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80% of Indonesian rainforest vulnerable to palm oil destruction is not protected

August 28 2020

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More than 80 percent of the Indonesian rainforest, mangroves and peatlands most vulnerable to being cleared for palm oil production is completely unprotected by the country's Forest Moratorium, according to new research.

In a study published in the journal *Environmental Research Letters*, a team of experts at the University of Sheffield's Institute for Sustainable Food, Grantham Center for Sustainable Futures and the National University of Singapore developed a model to explain and predict the expansion of oil [palm](#) plantations.

By considering the potential profitability of converting [natural habitats](#) into plantations, the researchers were able to predict oil palm expansion with 85 percent accuracy and determine the importance of economic forces as a driving factor. They also found a "contagion" effect, whereby areas with existing plantations experience greater crop expansion, potentially facilitated by an existing workforce and infrastructure.

The UK government this week proposed a ban on larger businesses using products grown on land that was deforested illegally—but this research highlights the limitations of a key conservation law in Indonesia, the world's largest producer and exporter of palm oil.

Indonesia saw a huge increase in [oil palm plantations](#) from two mega hectares (Mha) in 2000 to 8.6Mha in 2015, with the loss of 6Mha of [forest](#). In 2010, the country passed legislation protecting over 69Mha of forest and peatlands from conversion under a Forest Moratorium, while allowing oil palm expansion in forests already licensed or degraded by logging.

The University of Sheffield and National University of Singapore researchers found that just 10 percent of the areas identified as vulnerable to oil palm expansion by 2025 are currently protected by Indonesia's Forest Moratorium, while 83 percent of vulnerable natural areas are left unprotected by the law.

"As global palm oil demands continue to rise, our model allows us to predict future crop expansion and identify areas most at risk from

deforestation. Indonesia's Forest Moratorium was introduced to protect precious habitats—but its failure to cover most areas vulnerable to oil palm expansion means it actually risks exacerbating the climate and biodiversity crises. It's good to see the UK government trying to end the use of products grown on illegally deforested land, but without adequate protection forests remain vulnerable to excessive crop expansion and [habitat destruction](#)," says Dr. Jolian McHardy, senior lecturer in economics at the University of Sheffield and co-author of the paper.

More information: Felix K S Lim et al. Land rents drive oil palm expansion dynamics in Indonesia, *Environmental Research Letters* (2019). [DOI: 10.1088/1748-9326/ab2bda](#)

Provided by University of Sheffield