food production capacity, which has helped eradicate absolute poverty and formed the basis of a moderately prosperous society.
II. COVID-19 pandemic brings changes and challenges

• The COVID-19 pandemic has brought great challenges to our world.
• As we speak, the total number of confirmed cases is reaching 260 million, and more than 5 million people have died.
• Our life has taken great shocks. Apart from health issues, the pandemic has greatly disrupted trade, production, and other social and economic activities.
III. Chinese government responding rapidly and effectively

- In this context, Chinese government has responded rapidly and effectively to minimize the negative impact.

- Effective measures include setting up a sound surveillance network, following strict quarantine rules, promoting vaccination, and mobilizing the whole society. Currently, more than 2.4 billion doses of vaccine have been administered on the Chinese mainland, covering 86.9% of the population.

- The impact on irrigation and drainage is very limited.
IV. Chinese government enhancing management of food production and water resources

- First, the government has enhanced the construction and modernization of large and medium irrigation schemes. With expanding investment, the water distribution and delivery conditions in existing irrigation schemes have been greatly improved, and new schemes have been built in regions with qualified soil and water conditions. This in turn has further increased irrigated area.

- Second, the government has been making concerted effort of constructing high-standard well-facilitated farmland. After the standardized rehabilitation, the farmland will enjoy better water supply, road system for mechanical farming, and forest shelterbelt, which will upgrade its production capacity.
IV. Chinese government enhancing management of food production and water resources

• Third, the government has enhanced the management of agricultural water saving. By constructing water-saving facilities, upgrading water measuring facilities, and launching pricing reform of agricultural water, China has made its use of agricultural water more efficient and profitable.

• Fourth, the government has been encouraging the research and extension of irrigation and drainage technologies. New technologies and new materials have been applied and promoted during the modernization of irrigation schemes.
IV. Chinese government enhancing management of food production and water resources

• Fifth, China has established legal and policy frameworks of agricultural water management, including Regulations on Farmland Water Conservancy, Regulations on Administration of Water Withdrawal Licenses and Water Resources Fee Collection, Regulations on Administration of Groundwater, and some other plans and implementation schemes. Such a framework lends strong legal support to better management and facilitates tackling challenges such as COVID-19 pandemic.
THANKS for your attention!