

## **Oil Palm is the Great Preventer – Not the Driver – of Deforestation**

**Oil palm is conveniently blamed for deforestation, but the inconvenient truth is that there are far, far worse alternatives that are kept in check by oil palm.**

**Come with me on a tongue-in-cheek journey through plain facts and basic maths if you don't believe it.**

Oil palm, eh? You've probably heard the term bandied about at least a couple of times in the past few years, and sadly, it probably wasn't with good connotations attached. If it's not France's 'Nutella Tax' that meant to heavily penalize use of palm oil in the chocolatey spread[i], then it's Greenpeace or PETA protestors dragging out the old orangutan costumes[ii] and eye-candy infographics for social media virality.

Chief among the accusations by critics is that the planting of oil palm trees – from which we get palm oil – is a major driver of deforestation in the tropics[iii]. (Yes, oil palm produces palm oil, go figure and remember to send your dear old English teacher a greeting card.) They point to the 14 million hectares of land currently being used to grow oil palm globally[iv]. *“Fourteen million? How terrible!”* goes the practiced chorus, *“All the poor forest critters who have lost their homes. Boo to meanie oil palm!”*

And as the oil palm tree grows best with plenty of sunshine and rainfall, the tropics are the most suitable latitude for oil palm plantations. Unfortunately, those same areas tend to be where tropical rainforests grow best too. I think you can see where this is headed on the environmentalism front. *“Tropical rainforest critters are the cutest ones! Extra boo, oil palm!”*

Oil palm planting is routinely blamed for spurring the clear-cutting of primary and virgin forest. Forest animals end up chased out of their natural habitats or clashing with humans who might react with fear or violence. This tends to make for great sensationalist headlines complete with gross-you-out[v] / break-your-heart images[vi]. Not only that, certain unscrupulous agents sometimes resort to cost-effective burning in order to clear away vegetation before planting. Haze semi-regularly fills the air as many tonnes of carbon go up in smoke[vii], causing Al Gore to have conniptions and consider releasing a sequel to *An Inconvenient Truth* (we can all agree that this is reason enough to ban land clearing by fire).

So you have a powerful trifecta of forest defenders, biodiversity champions and climate change campaigners all strongly opposed to oil palm. Add in another

stereotypical NGO cause and The Power of Heart, and by their powers combined they can summon a nature-themed superhero to save the day[viii] from evil oil palm conglomerates, or something.

Now first off, if you weren't aware, defenders of oil palm have plenty of solid rebuttals to the various accusations. For example, the chief oil palm growing countries of Malaysia, Indonesia and Colombia combined average a very respectable 57% land still under forest cover[ix]. That's more than half of their land area still looking all jungle and wild-like.

On the issue of climate change, major oil palm planters absolutely avow that they do not allow burning on their widespread premises[x]. In addition, the land which is converted from forest to oil palm plantations doesn't actually cause a net increase in carbon emissions. After all, you're basically replacing trees with trees (as opposed to, say, replacing trees with air-conditioned office buildings to house environmentalist NGOs).

And all this focus on the carbon emissions from land clearing for crop planting ignores two major caveats: that 87% of human carbon emissions actually comes from fossil fuel burning[xi]; and that although carbon dioxide levels having risen almost 10% from 1997 to 2014[xii], global temperatures have not risen *at all* in that period[xiii] (which kind of derails the whole anthropogenic global warming argument). But I digress.

In an admirable deployment of *tu quoque*, it is also pointed out that Western fussy budgets aren't quite as keen to trumpet deforestation statistics when it comes to their own backyards – the UK, USA and Germany combined average only 25.5% of land under forest cover[xiv]. Hey, all those air-conditioned office buildings have to go *somewhere* right?

*"Unsporting!"* you may cry. *"Marquess of Queensberry rules! Most of those temperate forests were cleared centuries ago, for farming and living space. Surely you don't expect the civilized among us to live in trees and eat nuts and berries all our lives?"*

*"Well, do you then expect Third Worlders not to want the same opportunities your ancestors had?"* goes the logical counter-argument. *"Is there some sort of statute of limitations on how long ago deforestation took place? If so, how about we revisit the subject of our own forests in say, 500 years? Rain cheque, please."*

And to that, Malaysia in particular would like to add that much of their land currently planted with oil palm had already been plantation land used to grow rubber and other cash crops[xv]. And you have the Colonial-era British to thank for that – expatriated profits off the backs of indentured labour and all[xvi] – but let's skip another round of 'blame the past-era White Man' and move on, shall we?

Yes, let's set all that aside for now. It's all old hat, nothing new to see. Instead, I'd like to put forward something radical and astounding here. I'd like to suggest that oil palm is not a driver of deforestation... But rather, it is **an unmatched bulwark against deforestation.**

If here I'm sounding utterly bonkers / completely a shill for the heartless nature-abusing industries, then please do join me for a brief mental exercise. **Imagine if there were no oil palm.** Just picture it in your mind's eye, vast swathes of oil palm trees stretching off into the horizon. Google the images if you need to. And then, all of it suddenly disappears into thin air with a reverberating *snap* of Gaia's vengeful fingers.

A dream come true for environmentalists everywhere, surely! At long last, decades of campaigning come to sudden, *deus ex machina* fruition! Time to break open the champagne and turn the office air-conditioning way, way cold – you've earned it!

Well, hold on to your pillows and ready your sweat-wiping handkerchiefs, because the dream is about to turn into an utter nightmare, courtesy of that most mysterious and revolutionary of concepts: **simple mathematics.**

Across the world, close to 260 million hectares of agricultural land are planted with oilseeds (this would include soybeans, rapeseed, and the maligned oil palm). Out of this total area, 40% goes to planting soybeans – leading the pack by far, with more than 100 million hectares planted, to produce more than 40 million tonnes of soybean oil annually. For those of you still conscious despite the mathematical assault, that's about 2.5 hectares needed to produce one tonne of vegetable oil.[xvii]

Now let's skip the hectareage runners-up cottonseed, sunflower and rapeseed and go directly to oil palm in a distant fifth place. Accounting for just 5.5% of oilseed planting area – just barely 14 million hectares – oil palm produces a truly remarkable 53 million tonnes of palm oil annually. That's an astoundingly small land requirement of around 0.26 hectares needed to produce one tonne of vegetable oil.[xviii]

With those numbers in place, let's do a straight up comparison of soybeans against oil palm. Despite taking up an arable land area just one seventh that of soybeans, oil

palm still manages to outproduce it by a third again as much! This is due to the indisputable fact that **oil palm has a yield more than 9 times that of soybeans.**

Oil palm uses just 5.5% of total oilseed area, yet produces 32% of all oils & fats globally – an overachievement of 5.82 times! Out of the world's entire agricultural land, oil palm stakes a claim on a miniscule 0.3% of the area[xix]. In fact, oil palm uses just 0.11% of the world's entire land area[xx]. Kind of makes you think again whether oil palm is *really* what's causing all the deforestation, doesn't it? (*"Not right now, my brain hurts. More air-conditioning and champagne, please."*)

Can you see where I'm heading with this line of thinking, and the aforementioned 'nightmare math' thought exercise? Go ahead and poof all the world's oil palm away. To replace the 53 million tonnes of vegetable oil – a precious commodity that goes into our fries, cakes, cookies, soaps, cosmetics, and so much more – we would have to plant a total of 130 million hectares of land with soybeans. Cast your beans into all the land magically evicted by oil palms, and then go scrounge up another 116 million hectares of free, unplanted land to boot – if you can find it. I hear property prices in Greece and Spain are going cheap this time of year[xxi].

To get a real sense of that kind of scale, 116 million hectares is nearly two thirds the entire land area of Indonesia (192 million hectares[xxii]) – forests, peat bogs, cities, touristy beach spots, the lot! It definitely surpasses the remaining forested area of Indonesia and Malaysia combined (115 million hectares[xxiii]).

Avowed tree-hugging platitudes aside, do you really think jet-setting First World tourists would pick, say, their precious Bali beaches and nightclubs as a first choice to be plowed and sowed with icky-yicky farmer stuff? Or that indigenous city-dwellers, such as the 9 million living in Jakarta, would gladly reverse all their recent advancements and triumphantly return to the jungle? *Bingle bangle bungle* as they say, Danny Kaye could maybe help out on that one[xxiv].

If you honestly don't see those things happening, then you can bet your collection of satirical classic oldies that the first areas to go towards planting those 116 million additional hectares would be the tropical rainforests. Oh look, Gaia just woke up from her long slumber of sylvan dreaming – screaming in sheer, unabated terror. *The trees, the trees!* Too bad, how sad, you know what they say about that road paved with good intentions[xxv]. Hint, it's paved with murdered trees and green shame.

Speaking of tropical rainforests... Imagine if the roughly 50 million hectares of Brazil & Argentina's soybeans[xxvi] were replaced with oil palm. The planting area would shrink to a mere 5-6 million hectares for the same amount of vegetable oil produced!

That's a lot of rainforest that could be saved, don't you think? Particularly with the blindingly fast rate of Amazonian deforestation these days? *Tu quoque!*

Climate and terrain suitability aside – since we're on a thought experiment roll here – if every single tonne of soybean oil production in the world were replaced with palm oil production, we could save close to a whopping 90 million hectares of prime planting land! That's plenty of space to plant better-yielding crops (like oil palm, ahem), or for a growing population of people to live in, or yes – even to replant forests.

Or let's take a break from geography to look at the economic contribution of oil palm instead. Those 53 million tonnes of crude palm oil produced annually – valued at a very conservative price of just USD700 per tonne<sup>[xxvii]</sup> – contribute a gross USD37 billion (that's 37,000,000,000) to the economies of the producing countries.

This does not even include the economic multipliers from the various industries and services that support and rely on oil palms and their products – refining, logistics, bulking, administration. Eat your heart out, Keynes. A vast array of manpower is also employed for the year-round harvesting and tending of the perennial oil palm trees.

And unlike many other major crops which are planted and controlled by megacorporations, a significant proportion of oil palm is owned and managed by smallholders (40% of all oil palm plantations in Malaysia<sup>[xxviii]</sup>). These are common, everyday men and women – making a decent living from their modest hectares, but by no means wealthy. Take away oil palm, and you take away their ricebowl – and what do you propose to replace it with? Seasonal work padding the numbers at the next Occupy protests? A side gig as extras for Al Gore's film productions?

Since I've already harped at length on soybeans as a (very poor) replacement, instead let's look at something non-food related that they could do for income. And since I'm being exceptionally snarky and sarcastic here (if you hadn't noticed), I'll go straight to the proposal that would **most outrage** the oil palm bashers. Because I care about their delicate feelings *oh so much*.

Let's get every single person employed by the oil palm industry to instead become **loggers**, which yields maybe USD6000 of timber per hectare<sup>[xxix]</sup> (at the very upper end of the price scale). To replace the USD37 billion from crude palm oil, more than 6 million hectares need to be clear cut for timber. Does that sound forest-friendly to you? Speak up, I can't hear you over the sound of chainsaws and Gaia's sparkling tears.

Oh, and did you know that an oil palm tree produces a crop all year round, with a peak productive life upwards of a decade in length before warranting replanting? This means that once an area is planted with oil palm, it doesn't need to be expanded to achieve its 3.8 tonnes of palm oil per hectare. That's potentially a steady USD2660 per hectare every year without needing to claim more land.

Unlike, say, the aforementioned logging for timber, which would require a fresh 6 million hectares to be cleared *every year*. It takes 50 years for a plot of timber-harvested land to recuperate to a USD6000/hectare logging value[xxx], so off the top of my head I'd hazard that it would actually take around 50 times those 6 million hectares to consistently match the economic output of oil palm. That's 300 million hectares that needs to be reserved for logging on a 50-year rotation basis – more than half of the remaining Amazon rainforest[xxxi]. Hold up a minute, I need to pass Gaia a fresh bucket to cry into.

There is another alternative however... One that is far more totalitarian and inhumane in concept and execution. In this scenario, the answer to *"What do we replace those 14 million hectares of oil palm with?"* is a plain – and refreshingly honest – *"Meh, who cares actually, #SayNoToPalmOil everyone!!!"*

Hijack the floor of the United Nations General Assembly, and ram through an immediate moratorium on all oil palm – with no viable replacements or alternatives – and you would basically doom the throngs of people who rely on it for their livelihoods to live (and very soon, to die) in abject poverty. I can't speak for the Malthusians and Voluntary Human Extinction Movement advocates among you, but where I come from that is generally accepted as A Very Bad Thing™.

Lest you think that this doesn't affect you – far away, safe in your air-conditioned cubicle and all – this would also starve the rest of the world of one third of all its oils and fats[xxxii]. Now, that might sound just dandy to carb-loading keep-fitters, but oils and fats form an integral part of the world's food supply chain. A sudden halt in palm oil production and supply would correspondingly cause a huge price spike for other vegetable oils and foods (last seen in 2007/08[xxxiii]) as more than 50 million tonnes of foodstuff go missing. Every consumer – yourself included – would get hit right in their pockets by the chain reaction in the markets.

The poor of the world would be hurt disproportionately more, as they already spend a larger percentage of their income on food as it is – they get hit right in the gut, no holds barred. Adam Smith's 'invisible hand' cares not for your Marquess of Queensberry rules. How about some of those Occupy protests against oppressors of the poor right about now?

So here is a suitably hysterical-sounding summary for you (and please, feel free to reuse it wholesale for your clickbait sites and tweets): **NO OIL PALM LEADS TO A CLEARCUT AMAZON RAINFOREST AND MILLIONS STARVED TO DEATH!!!**

A less hysterical alternative to the above: **Oil palm is by no means the driver of deforestation; if anything, its unique traits makes it possibly the greatest defender of forests in existence.**

But please, don't believe your lying eyes as you read my *obviously propagandistic* screed. Ignore the numbers and easily-searchable statistics like you're a math-averse liberal arts major. Just take it from these guys instead:

*In addition to its versatility, palm oil is also a very productive crop. The yield (amount of oil produced per hectare per year) is far greater than for other vegetable oils, while production costs are lower. - World Wildlife Fund[xxxiv]*

And if you can't trust the WWF on *I-Heart-Nature* issues, who *can* you trust? I mean, just look at those big, wet panda eyes. They need your unwavering support, donate now before they go extinct! (But sure, I'll humour you if you insist, the WWF are probably hacktastic shills paid off by Big Veg Oil, or something. Boo, pandas. Go eat some oil palm, you sad excuses for Order Carnivora[xxxv].)

Look, people are not just going to up and disappear off the face of the earth, no matter how much depopulation advocates and militant eco-warriors may wish it were so. Humanity's existence and interaction with this planet are an inescapable fact of reality. It is something to work with, not rail and rage against.

Demonizing oil palm because it isn't a perfect solution is a childish game – if you still want to do this and yet expect to be taken seriously, then please suggest a solution that *is* truly perfect. Here's a head start, I've already shown soybeans to be a far worse alternative. Maybe you can propose strip-mining the rainforests for uranium instead.

An additional 2 billion or more people (nett) are expected to grace this Earth before 2050, and demand for food is expected to rise around 70%[xxxvi]. There are only another 1.3 billion hectares of arable land left to utilize for growing more food.[xxxvii] (Credit given where it's due – I may have mocked Malthusianism earlier on, but I'll handily borrow its assumptions to make my own point here.)

I ask, would you – out of pliability to easily chantable slogans and memetic hashtags – outright dismiss oil palm as a possible option? You would not merely be dismissing one option out of many, you would be disregarding the single best option of them all.

I ask again, would you – out of blind allegiance to some misguided, nationalistic zeal for less-lambasted crops – rely on soybeans to feed the world? Doubling the oils and fats supply to 400 million tonnes total would require you to plant over 500 million hectares with soybeans – almost half of the world's remaining arable land area[xxxviii]. Oil palm would take us a mere 55 million hectares or so to achieve that same doubling of supply. **It's no contest whatsoever.**

(On an aside, I also ask – how does the least area-demanding oil crop become the designated villain, to be kicked around by far less productive competing alternatives? Far be it from me to engage in accusations of protectionism and lobbyist pressure like the palm-bashers so often do, so you're on your own here. And don't think about a pink elephant. I said don't!)

So if you've made it all the way to this part, let me reward your patient endurance by putting aside all the tongue-in-cheek tweaking of anti-palm zealots for a moment. I brought up the outlandish proposals to replace all oil palms with soybeans or logging (or uranium strip mining) in order to highlight a simple point – that even without oil palm in the picture, deforestation would still continue.

Simply put: people need to eat, and they need money to buy food to eat and otherwise pursue their own happiness. If the best or most easily attainable path to these goals involves cutting down handily available forests, **then that is what they will do.** *Human need and ambition* are the real drivers of deforestation, just as they are the drivers of all human activity. Oil palm's linkage to deforestation is merely a corollary of these implacable forces – and as I have repeated *ad nauseam*, oil palm being an option actually *reduces* the total deforestation that occurs.

Oil palm is not the driver of deforestation. I have plainly demonstrated that absent oil palm, far larger swathes of rainforest would be felled to feed and employ the hungry and poor masses of the world. The pulp from all those prematurely-decimated trees would go to supplying Gaia with tissues for all her sorrowful tears – a fitting complement. (Yes, I know that the reprieve from my biting wit was all too brief.)

Oil palm is, rather, how millions of people in developing nations can pull themselves out of poverty; how we can realistically feed an ever-expanding, ever-hungrier global population; and how we can reduce the felling of tropical rainforests to a minimum. Oil palm achieves a maximum of results with a minimum of geographic footprint. You'd really think that oil palm should be duly feted by the tree-hugging, forest-loving activists of the world. And absent decades of hysterical paranoia by maliciously/financially motivated detractors, this might have been the case all along.



Reducing income inequality, feeding the hungry, and saving the forests – oil palm fulfils a trifecta of bleeding-heart liberalism’s oldest and dearest goals. Add in another utopian dream of your choice and The Power of Heart, and by their powers combined: Oil palm is a genuine, existing superhero that really does protect and defend Mother Earth.

You can stop crying now, Gaia. The day has already been saved, by oil palm.

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- [ii] <http://www.theguardian.com/environment/2008/apr/21/wildlife>
- [iii] [http://www.saynotopalmoil.com/Whats\\_the\\_issue.php](http://www.saynotopalmoil.com/Whats_the_issue.php)
- [iv] <http://www.palmoilresearch.org/statistics.html>
- [v] <https://www.thedodo.com/tragic-sun-bear-mistaken-alien-967500986.html>
- [vi] <http://www.dailymail.co.uk/news/article-2118376/Filmmakers-heart-wrenching-documentary-shows-tragic-final-hours-orangutans-life.html>
- [vii] [http://en.wikipedia.org/wiki/Southeast\\_Asian\\_haze](http://en.wikipedia.org/wiki/Southeast_Asian_haze)
- [viii] [http://en.wikipedia.org/wiki/Captain\\_Planet](http://en.wikipedia.org/wiki/Captain_Planet)
- [ix] <http://www.mpoc.org.my/upload/PILF-2014-Tan-Sri-Yusof-Basiron.pdf> - Slide 1
- [x] <http://news.mongabay.com/2013/1205-wilmar-zero-deforestation.html>
- [xi] <http://whatsyourimpact.org/greenhouse-gases/carbon-dioxide-sources>
- [xii] <http://co2now.org/Current-CO2/CO2-Now/annual-co2.html>
- [xiii] <http://wattsupwiththat.com/2015/04/09/rss-shows-no-warming-for-15-years-now-includes-february-data/>
- [xiv] <http://www.mpoc.org.my/upload/PILF-2014-Tan-Sri-Yusof-Basiron.pdf> - Slide 10

[xv] <http://www.aocs.org/Membership/informArticleDetail.cfm?ItemNumber=18340>

[xvi] <http://asiapacific.anu.edu.au/newmandala/2013/02/20/aliens-in-the-land-indian-migrant-workers-in-malaysia/>

[xvii] <http://www.palmoilresearch.org/statistics.html>

[xviii] <http://www.palmoilresearch.org/statistics.html>

[xix] <http://www.palmoilresearch.org/statistics.html>

[xx] <http://www.worldmapper.org/display.php?selected=1>

[xxi] <http://www.iexpats.com/greek-spanish-house-prices-still-falling/>

[xxii] <http://en.wikipedia.org/wiki/Indonesia#Geography>

[xxiii] <http://rainforests.mongabay.com/deforestation/2000/Indonesia.htm> & <http://rainforests.mongabay.com/deforestation/2000/Malaysia.htm>

[xxiv] <http://www.songfacts.com/detail.php?id=15123>

[xxv] [http://en.wikipedia.org/wiki/The\\_road\\_to\\_hell\\_is\\_paved\\_with\\_good\\_intentions](http://en.wikipedia.org/wiki/The_road_to_hell_is_paved_with_good_intentions)

[xxvi] [http://www.soybeansandcorn.com/news/Jul9\\_14-20145-Brazilian-Soybean-and-Corn-Acreage-and-Production](http://www.soybeansandcorn.com/news/Jul9_14-20145-Brazilian-Soybean-and-Corn-Acreage-and-Production) & <http://www.soybeansandcorn.com/Argentina-Crop-Acreage>

[xxvii] [http://bepi.mpob.gov.my/images/overview/Overview\\_of\\_Industry\\_2014.pdf](http://bepi.mpob.gov.my/images/overview/Overview_of_Industry_2014.pdf)

[xxviii] <http://www.palmoilresearch.org/statistics.html>

[xxix] <http://www.forbes.com/forbes/2009/1214/investment-guide-10-forestry-real-estate-buying-woodland-for-fun-profit.html>

[xxx] <http://www.arnzenforestryservices.com/januaryarticle.html>

[xxxi] [http://en.wikipedia.org/wiki/Amazon\\_rainforest](http://en.wikipedia.org/wiki/Amazon_rainforest)

[xxxii] <http://www.palmoilresearch.org/statistics.html>

[xxxiii] [http://en.wikipedia.org/wiki/2007%E2%80%9308\\_world\\_food\\_price\\_crisis](http://en.wikipedia.org/wiki/2007%E2%80%9308_world_food_price_crisis)

[xxxiv] [http://wwf.panda.org/what\\_we\\_do/footprint/agriculture/palm\\_oil/about/](http://wwf.panda.org/what_we_do/footprint/agriculture/palm_oil/about/)

[xxxv] <http://en.wikipedia.org/wiki/Carnivora>

[xxxvi] [http://www.fao.org/fileadmin/templates/wsfs/docs/Issues\\_papers/HLEF2050\\_Global\\_Agriculture.pdf](http://www.fao.org/fileadmin/templates/wsfs/docs/Issues_papers/HLEF2050_Global_Agriculture.pdf) - Slides 1 & 2

[xxxvii] <http://www.palmoilresearch.org/statistics.html>

[xxxviii] <http://www.palmoilresearch.org/statistics.html>