

## **ABSTRACT**

This research was carried out in July - September 2021 in Bungaya District, Gowa Regency and soil analysis was carried out at the Laboratory of Soil Science and Environmental Conservation, Faculty of Agriculture, Indonesian Muslim University, Makassar.

The material used in this research was rainfall data for the last 5 years, land cover maps, soil types maps, slope maps with a scale of 1:50,000 each. The tools used in the study were maps, tape measure, crowbars, plastic bags, labels, GPS and a set of writing instruments.

The methods used in this study is a survey method and land suitability class determination based on the FAO method which has been modified by the department of agriculture with a land limiting factor approach. Secondary data needed such as rainfall data for the last 5 years and annual average temperature for the last 5 years obtained from the BMKG Agency) and collection of basic maps such as Meteorological Climatology and Geophysics administration maps, (land use maps, soil type maps and slope maps the slopes. The maps were then overlapped to obtain 16 land units. Sampling was carried out for each land unit determined through overlapping maps which were then analyzed in the laboratory. The properties analyzed were matched with land suitability criteria for rambutan plants.

The results showed that the actual land suitability of land 9,11,13,14 and 15 has two land suitability classes, namely S3 (marginal suitability with potential land suitability S2 (quite suitable). Limiting factors for actual land suitability at 9, 11,13, 14, 15 and 16 namely rooting media (effective depth), nutrient retention (CEC), erosion hazard (slope), available nutrients (total N and K<sup>2</sup>O) and land preparation (surface rock), while for potential land suitability limiting factors at 9, 11, 13,14, 15 and 16 namely the rooting medium (effective depth).

*Keywords: Land Evaluation, Actual land suitability, Potential land suitability, Bungaya District, Gowa Regency, Rambutan Plant*