

ABSTRAK

Beras merupakan komoditas pangan strategis di Indonesia, namun kesenjangan antara produksi dan konsumsi yang terus melebar mengancam pencapaian target swasembada nasional. Penelitian ini bertujuan memproyeksikan lima variabel penyusun neraca beras Indonesia, yaitu luas panen, produksi, konsumsi, impor, dan ekspor, periode 2025-2034 menggunakan model *Autoregressive Integrated Moving Average* (ARIMA), sekaligus menganalisis kesenjangan produksi-konsumsi, dinamika perdagangan, dan implikasinya terhadap strategi swasembada nasional. Data sekunder tahunan 2001-2024 diperoleh dari BPS, Kementerian Pertanian, FAOSTAT, dan *International Trade Centre*, kemudian dianalisis melalui uji stasioneritas, identifikasi model ARIMA terbaik, estimasi parameter, dan evaluasi akurasi peramalan. Hasil peramalan menunjukkan luas panen, produksi, dan ekspor beras diproyeksikan terus menurun hingga 2034, sementara konsumsi dan impor menunjukkan tren meningkat, sehingga kesenjangan produksi-konsumsi semakin menyempit dan rasio swasembada (*Self-Sufficiency Ratio/SSR*) cenderung menurun sepanjang periode proyeksi. Peran impor bergeser dari instrumen darurat menjadi kebutuhan struktural, sementara posisi Indonesia sebagai eksportir beras kehilangan relevansi. Temuan ini mengindikasikan bahwa target swasembada beras nasional akan semakin sulit dicapai tanpa intervensi kebijakan pada sisi produksi, perlindungan lahan pertanian, dan pengendalian impor secara terukur.

Kata Kunci: ARIMA, neraca beras, peramalan, swasembada beras, gap produksi-konsumsi, kebijakan pangan

ABSTRACT

Rice is a strategic food commodity in Indonesia, yet the widening gap between production and consumption threatens the achievement of national self-sufficiency targets. This study aims to forecast five variabels composing Indonesia's rice balance, namely harvested area, production, consumption, imports, and exports, for the 2025-2034 period using the Autoregressive Integrated Moving Average (ARIMA) model, while also analyzing the production-consumption gap, trade dynamics, and their implications for the national self-sufficiency strategy. Annual secondary data from 2001-2024 were obtained from BPS, the Ministry of Agriculture, FAOSTAT, and the International Trade Centre, then analyzed through stationarity testing, best ARIMA model identification, parameter estimation, and forecast accuracy evaluation. The forecasting results show that harvested area, production, and rice exports are projected to continuously decline through 2034, while consumption and imports show an increasing trend, narrowing the production-consumption gap and lowering the Self-Sufficiency Ratio (SSR) throughout the projection period. The role of imports has shifted from an emergency instrument to a structural necessity, while Indonesia's position as a rice exporter has lost relevance. These findings indicate that the national rice self-sufficiency target will become increasingly difficult to achieve without policy intervention in production, farmland protection, and measured import control.

Keywords: *ARIMA, rice balance, forecasting, rice self-sufficiency, production-consumption gap, food policy*