Friends of the Earth
Issue Brief

How the palm oil industry is a major driver of climate change

What is palm oil?

Palm oil, derived from the fruit of the West African oil palm tree, is the world's most widely traded vegetable oil, with production projected to double over the next decade.[1] Because of the massive recent expansion of this industry, which relies on large areas of land to generate profits, palm oil production has become the leading cause of deforestation in the world today. Some eighty-six percent of the world's palm oil comes from Indonesia and Malaysia;[2] in Indonesia alone, the palm oil industry deforests an area the size of Rhode Island every year.[3] The industry is growing rapidly in equatorial Africa, Mesoamerica and South America as well. In all of these regions, deforestation is driving the loss of species, threatening the livelihoods and cultures of millions of local people and contributing to climate change at an alarming rate.

How does deforestation exacerbate climate change?

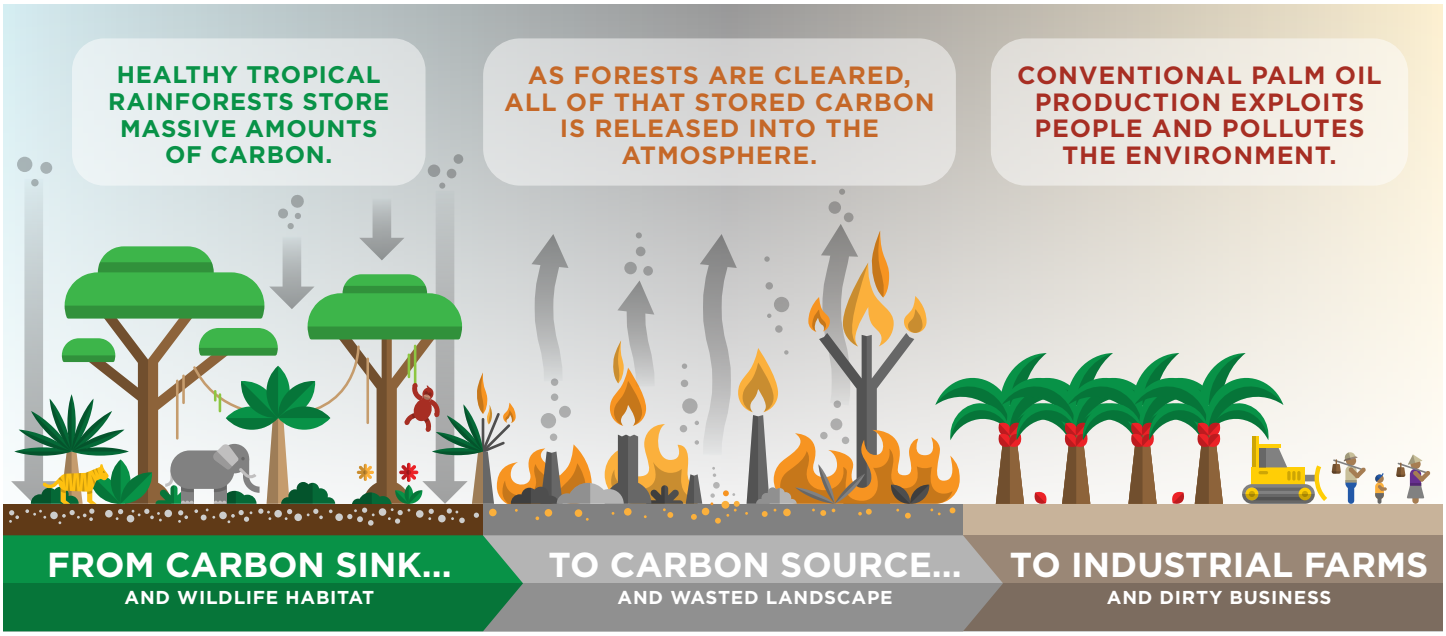
Trees capture and store carbon dioxide (CO_2), and this CO_2 is released when trees are felled or burned. Therefore, forest destruction is a major contributor to greenhouse gas emissions and climate change. Tropical deforestation accounts for about 15 percent of total global warming pollution annually – more than all the cars, trucks, ships and planes in the world combined.[4] In Indonesia and Malaysia, deforestation to clear land for palm oil production is especially polluting because it often happens on peat lands – unique wetland ecosystems that store massive amounts of carbon.

Peat soils are composed of partially decomposed layers of vegetation that accumulate over millennia, sometimes reaching a depth of up to 65 feet.[5] While forests are huge storehouses for carbon, peat soils are even richer stores of carbon – containing as much as 28 times more CO_2 than the forests themselves.[6] According to the United Nations Environment Programme, peatland destruction can result in more than 2,000 percent more greenhouse gas emissions than burning diesel oil.[7]

As natural carbon sinks – lands that capture and store huge amounts of carbon – intact peat lands are vital to reducing global warming. The peat soils of Southeast Asia, and especially Indonesia, contain as much terrestrial carbon[8] as the above ground vegetation of the entire Amazon.[9] If all of this peat-stored carbon were released into the atmosphere, it would equal the carbon emissions from about nine years of global fossil fuel use[10] – and this is precisely what the ongoing expansion of palm oil plantations will do if left unchecked. In Indonesia, five million acres of peat land have already been deforested and drained for palm oil plantations,[11] and the area under plantation is expected to double by 2020.

One of worst environmental disasters of 21st century

Largely as a result of its palm oil-driven deforestation, Indonesia is the world's third largest emitter of global warming pollution, after China and the United States. In



order to plant oil palm trees, growers first dig canals to drain and dry out the soil – a process that drastically increases the peat's susceptibility to fire; they then often burn the soil to clear vegetation. Peat fires can burn for months and spread underground, making them extremely difficult to extinguish. Large scale forest and peat fires in Indonesia have grown into international health and environmental disasters on numerous occasions. In 1997, Indonesia's peat and forest fires released as much CO_2 as the United States released that whole year.[12] In 2013, similar fires became an international health concern, causing smog, haze and respiratory problems as far away as Malaysia and Singapore. And 2015 saw the worst forest fires on record, which caused health problems for hundreds of thousands of people in Indonesia and neighboring countries. Bloomberg calculated that on October 14, 2015, greenhouse gas emissions from the fires soared to 61 megatons – almost 97 percent of Indonesia's total emissions,[13] and greater than the entire emissions of the U.S. economy. Ultimately, conversion of peat lands to palm oil plantations is impacting the climate on a scale equivalent to the world's biggest coal and tar sands projects. [14]

Steps to address greenhouse gas emissions from deforestation

The root causes of deforestation-related forest and peat fires are multiple and complex and efforts to stop the problem face many challenges. A 2011 decree to protect millions of acres of Indonesian peat lands from plantation development has been consistently violated, and a number of palm oil companies have been found directly responsible for allowing the 2015 peat fires to occur, [15] despite legal protections. [16] Broadly speaking, a lack of political will on the part of Indonesian government authorities to enforce its own climate and land use policies works to the advantage of the palm oil companies, and threatens the climate for all of us.

Across the ocean from Southeast Asia, biofuel mandates like the U.S. Renewable Fuel Standard and the European Union's Renewable Energy Directive[17] expand the market for palm oil-based biodiesel – but any fuel whose production threatens the climate, ecosystems or people's well-being cannot justly be called "renewable". Because palm oil is free of trans fats, the U.S. palm oil market is partly driven by a U.S. Food and Drug Administration requirement that all food labels list their trans fat content[18] and a recent FDA ban on trans fats altogether[19] – but no food that comes at the cost of tropical rainforests should ultimately be considered "healthy". At its root, global industrial demand for palm oil is also largely driven by a lack of social and environmental regulations in producer countries and easy financing by banks, pension funds and other financiers from Europe, the United States and Asia.

Conclusion

The conversion of peat lands to palm oil plantations[20] has an impact on the climate similar in scale to the world's biggest coal and tar sands projects. The expansion of palm oil production will continue to exacerbate climate change and endanger the health and livelihoods of communities and ecosystems around the globe unless incentives for palm oil production are eliminated. Individuals and institutional investors play a key role in financing the expansion of the palm oil sector, and have the power to rein in the destruction through deforestation-, and landgrab-free investment policies and practices.

Endnotes

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