

# **An Impact Analysis of Government Investment on Agriculture to the Agriculture Performance**

## **– Case study: Jatigede dam construction, Indonesia**

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### **【Objective】**

Agriculture in Indonesia is characterized by extensive government intervention. One of the interventions is the investment in Jatigede dam construction that aims to overcome water scarcity problems in the Rentang irrigation area, which covered Indramayu, Majalengka, and Cirebon regencies in West Java, Indonesia. The three locations are included in the rice production centers in Indonesia, so it considered to become a priority area on agriculture development. The main objective of Jatigede dam construction is to improve agriculture performance in its coverage area. However, the current evaluation was only limited to the output of its physical buildings. Moreover, the improvement of agriculture performance is not solely caused by one government intervention; many other related interventions must be considered in supporting the achievement of improved agricultural performance.

Filling this gap, this research aims (i) to analyze the impact of government investment on Jatigede dam construction to the agriculture performance, (ii) to analyze the impact of related government programs on agriculture to the agriculture performance, and (iii) to formulate policy recommendations that can accelerate the improvement of agriculture performance.

### **【Method】**

Indicators of agriculture performance evaluated in this study are cultivation index, cultivation area, land area, rice production, harvesting area, and rice productivity. Furthermore, related government programs on agriculture that received by farmers in the research area are seed subsidy, fertilizer subsidy, machinery aid, agriculture extension, and agriculture insurance.

This study uses pre and post-analysis to compare the improvement of each agriculture performance indicator before and after the dam construction. Moreover, the regression model also uses to identify the impact of other related government programs. At last, the findings of these two analysis leads to formulating suitable policy recommendations that can accelerate the improvement of agriculture performance. Besides, alternatives policy recommendations provided in this study will be sorted by priority scale using the Analytical Hierarchy Process approach. The data was collected by site visits, document analysis, and interviews with key informants.

### **【Results】**

Findings revealed that the impact of Jatigede dam construction on agriculture performance is not optimal yet. The main issues that inhibited the optimization of dam construction are related to irrigation infrastructure and water management. Furthermore, seed subsidy, machinery aid, and extension program statistically have a positive impact on rice production. Meanwhile, fertilizer subsidy, bank credit, and agriculture insurance hurt rice production in the research area.

### **【Conclusion】**

The impact of Jatigede dam construction on the agriculture performance would be optimized by implementing suitable policies. This research provides a set of policy recommendations to optimize the impact of government investment on agriculture to agriculture performance, where the improvement in water management becomes a priority to be implemented.