ANALYSIS OF IRRIGATION SYSTEM SUSTAINABILITY FOLLOWED UP BY STRATEGY USING S.R.I METHODE FOR GONTORAN IRRIGATION AREA AT BANYUWANGI DISTRICT

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ABSTRACT

Irrigation area of land planted Gontoran ±76 ha which is administratively located in 2 (two) villages and 2 (two) different districts. In the village Rejosari Glagah district with an area of 56 ha with a cropping pattern padi-padi/polowijo-polowijo IP rice 100%. Then in the village Kebalenan Banyuwangi district of 20 ha with the same cropping pattern. Availability of water discharge in the rainy season (MT1) of 6,998 m³/hr while the dry season (MT3) is only 1,210 m³/hr. As a result in the Irrigation Area frequent long droughts. The impact on farm results from year to year decline. On one side of the province of East Java targeted surplus of 5 million tonnes of rice in 2014, including Banyuwangi regency. It is feared in the irrigation area Gontoran sustainability is threatened, so it can not reach the target, given the condition gets worse.

Evaluation of the sustainability of the irrigation system gontoran, starting from test validity and kereabilitasan all the questions in the questionnaire items I and II to determine the weighting of the questionnaire (AHP method), then the third questionnaire to measure / evaluate the performance of irrigation systems. The result that Gontoran irrigation system is at a level of sustainability performance and needs less attention to the achievement of sustainability between 55% to 69%, both in terms of social, economic and environmental as well as a whole. Cause of the lack of performance of the most influential sustainability, namely environmental and economic aspects of sustainability by achieving 60.11% respectively and 64.39%.

Follow-up strategy to increase the potential of DI Gontoran, starting from sensistivitas analysis of sustainability indicators, calculate the potential variables are optimized (linear programming tool), further test the potential of the government's target (goal programming tool). The result, that the application of SRI method of rice cultivation can provide increased gain of 547%, water savings of up to 38%, saving the time to 125% and production increased by 318% compared to conventional methods. Similarly, the results of the test potential targets Banyuwangi district on increasing rice production amounted to 1,955 tonnes of paddy (unhusked rice) and up to 250% IP Paddy in irrigation area Gontoran will be met, if the SRI method of rice cultivation applied. Achieve optimum increase production by 2,046 tons / year higher than the goal of 1,955 tons / year (achieved the government's target) and IP Rice also only 270% higher than the goal of 250% (the government's target is reached) and the optimum...
profit of Rp. 6,168,952,000 / year (88% of goal reached Rp. 7,000,000,000). It is necessary to have the readiness of the government and the farmers related implementation efforts the SRI method of rice cultivation.

Keywords: Irrigation area Gontoran, Irrigation Systems, Performance, S.R.I cultivation, Sustainability.