

## **ABSTRACT**

Cropland expansion and contraction, prevalent in tropical developing countries, exert significant pressure on the functions and services of natural ecosystems and regional food security. The Philippines, renowned for its remarkable biodiversity and increasing crop demand, has experienced notable instances of cropland expansion and contraction in recent decades. However, the spatial extent, rates, and underlying drivers of these land cover changes have yet to be comprehensively analyzed. This study aims to map land cover change, specifically the extent, expansion, and contraction of croplands in the Philippines, using Landsat satellite imagery, index bands, and slope bands over five-year intervals from 2000 to 2024. Subsequently, logistic regression model will be employed to assess the significance and magnitude of the relationships between land cover change and 14 identified predictive variables representing demographic, economic, institutional, and biophysical drivers. The study will focus on the Philippines as a whole and will examine both directions of land cover change. This study seeks to assist decision-makers in precisely identifying regions of significant land cover change and in formulating targeted, region-specific policies to address these shifts.