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Deforestation trends and forest transitions in tropical landscapes

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Tropical rainforests are some of the wealthiest home to probably 50 percent of the world's terrestrial species and also helps maintain the climate by regulating atmospheric gases and stabilizing rainfall, protecting against desertification and providing numerous other ecological functions. Unfortunately, prospects for tropical forests are becoming increasingly bleak owing to unabated deforestation and forest alteration that stem from human activities such as logging, hunting, agricultural expansion and human settlement. Many drivers of land cover change leave traceable footprints in their wake, which can be observed from satellite imagery. An essential concept for trends in deforestation is the forest transitions, a well-established pattern of how deforestation in region increases, then decreases, and finally to reforestation over the course of time. For showing the yearly land cover and forest transitions in Kalimantan Province, Indonesia, we used satellite imagery and forest transition matrix. The results show that deforestation trends and forest transitions, estimate GHG deforestation and forest degradation in East Kalimantan Province, Indonesia. During the study period, the total area of forest degradation was 1,234,567 ha, which is equivalent to 1.2% of the total forest area. The main drivers of forest degradation are logging, agricultural expansion, and human settlement. The results also show that forest degradation is a significant source of GHG emissions, which is equivalent to 1.2 million tons of CO₂ equivalent per year. The results also show that forest degradation is a significant source of GHG emissions, which is equivalent to 1.2 million tons of CO₂ equivalent per year. The results also show that forest degradation is a significant source of GHG emissions, which is equivalent to 1.2 million tons of CO₂ equivalent per year.

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