

Research on Taiwan Modernized Irrigation Technical Support to adapt Climate Change for Cooperative Demo Farm in Indonesia

Sheng-Hsin Hsieh ¹ , Ray-Shyan Wu ² , Chih-Hung Tan ³ , Jih-Shun Liu ⁴ Ming-Te Hung ⁵ , Pei-Yu Liao ⁶

E-mail: jsliu@aerc.org.tw

Keywords: The new southbound policy; climate change; Farmland irrigation; cooperative farm, Taiwan.

Abstract

By proceeding nearly 100 years of evolution, Taiwan obtained well developed achievements and experience to adapt climate change in the irrigation management and infrastructure engineering technology, including the rotation irrigation system, hydraulic structure planning and design, operation management organization system, and modern water-saving irrigation technology which could be promoted to the Southeast Asian countries to improve their traditional management in irrigation. Meanwhile Taiwan is full of enthusiasm to feedback international community and share its modern irrigation technology to help other countries and raise the live quality of farmers. Therefore, in addition to modularize the relevant irrigation management techniques and experience, it also actively develops the opportunity of exporting farmland water conservancy technology, seeks countries with cooperative willingness, assists in the restructuring and upgrading of the industrial and supply chain, and creates a new cooperation model of mutual benefit between regional countries.

The demonstration area in this study is located in Karawang County, West Java province, Indonesia which belongs to the irrigation area of the Jatiluhur Reservoir. To improve and recover the function of the infrastructure, Taiwan technical team assisted the Indonesia agricultural department to comprehensively promote the improvement of irrigation and drainage canal system, and proceeded the demonstration farm to be gradually promoted according to the established goals that agreed with bilateral government.

Indonesia is one of the countries that are quite friendly to Taiwan. On the basis of mutual trust and assistance, a development plan for the comprehensive agricultural demo farm has been established by both sides. The success model in the cooperative demonstration farm can be served as a reference in modernization agriculture and irrigation technology for other Southeast Asian countries.

1. Director, Department of Irrigation and Engineering(DOIE), Concil of Agriculture(COA), Executive Yuan, Taiwan.

2. Professor, Department of Civil Engineering, National Central University, Taiwan.

3. Director, Agricultural Engineering Research Center(AERC), Taiwan.

4. PhD. Department of Civil Engineering, National Central University. Associate researcher and deputy head of Information Division, Agricultural Engineering Research Center(AERC), Taiwan.

5. Section head of irrigation management, Department of Irrigation and Engineering(DOIE), Concil of Agriculture(COA), Executive Yuan, Taiwan.

6. Associate Technical Specialist, Department of Irrigation and Engineering(DOIE), Concil of Agriculture(COA), Executive Yuan, Taiwan.