

## Intisari

Indonesia mengalami penurunan signifikan dalam luas hutan mangrove termasuk di Provinsi Riau, yang bertolak belakang dengan kenaikan PDRB. Penelitian ini menganalisis hubungan antara pertumbuhan ekonomi dan deforestasi mangrove serta dampak eksternalitasnya terhadap kesehatan masyarakat. Metode yang digunakan adalah model persamaan simultan dengan 2SLS, dengan variabel kontrol meliputi luas daerah, produksi sawit, produksi tambak, wisata mangrove, populasi, sektor pertanian, kehutanan, perikanan, dan pendidikan, dianalisis dari tahun 2007 hingga 2020. Model regresi data panel digunakan untuk mengkaji dampak deforestasi mangrove terhadap diare, malaria, pneumonia, dan suhu permukaan tanah (LST) dengan data dari tahun 2015 hingga 2019. Hasil menunjukkan luas mangrove berpengaruh negatif signifikan terhadap pertumbuhan ekonomi, sementara produksi tambak, wisata mangrove, populasi, dan pendidikan berpengaruh positif signifikan. Pertumbuhan ekonomi berpengaruh negatif signifikan terhadap luas mangrove. Deforestasi mangrove berdampak signifikan pada peningkatan kasus diare, tetapi tidak terhadap LST, malaria, dan pneumonia. Penelitian ini menekankan perlunya kebijakan pengelolaan mangrove yang berkelanjutan untuk keseimbangan antara pertumbuhan ekonomi dan pelestarian lingkungan.

**Kata kunci:** Deforestasi, Pertumbuhan Ekonomi, Mangrove, Riau

### *Abstract*

Indonesia has experienced a significant decline in mangrove forest areas, including in Riau Province, which contrasts with the rise in GRDP (Gross Regional Domestic Product). This research analyzes the relationship between economic growth and mangrove deforestation, as well as its externalities on public health. The method used is a simultaneous equation model with 2SLS, with control variables including area size, palm oil production, aquaculture production, mangrove tourism, population, agriculture, forestry, fisheries, and education, analyzed from 2007 to 2020. A panel data regression model was used to examine the impact of mangrove deforestation on diarrhea, malaria, pneumonia, and land surface temperature (LST) using data from 2015 to 2019. The results show that mangrove area has a significantly negative impact on economic growth, while aquaculture production, mangrove tourism, population, and education have a significantly positive impact. Economic growth has a significantly negative impact on mangrove area. Mangrove deforestation significantly affects the increase in diarrhea cases, but not LST, malaria, or pneumonia. This study emphasizes the need for sustainable mangrove management policies to balance economic growth and environmental conservation..

**Keywords:** Deforestation, Economic Growth, Mangrove, Riau.