

## The Mapping of Pastoral Area as a Basis of Ecological for Beef Cattle in Pinrang Regency, South Sulawesi, Indonesia

**Authors :** Jasmal A. Syamsu, Muhammad Yusuf, Hikmah M. Ali, Mawardi A. Asja, Zulkharnaim

**Abstract :** This study was conducted and aimed in identifying and mapping the pasture as an ecological base of beef cattle. A survey was carried out during a period of April to June 2016, in Suppa, Mattirobulu, the district of Pinrang, South Sulawesi province. The mapping process of grazing area was conducted in several stages; inputting and tracking of data points into Google Earth Pro (version 7.1.4.1529), affirmation and confirmation of tracking line visualized by satellite with a variety of records at the point, a certain point and tracking input data into ArcMap Application (ArcGIS version 10.1), data processing DEM/SRTM (S04E119) with respect to the location of the grazing areas, creation of a contour map (a distance of 5 m) and mapping tilt (slope) of land and land cover map-making. Analysis of land cover, particularly the state of the vegetation was done through the identification procedure NDVI (Normalized Differences Vegetation Index). This procedure was performed by making use of the Landsat-8. The results showed that the topography of the grazing areas of hills and some sloping surfaces and flat with elevation vary from 74 to 145 above sea level (asl), while the requirements for growing superior grass and legume is an altitude of up to 143-159 asl. Slope varied between 0 - > 40% and was dominated by a slope of 0-15%, according to the slope/topography pasture maximum of 15%. The range of NDVI values for pasture image analysis results was between 0.1 and 0.27. Characteristics of vegetation cover of pasture land in the category of vegetation density were low, 70% of the land was the land for cattle grazing, while the remaining approximately 30% was a grove and forest included plant water where the place for shelter of the cattle during the heat and drinking water supply. There are seven types of gramineae and 5 types of legume that was dominant in the region. Proportionally, gramineae class dominated up 75.6% and legume crops up to 22.1% and the remaining 2.3% was another plant trees that grow in the region. The dominant weed species in the region were *Cromolaena odorata* and *Lantana camara*, besides that there were 6 types of floor plant that did not include as forage fodder.

**Keywords :** pastoral, ecology, mapping, beef cattle

**Conference Title :** ICAAB 2017 : International Conference on Advanced Animal Biotechnology

**Conference Location :** Amsterdam, Netherlands

**Conference Dates :** February 07-08, 2017