

ABSTRACT

Land suitability assessment is a crucial factor in supporting agricultural productivity. However, manual assessment methods are often time-consuming, subjective, and inefficient. This final project aims to develop a machine learning-based approach to improve the accuracy and efficiency of land suitability evaluation. The research includes several stages, such as data preprocessing, feature selection, and the implementation of various machine learning algorithms using the Orange platform. The dataset used is publicly available and contains soil quality parameters. The final results show that this approach can provide more consistent predictions and more accurate for decision-making. Furthermore, this research was followed by a publication process, beginning with the preparation of a scientific article according to the conference template, submission and registration, followed by a review phase and major revision based on reviewer feedback. After acceptance, the paper was presented virtually at an international conference and later published in the official conference proceedings. This project is expected as an initial contribution to the application of technology in agriculture and to encourage students to engage in scientific publication activities.

Keywords: international conference, land suitability, machine learning, predictive accuracy, scientific publication.