

HERMINA NATALIA PUTRI B.S. Potential Mbay Irrigation Water For Irrigation Farming In Mbay One Village, District Aesesa, Nagekeo District, East Nusa Tenggara. Under the guidance of Ir. LanjarSudarto, MT and Ir. AZ, Puwono Budi Santoso, MP.

ABSTRACT

Increased food needs to encourage efforts to increase food production. This situation requires the utilization of natural resources appropriately referred to include the use of water resources for increased food production. This study aims to determine the potential water available on Irrigation Mbay for agricultural irrigation water needs of the plant cover and water quality. Water sampling conducted in Irrigation MbayMbay One Village, District Aesesa, Nagekeo District, East Nusa Tenggara. Methods of execution of research with survey method is to do direct observation in the field, supported by secondary data and primary data. The method used for sampling is using purposive method. The parameters observed in the field include temperature, color and odor while parameters are analyzed at the Laboratory Center for Environmental Health Engineering (BBTKL) among others SAR (Sodium Absorption Ratio), RSC (residual sodium carbonate), DHL (electrical conductivity), TDS (Total Dissolved Solid), TSS (Total Suspended Solid) and turbidity.

The results showed that the availability of water in the Irrigation Mbay when added to the rainfall exceeds the water needs of plants, especially in rice and corn crops. The quality of water in irrigation networks Mbay can generally be used as agricultural irrigation water.

Keywords: Potential Water, Irrigation Agriculture, irrigation water quality