

ABSTRAK

Perubahan iklim menjadi salah satu tantangan utama yang berdampak langsung terhadap sektor pertanian, terutama dalam hal pembiayaan. Ketidakstabilan iklim seperti fluktuasi curah hujan, suhu, dan kelembapan udara dapat meningkatkan risiko pembiayaan bermasalah atau *Non-Performing Financing* (NPF). Penelitian ini bertujuan untuk menganalisis pengaruh *climate risk* terhadap tingkat NPF pada pembiayaan sektor pertanian di Bank Umum Syariah di Provinsi Jawa Timur.

Penelitian ini menggunakan pendekatan kuantitatif. Data yang digunakan merupakan data sekunder bulanan dari Januari 2018 hingga Desember 2024, meliputi variabel pembiayaan sektor pertanian (P), curah hujan (RR), suhu rata-rata (TAVG), kelembapan rata-rata (RHAVG), dan NPF. Analisis data dilakukan menggunakan metode *Vector Error Correction Model* (VECM), dengan tahapan uji stasioneritas, uji kointegrasi Johansen, estimasi jangka panjang dan jangka pendek, serta analisis *impulse response* dan *variance decomposition*.

Hasil penelitian menunjukkan bahwa dalam jangka panjang, hanya kelembapan rata-rata (RHAVG) yang berpengaruh signifikan terhadap NPF dengan arah negatif. Sementara itu, pembiayaan sektor pertanian, curah hujan, dan suhu tidak menunjukkan pengaruh signifikan. Dalam jangka pendek, nilai *error correction term* (ECT) signifikan dan bernilai negatif, menandakan adanya penyesuaian menuju keseimbangan jangka panjang. *Impulse response* menunjukkan respons variabel NPF yang bervariasi terhadap shock iklim, sedangkan *variance decomposition* menunjukkan bahwa variasi NPF sebagian besar dijelaskan oleh dirinya sendiri, diikuti kontribusi suhu dan kelembapan. Penelitian ini menegaskan pentingnya pengelolaan risiko iklim dalam pembiayaan sektor pertanian bank syariah, guna menjaga stabilitas dan keberlanjutan portofolio pembiayaan pada sektor yang rentan terhadap perubahan iklim.

Kata Kunci: *Climate Risk, Non-Performing Financing, Pembiayaan Pertanian.*

ABSTRACT

Climate change is one of the main challenges that directly impacts the agricultural sector, especially in terms of financing. Climate instability, such as fluctuations in rainfall, temperature, and humidity, can increase the risk of problematic financing or Non-Performing Financing (NPF). This study aims to analyze the effect of climate risk on the NPF rate in agricultural sector financing at Sharia Commercial Banks in East Java Province.

This study uses a quantitative approach. The data used is monthly secondary data from January 2018 to December 2024, covering variables of agricultural sector financing (P), rainfall (RR), average temperature (TAVG), average humidity (RHAVG), and NPF. Data analysis was performed using the Vector Error Correction Model (VECM) method, with stages of stationarity testing, Johansen cointegration testing, long-term and short-term estimation, as well as impulse response and variance decomposition analysis.

The results show that in the long term, only average humidity (RHAVG) has a significant negative effect on NPF. Meanwhile, agricultural sector financing, rainfall, and temperature do not have a significant effect. In the short term, the error correction term (ECT) is significant and negative, indicating an adjustment towards long-term equilibrium. The impulse response shows the varying response of the NPF variable to climate shocks, while the variance decomposition shows that the variation in NPF is largely explained by itself, followed by the contribution of temperature and humidity. This study emphasizes the importance of climate risk management in Islamic bank agricultural sector financing in order to maintain the stability and sustainability of the financing portfolio in a sector that is vulnerable to climate change.

Keywords: *Climate Risk, Non-Performing Financing, Agriculture Financing*