

## Abstract

This study aims to analyze the utilization of infrastructure irrigation in the Karanganyar ranging from institutional, system development, infrastructure delivery mechanisms, policies and regulations support in serving the community; knowing community access at infrastructure irrigation and change growing user community infrastructure irrigation; and analyze the utilization strategy infrastructure irrigation through the management system with community participation to improve the welfare and community adaptation.

The research uses qualitative approach. Sample technique is using purposive sampling and snowball sampling to enhance understandings of selected individuals or groups. Descriptive analysis conducted to describe utilization of irrigation, performance, impact of infrastructure irrigation and participation community with Geographic Information System (GIS) as visualization in the study area.

The outcome of this research is the utilization of infrastructure irrigation involving community participation. Institutional Irrigation Management in Karanganyar formed to realize the orderly management of irrigation networks corresponding local authorities. Water management fees goal is to achieve full-cost recovery for the cost of operation and maintenance of irrigation systems. This is a challenge and an opportunity for P3A in expanding their economic activities are expected to improve the welfare of its members. Public access to irrigation in Karanganyar containing social charges prescribed by law, custom and tradition, or an agreement among members of the community in terms of interest on water resources. At the institutional level increased participation of farming communities for the management and maintenance of irrigation networks continue to be improved. However, in the farming community with an institutional system that is lacking or is not running have a tendency to self-adapt to meet the demand for irrigation water, for example by creating a well pump or take up water by pumping from the river although more costly.

**Keywords:** *utilization infrastructure irrigation, community participation, P3A*