



TRACTION
ENERGY ASIA

Modeling the Impact of CPO
(Crude Palm Oil) Usage in Indonesia:

Between Food and Fuel Needs

2024

Executive Summary

This report discusses the conflict between food and fuel needs related to the use of crude palm oil (CPO) in Indonesia. As the world's largest CPO producer, the use of palm oil for biodiesel production has sparked debate about its impact on food security. Although bioenergy offers a renewable energy alternative, its effects on food supply must be carefully considered.

Main Points:

1. CPO Production and Demand:

The production of CPO in Indonesia continues to increase annually, primarily due to its significant role in various industries. However, the rising demand for biodiesel, as part of government policies promoting renewable energy, has added pressure on the availability of CPO for food. The availability of CPO for food has become more limited, impacting the prices of cooking oil and other food products.

2. Biodiesel Policy:

Mandatory, government-implemented biodiesel programs have boosted the utilization of CPO as biodiesel feedstock. These policies promote the use of blended biodiesel with fossil fuels, such as B30 and B35, which incorporate up to 35% of CPO in the blend. The aim is to reduce fossil fuel imports and enhance energy security. However, its impact on the supply of CPO for food appears significant, given the continuously increasing amount of palm oil used in biodiesel production.

3. Implication for Food Security:

With the increasing demand for CPO for biodiesel, the supply for food becomes constrained, leading to rising prices of cooking oil and other food products. This triggers concerns about the availability and accessibility of palm oil for food needs, especially among low-income groups highly reliant on palm oil as their main source of fat and oil. The impact is also evident in food prices in both domestic and global markets.

4. Food vs Fuel Conflict:

The tension between food production and fuel needs becomes apparent when CPO, utilized for bioenergy, reduces its availability for food purposes. This notably affects developing countries, especially Indonesia, where palm oil is a primary staple food. The increased use of CPO for fuel leads to deforestation, which escalates environmental pressures and affects food supply, posing serious challenges to national food security.

Recommendations:

1. **Diversification of Biodiesel Feedstocks:** Exploring alternative biodiesel feedstocks besides CPO to alleviate pressure on food supply.
2. **Sustainability Standards:** Adopting sustainable farming practices in palm oil production to mitigate adverse environmental impacts.
3. **Technological Innovation:** Investing in new bioenergy technologies to enhance biodiesel production efficiency without compromising food supply.
4. **Holistic Approach:** Promoting a holistic approach in bioenergy policies that considers their impacts on food and the environment.

By implementing balanced policies and practices, Indonesia can ensure an adequate food supply while simultaneously meeting the demand for sustainable energy in the future.