

Poster
Reducing agricultural expansion into forests in Central Kalimantan Case

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Summary

Palm oil is one of the most important agricultural commodities in Indonesia, and plays a significant role in the country's economic development, representing 2.8% of the country's GDP (14.5 billion USD in 2008). The growth of palm oil plantation is the fastest among other plantation commodities (production growth rate in the last 5 years 13.41% per year, with growth in export at 16.24% per year and slow growth in domestic consumption). The global consumption is expected to increase over 30% in the next decade (OECD-FAO, 2009), which will reach about 60 million tons (FAPRI, 2010). To meet global demand, Indonesia has targeted to double its production by 2020, which will reach 40 million tons. In Kalimantan, the targeted provinces are Central Kalimantan, West Kalimantan and East Kalimantan. Among the three provinces, Central Kalimantan has the highest target

Oil palm expansion is a source of concern because it has occurred at the expense of Indonesia's tropical forest cover. Based on a study from Germet and Sauerborn (2008), the establishment of palm oil plantation on mineral soil forested land would cause emission of about 650 ton CO₂e per ha, while if it was established on forested peatland releases over 1,300 ton CO₂e during the first 25-year cycle and about 800 ton CO₂e per ha in the subsequent cycle depending on the peat depth. Nevertheless, if the establishment of the palm oil plantation takes place on grassland, it uptake about 135 Mg CO₂ per ha from the atmosphere.

This study aimed to evaluate and assess the feasibility to increase production without further deforestation by rehabilitating degraded land.

Analysis of land availability is divided into two parts. The first part is the assessment of lands, which have been licensed for forest concessions and palm oil plantation. This analysis was aimed to determine fraction of the licensed lands that have not been planted and not covered by forest. The second part is the assessment of suitability of unlicensed lands for palm oil plantation in both forest and non-forest areas.

With current plantation area, Central Kalimantan will be able to double its production by 2020. Considering the availability of suitable land for palm oil plantation, Central Kalimantan can still expand the plantation area by about 2.6 million ha and this will triple the production (70% of the total suitable land). The expansion of the plantation can be done all in degraded lands, however, it will required land swap policy; changing the forested lands in HPK and APL with non-forested land in PF about 0.241 million hectare. With price of 5 USD per ton CO₂, saving this forest will be equivalent to IDR 2.1 trillion of income.