

## ABSTRACT

The increasing need for land and the scarcity of fertile and potential agricultural land, as well as competition in land use. This study aims to determine the land capability class in the Bawang Gajah Sub-Watershed, Aceh Tengah Regency. The method used in this study is a survey method consisting of four stages: (1) preparation stage, (2) preliminary survey stage, (3) main survey stage, (4) data analysis and presentation of results stage. The results showed that the Bawang Gajah sub-watershed consists of nine land map units (LMU). The land capability assessment consisted of land capability class IIIe-2 in LMU 2, class IV I-3, KE-6 in LMUs 3, 4, 6, 7, and 11, and class VI I-4 in LMUs 5 and 10. Conservation measures required for Class III with erosion-limiting factors (III e-2) include contour planting, strip cropping, and cover crop . Soil capability class IV with slope and high erosion sensitivity limiting factors (IV I-3, KE-6) requires the construction of terraced fields and cover crops. Soil capability class VI with slope limiting factors (VI I-4) requires the construction of bench terraces and the use of cover crops.

**Keywords:** Land capability, sub watershed, slope, erosion, conservation