MODEL ANALYSIS OF CHANGES IN MANGROVE COVERING AT CENDI MANIK VILLAGE, SEKOTONG, WEST LOMBOK

Nurkholisah Supiyani, Aenki Vergota, Baiq Farista, Diniq Aidil Candri, Hilmah Ayadi, Sri Pui Astuti
Department of Biology, Faculty of Mathematics and Natural Sciences, University of Mataram, Mataram, Indonesia
E-mail: motrek.su@gmail.com

ABSTRACT

The mangrove area in Cendi Manik Village is in the essential ecosystem area (KEE) because it has potential as an area to increase biodiversity. But in the last few years, mangrove land turned function into a pond land of both salt and fish ponds. This resulted in the decline in mangrove forest potential. The purpose of this study is to create a model that is used to analyze changes in mangrove ecosystem land cover in Cendi Manik Village, Sekotong, West Lombok. The method used is a proportional sampling method. The data used is 8 OLI Landsat imagery data from USGS. The resulting map as reference data when retrieving data in the field. Application used to process the data is ArcMap 10.4. The results of this research form a model that can be used to analyze the rate of change of mangrove ecosystem and areas of the purity of the region.

Keywords: KEE, Mangrove, Landsat Imagery, Model

INTRODUCTION

Mangrove forest has many important roles for human and the environment. Mangrove protects the land from abrasion, filter seawater which enter into the mainland so that the content of the salt has decrease, and habitat for land and marine organisms. In addition, mangrove also has a high economic value, one of them is for development. However, in few years lately mangrove forest in a very poor condition or threatened due to the rise of land clearing. The continuous logging of mangrove for development without any reforestation efforts resulted in a reduced mangrove population.

The phenomenon of degradation of mangrove ecosystem also occurs in the mangrove area of Cendi Manik Village, Sekotong, West Lombok. People in the coastal Cendi Manik village have a livelihood as a salt farmer. This thing triggered the changes of the function of mangrove land into the land of pond salt and fish ponds. Later in 2016, the area of essential ecosystems (KEE) Mangrove based on the DECREE of the regent of West Lombok No. 637/10/DEH/2015. KEE is an area outside a conservation area that is ecologically or physically important for biodiversity conservation by protecting ecosystems, species, and genetic diversity that encompasses both natural and artificial ecosystems. Therefore, researchers are interested in conducting studies on the analysis of changes in the mangrove ecosystem in Cendi Manik village.

METHODS

This research was conducted in July 2019 in the Mangrove ecosystem area in Cendi Manik Village, Sekotong, West Lombok. The data collection method uses proportional sampling, which is taking samples that consider the categories in the study population (Sugiyono, 2008). In this study, observations were made at several points near settlements, ponds, mangrove rehabilitation and natural succession mangroves proportionally to 10% of the total area. The parameter observed is the condition of mangrove cover in each mangrove population group which will then be matched back with Landsat image data

CONCLUSION

The following is a comparison map of mangrove land cover for the last four years from 2015 – 2018.

REFERENCES

1. IAD, 2015. Penyusunan Dokumen Perencanaan Pengelolaan Wilayah Pesisir Barbasi Manjarakele
Menggunakan Citra Landsat Oil dan Sistem Informasi Geografis Di Belu