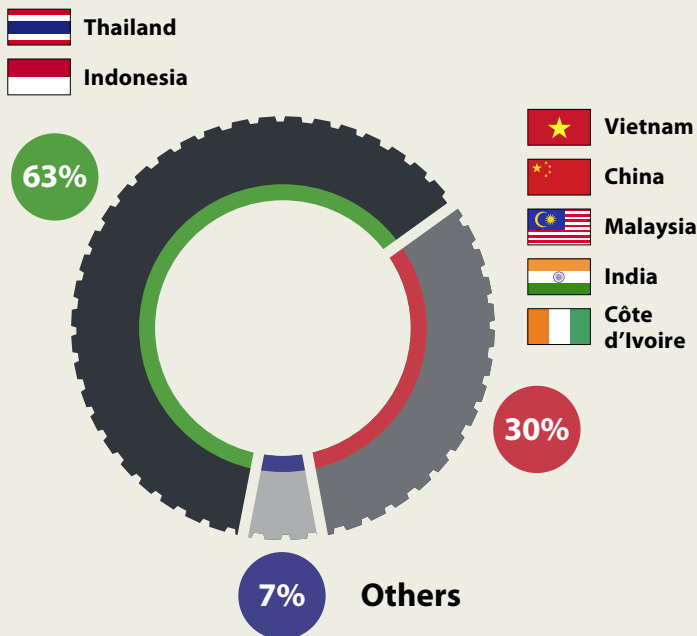




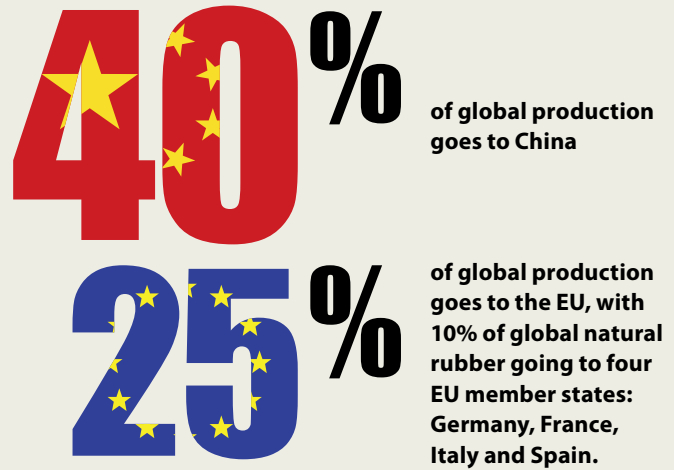
Rubber

Agricultural commodity consumption in the EU

Natural rubber plantations emerged as a significant source of deforestation, land grabs and human rights abuses in the first decade of the 21st century. The period saw rapid expansion of the area under cultivation for rubber, especially in the Mekong region in South East Asia. In more recent years the industry's growth has been held in check by a collapse in rubber prices but the problems of environmental devastation and social injustice linked to rubber production have not gone away.

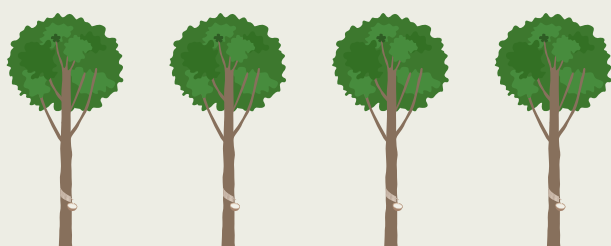


Two countries – Thailand and Indonesia – account for 63 per cent of global production and Vietnam, China, Malaysia, India and Cote d'Ivoire – share another 30 per cent. More than half originates from the Mekong region which includes Thailand, Vietnam, Cambodia, Laos and Myanmar.



Global land area devoted to rubber doubled between 2000 and 2016 to 12.9 million hectares (area equivalent to the size of Greece)

An estimated **3 million hectares** has been lost to **rubber plantations** in the **Mekong** since **2000**



Some basic facts

Natural rubber is produced commercially from Pará rubber trees (*hevea brasiliensis*), originally native to South America. The trees take five to eight years to mature and have a productive life of up to 35 years. They flourish in warm, moist conditions and thus often compete for land with tropical forests.

Smallholders dominate cultivation in most places, such as in Thailand (95 per cent). Eighty-five per cent of global rubber production comes from plantations of less than four hectares. But this is not the pattern everywhere. In Cambodia and Laos, most rubber is produced by large industrial-scale plantations which have developed rapidly since the mid-2000s, particularly in the East. Largescale plantations also have a significant presence in some other rubber producing countries (Sri Lanka, China and Indonesia).

Three quarters of the world's natural rubber production goes to manufacturing tyres for cars, trucks and aircraft. The many other applications for natural rubber include medical supplies, latex gloves, conveyor belts, mattresses, footwear, water-proof clothing and condoms.

Link to deforestation

Natural rubber cultivation expanded quickly from the mid-2000s onwards, linked to rising rubber prices and demand from China. A consultants' report for the European Commission (2018) attributed three million hectares of forest loss in the Mekong region directly to the increase in rubber cultivation since 2000.

There are no estimates of the total amount of deforestation worldwide caused by rubber expansion, although the global land area devoted to rubber cultivation increased from 8.8 million hectares in 2000 to 12.9 million hectares in 2016. Natural rubber output doubled over the same period to 12.4 million tonnes due to a mix of using more land and improved productivity. A very substantial proportion of the additional land came from small holders and large companies replacing natural forests or subsistence agriculture systems with rubber plantations, but it is not clear how much. The driver of the change was often price speculation, but the new plantations were often of bad quality and thus remain untapped.

As well as forest loss, rubber growing increases biodiversity loss and soil erosion, hazardous waste, chemical smells and pollution linked to the processing of natural rubber.

Much of the recent growth has come from the widespread adoption of monoculture growing techniques, especially on largescale rubber plantations, but also among smallholders



Rubber plantation in Cameroon. Expansion of rubber cultivation in the Congo Basin is likely to take place at scale.

in South East Asia. Rubber monocultures are more damaging to the environment than traditional agroforestry systems, where rubber trees are mixed with food crops and natural vegetation. The area covered by rubber monocultures in South East Asia expanded by more than two million hectares over ten years. Studies suggest that conversion of forests into rubber monocultures in South East Asia has led to big reductions in primate populations and declines of up to 76 per cent in bird, bat and beetle species.

Social conflict and human rights abuses

The increase in rubber cultivation has been linked to social conflict and human rights abuses in some areas where large industrial scale rubber plantations have seen rapid expansion, notably in Cambodia and Laos. Problems have included land grabbing, coercion, violence, eviction and loss of livelihoods for rural communities.

Global Witness investigated the activities of two Vietnamese rubber companies awarded large land concessions in Laos and Cambodia in processes marked by lack of consultation and forced evictions (Hoang Anh Gia Lai and the Vietnam Rubber Group). Here is a taste of the findings: "Often the first people know about either company being given their land is when the bulldozers arrive. Families affected are impoverished and face food and water shortages and get little or no compensation... When they resist, communities face violence, arrest and detention."

Recent NGO reports have exposed social injustices and environmental problems stemming from the development of industrial scale rubber plantations in some countries that are not yet major rubber producers, for example Cameroon and the Democratic Republic of Congo.

But it should also be recognised that rubber expansion enabled farmers and producers in some regions – Northern Thailand and Southern China for example – to increase their incomes (at least until the price crash of 2011).

China and the EU are key consumers

More than 40 per cent of global production goes to China. But the European Union (EU) is the destination for 25 per cent of rubber exports. Ten per cent of global natural rubber production goes to four individual EU Member States: Germany, France, Italy and Spain.

The EU is also a large importer of manufactured products that contain natural rubber. Moreover, large European companies play an influential role in the supply chain through their purchasing choices. The list includes three of the five biggest tyre companies: Michelin (France), Pirelli (Italy (although it was bought by ChemChina, a Chinese state-owned group, in 2015)) and Continental (Germany), along with car makers such as Volkswagen, Peugeot-Citroën, Renault, BMW and Mercedes-Benz. Twenty per cent of global rubber exports go to the United States of America.

Prices are volatile

The market for rubber is prone to extreme price fluctuations. In 2001, rubber prices were at a 30 year low (0.5 US\$/kg), but then rose dramatically, reaching historic peaks in 2008 and 2011 (5 US\$/kg), fuelled by a combination of strong demand for the product, and rising crude oil prices (higher crude oil prices push up prices for oil-based synthetic rubbers which in turn lead to higher prices for natural rubber).

But then boom turned to bust. Rubber prices fell very sharply in early 2011 and have stayed low ever since, linked to slower growth in the world economy, particularly China, and lower oil prices. In April 2018, the price of rubber being traded in Singapore was 72 per cent below the level of February 2011. As a result of low prices, there has been little new investment in rubber growing capacity since about 2012. A glut of over production has only recently begun to clear.

Smallholders plunged into poverty

The rubber slump has exacerbated longstanding problems of low incomes and poor employment terms for the world's six million small-scale rubber growers, workers on plantation and their families. In recent years, rubber prices have often been too low to cover the costs of production for smallholders and even large plantations. Many smallholders and workers have been pushed further into poverty.

While industry has yet to recover from the 2011 price collapse, many of the underlying factors that led to the rubber boom of the first decade of the 21st century are still in place. For example, the number of cars on the world's roads is expected to double by mid-century, an indicator of future rises in demand for natural rubber to make tyres. With the economies of rubber consuming countries, especially China, continuing to grow, further expansion of rubber cultivation seems likely in the longer term.

Congo Basin, a new frontier for rubber?

In the Congo Basin, expansion of rubber cultivation is likely to take place at scale. The region contains some of the world's largest remaining tracts of tropical rainforest.

NGOs have expressed particular concern about a rubber development operated by the Chinese-owned company Sud Cameroun Hévéa (or Sudcam) in Cameroon. Satellite data, analysed by Global Forest Watch in 2018, indicate that the plantation has expanded to within a kilometre of intact primary forest in the Dja Faunal Reserve, a United Nations Educational, Scientific and Cultural Organisation (UNESCO) world heritage site, which is home to critically endangered populations of gorillas and chimpanzees. The development also threatens the lands and livelihoods of thousands of people living nearby, including indigenous communities. The owner of the project, Chinese rubber giant Halcyon Agri Corporation (HAC), says it is complying with local laws and regulations.

The Sudcam project may be a foretaste of what is to come. An investigation by the NGO Earthsight found evidence that 20,000 hectares of forest had been cleared for conversion into rubber plantations in Democratic Republic of Congo, Republic of Congo, Central African Republic, Cameroon and Gabon between 2011 and 2017, amid illegalities and signs of corruption. Another 840,000 hectares of forest had been allocated to concessions that await development.

The report warns that the Congo Basin is ripe for a repeat of the deforestation disasters and human rights abuses experienced in Asia as soon as commodity prices for rubber and palm oil improve even modestly.

Industry slow to reform

Compared to other agro-industries such as palm oil, the rubber industry has been behind when it comes to sustainable and responsible production, and slow to act on deforestation, labour and human rights issues. It has faced less scrutiny from NGOs and public opinion.

But there have been moves to catch up. In 2015 the International Rubber Study Group – comprised of producer country

governments as well as rubber consuming companies – launched the Sustainable Natural Rubber Initiative (SNR-i). So far there is no governance structure in place and NGOs regard its voluntary standards as weak.

In 2017, China, the largest market for natural rubber, announced voluntary guidelines for rubber projects, covering issues such as deforestation and human rights abuses. Global Witness helped develop the guidelines which were launched by the Chinese Chamber of Commerce Metals, Minerals and Chemicals Importers and Exporters (CCCME), a body supervised by China's ministry of commerce.

But real change is only likely if major consuming companies use their influence positively. Here too there has been some progress. Four of the five largest tyre makers – companies which dominate the sector that buys more than half the world's natural rubber – have recently announced moves towards zero deforestation and sustainable sourcing in their operations.

Following Michelin's lead, Pirelli (2017), Bridgestone (2018) and Goodyear (2018) have announced sustainable sourcing policies on somewhat similar lines. These companies are also taking part in an initiative to set up a broader sustainability platform for natural rubber under a framework called the Tyre Industry Project (TIP), so far supported by 11 tyre companies accounting for 65 per cent of global tyre production.

In addition, in 2017 the US car giant General Motors announced plans for sustainable sourcing of tyres.

Endnotes

Underlined text shows hyperlinked citations. To see the fully hyperlinked version visit: www.fern.org/rubberfacts



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Policy recommendations

The EU, the second biggest importer of products resulting from deforestation, has made commitments to halt and reverse deforestation and forest degradation by 2020. To achieve this it must:

- Adopt an "Action Plan to Protect Forests and Respect Rights", including effective supply and demand side measures. The EU already regulates timber, fishing and conflicts minerals. It should now regulate the import of other commodities which cause deforestation including natural rubber.
- Address the issue of illegal conversion during the negotiation and implementation of Forest Law Enforcement Governance and Trade (FLEGT) Voluntary Partnership Agreements (VPA) concluded between the EU and timber producing countries.
- Support and empower small-scale farmer cooperatives to improve access to information, improve rubber production efficiency, and make farming systems more sustainable.
- Support the development of traceability and legality verification systems for natural rubber supply-chains. These should be inspired by the ones foreseen by the EU FLEGT Action plan and the Organisation for Economic Cooperation and Development (OECD)/ Food and Agriculture Organisation (FAO) guidelines for Responsible Agricultural Supply Chains.
- Adopt public policies that stimulate high levels of recycling and repair of rubber products to generate less waste, as well as increasing the efficiency and durability of rubber products to lower total volumes of rubber required for the same service.

This Fern briefing note is one in a series about forest risk commodities including palm oil, soy, cocoa and beef.



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