

No, palm oil is not responsible for 40% of global deforestation

June 8 2017, by Victor Baron, Alain Rival And Raphael Marichal



Forest of Gede Pangrango, Indonesia. Credit: Ricky Martin, CIFOR/Flickr, CC BY-ND

A little over a month ago, Indonesia's Environment and Forestry Ministry sought to [extend a moratorium](#) on issuing new licenses for using

forest and peatland in the country for two years.

Indonesia faces a massive ecological issue [as its forests are rapidly disappearing](#) and palm oil has been blamed for it. Indeed, the [palm oil industry](#) symbolises tensions between the urgent need to preserve natural spaces [and the necessary support](#) for economic development in the global South.

Palm is an exceptional oleaginous crop with an unequalled oil yield per hectare. It produces an abundant and inexpensive [multi-purpose oil](#), which is sought by both the agro-food and biofuels industries.

When properly developed and managed, [palm oil plantations](#) can play an important role in improving livelihoods and eradicating poverty in the tropics' rural areas. [The World Bank estimates](#) that with a population increase of 11.6% and a 5% increase in *per capita* consumption, an additional 28 million tonnes of vegetable oils will have to be produced annually by 2020.

Global production of palm oil is now dominated by Indonesia and Malaysia, [which together account for 85% of the world's supply](#). Consumption is driven by emerging economies, such as India, Indonesia and China, in which both population growth and rising living standards are key factors for the rising demand. [European consumption](#) accounts for 15% of global palm oil use, while the US uses 3%.

The deforestation question

[The European Parliament](#) resolution of 4 April 2017 on palm oil and deforestation concluded a debate on the possibility of controlling palm oil imports with the specific aim of limiting deforestation in Southeast Asia.

The issue was addressed in an article published by the French newspaper [Le Monde on April 3 2017](#). Dealing with environmental damage related to palm oil production, the article claimed:

The conversion of land to oil palm plantations alone is responsible for 40% of the loss of natural forest cover around the world.



Palm oil from Indonesia and Malaysia is an essential ingredient in Asian countries. Credit: Alain Rival

But exploring the source of this data shows that palm oil is actually responsible for only 2.3% of the world's deforestation. How can this discrepancy be explained?

Questioning numbers

The *Le Monde* article is based on [a March 2017 report](#) by the European Parliament on the social and environmental impacts of [oil palm cultivation](#). Our team has carefully examined this 400-page paper, from which the 40% figure most probably originates.

It says "40% of global deforestation is due to the shift to large-scale oil palm monoculture plantations" and that "... 73% of the world's deforestation results from land clearance carried out for the production of agricultural raw materials [...]."

These are the same deforestation figures for world agriculture and for the oil palm sector, but this time taking into account all forms of agriculture, not just "intensive" or "industrial" agriculture.

It is worth noting that smallholder farmers play a key role in global agricultural production: 95% of coffee, cocoa and rice production comes [from them](#). In the palm oil sector, non-agro-industrial farms [account for about 40%](#) of the area and these also contribute to deforestation.

The data published in the European Parliament's report are not all referenced. If the 73% figure is not connected to a source, the 40% figure is cited as originating from a [2013 technical report](#) that follows a study commissioned by the European Commission, carried out by three private consultants.

It states that 239 million hectares of forests were cut down during the studied period, mostly in the tropics or subtropics: 91 million hectares in Latin America; 73 million in sub-Saharan Africa; 44 million in Southeast Asia.

Agriculture is therefore the leading cause of global deforestation, with

24% of the land used for livestock and 29% for crops. The report provides some details of the 29% chunk of deforestation due to agricultural crops, highlighting the crops with the highest contributions – soybean (19%), maize (11%), oil palm (8% %), rice (6%) and sugarcane (5%).



Choosing the right hybrid seed is crucial for sustainable production. Credit: Alain Rival

Let's recalculate

According to these data sets, palm oil plantations account for only 8% of the deforestation attributed to agricultural crops. In total, this represents 8% of 29%, thus 2.3% or 5.6 million hectares from the 239 million hectares of forest lost between 1990 and 2008.

In order to find the 40% figure, we must look a little further in the technical report to where deforestation in Brazil and Indonesia is analysed. These are the two countries in which forest losses were reported to be the highest.

In just Indonesia, 25 million hectares of forest were lost, of which 7.5 million hectares were used for agricultural production. Of these 7.5 million hectares, 2.9 million correspond to oil palm plantations, about 40%. It is therefore responsible for 40% of deforestation – but only that caused by the agricultural sector and only in this one country, not the world.

Why we need better information

Our concern is that distorted information is able to directly shape public opinion. Reports such as the one by the European Parliament now guide public priorities in terms of regulation and policies, which is even more worrying.

The publication of the European Parliament report immediately provoked strong reactions [from Indonesia and Malaysia](#), which denounced discriminatory and protectionist measures and [announced economic retaliation](#) on imports from Europe that includes [wheat to airplanes](#).

Faced with producing countries that will defend palm oil production at any cost – as it is regarded as a major vector for economic development and rural poverty eradication - the European Union must build a solid

argument before designing policies that take all the established causes of deforestation into account.

What the latest studies say

As far as Indonesia is concerned, there are [several published scientific studies](#) with more up-to-date data than the technical report commissioned by the European Commission. One of these, published [in Nature Climate Change](#), shows evidence that the loss of primary forests continued to accelerate in Indonesia (especially on Sumatra and Borneo islands) between 2000 and 2012 as rates jumped from 200,000 to 800,000 hectares a year.



Oil palm nurseries should come from certified material for successful ecological intensification of productivity. Credit: Alain Rival

Aimed at deciphering the causes of deforestation, [another study](#) covering the period 2000 to 2010 highlights the industries responsible for deforestation in Indonesia: tree plantations for pulp (12.8%), forestry concessions (12.5%), industrial [oil palm plantations](#) (11%) and mining concessions (2.1%).

The share attributable to palm oil was greater on the island of Borneo. Indeed, the most recent [review study](#) on the topic monitored forest losses over the past 40 years and found that, today, 7 million hectares of industrial plantations (for palm oil and pulp) are located in areas that were covered by primary forests in 1973.

This study stresses that links between industrial plantations and deforestation are not always direct. Only 25% of the deforestation occurring in Borneo corresponds to a direct conversion into plantations.

In other cases, forests are exploited for timber – either legally or illegally – and this weakens and exposes natural spaces to frequent fires. Deforested areas are not immediately or automatically regrown, and as a result, Indonesia alone harbours more than 50 million hectares of [degraded forest land](#).

The way forward

Sustainable solutions call for joint actions in and with producing countries. Agro-industrial [palm oil](#) plantations have a real responsibility for [deforestation](#) although this is shared with other sectors of the Indonesian economy, such as [pulp and paper, forestry and mining](#).

The increase in the frequency of uncontrolled fires is also a major cause of the degradation of forests in Sumatra and Borneo. [An official from the Borneo Futures NGO interviewed](#) in September 2015 by the Jakarta Globe, argued that the fight against forest fires remains ineffective because it does not consider the true causes.

Local communities and small farmers are the source of the majority of fires because they do not have the same means as agro-industries to get access to the land.

Defining credible and effective public policies for sustainable rural development involves diverse groups of stakeholders with often divergent interests. It requires both scientists and policy makers to work with accurate data, understood in the right context and taken from verifiable sources.

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