中外对话
China Dialogue

July 2021

New pathways to sustainable palm oil

A collection of China Dialogue's palm oil reporting from around the world

中外对话
China Dialogue

Foreword

Jessica Aldred, Josie Phillips

Palm oil has become an indispensable everyday commodity, accounting for one-third of the world's vegetable oil consumption. Used for edible and personal care goods, animal feed, chemical manufacturing and fuel, it is favoured partly because it requires a fraction of the land needed to produce the same quantity of sesame, coconut or soy oil. Demand is only expected to rise, driven by continued population growth and aided by palm oil's general versatility.

However, irresponsible practices by companies cultivating oil palm have driven environmental destruction and the exploitation of indigenous groups, local communities, plantation workers and smallholder farmers, resulting in a backlash against the industry.

In the second year of China Dialogue's editorial project focusing on palm oil, our stories moved to a closer examination of the industry's social and environmental impacts. Using our extensive network of contributors in different regions, we reported from Guatemala on San Juan La Noria, a village that has become entirely surrounded by oil palm plantations but whose residents feel none of the economic benefits (p. 46). In the Indian state of Andhra Pradesh, Jency Samuel talked to farmers who have been growing oil palm as part of a national drive to reduce reliance on imports, but whose economic prosperity appears to be coming at the critical cost of scarce water (p. 35).

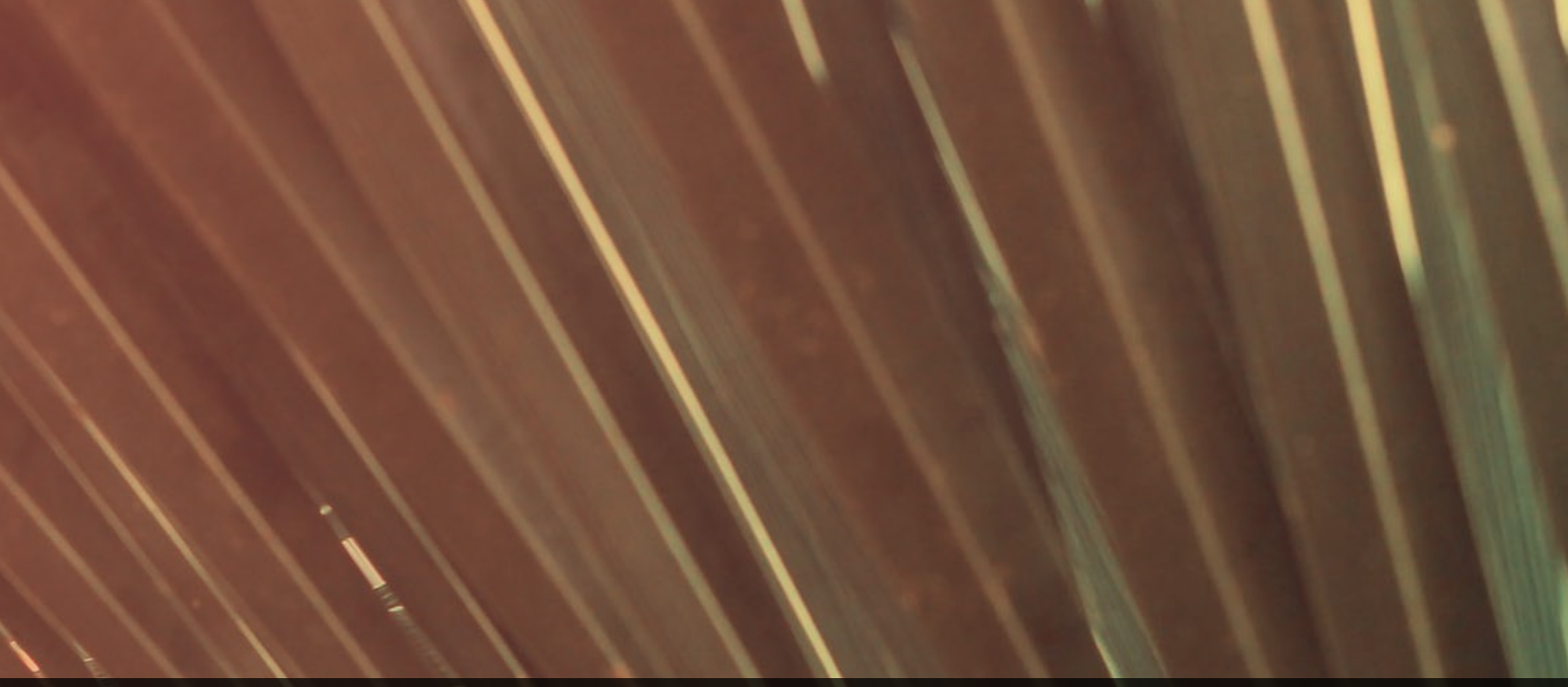
Several stories this year incorporated social history and anthropology, with academic Pauline von Hellerman telling the story of palm oil in West Africa (p. 1), and Josie Phillips continuing the historical journey with palm oil's part in the industrial revolution (p. 4). Both articles used fascinating archive images to bring these timelines to life.

Certification and the role of the Roundtable on Sustainable Palm Oil (RSPO) continued to be a focus for our coverage. The RSPO aims to create a sustainable business model by certifying palm oil according to principles and criteria that have become widely accepted as industry best practice. This model covered 19% of palm oil produced in 2021, but the RSPO has faced criticism from green groups for failing to hold companies to account for exploitation and abuses.

These issues are explored by Nithin Coca, who also looks at emerging alternative certification models (p. 8). Kong Lingyu analyses the domestic schemes in the leading oil-producing nations of Malaysia and Indonesia, who are actively promoting their own sustainable palm oil standards (p. 17).

We focused particularly on the growing Chinese and Indian markets, where rising demand and price sensitivity may be offsetting any advances in responsible production elsewhere. In China, palm oil imports are controlled by a few big firms and many are subsidiaries of multinational corporations such as

Photo by Valentin Salja on Unsplash



Wilmar International, Golden Agri-Resources and Sime Darby. These are RSPO members and have commitments to become 100% certified, yet many have failed to extend any tangible sustainability commitments to their operations in China. Just 4% of China's 7.6 million tonnes of palm oil imports are certified by the RSPO.

Zhang Zizhu looked at the added cost of sustainably certified palm oil, asking why producers are not benefiting from it (p. 22). Robert Hii examined how China's market influence can make or break green supply chains (p. 26), while Jiang Yifan explored the obstacles that are preventing sustainable palm oil from taking off in China (p. 30).

In India, just 3% of imported palm oil is certified, and like China, trade is dominated by large companies like Adani Wilmar and AAK Kamani – also subsidiaries of multinational conglomerates.

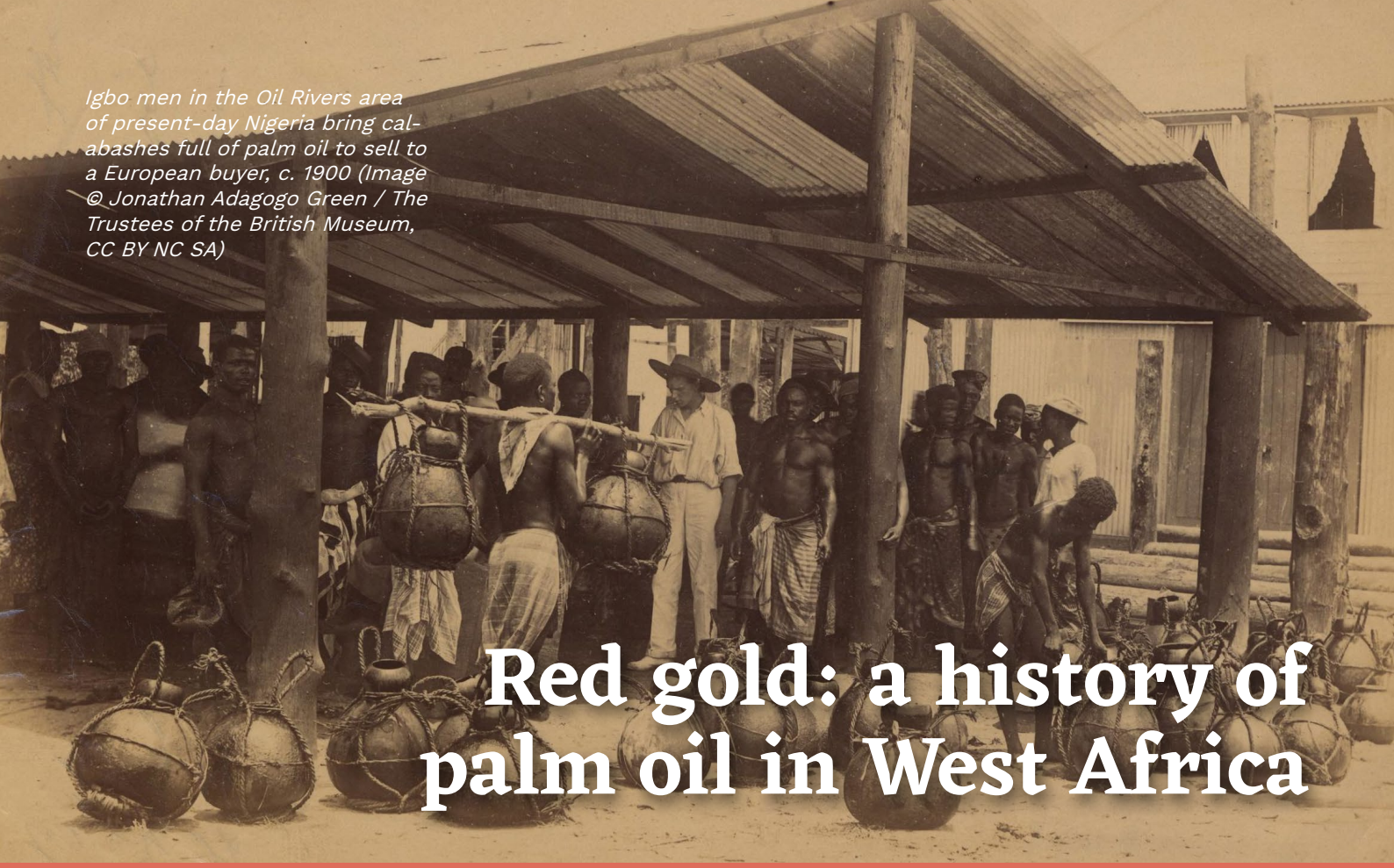
A repeated theme in stories from these two markets is that RSPO member companies cite lack of consumer awareness and demand – and cost – as barriers that prevent them using 100% certified products in their Indian and Chinese supply chains. But research to back this up is scarce. In this year of the project, China Dialogue undertook its first consumer survey to better assess consumer awareness and willingness to pay more for sustainable produce. Conducted by NGO Human Circle, with input from the RSPO and India Youth for Sustainability, the analysis of the responses by Chih-Ching Lan revealed that many young people had never heard of palm oil, but cared deeply about environmental degradation and were willing to pay more for sustainable produce (p. 40).

Our website has developed significantly to keep pace with our reporting, which features specially commissioned graphics, on-the-ground photography and interactive resources. Our newly launched palm oil landing page showcases our dynamic content, including profiles of the key companies and an interactive multimedia experience highlighting the complexity of the supply chain and the different journeys taken by certified and non-certified palm oil (p. 51).

As we move into the next phase of our project, we aim to develop our reporting of finance and the policy shaping domestic and international markets. We will look at palm oil in the context of greening the wider soft commodity sector, and examine the lesser-known palm oil uses in chemical manufacturing and R&D.

We will continue to tell stories that highlight the social and environmental injustice of irresponsible business practices and use our platform to amplify the perspectives of groups that have been historically excluded from the conversation. In this way, we hope to facilitate dialogue among citizens, companies and policymakers around the need for responsible and equitable agro-commodity chains, and around finding solutions that deliver benefits at scale without leaving anyone behind.

Contents



Igbo men in the Oil Rivers area of present-day Nigeria bring calabashes full of palm oil to sell to a European buyer, c. 1900 (Image © Jonathan Adagogo Green / The Trustees of the British Museum, CC BY NC SA)

Red gold: a history of palm oil in West Africa

Palm oil is one of the 21st century's most contentious agricultural commodities, but its relationship with humans goes back thousands of years. Pauline von Hellermann looks into the humble origins of this now controversial cash crop.

Pauline Von Hellermann
| January 18, 2021

Oil palm–human relations in West Africa: a long history

For thousands of years, the oil palm – indigenous to West Africa – has had an intimate relationship with humans. An explosive expansion of oil palm groves throughout western and central Africa in the wake of a dry period around 2,500 years ago enabled human migration and agricultural development; in turn, humans facilitated oil palm propagation through seed dispersal and slash-and-burn agriculture. Archaeological evidence shows that palm fruit and kernels and their oil already formed an integral part of West African diets 5,000 years ago.

Oil palms were not only protected as a valuable crop, they also grew well in cleared and burned areas. Abandoned villages and farm camps often became prominent palm oil groves; even today the age and distribution of oil palms can help easily identify old settlements. With the exception of "royal" oil palm plantations, established in the 18th century for palm wine in the Kingdom of Dahomey, all of West Africa's oil palms grew in such wild and semi-wild groves.

Women and children collected loose fruits from the ground, while young men harvested fruit bunches by climbing up to the top of the palms. The fruit was then processed into palm oil by women, through a time-consuming and labour-intensive process involving repetitively boiling and filtering the fresh fruits with water – similar methods are still largely used throughout West Africa. While pure red palm oil was derived from the palm fruit's fleshy outer mesocarp, women also, often with the help of children, cracked the palm kernels to make brown, clear palm kernel oil.

Palm oil was, and remains, a key ingredient in West African cuisine, such as that of southern Nigeria: from the simple dish of boiled yam, palm oil and Kanwa salt, to Banga soup made from the mashed fruit left over during palm oil processing and many other "soups" eaten with pounded yam or garri (ground cassava).

Throughout West Africa, palm oil was also used in soap making; today Yoruba black Dudu-Osun soap is a trademark Nigerian brand. In Benin

Traditional palm oil extraction in Guinea: the oil palm fruit is first boiled then crushed by hand (Image: Uzabiaga / Wikimedia Commons, CC BY SA)

Kingdom, palm oil was used in street lamps and as a building material in the king's palace walls. It also found hundreds of different ritualistic and medicinal uses, in particular as a skin ointment and a common antidote to poisons. In addition, the sap of oil palms was tapped for palm wine, and palm fronds provided material for roof thatching and brooms.

Early 19th-century boom

Palm oil has been known in Europe since the 15th century, but it was Liverpool and Bristol slave traders who, in the early 19th century, began larger-scale imports. They were familiar with its multiple uses in West Africa and had already been buying it regularly as food for slaves being shipped to the Americas. Through the slave trade the oil palm itself also came to Martinique, where it gained its official botanical record as Elais Guineensis Jacq. in the French botanist Nikolaus Joseph von Jacquin's Selectarum Stirpium Americanarum Historia (1763).

With the abolition of the slave trade to the Americas in 1807, British West Africa traders turned to European markets and natural resources as commodities, in particular palm oil. At the time, the main sources of fats and oils in northern Europe were animal-based: tallow, lard, whale and fish oils – products for which it could be a challenge to secure regular supplies. There was therefore a ready market for palm oil, which, as the historian Martin Lynn puts it, came to "grease the wheels of the industrial revolution" in the early 19th century.

Palm oil was used as an industrial lubricant, in tin-plate production, street-lighting, and as the fatty semi-solid for candle making and soap production. Breakthroughs in chemistry, in particular Michel Eugène Chevreul's discovery in 1823 that oils and fats were compounds of fatty acids and glycerine, facilitated a change to large-scale, industrial soap production. After a new technique for bleaching red palm oil (and reducing its distinct smell) was discovered in 1836 and duty on palm oil was abolished by the British government in 1845, it became a particularly attractive ingredient to soap makers, one that moreover was delivered straight into the ports of the main soap-making areas.

Ever larger quantities of palm oil – increasing from 157 metric tonnes per year in the late 1790s to 32,480 tonnes by the early 1850s – were brought to the United Kingdom by small-scale West Africa traders such as John Johnson Hamilton, who came to be known as "palm oil ruffians". The trade was not for the faint-hearted. Once a year, traders – often younger employees who had to cut their teeth – would spend up to six weeks travelling in small schooners to one of the many trading stations on the West African coast. There were several dozen trading stations in the Oil Rivers area of today's Niger Delta – the heartland of the West African palm oil trade.

European traders lived and traded entirely on hulks – former, abandoned sailing ships. This was partly to try and avoid deadly diseases such as malaria and yellow fever, but also because local authorities did not permit them to build on land. Inland trade was controlled tightly by local brokers and village chiefs. European traders gave these brokers European goods such as cooking utensils, salt and cloth "on trust" so they would buy palm oil from inland areas of production. Then the traders waited on board their ships for them to return, sometimes for months at a time. Many of the African brokers were themselves former slave traders – the slave trade in the Niger Delta did not immediately stop with abolition but continued alongside the palm trade until the 1840s. Palm brokers continued to use the same network and brokerage system developed for the slave trade, and European traders had to follow suite.

Whilst waiting, the European traders' coopers would assemble large casks (bought en route in pieces from French wine-barrel makers) to hold palm oil, and there was some small-scale buying of palm oil from local people. Otherwise there was little to do, and in the tedium of the long season in West Africa, drinking, gambling and violence were all too common, occasionally resulting in casualties.

Unlike the large industrial concessions that were later established in Southeast Asia, it was largely West Africa's existing wild and semi-wild groves that furnished European demand. In the hinterland of the Oil Rivers

A palm oil factory likely in either Opobo or Bonny, c. late 19th century (Image © Jonathan Adagogo Green / The Trustees of the British Museum, CC BY NC SA)

and many other areas, there was an abundance of wild oil palm that could be harvested. Some planting did take place; the Krobo in southeastern Ghana, where fewer oil palms were growing naturally, began systematic cultivation in response to European demand.

In Dahomey, too, more plantations were set up, and generally oil palms became increasingly prioritised under community land management strategies. Some parts of southeastern Nigeria focused so much on the production of palm oil that they became completely reliant on yam imports from further north. However, there was no large-scale, radical transformation in land management, ownership or ecology.

The rise in oil palm brokers

West African producers successfully responded to growing European palm oil demand through the gradual modification and expansion of existing small-scale production methods. This brought more income to female producers, especially in the first few decades. But because palm oil continued becoming ever more important as an export (and source of income), its production and trade involved more and more men.

Young men did the dangerous work of harvesting fresh fruit bunches, with increasing specialisation. In the Benin Kingdom, Urhobo men were hired due to their long history of palm oil production and trade. In palm oil processing itself, a second, far less labour-intensive method developed, where fresh fruit were left to ferment and then stamped on in large pits dug in the ground, or sometimes in old canoes. The resulting oil was much dirtier, harder (due to its much higher free fatty acids content) and inedible. It also fetched lower prices, but the new technique enabled much larger-scale production than before. This stamping was often done by young men, hired labourers or even slaves.

There was plenty of work in transporting palm oil, carrying calabashes filled with oil along forest paths to the nearest river and working on canoes. This brought some cash income for young men, but it was generally older, already wealthier men, and in particular chiefs, who were able to profit most from "red gold", through the labour of their wives and slaves and from control of trade. It was through brokerage that most wealth and power could be gained, and local power structures were deeply enmeshed with trade in palm oil.

A particularly powerful broker at this time was William Dappa Pepple, the amanyanabo (king) of Bonny (in today's southeastern Nigeria) from 1837 to 1854, who used the "canoe house" system to expand his oil palm trading networks with inland regions. Originally buildings containing large war canoes, canoe houses had become the basis for political allegiances in Bonny during the slave trade. The system also enabled the absorption of slaves into the lineage, and some themselves became powerful and rich brokers, such as King Jaja of Opobo.

Colonial takeover

In the late 19th century, chemists discovered that hydrogenation could be used to process vegetable oils (liquid unsaturated fats) into margarine (solid saturated fats), and margarine played an increasingly important role in supplying fats for the diet of Europe's growing urban working class. While the volume of imports of West African palm oil into the UK levelled off between the 1850s and 1890s, large-scale production of this new edible product stimulated renewed demand for palm oil and especially kernels in the early 20th century; in the 1930s, British West Africa exported around 500,000 tonnes of palm produce annually. Palm produce continued to play a significant role in West African rural economies, but local control of the trade eroded under colonial administration; the opportunities for wealth and power palm oil had offered local people (as well as palm oil ruffians) were no longer available. Moreover, as the colonial powers continued expanding their reach elsewhere in the tropics, a game-changing development was slowly beginning: the rise of the oil palm plantation. Within a few short decades, expanses of Southeast Asian forest had been cleared, creating a fast track to industrial-scale monoculture plantations, thus ending West Africa's position as the global hub of palm oil production.

One of King Jaja of Opobo's canoes (unknown photographer, 1882). Of Igbo slave origin and part of a Bonny canoe house, Jaja rose to power through the palm oil trade. He established his own state, Opobo, which became the largest European trading station on the West African coast. Powerful brokers like Jaja commanded fleets of 300-400 large canoes, each of which could hold up to 2,400 gallons of palm oil. (Image: Nationaal Museum van Wereldculturen, CC0)

An illustrated history of industrial palm oil

From traders in 19th-century West Africa to today's plantation owners in Southeast Asia, palm oil and colonialism are difficult to separate

Josie Phillips | February 18, 2021

Oil palms are now widely cultivated around the tropics to satisfy massive global demand for their oil – a whopping 76 million metric tonnes were produced last year alone. Yet the deforestation, monoculture plantations and corporate-controlled supply chains that many of us have come to associate with palm oil are a world away from the community-based food system that first produced it.

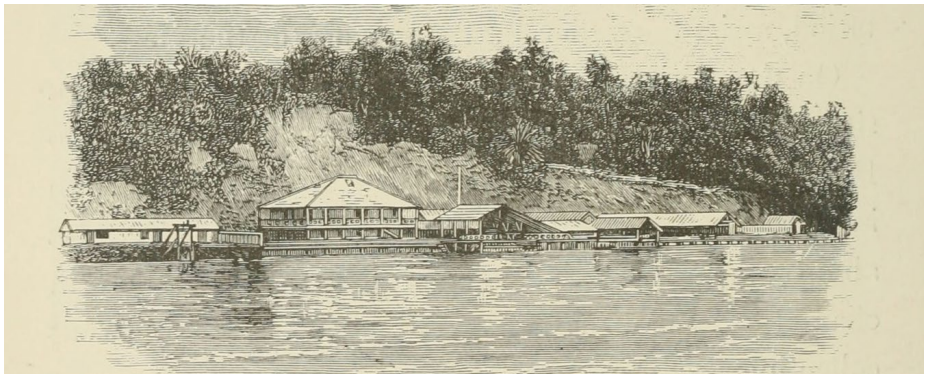
Before the mid-19th century, all palm oil was produced by hand in West Africa, where the oil palm is indigenous and has been closely linked with local livelihoods for thousands of years. But the Industrial Revolution caused a surge in demand for palm oil in Europe, and the need to secure reliable supplies led to the development of oil palm plantations. Throughout the colonial and post-war era, foreign investment drove intensive expansion of these plantations at the expense of indigenous people, forests and wildlife. Things are not that different today, except that corporate actions are increasingly scrutinised by watchdogs, buyers and investors, for whom unethical practices pose an increasingly high risk.

Early trade and the Industrial Revolution

When Europeans arrived on the Guinea coast in the 15th century, the significant local consumption of palm oil did not go unnoticed. When merchants began trading slaves, and shipping them across the Atlantic, they purchased palm oil as food for their human cargoes. Then, when the Atlantic slave trade was outlawed in 1807, the British government encouraged traders to capitalise on pre-existing connections with dealers in the West African interior and adopt palm oil as an alternative commerce. Further encouragement was added in 1845, when the British government abolished duty on palm oil.

By the 1870s, palm oil was the primary export of many West African countries. But production was still entirely dependent on semi-wild palm groves and manual processing, which meant the quality of oil varied widely, and its supply was somewhat unreliable.

Meanwhile, palm oil had become a key material greasing the wheels



The Calabar River in today's Nigeria was once a major route of the slave trade, with slaves brought from the interior to be shipped west across the Atlantic. After slaving was suppressed, the port of Calabar, with its palm oil factories pictured here, became the hub of West Africa's palm oil trade. (Source: The Congo and the Founding of its Free State, Henry Morton Stanley, 1885, p. 232. Digital image: University of California Libraries)

Lever Brothers' "Sunlight" soap was one of the first soap brands to switch from animal-based fats to palm oil during the industrial era. In this 1897 photo, workers package soap in their factory at Port Sunlight, Liverpool. (Image: Bedford Lemere & Co / Alamy)

the Industrial Revolution in Europe. Manufacturers found it to be an ideal substitute for the animal-based fatty wax traditionally used in soap manufacturing and candle making: the lather produced by palm oil-based soaps was more satisfying, and the candles were odourless upon burning. Palm oil was also perfectly suited to use as an industrial lubricant, for oiling engine parts and in tinplate production.

These new uses, combined with rapid population growth and urbanisation, resulted in surging demand for palm oil in Europe that West Africa's traditional systems of production were hard put to meet. This kick-started efforts by European colonialists to expand production along industrial lines.

Lord Leverhulme's plantations

There were some early, unsuccessful attempts to develop plantations in West Africa. Despite these, William Lever of Lever Brothers in Liverpool was particularly eager to secure land for his own oil palm concessions. The British businessman was certain that a more controlled, industrial approach to producing palm oil would provide the basis for a commercial palm oil trade.

In the early 1900s, Lever attempted negotiations with the British Colonial Office to secure land to develop concessions in Sierra Leone, Nigeria and Ghana (then part of British West Africa). The Colonial Office was wary of Lever's requests – they did not want to see a company monopolise trade in the region. Undeterred, Lever accepted an invitation from the Belgian authorities to open concessions in the Congo Free State (now the Democratic Republic of the Congo).

Huileries du Congo Belge (Oil Mills of the Belgian Congo) was founded in 1911 when Lever signed a treaty with the Belgian government that granted him 750,000 hectares of land to develop. Though the project successfully introduced a more mechanised palm oil mill system, infrastructure development was costly and slow, as was exporting palm fruit and oil to Europe. The venture failed to attract a large enough workforce to collect fruit and man the mills, so the subsidiary teamed up with Belgian agents to forcibly recruit Congolese men into labour. While these issues, and the emergence of a highly efficient plantation system

in Southeast Asia, constrained the profitability of Lever's concessions, he had launched one of the world's first modern multinationals, which was later renamed Unilever.

Southeast Asia

Today, Southeast Asia is the centre of global palm oil production – with Indonesia and Malaysia producing around 85% of the world's supply. But oil palms did not arrive there until 1848, when Dutch botanists planted four seedlings in the botanic gardens in Bogor (then Buitenzorg) on the Indonesian island of Java.

Much of the early development in Southeast Asia's plantations is attributed to a Belgian entrepreneur, Adrien Hallet, who had acquired experience in industrial cultivation through the rubber trade in the Congo. Hallet noticed that Indonesia's ornamental palms bore more fruit than those in Africa. Believing that conditions must be ideal for cultivation, he set out to establish his own plantations. He set up Indonesia's first oil palm plantation at Poeloe Radja in Sumatra in 1911. Then in 1917, he helped two French planters develop Malaysia's first commercial estate in Selangor. Foreign investors took advantage of the "open-door" policy and by 1936, Sumatra had surpassed Nigeria in palm oil exports.

When demand for natural rubber – another major plantation crop in the region – declined after the first world war, palm oil provided an excellent option for diversification. Plantation companies, such as Guthrie, Barlow and Hallet's company Socfin, repurposed their existing rubber infrastructure for oil palm cultivation. Crucially, these companies laid the foundations for intensive oil palm agriculture in the colonial territories. By the time the second world war broke out in 1939, there were over 100,000 hectares of plantation in Indonesia and Malaysia – with Socfin and Guthrie controlling over 50% of the global palm oil supply.

Road to independence

The region's palm oil industry deteriorated during the second world war. With major commerce hubs, such as Singapore and Malacca, under Japanese occupation, the infrastructure supporting palm oil supply faltered. Colonial administrators abandoned their posts or were detained, trade routes were blocked and plantations faced labour shortages. Exports dropped to a fraction of their pre-war volumes, and though Malaysian exports rallied in the post-war period, it was nearly two decades before Indonesia's trade recovered.

Throughout the colonial expansion period in Southeast Asia, the cost to indigenous and local communities was high. People endured the imposition of the colonial system, including forced labour and the appropriation of their ancestral lands – exploitation that continues to this day.

After President Sukarno proclaimed independence for Indonesia in 1945, there was a period of armed struggle between the new republic and the Dutch colonialists. Many Dutch-owned businesses were attacked, like this rubber plantation in Palembang, Sumatra, whose buildings were destroyed by the Indonesian army in 1947. (Image: The British Newspaper Archive / Alamy)

Hundreds of thousands of immigrants from South China and India were also exploited, having been directed to foreign-owned plantations around Malaysia and Indonesia. The so-called "coolies" were put to work through indenture, a system of forced labour relying on debt-bondage and violence.

During the war, the occupying Japanese used slogans such as "Asia untuk orang Asia" (Asia for Asian people) and campaigned against the colonial forces that had exploited the region for so long. When Indonesia's independence was proclaimed in 1945, it reflected a rise in nationalism. Under President Sukarno's increasingly radical economic policies, many foreign-owned plantations lost government support. Some even became the target of attacks during the unrest that followed the independence declaration. It was not a stable environment from which to grow the plantation industry.

The case in Malaysia was quite different. After the second world

For about 50 years, before plantation development started in Indonesia and Malaysia, oil palms were popular ornamentals, planted along streets, in parks, and around administrative buildings and homesteads. In this 1904 photograph, oil palms decorate the gardens of the Palace of the Sultan of Johor in Johor Bahru, Malaysia. (Image: The New York Public Library / Alamy)

Unlike in Indonesia, colonial control of Malaysia was regained after the second world war. The British authorities encouraged investment and development, and the expansion of oil palm plantations continued to take place in rural areas, such as Kelantan in the northeast of Peninsular Malaysia. (Image: The National Archives)

Malaysia's Federal Land Development Authority received loans from the World Bank, Asian Development Bank, Saudi Fund, Kuwait Fund and Japanese Overseas Development Fund to develop land for oil palm. The Jengka Triangle Program, shown here in 1969, cleared 12,000 hectares of forest and was the country's first development scheme. (Image: Mary Hill / World Bank, CC BY NC SA)

war, the British Ministry of Food committed to only purchasing palm oil supplies from Malaysia, which supported the recovery of the country's palm oil sector. Following independence in 1957, Malaysia's new government remained supportive of foreign investment. Using palm oil to promote economic growth, it established the Federal Land Development Authority (FELDA) to distribute land to farmers for development. Each FELDA settler was given four hectares of land to grow oil palm or rubber, as well as a small wooden house and land to plant vegetables. This model made Malaysia the global leader for palm oil exports, and received recognition from the World Bank and United Nations as a means to alleviate poverty in developing countries.

Palm oil boom

Through the 1960s, the deteriorating political situation in postcolonial West Africa led to a decline in palm oil exports, while Southeast Asia's palm oil industry continued to rapidly expand. Engineers and researchers who had worked in West Africa made their way to Southeast Asia to foster development and expand the smallholding sector.

After Indonesia's transition to Suharto's New Order in the mid-1960s, the government began fully supporting foreign companies and investment in oil palm development. By the 1970s, around 150,000 hectares of plantation had been developed in the country. With further investment from the World Bank and the Asian Development Bank, this number grew to 600,000 hectares by 1985.

Expansion at what cost?

Across Southeast Asia in the name of socio-economic development, forests were cleared to make way for new oil palm concessions and other development projects. The industry ignited huge conflict over land, with thousands of indigenous and local communities displaced, not to mention forest and biodiversity loss.

As long as the commercial trade in palm oil has been controlled by companies, the commodity has been attached to conflict. This is because palm oil companies have nearly always prioritised profit over human welfare and the environment. Governments have supported this, favouring short-term financial gain from foreign investment at the expense of protecting their own people and resources. Only when palm oil is produced with consideration for indigenous people, local communities and the environment should it be considered sustainable. Though the use of certified sustainable palm oil is increasing, the industry still has a long way to go before the model of colonial profiteering is a thing of the past.

Other regions of Southeast Asia also experienced development for oil palm. In the 1970s, the International Development Association provided loans to Papua New Guinea to clear land for the development of agriculture, including oil palm concessions, cattle breeding and coconut plantations. (Image: Ray Witlin / World Bank, CC BY NC SA)

A worker on an RSPO-certified plantation in Malaysia sprays diluted herbicides around a young oil palm to keep weeds down (Image © Afriadi Hikmal / Greenpeace)

Certification fails to transform the palm oil industry – what next?

The RSPO's standards are a flagship in the drive to make palm oil sustainable. But much more is needed to truly bring change.

Nithin Coca | February 23, 2021

In 2004, a new entity was formed with big goals to end deforestation, stop environmentally harmful practices and improve ethical sourcing in the palm oil industry, which was increasingly being linked to widespread fires, habitat loss and human rights violations in Southeast Asia.

That entity was the Roundtable on Sustainable Palm Oil (RSPO), founded by leading industry actors together with the World Wildlife Fund for Nature (WWF). Sixteen years later, despite measurable progress and continuous efforts to improve the practices of its certified producers, the organisation has been criticised on many levels. It has been accused of being beholden to industry, enabling greenwashing and for being slow to act when alerted to violations by its members. Some believe the path forward is to improve the RSPO from within, but others believe alternative models may be a better route to ensuring sustainability in the palm oil industry.

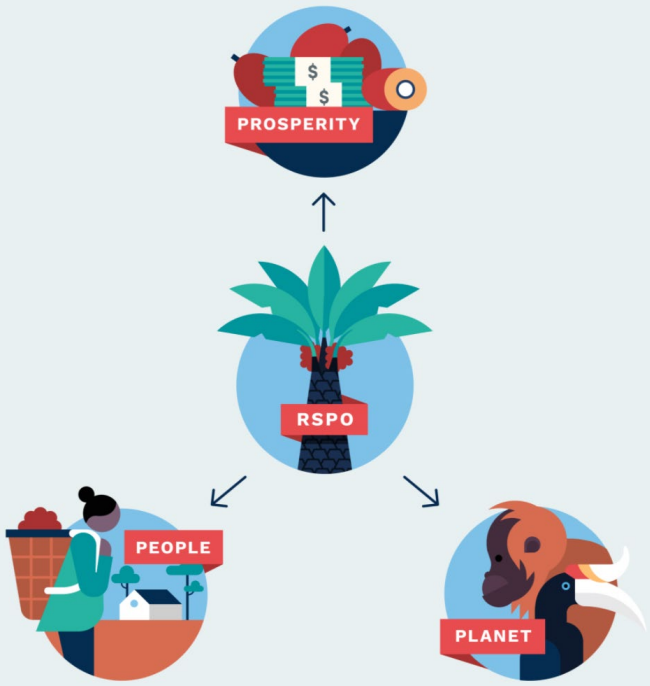
"A multifaceted approach is what we need to drive change in the industry," said Michael Guindon, global palm oil lead with WWF in Singapore. "Certification is one element that's going to lead to widespread transformation of the palm oil sector."

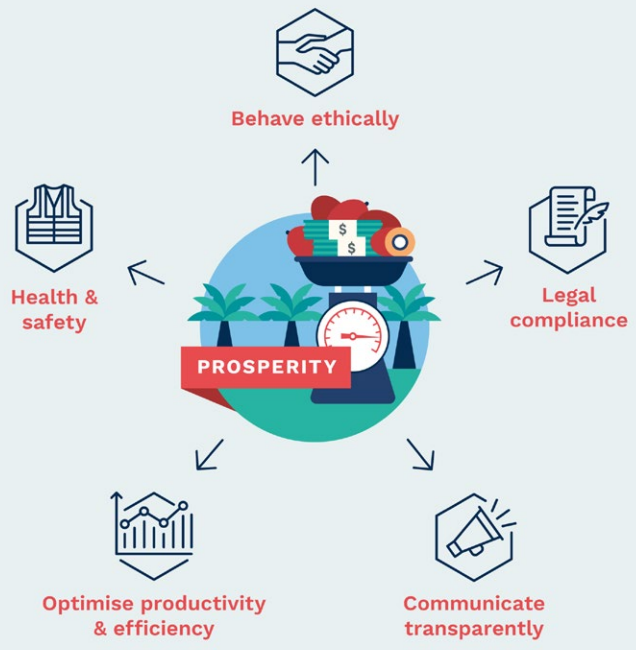
COMPANIES TAKING INDEPENDENT ACTION

Another emerging trend is large multinational corporations, with either a significant palm oil footprint or complex supply chains, working to verify their sources independent of certification schemes.

COFCO International, which imported 11% of China's palm oil in 2018, has a strong sustainable palm oil sourcing policy that requires all their palm oil suppliers and sub-tier suppliers to comply with their Supplier Code of Conduct. This means their commitment to the RSPO is just part of their sourcing efforts.

"We see certification as being one way towards sustainable sourcing, but not the only way," said Wei Peng, global head of sustainability at COFCO International. "Our supply base mapping and risk management is our primary way to ensure we deliver on our commitment."





While the RSPO is the largest and most recognisable standard, there are in fact many other approaches. Some attempt to utilise several certification schemes, while others focus on empowering smallholders, or take a "landscape" approach, covering all commodities grown within a particular area. Companies across the palm oil supply chain are also making independent efforts to better map their palm oil sourcing. Despite this, whether or not palm oil can become a fully sustainable industry will depend on deepening the impact of existing entities like the RSPO, along with more collaboration by major actors along the supply chain.

Challenges for the RSPO

Despite strengthening standards, major concerns with the RSPO centre around its enforcement mechanism and auditing system.

"[The] RSPO has an appropriate standard, but the system is inadequate at upholding that standard," said Robin Averbeck, forest programme director at Rainforest Action Network (RAN), an environmental non-profit organisation based in the United States.

For example, it took the RSPO nearly 2.5 years to suspend the certificates of Indofood after being presented with evidence of sustainability and labour rights violations by RAN and its partners in late 2016. Similarly, it took three years to follow up on labour abuse allegations on plantations run by FGV Holdings Berhad (FGV), one of Malaysia's largest palm oil companies, which led to a partial sanctioning in 2018. The RSPO then conditionally lifted this in August 2019, only to have it reinstated the following January. In the end, FGV saw itself subject to a withhold release order from the US Customs and Border Protection authority due to the same labour violations – a move over which the RSPO "expressed reservations".

"We haven't seen the RSPO play the role that it should yet, because [they] have repeatedly allowed bad actors to be RSPO members," said Averbeck.

A report entitled "Who Watches the Watchman? 2" released by the Environmental Investigation Agency and Grassroots in late 2019, found that little has changed since 2015, when their first report accused the RSPO of "extensive fraud as well as sub-standard and underhand assurance processes". They found the action taken by the RSPO since the first report to be "severely lacking".

In 2008, Indonesia's leading environmental advocacy NGO, WALHI, staged a protest outside a meeting of the RSPO in Bali. One of the issues they wanted to draw attention to was illegal deforestation in West Kalimantan by agribusiness giants like Cargill, who also run several RSPO-certified plantations in the province. (Image: Brihannala Morgan / Rainforest Action Network)

Sustainability is still a long way off

Another issue is that the RSPO has yet to achieve its goal of transforming the industry and making sustainable palm oil "the norm". Only 19% of palm oil produced globally is RSPO certified, meaning the vast majority is at risk of being connected to deforestation, fires, human rights abuses and other environmental and land-use issues.

Even companies that are RSPO members, and have committed to achieve full RSPO certification across their supply chains, are not guaranteed to be producing palm oil that is deforestation free. Wilmar International is estimated to control 40% of the global palm oil supply chain through its subsidiaries, but it purchases palm oil from third-party suppliers, increasing the risk of "leakage" – palm oil linked to deforestation finding its way into the certified supply chain.

The lack of progress over 16 years and the RSPO's shortcomings, together with high-profile NGO campaigns using the plight of charismatic animals such as the orangutan to highlight deforestation and demonise palm oil production, have led some brands to choose a dramatic form of certification: palm oil-free.

THE RSPO'S SUPPLY CHAIN CERTIFICATES

The RSPO has four models to endorse supply chains that handle certified palm oil. Manufacturing companies buying palm oil from the end of any of these supply chains can use the RSPO logo on products. However, these models offer very different levels of assurance as to what proportion of palm oil comes from RSPO-certified plantations. Only the first two models can guarantee all of it does. The third only guarantees that some palm oil comes from certified sources. And the fourth allows companies to buy RSPO credits but none of the palm oil used in end products is from certified sources.

Out of the four models, only the first can guarantee that palm oil is traceable to the individual plantation on which it was grown. Traceability is a key part of ensuring accountability. But many companies, particularly smaller ones, use the last two supply chain models because they are cheaper, simpler and less labour intensive. As such, the likelihood of their end products containing non-certified palm oil is higher.

Another issue is that while 19% of the world's palm oil is grown on RSPO-certified plantations, the lack of demand from brands and consumers means about half of this certified oil ends up being mixed with and sold as regular palm oil.

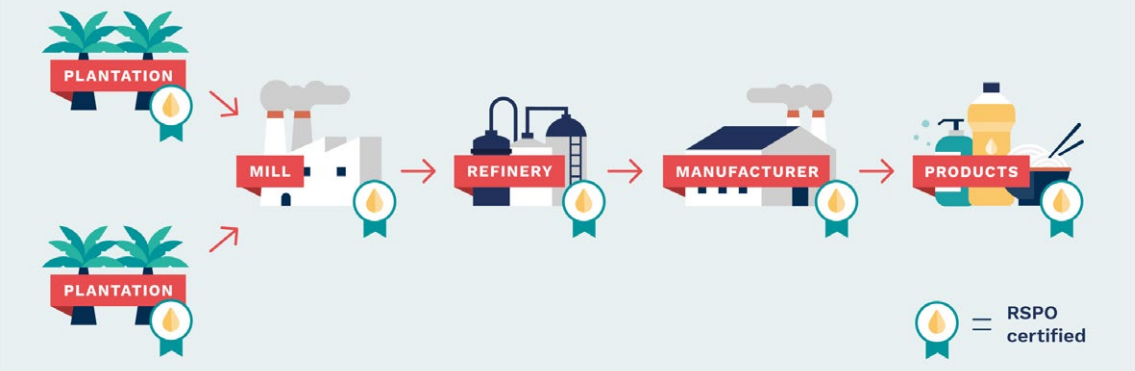
Pushing for wider use of strict supply chain models and increasing demand for sustainable palm oil, particularly from high-growth markets such as India and China, will be key to improving livelihoods and preventing further environmental destruction.

(All graphics: Ed Harrison / China Dialogue)

IDENTITY PRESERVED

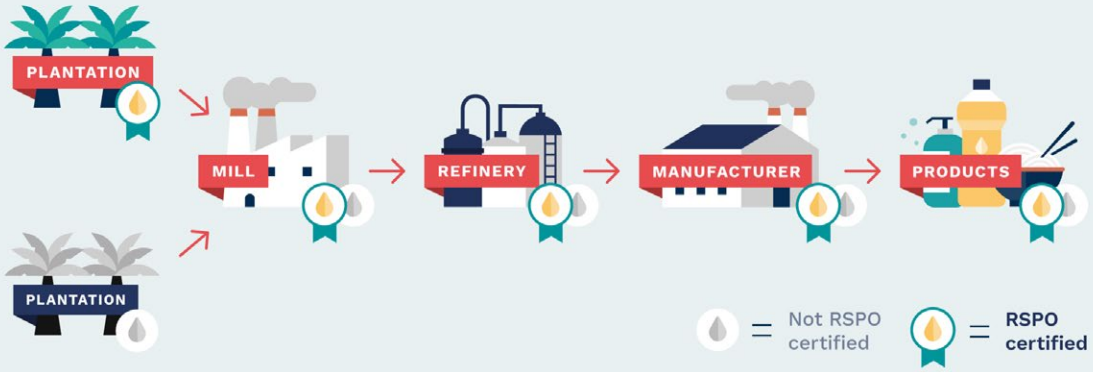
The Identity Preserved (IP) model is the strictest, requiring palm oil grown on individual RSPO-certified plantations be kept separate at all stages of the supply chain. To be certified, each stakeholder – from mill to refinery to manufacturer – needs to prove that they keep the oil separate from non-certified oil. This model is not widely used, which severely limits routes to market. It usually only happens under the umbrella of a vertically integrated company that controls everything from the plantations to the refinery, selling on to manufacturers for a high premium. At the end of this supply chain, the palm oil in each product can be traced back to a single RSPO-certified grower.

SEGREGATED



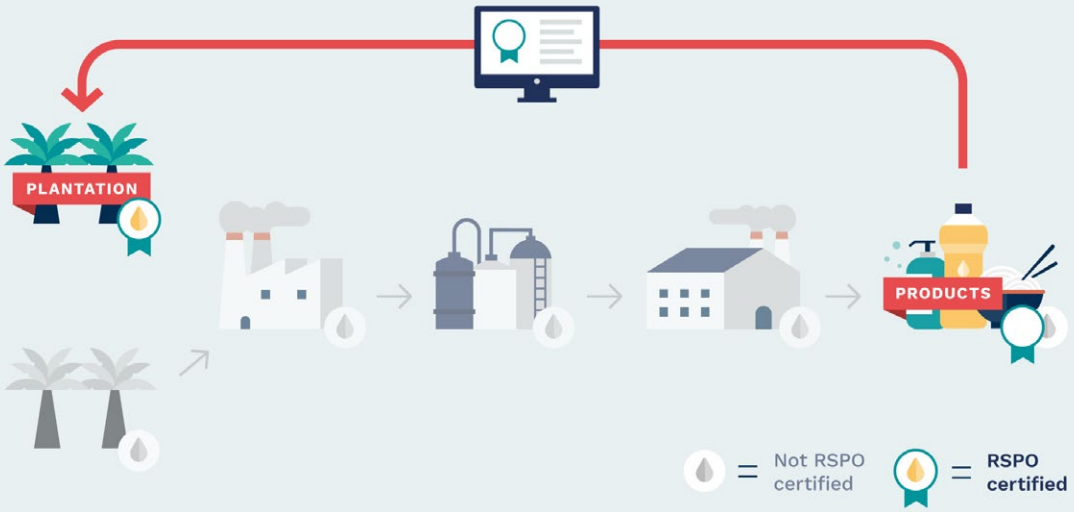
Under the Segregated (SG) model, certified palm oil is separated from non-certified palm oil at all stages of the supply chain. However, at the mill, fruit and oil from different certified plantations is mixed. So, while it's not possible to trace the oil back to an individual grower, this model still ensures that palm oil delivered to the end user only comes from RSPO-certified plantations.

MASS BALANCE



The Mass Balance (MB) model allows certified and non-certified palm oil to be mixed along the supply chain. It is most commonly used by stakeholders that handle large volumes of palm oil but have also made sustainability commitments. Refineries operating under the MB model often source from hundreds of mills, but only some of these mills need to be certified. While the refinery must be transparent about the mills it sources from, it does not have to disclose the total volume of palm oil it handles. This means that only a proportion of palm oil in the final product will come from an RSPO-certified plantation – and sometimes it's a very small percentage. Manufacturing companies using MB palm oil in their products must add the word "MIXED" to the RSPO logo on their packaging.

BOOK & CLAIM



The Book & Claim model allows companies to purchase certified palm oil credits, but does not require them to buy the oil they use from a certified supply chain. The idea behind Book & Claim is to help support and fund growers who may be newly certified according to RSPO standards, but do not yet have access to a certified supply chain. The model does have an important role to play in the RSPO's goal of promoting sustainable practices. At the end of the supply chain, the palm oil used in products is unlikely to have been grown on certified plantations, but manufacturing companies can use the RSPO logo on their packaging, as long as they add the word "CREDIT".

"Protecting the world's rainforests will only be achieved by many conservation groups and companies making more palm oil-free products, consumers reducing their demand for palm oil, NGOs fighting for rainforests, [and] companies who choose to use palm oil only using identity preserved certified sustainable palm oil," said Bev Luff, co-manager of the Palm Oil Free Certification Trademark.

One of the concerns is that growth in sustainable production in one place could result in shifting unsustainable production elsewhere through a spillover effect. A study released in June 2020 and published in Environmental Research Letters found that in Indonesian Borneo, while RSPO certification reduced forest loss in some areas, it increased deforestation in adjacent areas. It concluded that "while certification has reduced illegal deforestation, stronger sector-wide action appears necessary to ensure that oil palm production is no longer a driver of forest loss."

According to Luff, about 40 companies have been certified by their palm oil-free standard so far, including Illumines Skin Care, Earth Sense and Meridian. Many more are in various stages of the assessment process. Part of this involves educating brands about palm oil use through derivatives they might not even be aware of.

"It is very difficult for the company wanting to make palm oil-free products to know which ingredients contain palm oil derivatives," said Luff. "If after assessment we conclude a company is unknowingly using a palm oil derivative, then we try to help them find a palm oil-free replacement ingredient."

Emerging alternative models

For the most part, palm oil does not often have readily available alternatives. And when it does, these can have their own detrimental environmental impacts. In order to address the shortcomings of the RSPO, there are several NGO- and industry-led alternatives, most of which see themselves as complementary, or building upon, RSPO certification.

The Palm Oil Innovation Group (POIG) was founded in 2013 with the goal of going beyond the RSPO through stronger standards and better verification.

"We undertook a process to create a verification approach that would address a number of the gaps that we were seeing," said Averbeck. This includes

requiring that the entire company – not just specific plantations – be certified, and a more robust auditing system with stronger social and labour standards. In fact, many of POIG's innovations were adopted by the RSPO when it updated its standards in 2018.

"POIG demonstrating that 'no-deforestation, no-peat and no-exploitation' standards were possible was influential," said Averbeck. "We were able to both advocate and demonstrate that better practices and responsible production were possible."

Meanwhile, in Latin America, Palm Done Right started as an effort not to transform the whole industry, but to work with smallholder farmers in Ecuador to implement sustainable practices, starting with organic certification.

"When we talked to mission-driven brands and buyers, there was a need to progress beyond organic," said Monique van Wijnbergen, spokesperson for Palm Done Right. "That's when we started to work with the RSPO, Fair for Life [and the] Rainforest Alliance, all of which helped us improve and progress on environmental and social sustainability."

In fact, van Wijnbergen saw value in having several certifications, rather than just one.

"There's a lot of overlap, but it helps us in what we are doing," she said. "Organic stands out due to the practices and natural interventions. Fair for Life has a strong community check, and with the new RSPO standards, there's the high-carbon stock approach. There are different values in different standards."

Currently, Palm Done Right works with 200 independent organic growers in Ecuador, who in total grow oil palm on about 10,000 hectares. That feeds into the 550,000 tonnes of palm oil produced globally that is certified by the Rainforest Alliance (RA) under their Sustainable Agriculture Standard, which works for other commodities too, such as coffee, bananas and cacao. These are often grown alongside or with oil palm on smallholder plantations, a particular focus for the organisation.

"Smallholders are also an important piece here. They are on about a third of the land cultivated for palm oil," said Paula den Hartog, sector lead for palm oil at the RA. "That is why we're prioritising engaging with smallholders to improve their resilience and livelihoods, and to link them to global markets to set the stage for them to implement more sustainable practices."

While the RA's standard is separate from the RSPO's, it is a member and does work with it on traceability.

The RSPO's limitations in working with smallholders were a reason that Traidcraft Exchange, a United Kingdom-based social enterprise, decided to have their smallholder palm oil producers in Africa be certified by Fair for Life, a fair trade certification entity and the only one currently working in the palm oil sector.

"The RSPO doesn't seem to be a model that fully embraces smallholder production," said Alistair Leadbetter, supply chain development and business support manager at Traidcraft. "We were much happier to go with Fair for Life. We're not against the RSPO, but it wasn't for us, because we wanted to focus on smallholders."

Palm Done Right combines and builds on a collection of standards, including those of the RSPO; the organic certification programmes of the USDA and the European Union; Fair for Life; and the Rainforest Alliance (Graphic: Ed Harrison / China Dialogue)

In the fair trade model, brands pay a premium for fully traceable palm oil grown based on a range of labour, community and sustainable standards. The premium goes directly to local farming communities. At present, however, palm oil seems to be a very small segment of global fair trade commodities.

Companies taking independent action

Another emerging trend is large multinational corporations, with either a significant palm oil footprint or complex supply chains, working to verify their sources independent of certification schemes.

COFCO International, which imported 11% of China's palm oil in 2018, has a strong sustainable palm oil sourcing policy that requires all their palm oil suppliers and sub-tier suppliers to comply with their Supplier Code of Conduct. This means their commitment to the RSPO is just part of their sourcing efforts.

"We see certification as being one way towards sustainable sourcing, but not the only way," said Wei Peng, global head of sustainability at COFCO International. "Our supply base mapping and risk management is our primary way to ensure we deliver on our commitment."

The company is working with ProForest, an NGO, to map its entire supply chain in detail to help analyse risks. They've even committed to releasing a list of their supplying mills every year. Other big brands, such as Unilever and Mondelez International, also release their mill data.

Unilever is one of the world's largest consumer goods companies, and it procures palm oil from at least 150 refineries and oleochemical plants, which in turn source from at least 1,500 mills. While the company has committed to buying from RSPO- and RA-certified mills, they also saw a need to better understand which plantations were selling oil palm to their mills, and whether or not they were following the company's sourcing policy. To do that, they partnered with Orbital Insight, a California-based geospatial analytics start-up.

The Olenex edible oils refinery in the Dutch port of Rotterdam. A joint venture founded by Archer Daniels Midland and Wilmar International – two of the world's leading agricultural commodities businesses – the refinery is RSPO certified and is one of many included on Unilever's most recent list of palm oil suppliers. (Image: Frans Lemmens / Alamy)

"We look at billions of pings of mobile phone data," said Zac Yang, director of solutions engineering at Orbital Insight. "That data in aggregate results in a pattern of traffic, which says: this is your actual sourcing footprint, based on the patterns of movements of truck drivers."

This allows Unilever to address one of the key challenges with certification: tracing that first mile from plantation to mill. Mills often source from several plantations, and the oil produced is often a mix sourced from sustainable and unsustainable plantations. This type of technology could enable much broader mapping and understanding of the palm oil supply chain in real time, and Orbital Insight is looking at working with other major global food and beverage brands.

"Where we're going is a method that works with big data and AI algorithms that can process and analyse this at scale," said Yang. "It's inherently much more cost effective and scalable to run around hundreds and thousands of mills."

Unilever, along with PepsiCo, are two of the early partners in a new approach being piloted by IDH (the Dutch acronym for The Sustainable Trade Initiative), a social enterprise based in the Netherlands, to certify

particular jurisdictions as Verified Sourcing Areas (VSAs).

"If you are sourcing from that area, you know exactly what is happening in sustainability in that area, and you also know that people are working to improve it," said Guido Rutten, senior manager at IDH. "There's a huge demand for new solutions for supply chain sustainability, and for landscape approaches in particular, from companies in the West, but also in other demand markets like in India and China."

IDH's current pilot projects are in Indonesia's Aceh and southern India. The VSA approach is focused on the landscape, meaning that any commodity grown in a verified region – oil palm, cacao, coffee – all comes under the same standard.

Beyond certification

There are concerns that certification may have reached a limit. After strong growth in its initial years, the RSPO's figure for certified sustainable oil has been stuck around 19% for the last few years. Getting to 100% looks as distant now as it did when the organisation was founded in 2004.

"You're never going to see all of global palm oil be certified," said the WWF's Guindon.

Part of the challenge, according to Guindon, is growth in Asian demand, which now accounts for 60% of all palm oil consumption. There's far less demand for certified sustainable oil in India, China or Southeast Asia compared to the European Union, where already 86% of palm oil bought by the food industry is certified.

Building demand for it in Asia is one path forward, but Guidon sees greater opportunity in improving the standards for companies that are already RSPO members.

"RSPO members, if you look at the traders, they cover 90% of palm oil trade," he said. "If we put requirements beyond sourcing sustainable palm oil, that could have widespread impacts."

An IDH-supported "restoration nursery" in Aceh, Indonesia, where local palm oil smallholders and communities are working together to turn degraded lands into biodiverse agroforestry farms. Thirty hectares of productive trees like durian, propagated in this nursery near the village of Tenggulun, have already been planted. (Image: IDH)

Averbeck, of the Rainforest Action Network, believes that the burden lies with companies to expand their efforts, especially after recent reports that many have either failed, or are on track to miss, their own zero deforestation goals.

"Companies have put their commitments out there, yet they haven't invested resources in actually implementing those commitments," she said.

In 2016, activists with the Rainforest Action Network placed a banner under a famous Pepsi-Cola sign in New York, part of a long-running campaign to pressure snack-food giant PepsiCo to stop buying palm oil from sources linked to conflict and deforestation. Since then, the company – one of the world's biggest buyers of palm oil – has taken numerous steps to improve its palm oil sourcing strategy, including partnering with IDH to restore forests and support smallholders in Indonesia. (Image: Walter Hergt / Rainforest Action Network)

Who gets to define sustainable palm oil?

Leading palm oil producers Indonesia and Malaysia are actively promoting their own standards of sustainable palm oil production

Kong Lingyu | June 4, 2021

Very few commodities are more geographically concentrated in their production than palm oil. In 2020, Indonesia and Malaysia produced 59% and 26%, respectively, of the world's palm oil. Sometimes referred to as "red gold", the naturally reddish vegetable oil is widely used in cooking, food processing, cosmetics, chemical production and as a biofuel.

Palm oil is an important source of economic growth and livelihoods in both countries. But it has also been associated with environmental degradation and human rights abuses. As a response to growing consumer awareness of these issues in the US and Europe, in 2004, the World Wildlife Fund (WWF), Malaysian Palm Oil Association and a few multinational companies including Unilever started the Roundtable on Sustainable Palm Oil (RSPO), a voluntary initiative that promotes sustainable production of the commodity through certification schemes and standards.

Western users of palm oil have long been putting pressure on their Asian suppliers to improve sustainability practices. In 2009, the EU applied restrictions on Asian palm oil biofuel imports. Lim Keng Yaik, former Malaysia's Minister of Primary Industries, called it "green neocolonialism."

The RSPO tries to apply pressure from consumers in affluent Western markets to producers in Asia. But in recent years, governments and industry groups in Indonesia and Malaysia increasingly see

Collecting bunches of oil palm fruit in Malaysia (Image: Bazuki Muhammad / Alamy)

the RSPO as too demanding and having too much say in the global supply chain.

"Sometimes I use the word 'cartel' [to describe RSPO]," says Dr. Ahmad Parveez Ghulam Kadir, director-general of the Malaysia Palm Oil Board (MPOB).

Turning the table, both countries initiated their own national certification schemes: in 2011, the Indonesian Sustainable Palm Oil (ISPO) standard was born. Four years later, Malaysia unveiled its equivalent, the Malaysian Sustainable Palm Oil (MSPO) standard. Since then, both countries have been campaigning globally to win recognition of their standards, and the right to define sustainable palm oil on their own terms.

Screening crude palm oil in North Sumatra, Indonesia (Image: YT Haryono / Alamy)

'Green' palm oil: who should decide?

RSPO has strong buy-in in the European market with 86% of non-biofuel palm oil imported by the then 28 EU member states and Switzerland being RSPO-certified in 2019. Globally, however, RSPO certified palm oil only accounts for 19% of total annual production, most of which is sold to Europe. In stark contrast, in the world's top two importing countries, India and China, RSPO makes up only 3% and 4% of the market, respectively.

Dr. Parveez said that in order to gain RSPO certification, producers have to cut profits, which is not really sustainable. "What I feel uncomfortable about is [that the RSPO] keep on changing their goalposts, keep on making it more difficult, more stringent, adding more features."

As national standards, ISPO and MSPO are rapidly advancing in their home markets. By the end of 2020, the Indonesian Palm Oil Association (GAPKI) issued 682 certificates covering a total of 3.78 million hectares of land or 27% of Indonesia's planted palm oil area. The adoption of MSPO is even more impressive. The agency claims that by the end of 2020, about 88% of Malaysia's total oil palm planted area was covered by MSPO certification.

The standards are making inroads at a time when the EU continues to ask tough questions on the commodity's sustainability. In 2019, the updated EU Renewable Energy Directive declared palm oil-based biofuel inconsistent with the EU's environmental policy due to its deforestation risks. The European Commission designated palm oil as a feedstock of high "indirect land use change"(ILUC) risk and announced a phase-out of palm oil as a biofuel by 2030.

The move triggered strong responses from Indonesia and Malaysia as half of the EU's imported palm oil is used as biofuel. In December 2019, Indonesia put forward a formal complaint against the EU at the World Trade Organization (WTO), the world's first WTO palm oil trade dispute case. Indonesia's director general of foreign trade, Indrasari Wisnu Wardhana, said the EU's policy would not only impact Indonesia's palm oil exports to Europe, but would also tarnish the image of palm oil products globally.

Malaysia quickly followed suit and filed its own complaint to the WTO's Dispute Settlement Mechanism. The two countries also launched a global media campaign to rebuild the image of Southeast Asian palm oil. The disputes add urgency to the promotion of ISPO and MSPO as an effort to regain the right to define what constitutes "sustainability" in palm oil production.

Two steps forward, one step back

As national standards, both ISPO and MSPO are backed by government enforcement to raise the level of sustainability in palm oil production. Like the RSPO, both cover general themes on legality, environmental accountability, social responsibility and business practices, but are less stringent in most of those aspects. A comparison of seven palm oil sustainability standards ranks the RSPO at the top and MSPO and ISPO at the bottom, with the ISPO lagging far behind others.

Over the years, the two countries have attempted to strengthen the standards. In 2014, Indonesia made ISPO certification mandatory for all producers other than smallholder farmers. In 2016, it set up a special working group asking multiple stakeholders to help update the standard in order to increase its international recognition. The group added human rights protection and traceability and transparency principles to the framework and later set out to have independent monitoring of certification implementation. The final aim was to make certification mandatory for smallholders.

The openness was short-lived. Procedures to update the ISPO became less transparent after 2016

and ended up excluding many stakeholders from the process. In March 2020, a new presidential regulation on ISPO was issued with added articles about transparency and mandatory smallholder certification by 2025. However, articles on human rights protections, traceability and independent monitoring that appeared in earlier drafts disappeared from the final regulation, to the general dismay of NGOs.

Joko Sarijito, manager of WWF Indonesia's sustainable commodities project, told China Dialogue that "ISPO standards require all growers and factories to have minimum legal requirements as mandated by Indonesian law", but some sustainability standards related to natural resources conservation and indigenous people rights should be strengthened.

Though less stringent than the RSPO, mandatory national standards are "better placed to achieve full national coverage of produced volume", points out a 2020 United Nations Development Programme report. It also highlights that, as a private scheme, RSPO faces resistance from some stakeholders for its certification costs and perceived inadequate price premium.

In 2020, Indonesia and Malaysia produced 59% and 26%, respectively, of the world's palm oil

Harvesting the crop of a small-holder in Sumatra (Image © Greenpeace / John Novis)

The biggest challenge to "full national coverage" comes from smallholder farmers who manage roughly 40% of Malaysia and Indonesia's oil palm-planted areas. Their per hectare yield can be 50% lower than that of large-scale commercial farms because of lack of knowledge and access to high-quality agricultural inputs such as fertilisers, while incomplete and inefficient harvesting also play a role. Their response to the yield gap is to cut down forest to plant more palm trees. While rolling out certification schemes, helping smallholders to boost their per hectare yield on existing land is a crucial step toward sustainability.

Low education and income are often barriers for smallholder farmers to certify their palm oil. Land ownership is another hurdle. RSPO, MSPO and ISPO all require proper record of land ownership as a prerequisite for certification, a condition that many multi-generational smallholder farmers often cannot meet.

The role of smallholders

Bringing in smallholder farmers has been central in Malaysia and Indonesia's push to expand coverage of their national standards. Dr. Parveez, the MPOB director-general, told China Dialogue that one of Malaysia's strategies is to create "sustainable palm oil clusters" consisting of 1,000–1,500 smallholder farmers. MPOB has designated officials to manage such clusters and cover certification fees for farmers. Under the scheme, certification costs per hectare are between $30 and 35, much lower than the $87–215/hectare for the RSPO, as estimated by a 2016 study.

In Malaysia, where about 88% of areas planted with oil palm have been MSPO-certified, smallholders remain the most challenging segment. Smallholders (both organised and independent) only account for about 22% of all certified planted areas, while they cultivate over 30% of planted land.

The government has mandated that all remaining smallholder farmers will have to be certified by the beginning of 2022 or face suspension or termination of their licences.

In 2019, the Indonesian government published a National Sustainable Palm Oil Action Plan aimed at accelerating smallholder certification by coordinating the actions of 14 government agencies. But Indonesia is lagging behind in certifying smallholders largely because of the land-ownership issues. As of October 2020, only 0.21% of oil palm planted areas controlled by smallholders were ISPO-certified.

"Indonesia is too big. Its palm oil is produced in so many different areas, which makes certification more difficult," Robert Hii explains. Hii was born in Malaysia and runs CSPO Watch, an independent industry monitoring website. He argues that Malaysia's heavier reliance on palm oil exports, makes it more sensitive to the sustainability demand of downstream buyers. But Indonesia consumes 30-35% of its own palm oil, so the motivation to get certification is low. "What Indonesia says is we have enough certified palm oil to satisfy the European and US market, why do we need to certify the rest?" Hii said.

Indonesia is too big. Its palm oil is produced in so many different areas, which makes certification more difficult"

Robert Hii
An owner of an independent industry monitoring website

5.9 million hectares

total planted area in Malaysia in 2019

Support for the small farmers

Boosting the average yield of smallholder farmers is one of the reasons why the governments are guiding them through the certification process, which tends to raise their knowledge and improves planting techniques. Higher efficiency reduces the pressure on land and deforestation.

Malaysia has banned the conversion of primary forests and carbon-rich peatland into oil palm plantations and has committed to put a cap on planted areas, stipulating that they must not cover more than 6.5 million hectares in 2023. In 2019, total planted area in Malaysia has already reached 5.9 million hectares but the 2023 cap means annual growth needs to shrink to below 2% after 2019. By comparison, between 2001 and 2016, the annual growth rate of oil palm plantation was over 9%.

Since 2011, Indonesia has also permanently banned the exploitation of primary forests and peat swamp forests for palm oil, pulp and timber production, although Greenpeace claims that deforestation still happens.

Dr. Parveez told China Dialogue that despite the cap on total planted area, Malaysia is still aiming to increase yield per hectare by another 50% through improved breeding techniques aided by genome technology, tissue culture, mechanisation and other means.

The potential for smallholder farmers to increase yield is very high. "Just boosting their production by one additional tonne per hectare per year, you will get an extra 2 million tonnes out of Malaysia… and 5-6 million tonnes out of Indonesia," said Hii. Combined, this increased yield constitutes 10% of the total 2020 global production.

Training smallholder farmers has become central to certification efforts in Malaysia and Indonesia. According to MPOB, the Malaysian government not only shoulders all the certification costs of farmers, provides personal protection equipment and storage space for chemicals, but also runs training sessions, road shows and social media campaigns to raise awareness among the smallholders.

GAPKI has also organised workshops and good agricultural practice trainings to increase smallholder capacity and competency on sustainable plantation management and assist them in certifying and implementing ISPO. Sometimes it also helps with fertiliser procurement and transportation.

Due to a lack of research, the effectiveness of certification schemes such as RSPO, ISPO and MSPO in

delivering sustainability improvements on the ground is still debatable. A study looking at Indonesian Borneo (Kalimantan) discovered "no significant difference" between RSPO and non-RSPO plantations in terms of sustainability metrics. However, it did find that certified plantations tend to achieve greater yields.

The impact of wider adoption of MSPO and ISPO is also under-studied. A recent report from Global Forest Watch shows that primary forest loss in Malaysia has dropped by 60.5% in the last four years, from 185,000 hectares in 2016 to 73,000 hectares in 2020. Dr. Parveez attributes the decline to the expansion of the MSPO scheme in the country which now covers 5.19 million hectares, that's 4.3 times the planted areas certified by RSPO.

Winning over the buyers

Lately, both Malaysia and Indonesia have been actively publicising their efforts to improve palm oil sustainability, hoping that more international buyers will accept their sustainability standards. The Tokyo Olympics has included MSPO and ISPO, along with RSPO, as acceptable certificates in its Sourcing Code for Sustainable Palm Oil.

In 2018, the Indonesian Palm Oil Board signed a tripartite Memorandum of Understanding (MOU) with the Solvent Extractor Association, India's largest industry group for plant-based oil, and Solidaridad, a Netherlands-based NGO, to recognise ISPO as a "legitimate sustainable framework for palm oil production and trade between Indonesia and India," along with India's own standard, India Palm Oil Sustainability (IPOS). The following year, MPOB followed suit with a similar MOU aiming at aligning MSPO with IPOS for joint promotion.

When signing the MOU with MPOB, Atul Chaturvedi, president of SEAI, said: "Time has come to prepare countries for having their own national standard, rather than looking elsewhere."

China, the world's second largest palm oil importer, bought 7.6 million tonnes of the oil in 2019 – 13% the world total. But the Chinese government, businesses and the general public has yet to warm up to the idea of palm oil sustainability. No sustainability requirements are imposed on imported palm oil and certified products have close to zero visibility in the Chinese market.

Nevertheless, China will not be able to stay out of the sustainability debate for long. As India readies itself for the recognition of ISPO and MSPO, industries in Malaysia and Indonesia have turned their attention to China.

Malaysia has engaged Chinese counterparts to prepare the entrance of MSPO to the Chinese market. In 2019, MPOB signed an MOU with the China Green Food Development Center (CGFDC), aimed at allowing CGFDC to incorporate the MSPO scheme in its certification of the Green Food label, providing an entry point for Malaysia's own certified palm oil into China.

When China's foreign minister, Wang Yi, visited Malaysia in October 2020, he issued a joint statement with his counterpart Dato' Seri Hishammuddin Tun Hussein acknowledging "the significance and importance of the trade in commodities, especially that of palm oil." Both sides agreed to strengthen cooperation in promoting sustainability requirements for palm oil products which adhered to the MSPO and China's Green Food label.

Dr. Parveez spoke highly of China's recognition of the MSPO, even though so far there's no sustainability requirements for imported palm oil in China. "We want the positive image for Malaysian palm oil to be spread in China… one day, it won't be surprising that buyers in China will demand sustainable palm oil. When that time comes, we are already there." He says.

The MPOB is also cultivating a relationship with the Beijing Winter Olympics 2022. "This will be another milestone for us, for the recognition of our MSPO. Just like Tokyo Olympics," Dr. Parveez said.

Indonesia's GAPKI puts equal emphasis on exploring cooperation with China. Bandung Sahari at GAPKI's sustainability department told China Dialogue that they hope ISPO will become part of those recognised sustainability standards with the same acknowledgement as the RSPO when the Chinese market imposes sustainability requirements through certification.

Meanwhile, a conversation about setting up China's own domestic palm oil sustainability standard has already begun. Experts have told China Dialogue that if China does produce its own national standard, the question of which overseas standard to recognise will remain open.

If major palm oil markets accept ISPO and MSPO, will the more stringent RSPO be side-lined? Benjamin Loh, manager of WWF Malaysia's sustainable palm oil project, is not that worried. "We would like to see MSPO to be widely accepted as the norm in the global supply chain, especially in India and China," he told China Dialogue.

"Markets that currently do not demand certification would benefit from MSPO as a starting point towards enhanced sustainability in the future. This will also eventually lead to increased sustainability requirements within the MSPO standard as we all know that sustainability is an ever improving initiative," he said.

Correction: An earlier version of this article stated that the percentage of MSPO-certified planted area at the end of 2020 was about 96%, when it's in fact about 88%. This has been corrected.

A worker pushes a wheelbarrow of palm oil fruits on a plantation in Malaysia. Although palm oil is one of the most widely traded and used commodities, its production is linked to environmental and social problems, prompting calls to make the supply chain more sustainable. (Image: Zainal Abd Halim / Alamy)

Can only western buyers afford sustainable palm oil?

If all the actors in the supply chain were treated fairly, consumers would barely notice the premium for sustainable palm oil products. Multinationals could play a much bigger role.

Zhang Zizhu | May 28, 2021

Palm oil is one of the most widely traded and used commodities. Ubiquitous in cooking oils, detergents and beauty products, it is also found in over half of all packaged foods on supermarket shelves. Over 85% comes from Indonesia or Malaysia, where clearing land to meet rapidly increasing demand for the product has severely damaged forest ecosystems and caused huge carbon emissions. Palm oil production is also frequently associated with the infringement of land rights, forced labour and sexual harassment. These problems have led to calls for an end to the use of the product. In response to its environmental impacts, the European Union has decided to end its use in biodiesel production by 2030.

In 2004, various stakeholders in the palm oil sector, such as Unilever, WWF and the Malaysia Palm Oil Association, responded to public concern about these issues by creating the Roundtable on Sustainable Palm Oil (RSPO), a voluntary international certification system for palm oil intended to promote environmental and social sustainability. The RSPO is currently the globally dominant sustainability framework for non-biodiesel uses of palm oil.

But according to the RSPO's own figures, the proportion of global production covered by its certification has hovered at around 19% since 2014, with no sign of a breakthrough. And the 19% that is certified goes primarily to the EU and US markets, where certified products have a higher market share because of consumer awareness. The main reason for the stagnation is a lack of demand from developing world markets – and those very markets are the biggest consumers of palm oil. In the two biggest markets, China and India, RSPO-certified palm oil accounted for a mere 4% and 3% of consumption, respectively, in 2019. A breakthrough in those two countries would have far-reaching implications for the global palm oil landscape.

That certification makes palm oil more expensive is seen as an obstacle to a breakthrough. In China, manufacturers often say they cannot use more sustainable palm oil, as consumers will not pay the extra. This has led to somewhat of a stalemate.

If Proctor & Gamble spent money on a best-in-class process in palm oil policy execution, the price of its Head & Shoulders shampoo would have to increase by only 0.12%

Gerard Rijk, senior equity analyst with Dutch consultancy Profundo

The same situation can be seen in upstream producer nations. "A majority of growers appear to regard the RSPO certification as 'an unjustifiable cost' given that the price premium for certified oil is negligible," said R.H.V. Corley, an industry expert and formerly head of research for Unilever Plantations, in a 2018 article entitled "Does the RSPO have a future?"

So, for downstream manufacturers, the price premium is too high. For upstream producers, it is too low. What's actually going on?

Upstream producers aren't benefiting from price premiums

To obtain certification, producers need to meet eight RSPO principles, including on responsible land use, conservation, compliance and transparency. Third-party audits are required before certification can be granted. But compliance with those standards incurs extra costs.

Along the supply chain, RSPO certification has four different levels based on traceability. The two highest levels are "identity preserved", where the original plantation can be identified, and "segregated", where certified palm oil is not mixed with uncertified. "Mass balance" sees the two types of palm oil mixed, but records kept of proportions. This provides less traceability, but is cheaper. The final level, "book and claim", sees downstream manufacturers make transfer payments to sustainable producers in exchange for RSPO credits. This is the cheapest but still supports sustainable production.

The price of crude palm oil has varied between US$530 and $1,000 over the last five years. According to research carried out in 2019 by Proforest, a UK organisation, and the WWF's Indonesian branch, the premium paid for crude palm oil was lowest when the book and claim method was used, at around US$2.50 to $3.50 per tonne. That rose to US$6-17 for mass balance palm oil, and US$25-30 for the two highest levels. Premiums fluctuate with market demand.

The report also pointed out that usually only large, vertically integrated companies are able to obtain the RSPO's two highest levels of supply chain certification. In general, it is the bigger firms that benefit from the price premium, rather than small companies and producers – although even they say it can take years to recoup costs. According to the report, "RSPO compliance costs for CSPO [certified-sustainable palm oil] are usually higher than the premium", and "the RSPO's direct appeal is not self-evident to many smallholders and the premium and levels of demand are uncertain."

The challenge for small-scale farmers

Small-scale farmers are in a particularly difficult position. According to the report, smallholders in Indonesia pay the equivalent of US$8-12 per tonne for certification. Even if they are able to sell their sustainable palm oil credits under the book and claim arrangement, the payment they receive barely covers that extra cost, and "if the smallholders are unable to sell 100% of the certificates, there would be a financial shortfall".

An estimated 40% of palm oil production originates on farms of less than 50 hectares. The remainder comes from larger commercial plantations. According to the latest data from the RSPO, certified sustainable palm oil produced by smallholders accounts for only 8.77% of the global total.

Robert Hii, founder of independent website CSPO Watch, has seen the same thing. He says that demand for sustainable palm oil is currently driven by the few western buyers who need it. These firms already have RSPO membership and require growers to become certified too. The farmers do so only to get a chance to win the orders. But growers who obtain the certification often see orders fail to materialise, or obtain only short-term and unstable orders. In other words, growers bear the risks of certification, but not necessarily the benefits.

Hii also revealed that some large, listed palm oil growers obtain certification despite costs outweighing the price premium, in order to avoid reputational damage affecting their share prices. In these cases, they obtain the lowest level of certification, with limited impact on the overall sustainability of the industry.

Supermarkets and big brands keep most of the profits

The minimal benefits, or even losses, incurred by producers, reflect existing imbalances in how profits from palm oil, certified or not, are distributed. The refining, processing and trading of palm oil is concentrated in the hands of a few major players, while downstream manufacturers and retailers have an advantage in marketing and price-setting. Gerard Rijk, senior equity analyst with Dutch consultancy Profundo, told China Dialogue that in their studies of the sugar and soy supply chains, it is supermarkets and brand manufacturers that keep most of the profits. "We are currently in the middle of the profit chain study on palm oil. But it might share similar characteristics to soy and sugar," said Rijk.

Ian Suwarganda, head of policy and advocacy for palm oil plantation company Golden Agri-Resources, suggests that rather than focusing on the cost of sustainable palm oil, Chinese firms should look at the overall costs of their products. Palm oil makes up only a small part of that, and any premium will have little effect. "Thus with a minor cost increase on the buyer side, the Chinese market can have a major impact on sustainable production on the seller side," he said.

Gerard Rijk agrees. He told China Dialogue that palm oil is crucial for makers of consumer products. For example, products containing it account for 20–40% of Proctor and Gamble's turnover. However, if the company were to spend money on a best-in-class process in palm oil policy execution, due diligence and verification, the price of Procter & Gamble's Head and Shoulders shampoo would have to increase by only 0.12% to cover the costs. "If this is really the argument that sustainable palm oil is too costly, then investors should engage with these companies to tell them that it is nearly no cost for them at the endpoint in the chain," said Rijk.

The term 'premium' is actually quite misleading. It is about cost sharing for better sustainability practices on the ground

Sandeep Bahn, chief operations officer at Sime Darby Oils

Robert Hii added that as in most products palm oil is used as a side ingredient, downstream multinationals could easily swallow even a US$30 premium per tonne. But in their Annual Communication of Progress reports submitted to the RSPO, those firms often blame their failure to use sustainable palm oil outside of the EU and US markets on "a lack of consumer demand". Hii agrees that there is little demand, but says the multinationals are unwilling to work to change that, despite being able. They only buy enough sustainable palm oil to ward off criticism from NGOs.

He thinks that if multinationals signed long-term contracts with palm growers, with a floor price guaranteeing a return, growers would be motivated to get certified.

Multinationals should play their part in sustainable palm oil

There are many big brands downstream, concerned for their reputation and able to raise awareness among consumers about sustainability. In his earlier-mentioned article, R.H.V. Corley pointed out those firms could use sustainability certification as a selling point to create a new niche market. But that won't resolve the environmental and social issues associated with palm oil production. If sustainable palm oil is going to break out of niche markets, the multinationals will have to do their bit. He would like to see RSPO members that are downstream in the palm oil supply chain produce time-limited plans to shift to 100% sustainable palm oil use, with audits, just as is currently the case for producers. Currently, the RSPO does not require member companies to be certified, or make such commitments.

"If all CSPO is taken up and there is further unmet demand, the price premium should increase, and the plantation industry might start to see that there is an advantage to RSPO membership," Corley wrote.

Sandeep Bahn is chief operations officer at Sime Darby Oils, a subsidiary of the world's biggest producer of CSPO, Sime Darby Plantation. He told China Dialogue: "The use of the term 'premium' is actually quite misleading. It is about cost sharing for better sustainability practices on the ground."

Last year, the China Council on International Cooperation on Environment and Development published a report on the greening of soft commodity supply chains in China, reflecting a buyer's concern for stable prices. According to the report, if China sends signals that it would prefer sustainable palm oil and gradually increases its market share, producer countries will have both the time and motivation to increase output, ensuring prices remain stable.

Ian Suwarganda takes a similar view. He thinks that while increased demand from China could push the price premium up in the near term, it would also encourage growers to become certified, reducing the gap between supply and demand and so shrinking the premium again.

The premium represents extra

Much of the "unsold" sustainable palm oil also has International Sustainability and Carbon Certification (ISCC) and is sold to the EU to be used in biofuels.

A report published by the
United Nations Development Programme's China Office

65%

of the palm oil imported by the EU is used to make biofuels

costs for buyers and extra profit for sellers at the same time. Neither higher nor lower premiums are necessarily better. What is important is including sustainability in the price of products, and ensuring all actors in the supply chain are treated fairly, so that pricing helps the market develop. But a lack of mechanisms to transmit price signals are hampering this.

There is certainly a lack of demand for RSPO-certified palm oil; the RSPO says that globally only half of production is sold as such. But that may be an overstatement. In March last year, the United Nations Development Programme's China Office published a report pointing out that much of the "unsold" sustainable palm oil also has International Sustainability and Carbon Certification (ISCC) and is sold to the EU to be used in biofuels. The ISCC was designed to meet traceability and greenhouse gas standards for the biomass and renewable energy sectors. Currently, 65% of the palm oil imported by the EU is used to make biofuels.

Khor Yu Leng, a business economist and one of the main authors of the WWF and Proforest report mentioned above, also points out that many growers obtain both RSPO and ISCC certification, so they can better respond to market demand. The RSPO requires producers to have all their production units certified, while the ISCC allows for partial certification according to needs. This makes it easy for an "oversupply" of RSPO certified palm oil to exist in name only, while supply and demand for ISCC palm oil is more balanced. This means it is not the case that half of RSPO certified oil is sold as uncertified. However, it is unclear what premium is charged for ISCC certified oil being sold to the biofuels market.

And this highlights an issue: as there is more than one certification regime in place, and a lack of openness or transparency on premium pricing, the sustainable palm oil sector lacks transparent and effective mechanisms for passing on price information, which prevents growers from adjusting their output in line with downstream demand.

According to Khor, demand for palm oil from the EU is likely to stay stable in the near term, despite a commitment to stop imports for biofuel by 2030. Given this, she says: "The premium of certified sustainable palm oil will likely rise if new players, such as fast-moving consumer goods companies from Japan or China, start to buy certified palm oil and its derivatives. That will cause a shortage of certified palm oil rather than an oversupply, and the premium will go higher. That, in turn, could stimulate new supply."

But, she added, the RSPO provides only some price data, while the ISCC provides none. That means downstream price signals may not reach upstream producers and prompt greater production. Robert Hii has found that firms whose businesses span growing, processing and trade in palm oil have better information on price signals, but smallholders and plantations have none.

Khor Yu Leng mentioned another class of initiatives alongside the two main certification schemes of the RSPO and the ISCC: the industry-led NDPE (No Deforestation, No Peat, No Exploitation) commitment and traceability. This creates a third sustainable palm oil sub-market, adding to the confusion over pricing signals.

For the moment, the cost of producing certified palm oil is unequally distributed across the production chain, with upstream producers covering higher production costs and certification fees while those further downstream are profiting off it. To make the process fair and equitable, those with the means to shoulder the costs should be doing more to make the process of certifying palm oil more feasible for smallholders.

Comment: **China's market influence can make or break green supply chains**

Without sustainability indicators, its commodity exchanges could undercut other country's efforts to green supply chains, writes Robert Hii

Robert Hii | March 10, 2021

China's influence on many commodity markets is without parallel because of its size. As a nation it is the largest importer of soy and the second largest of palm oil. This positions it well to drive sustainability. Indeed, its influence could make or break the ambitions of other countries to eliminate deforestation from their supply chains..

Yet China provides a market for a wide range of agricultural commodities with high deforestation risks. For example, between 2013 and 2017 its imports of Brazilian soy were linked to 223,000 hectares of deforestation, according to monitoring group Trase. And a recent report by Chain Reaction Research details how Chinese palm oil actors lag behind those from other nations in sustainability commitments and transparency.

This demonstrates the need for Chinese companies and investors to raise sustainability up their list of priorities. It also means countries importing goods from China must take a close look at their supply chains to ensure they are not complicit in deforestation. The EU is an important example. Despite being a vocal opponent of consumer goods linked to deforestation, the bloc has a long way to go to reduce its imports of deforestation-linked goods, both directly from producing countries and via third countries like China.

China asserts it is being responsible and proactive in the fight against climate change. It has been taking steps to reduce and remove its carbon emissions, in part through tree-planting. But at the same time it has been offloading its impact on deforestation to other countries. Addressing this is of the utmost importance if China is to stop the re-export of imported deforestation.

Going forward, China's commodity exchanges can help green global supply chains by incorporating sustainability indicators.

An oil palm plantation in Sabah, Malaysia (Image: Ramlan Abdul Jalil / Alamy)

How could China reduce its deforestation impact?

China should match the EU's new laws requiring companies to undertake due diligence on deforestation and other environmental harms in their supply chains. It knows what needs to be done from its experience regreening its own country. Now it must extend this perspective to the countries it imports from. Failure to do so would run against the spirit of its pledge to be carbon neutral by 2060, a target already complicated by support for fossil fuels in its Covid-19 recovery spending.

China is strengthening its position to influence global commodity markets by trading large enough volumes to become a price maker. In December, for example, China gave foreign investors access to trade its palm oil futures contract on the Dalian Commodity Exchange. There was no stipulation that the oil be certified as sustainable. This is creating a "leakage market" for unsustainable palm oil and soy which is threatening the greening of global vegetable oils. Going forward, China's commodity exchanges can help green global supply chains by incorporating sustainability indicators.

What impact would this have on producing palm oil sustainably?

It may take a few years for China to displace Bursa Malaysia as the global benchmark for palm oil futures. If it does, and China starts setting palm oil prices based solely on profit, Malaysia's commitments to sustainable palm oil will be hard to maintain. It would undermine Bursa Malaysia's initiative to help the industry transition to a more sustainable model, and could derail Malaysia's efforts to produce sustainably through its Malaysian Sustainable Palm Oil (MSPO) scheme.

Malaysia's government has made firm commitments to protect its biodiversity and ensure the sustainability of its palm oil industry. These efforts include a No Deforestation No Peat No Exploitation (NDPE) pledge which its buyers in Western countries demand.

The ambitions of palm oil producing countries like Malaysia to protect their forests and biodiversity will need a counterbalance from other powerful economies like the EU or the US. US investments in Malaysia have soared in recent years due to the wider US–China disputes but this geopolitical struggle has no bearing on the sustainable production of palm oil in Malaysia.

The European Union, as the third largest importer of Malaysian palm oil after India and China, has a commanding say on how Malaysian palm oil is produced. The historical conflicts between the EU and Malaysia on palm oil as a biofuel for the EU needs to be resolved in the EU ASEAN Joint Working Group on vegetable oils this year.

Malaysian palm oil has the potential to become a global model of a sustainable vegetable oil. But all this could come to naught if China wastes its influence on global sustainability and starts to call the prices on palm oil as a mere commodity.

Comment: Deforestation is slowing, but palm oil still a major driver

Companies using the commodity must accelerate an industry-wide transformation, writes WWF palm oil lead Michael Guindon

An oil palm concession in New Guinea (Image © Ulet Ifansasti / Greenpeace)

Michael Guindon | February 8, 2021

The world's forests continue to shrink. In a recent WWF report, we found most of the destruction to be concentrated on 24 "deforestation fronts" in the tropics and sub-tropics. This is so alarming because tropical forests alone support more than two-thirds of the world's biodiversity. Between 2004 and 2017, over 43 million hectares of forest – an area roughly the size of California – were lost on these fronts.

Commercial agriculture is the leading cause, with trees often cleared to make space for livestock and crops. Expanding oil palm plantations, for instance, have caused extensive deforestation in Southeast Asia and parts of Latin America and West Africa, with severe consequences for wildlife.

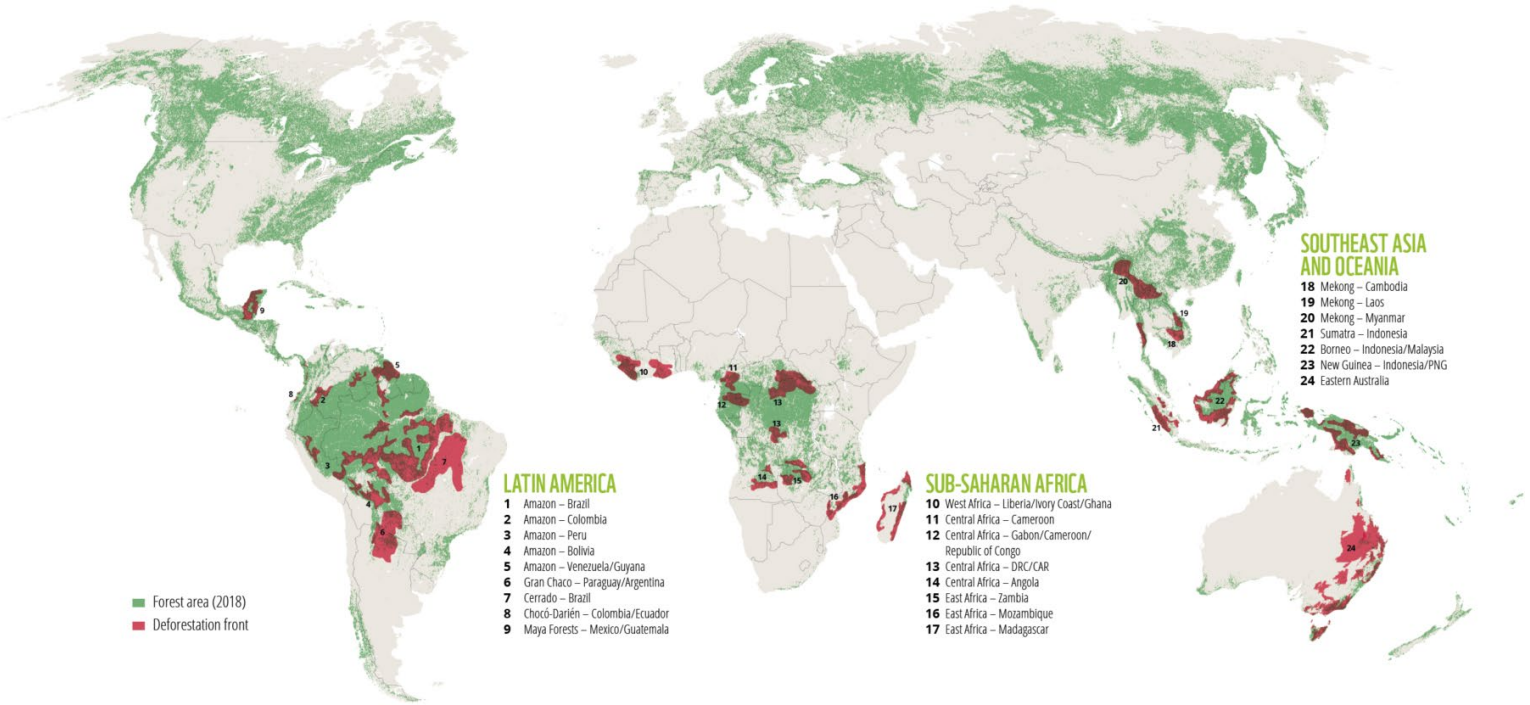
Two of the nine deforestation fronts located in Asia are on the islands of Sumatra and Borneo. Significant deforestation has been caused there by the expansion of oil palm and pulpwood plantations, as well as road infrastructure and processing plants. Palm oil development accounted for an estimated 36% of deforestation in Sumatra between 1985 and 2016, and 42% in Borneo between 1973 and 2015.

Encouragingly, this has triggered actions to curb the expansion, particularly in primary forests and peatlands, whose conversion is also an important source of carbon emissions. In the Malaysian part of Borneo, the state governments of Sabah and Sarawak have committed to keeping at least 50% and 57% of their total landmass under forest cover. Meanwhile in Indonesia, the government has issued a range of moratoria that have contributed to reducing deforestation and pressure on peatlands.

Recent official data suggests that deforestation has begun to slow. Palm oil plantation expansion in both Indonesia and Malaysia has been steadily declining in the past decade, after a rapid increase in the 2000s. But challenges associated with the monitoring and enforcement of government moratoria have limited their effectiveness in halting deforestation. More ambitious and concerted action is needed if we are to maintain and accelerate the progress made so far. Smallholders also play an important role in palm oil production, accounting for approximately 40% of global production. With limited capacity, support and incentives, smallholders have few resources at their disposal to adopt more sustainable production practices – a situation that has resulted in continued land clearance. Supporting smallholders to take up more

Certified sustainable palm oil only represents 19% of global production

Most forest loss is clustered in 24 deforestation fronts



Source: Deforestation Fronts: Drivers and responses in a changing world, WWF

responsible practices is therefore key to reducing the industry's impact.

Global demand for palm oil is set to continue to rise dramatically, from 76 million metric tonnes today to an estimated 264-447 million by 2050 – particularly in Asia, where more than 60% of the world's palm oil is currently consumed. The way we produce and consume the commodity needs to change if the industry is to become a positive force for forests.

Considering the trail of environmental destruction its production has been leaving, palm oil may seem the enemy but it can be produced responsibly. It has a higher yield per hectare and requires less fertilisers and pesticides than any other vegetable oil. It also creates employment and often lifts people in rural regions out of poverty.

What we need isn't an alternative to palm oil, but rather sustainably produced palm oil. Fifteen years ago, the Roundtable on Sustainable Palm Oil (RSPO) was established to promote the growth and use of certified sustainable palm oil. Today, certified oil still only represents 19% of global production.

The market for sustainable oil is growing but not fast enough. Protecting our forests means accelerating the transition towards it. If used in isolation, certification cannot address all the negative impacts of palm oil. What we need is a multi-faceted approach involving all stakeholders.

We all have a role to play in creating a sustainable palm oil industry that doesn't harm forests, nature and people. Producers should adopt sustainable practices. Governments in producer and consumer countries alike need to create and enforce laws and policies that help to end deforestation and ecosystem conversion, and that promote sustainable palm oil. Banks and investors should require all of their clients to adopt and implement policies for the sustainable production, sourcing and financing of palm oil. And consumers need to ask their favourite brands where they source their ingredients, to make sure they commit to certified sustainable palm oil.

Companies that use palm products also have a unique responsibility to drive industry-wide transformation. They should not only ensure their supply chain is sustainable and free from deforestation and the destruction of natural ecosystems, but also take action beyond their supply chains.

Addressing challenges around smallholder production is a key part of the puzzle. Government investments in agriculture and extractive industries, as well as regulations and standards, need to take into account the needs and perspectives of smallholders, indigenous people and other local communities. Improving smallholder access to global certification schemes is a critical step towards transparency. Businesses can also play an important role by investing in projects that support smallholder farmer sustainability and their inclusion in global palm oil supply chains.

Stalemate: sustainable palm oil struggles to take off in China

'Industry asks if there's a policy, the government asks industry if there are any examples, consumers say there are no certified products on the shelves, and businesses say consumers won't pay the extra.'

Jiang Yifan | April 27, 2021

Palm oil is regarded as the third-worst commodity for deforestation, after beef and soy. Southeast Asia, where most palm oil is produced, is home to the most biodiverse tropical forests, which are also important carbon sinks. China does not produce palm oil, but it is, after India, the world's second-largest market for the commodity. And with the world facing dual crises of climate warming and biodiversity loss, China cannot stand apart.

For seven years, the world's dominant sustainable palm oil certification body, the Roundtable on Sustainable Palm Oil (RSPO), has been trying to increase the proportion of sustainable palm oil sold in China. It had a target for 2020 of 10% of palm oil sold in China to be RSPO-certified. But the figures have fallen far short. Data from last April show the actual proportion was less than 2%. Sources in businesses, government and NGOs told China Dialogue that take-up of sustainable palm oil has been slow, as various parties are working separately, rather than pulling together, and there is no agreed-upon roadmap towards a breakthrough. However, talks on such a roadmap are underway.

A tough market for international certification

The RSPO was founded in 2004, when rapidly growing demand for palm oil was causing deforestation and social grievances in the two main producer nations, Malaysia and Indonesia, neither of which had sufficient environmental regulation. This led western NGOs to criticise and boycott companies importing their palm oil. In response, multinationals such as Unilever and AAK, an oil and fats giant, teamed up with the WWF and the Malaysian Palm Oil Association to found the RSPO. The aim was to use certification to tackle the environmental and reputational challenges the companies were facing, with a private sector initiative compensating for the lack of oversight in producer nations. This would "transform markets to make sustainable palm oil the norm", as RSPO's slogan goes, end the destruction of ecosystems, and respect the rights of workers and local communities.

Despite significant challenges, the RSPO is the world's leading sustainable palm oil certification body today, with RSPO-certified palm oil accounting for nearly one-fifth of all production. Almost 90% of EU palm oil imports are RSPO-certified. With certified sustainable palm oil now the norm in the EU, the third-largest market for palm oil, the two biggest markets, India and China, are becoming ever more important. If these two countries do not expand use of sustainable palm oil, production of the commodity will continue to bring severe environmental and social risks.

In 2013, the RSPO signed a memorandum of understanding with China's chamber of commerce for foodstuffs (CFNA), establishing a long-term partnership and marking the RSPO's arrival in China. Then, in 2018, the RSPO and the WWF joined with multinational firms, including palm oil merchants, processors, retailers and banks, to form the China Sustainable Palm Oil Alliance and guide the transition. That alliance has 15 members today. The majority are multinationals that already use significant amounts of sustainable palm oil in their supply chains, or have made ambitious commitments on sustainability. But in China, sustainable palm oil has failed to take off at scale, with use by Chinese firms remaining minimal.

A palm oil plantation in Malaysia, certified by the Roundtable on Sustainable Palm Oil, uses drip irrigation to water young palms, conserving water and preventing erosion (Image: Mike Kahn / Alamy)

Government, the industry and consumers aren't making coordinated moves

Yu Xin, WWF China's Sustainable Food Consumption and Supply Chain programme

Escaping the prisoner's dilemma

Yang Jiaming once worked for an international certification body, managing RSPO certification for the Asia-Pacific region. He says that sustainable palm oil advocacy in China has had some isolated successes, but there has been no pooling of efforts, so they dissipate rather than synergise. Yu Xin, project coordinator of WWF China's Sustainable Food Consumption and Supply Chain programme who oversees the chapter's palm oil campaign, has seen the same thing. When asked about the biggest challenge for promoting sustainable palm oil, she says: "Challenges are coming from all directions, but the core challenge is that government, the industry and consumers aren't making coordinated moves."

She describes the status quo: "Industry asks if there's a policy, the government asks industry if there are any examples, consumers say there are no certified products on the shelves, and businesses say consumers won't pay the extra."

Price is the main factor preventing Chinese firms from buying more sustainable palm oil. Certified palm oil costs between 3% and 30% more on the Chinese market, because of the costs of receiving the certification and all the improvements necessary to meet the standards.

Palm oil is used in a vast range of applications: in catering, in processed foods, in health and beauty products, and in the oleochemical industry. But it is not eaten directly and is often missing from ingredient lists, so it has little visibility. That makes promoting certification tougher.

So, Chinese firms tend to get certification only when needed for export orders. If those orders stop, so does certification. Multinationals in the EU use high proportions of sustainable palm oil, sometimes up to 100%. But use in products destined for the China market remains low.

At a seminar on China's sustainable palm oil supply chains held in August

last year, one attendee suggested palm oil traders – the link on the global supply chain that first reaches China – should take the lead. But a representative from a major global palm oil producer and trader said his company was already able to supply plenty of sustainable palm oil – "as much as you want." The problem is, with no demand from consumers, processors weren't buying it, and so there was no incentive for traders to increase procurement.

Globally, RSPO's certification of sustainable palm oil is running far ahead of demand, and every year half of certified production is sold as non-certified.

There are virtually no certified sustainable palm oil products on the Chinese market, making it hard to discern what consumers actually want. And so, stalemate. It's a prisoner's dilemma: anyone who cooperates runs the risk of losing out when others fail to do the same, and so nobody cooperates.

How to move past this? A number of experts told China Dialogue that a big obstacle for sustainable palm oil is the commodity's lack of visibility. A key step towards solving that would be listing it as an ingredient on packaging. The current food labelling regulations allow for "vegetable oil" to be used as a catch-all term covering palm oil. Even new draft food labelling regulations, a public consultation period for which ended in August 2020, only require the type of vegetable oil to be specified for baby milk formulas. Labelling rules for beauty products require all ingredients to be listed – but not the raw materials used to produce those ingredients, like palm oil.

Encouraging Chinese consumers to show concern for the environmental impact of products sourced from overseas could take some time, and there is little hope of a near-term impact on supply chains. A more realistic approach may be to have actors in the supply chain take the initiative. Yu Xin says: "If any particular part of a supply chain can come up with a 'product', then they can be linked up." WWF China hopes to see some trials within the supply chain, with upstream and downstream firms working together on actual sustainable palm oil products, so that the more aware firms aren't just talking about their own achievements. The organisation is also set to publish a guide to procurement of sustainable palm oil for Chinese firms, in cooperation with the CFNA. This is intended to raise awareness of the issue among downstream businesses and encourage cooperation between them on supply chain issues.

According to Yang Jiaming, a sustainable palm oil breakthrough will require a combination of top-down and bottom-up efforts. The bottom-up part will be Chinese manufacturers and retailers making commitments on sustainable palm oil and getting the ball rolling with its use in luxury products. That would give consumers more choice, and allow the extra cost to be reflected in the price tag. That demand would then move up the supply chain, sending signals to palm oil traders and increasing imports of sustainable palm oil.

For the top-down part, government intervention will be needed. Yang suggests the government uses green finance and other support to reward firms that import sustainable palm oil and increase supply chain transparency. He also suggests mutual recognition of RSPO certification and China's own green product certification, which would allow sustainable palm oil to benefit from support in the form of tax breaks, financing and government procurement. According to Yang, the stalemate will only be broken when each part of the supply chain and the government are "doing their bit".

Instant noodles account for 27% of China's palm oil consumption in foods, but it is typically listed under the catch-all term "vegetable oil" (Image: Alamy)

Getting more from the private sector

Discussions on a Chinese sustainability standard are underway, in the hope of boosting bottom-up efforts from the supply chain.

Wan Xusheng, head of the South-North Institute for Sustainable Development (SNISD), studies sustainability standards. He told China Dialogue that the Chinese government and companies are "unlikely to do all they can" to promote an overseas standard such as the RSPO's. He says: "a more practical approach is for China to come up with its own national standard, with mutual recognition between that and the RSPO certification." In the area of sustainability certifications, China has established mutual recognition with Global Good Agricultural Practices (GlobalG.A.P.), Programme for the Endorsement of Forest Certification (PEFC) and New Zealand's organic certification.

But he admits that establishing a national standard will take several years, and so a voluntary industry standard would be a good place to start. That could show some benefits, as long as firms sign up. And if that goes well, the industry standard could be adopted on a regional basis, and then upgraded to become the national standard.

As the first step in this process, SNISD and the RSPO translated the text of RSPO's latest supply chain certification standard and systems. Supply chain certification is applicable for firms using but not producing palm oil, and all Chinese companies fit into this category. The translation resolved inaccuracies and inconsistencies in the previous version, and brought it into line with Chinese norms. Chinese certification bodies, industrial associations, businesses and regulators were consulted during the process.

But there are other sustainable palm oil standards besides the RSPO's. In 2011 and 2014 respectively, the Indonesian and Malaysian governments, representing 85% of global palm oil production, issued binding national standards, ISPO and MSPO. Both those national standards are less demanding than the RSPO's. However, as both national governments regard the palm oil industry as crucial for alleviating poverty, more effort is made to help small-scale producers gain certification. Wan Xusheng and Yang Jiaming both said that if China does produce its own national standard, decisions on mutual recognition with overseas standards will be needed.

A worker in Malaysia sprays chemical herbicide on a plantation not certified by the Roundtable on Sustainable Palm Oil (Source: Alamy)

Professor Zhang Jianping, deputy head of the China Association for Social and Economic Systems Analysis and Research, has worked on a number of sustainability documents, including the above-mentioned guide for sustainable palm oil procurement. He told China Dialogue that the Chinese government has repeatedly called for mutual study of international green standards under the Belt and Road framework, and that this will help improve China's own standards.

Wan Xusheng said that, alongside the possibility of promoting an industry standard to national standard status, another route being discussed is localisation of the RSPO's standard. He pointed out that the Forest Stewardship Council, another international private sector certification body, had produced a China-specific standard in order to allow certification in the country. China's rules on certification mean that bodies can offer certification based on overseas standards if their certifying activities are properly registered with the government.

All this is very new, and it is too soon to say what route will ultimately be taken. As Zhang Jianping says, drafting a standard is a long process of gathering stakeholder views and forming consensus – which in itself raises awareness and encourages action.

Public-private cooperation

Many of the experts China Dialogue spoke to also blamed the stalemate of sustainable palm oil in China on the fact that no single government authority is taking the lead in promoting it. Palm oil is an agricultural product that is all imported used extensively in both food and chemical industries, and involves environmental issues. This means it enters the remits of the Ministry of Agriculture, Ministry

A jaguar on a fallen tree in the Pantanal, Brazil (Image: Alamy)

of Commerce, Ministry of Industry and Information Technology and the Ministry of Ecology and Environment (MEE), but actually none is fully responsible for this commodity. Zhu Chunquan, China Head of Nature Initiatives and Tropical Forest Alliance for the World Economic Forum, said that "palm oil issues won't be solved at the ministerial level and need to be dealt with higher up." So, which ministry should be setting policy? According to Zhu, a 2020 report from the China Council on International Cooperation on Environment and Development (CCICED, a high-level advisory body to the Chinese government) on greening of global agricultural product supply chains suggests an answer: an inter-ministerial high-level coordination mechanism.

Zhang Jianping, a senior advisor on the report, said a cross-ministry consensus on sustainable palm oil is yet to be built, with a great deal of coordination needed. In October and November, the United Nations will hold major biodiversity and climate change meetings, with the former to be held in Kunming, China. According to Zhang, this makes 2021 a key year for the construction of an ecological civilization. He thinks the MEE can play a crucial role in promoting this, by taking the opportunity to communicate widely and push the development of cross-ministerial mechanisms on sustainable palm oil. Meanwhile, Wan Xusheng hopes the government will use the Kunming biodiversity conference to publish policies supportive of sustainable palm oil, and then use the 2022 Beijing Winter Olympics to promote sustainable palm oil products.

86%

By 2019, 86% of palm oil used in the EU was certified sustainable.

On the issue of extra sourcing costs, the above-mentioned CCICED report points out that if China sends signals that it will prefer sustainable palm oil and gradually increase market share, producer countries will have both the time and motivation to increase output, ensuring prices remain stable.

For 20 years, tackling the environmental impact of palm oil production has been an international effort, with the combination of private sector initiatives and government policies, voluntary approaches as well as legislation.

The process in the EU could be instructive: On 7 December 2015, eight national industry associations and three EU-wide groups jointly issued a commitment to have the EU use only sustainable palm oil by 2020, with the RSPO certification seen as the minimum standard for sustainability. The same day, seven EU governments signed a different document committing to the same goal, indicating that they would cooperate with the private sector and other EU governments to support the private sector initiative. By 2019, 86% of palm oil used in the EU was certified sustainable. Data for 2020 is not yet out, but indications are the 100% target has not yet been met. However, in May 2020, the European Palm Oil Alliance, made up of European palm oil refiners and producers, decided that voluntary standards would not be enough to reach 100% sustainable palm oil and called for legislation requiring firms to do due diligence on their supply chains in order to plug those final gaps. This aligns with an ongoing European Parliament effort to legislate for compulsory due diligence for companies operating in the EU to prevent environmental and social damages and corruption in their global supply chain.

Admittedly, in the EU powerful consumer and environmental movements provided crucial early impetus, something which is unlikely in China. But China's undertakings on building the "ecological civilization", "a community with a shared future for mankind" and the "green Belt and Road Initiative" are other conditions unique to China. It remains to be seen if these conditions would make all positive forces on the supply chain resonate and trigger a chain reaction that leads to the greening of one of the world's most important vegetable oil.

Oil palm in Andhra Pradesh: prosperity at what cost?

Many farmers who have switched to oil palms are making more money, but the water table beneath them is falling dangerously

Nageswara Rao spreads fertiliser while irrigating his oil palms in the Indian state of Andhra Pradesh (Image: Kevin Samuel / China Dialogue)

Jency Samuel | June 28, 2021

Mature palms flank the winding dirt track leading to Tallavalli village. A. Chandrasekar Rao has made his homestead here in the Krishna district of Andhra Pradesh, on a four-hectare oil palm farm. He is happy about his decision to switch from farming mangoes in 1996. His income has tripled as a result.

In neighbouring West Godavari district, maize, rice and oil palm fields vie for space. Balusu Bala Chandrasekar of Mundur village says his oil palm farm helped him educate both his sons as engineers, and to build a house.

In the southern Indian province of Andhra Pradesh, oil palm farmers are pleased with their crop. They earn more and do not have to deal with middlemen to sell their produce. Millers buy the oil palm fruit bunches directly, and pay within two weeks.

Oil palm is touted as a win-win for farmers, the palm oil industry and government. But the economic prosperity appears to be coming at a critical cost: water.

Oil palm in Andhra Pradesh

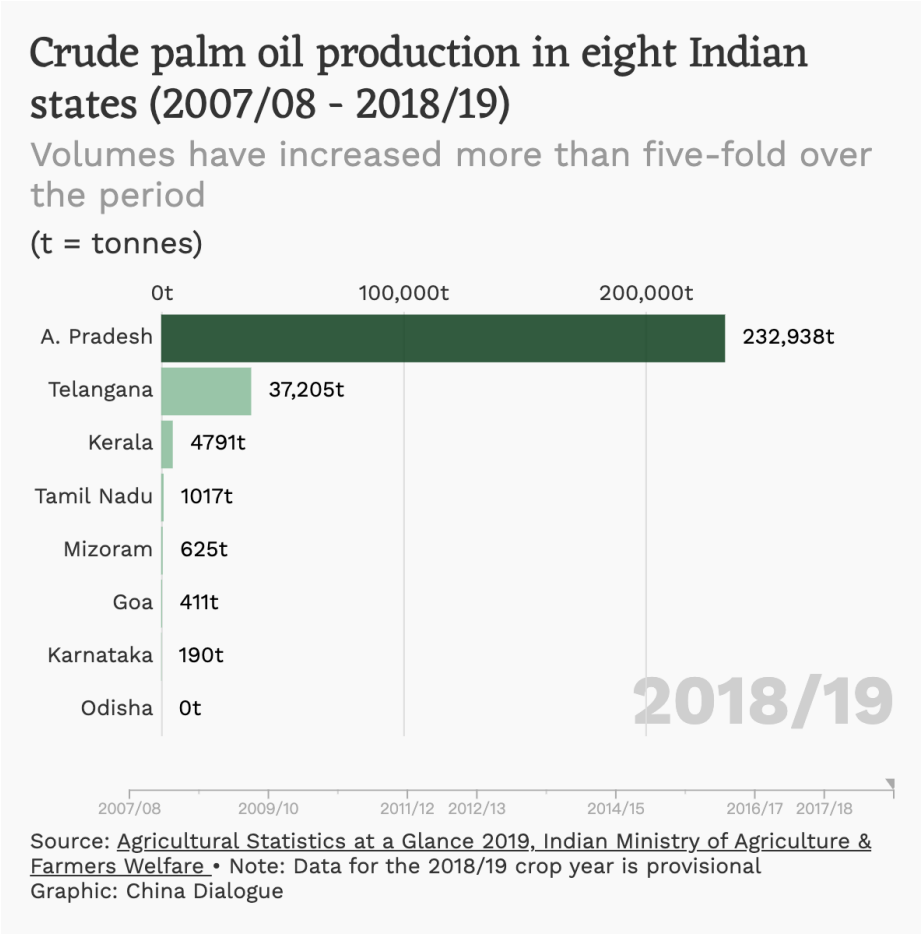
India has been importing palm oil since the 1960s, at a cost of US$5 billion per year. With increasing demand representing a drain on foreign exchange, the Indian government has been resolutely promoting domestic oil palm cultivation since the 1990s.

It plans to expand palm oil plantations across the country from the current 0.35 million hectares (Mha) to 1.93 Mha.

Andhra Pradesh has the largest identified potential area for oil palm expansion with 0.42 Mha, according to the government's latest agricultural data.

The state has already seen massive growth in oil palm cultivation. The earliest available data shows that in 1993 oil palm was grown in three provinces. Kerala produced the highest yield of fresh fruit bunches, at 14051 tonnes, with Andhra Pradesh a long way behind with 58 tonnes. Andhra Pradesh picked up quickly and in 2007-08 it had the highest yield in the country, with 194,000 tonnes. This was attributed to the provincial government's promotion of the crop.

Today, Andhra Pradesh has the highest amount of land under oil palm cultivation of all states, with 0.17Mha as well as yield – 1.38 million tonnes of fresh fruit bunches.



Source: Agricultural Statistics at a Glance 2019, Indian Ministry of Agriculture & Farmers Welfare • Note: Data for the 2018/19 crop year is provisional
Graphic: China Dialogue

Golden crop?

For many farmers, crop failures were common until the 1990s because of water scarcity, pest attacks and extreme weather events. Following the government's promotion and financial incentives, some of them tried oil palm on part of their lands. The plants fared well, and others soon followed the pioneers.

In West Godavari district, former air force officer E.V. Subba Rao switched to oil palm when he saw middlemen reaping the benefits of his labour from his bamboo and cashew plantations. Such middlemen habitually indebt farmers, underpay for produce and make large profits when selling on. With oil palm, Subba Rao's contact is a single miller, who buys the crop directly from him.

Farmers find oil palm gives them higher income and lower labour needs than paddy, sugarcane, maize, tobacco and horticultural crops. It is also less prone to damage during extreme weather events.

Except for the recent whitefly attacks, they hardly have any pest problems. Those attacks were serious, however, damaging around 11,000 hectares of crops. Nagabushnam Rao in Krishna district said the problem started in West and East Godavari districts two years ago, and spread to his area a few months ago. The flies reduce yield by 30-40%, according to Chandrasekar Rao.

Still, oil palm remains a favourite.

Before switching to oil palms, Balusu Bala Chandrasekar suffered heavy losses when his banana plants were flattened by a cyclone. Many find oil palm hardy and better able to withstand extreme weather events.

K. Prasad of West Godavari was encouraged by the crop's longevity, and planted oil palm in his 4-hectare farm. He leased extra land to grow maize and banana. Murthy Pendyala of East Godavari and L. Pradeep of West Godavari have also been impressed by the crop's success, and have increased their oil palm acreage. "Oil palm is a golden crop for farmers," says Krishna District's K. Nagabushnam Rao.

Resource-intensive

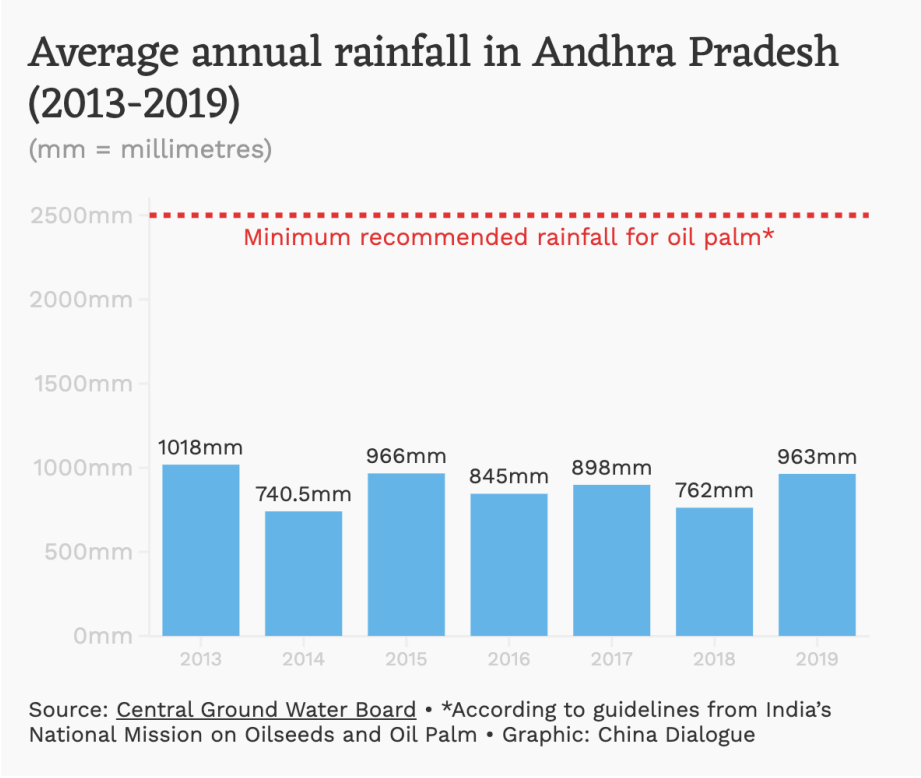
Some officials of the district's horticulture department disagree. They say oil palm is not a sustainable crop and point out its failure in Nellore and Anantapur districts. Though the department's portal lists the areas in these districts where oil palm is grown as 4,169 ha and 282 ha respectively, officials say that information is outdated.

"Now we have 850 hectares only. About five years ago, many farmers removed the

Farmer K. Prasad has turned all the land he owns in West Godavari district over to oil palm cultivation. He also leases additional land for bananas and maize. (Image: Kevin Samuel / China Dialogue)

Oil palm cultivation in our district is nil. No one in my district grows it, since it needs more water.

P. Padmalatha, deputy director of horticulture at Anantapur district



trees because of water scarcity," said SMA Khaleem, assistant director of horticulture for Nellore district.

"Presently, oil palm cultivation in our district is nil," said P. Padmalatha, deputy director of horticulture at Anantapur district. "Now no one in my district grows it, since it needs more water."

"Oil palm is a water- and nutrient-loving crop," said R.K. Mathur, director of the Indian Institute of Oil Palm Research (IIOPR). "Though a rain-fed crop in other countries, we have successfully established that it can be grown under irrigation, requiring 240 to 300 litres per palm per day (lpd), rising to 325 to 350 lpd in summer."

Rainfall variability

The National Mission on Oilseeds and Oil Palm (NMOOP) states the crop requires evenly distributed annual rainfall of 2,500-4,000 mm. However, the maximum rainfall of India's coastal districts ranges from 1,045-1,170 mm, according to an analysis of rainfall variability data over 30 years by the India Meteorological Department.

The department found high rainfall variability over time and space. Climate change appears to have caused significant changes to rainfall patterns, including to the intensity and frequency of extreme rainfall events.

Farmers have observed yields varying as a result. Across the state, they can grow an average of 8-10 tonnes of unprocessed oil palm fruit, depending on the agroclimatic conditions. In a year with very good rainfall, Madhava Rao harvested 28 tonnes, but this falls by at least a tonne in drier years. With rainfall becoming more erratic, it is not prudent to promote oil palm, says one organic farmer.

Sinking water table

Balusu Bala Chandrasekar had a single bore well for irrigation in 1992, when he started oil palm cultivation, with water available at about 100 feet below ground level. Now he has three bore wells, but the water table has fallen to about 300 feet.

India is the largest user of groundwater in the world, accounting for 25% of total extraction, according to a 2018 press release from the Federal Ministry of Water Resources. Around 90% of it was for irrigation. Farmers agree that the water table has gone down drastically in the last few decades, and they have been forced to deepen their bore wells.

"People started sinking bores only in the 1990s. We had only dug open wells with water available at 100 feet. Now there are 900-feet-deep bores in our area," said Chandrasekar Rao. Some farmers point out that canals and traditional small reservoirs called cheruvu have disappeared, impairing groundwater recharge.

A groundwater scenario report of the Andhra Pradesh government indicates that the number of dug and bore wells increased from 0.8 million in 1980 to 2.5 million in 2010. The average yield from a well decreased from 60-150 cubic metres per hour (m3/hour) in 1982, to 20-40 m3/hour in 2010.

"In our area, water levels and rainfall have been good," said Srinivas Prasad, CEO and director of Navabharat Limited, miller and refiner of oil palm in West Godavari district. The company buys oil palm fruit from several areas including T. Narasapuram.

State information shows that of the

The lack of rainfall in Andhra Pradesh means farmers have to irrigate their palms using groundwater. Over-exploitation has led to a significant fall in the water table. (Image: Kevin Samuel / China Dialogue)

18 villages in the T. Narasapuram for which data is available, groundwater is overexploited in six, critical in one, semi-critical in five, and safe in six. There is no data for four of the villages.

In Krishna district, assistant director of horticulture C.H. Sreenivasulu, said that oil palm cultivation is increasing at about 1,000 hectare per year, despite depleting groundwater. The sub district, or mandal, of Musunuru has 900-foot bore wells and oil palms aplenty, he noted. Of the 16 villages in this mandal, only two have safe groundwater levels. Groundwater is overexploited in eight, at a "critical" level in one and "semi-critical" in four. Data is unavailable for one village.

There are other problems. The rise in sea levels caused by climate change has made the aquifers along the coast increasingly saline. Seven of the oil-palm-growing districts in Andhra Pradesh are coastal. West Godavari has 53% of the province's total area under cultivation, while East Godavari has 19%. Groundwater in 14 mandals in West Godavari, 10 in East Godavari and 13 in Krishna are fully or partially saline, according to a report of the Central Water Commission in 2017. The IIOPR (Indian Institute of Oil Palm Research) advises farmers not to grow oil palm using salty water.

The pesticide problem

Oil palm farmers also use banned pesticides. The IIOPR's booklet specifies carbaryl for controlling rhinoceros beetles and methyl parathion or phosphamidon for mealy bug, despite these being banned by India's Directorate of Plant Protection, Quarantine & Storage.

Many farmers control weeds with paraquat and glyphosate, both banned but available under different brand names. "We've been trying to get farmers to stop using them. Many have stopped," said Srinivas Prasad. "In two or three years, everyone will stop."

Weeds use up water and nutrients needed for the crop, which has prompted the IIOPR to advocate intercropping with other plants to prevent the growth of weeds and reduce the use of weedicides, said M. V. Prasad, senior scientist at IIOPR.

"I have not had weed problems since I planted cacao," said farmer Subba Rao. "The large quantity of leaf litter from the cacao trees has improved the structure and organic content of the soil." Besides

Some farmers in Andhra Pradesh graze cattle on their oil palm plantations. This is a natural way of controlling weeds, and the dung from the animals also helps fertilise the soil. (Image: Kevin Samuel / China Dialogue)

cacao, the institute has identified and is experimenting with intercropping with bush pepper and plants such as Heliconia psittacorum and Alpinia purpurata, whose flowers are sold for their beauty.

IIOPR has been forming farmer groups and providing chaff-cutter machines. "With the machine they can cut the fronds easily and spread them in the basin around each tree," said M.V. Prasad. "It acts as mulch, conserving water and micro-organisms, as well as smothering the weeds."

The practice of intercropping has not been embraced by all farmers because some have found it reduces yield. Madhava Rao, who grew climbers, found them getting damaged while harvesting the palm bunches. Another farmer who removed oil palms says that intercrop may solve weed problems, but it requires more groundwater. An alternative way to tackle weeds has been to let cattle graze in plantations.

L. Rama Rao's son Pradeep looks after their farm's drip irrigation system, which can also be used to deliver fertiliser to their oil palms (Image: Kevin Samuel / China Dialogue)

Marketing issues

The provincial government has divided the districts into agricultural zones, allotting them to 13 private and two government-owned oil palm mills. Farmers have a buy-back arrangement with the closest miller and are assured an income twice a month. But in Srikakulam district, one miller has shut down operations.

"Since there is no crushing unit and no transportation facility, many have uprooted palm trees and gone back to growing paddy," said K. Ramana Reddy, founder-director of Society for Welfare Education and Environmental Protection, a non-governmental organisation. "Some who still have palms take the fruits to a factory in a neighbouring district. But some sell to middlemen at a lower price."

Srinivas Prasad, whose company Navabharat is working towards Roundtable on Sustainable Palm Oil certification, points out that Andhra Pradesh has a robust mechanism on land use. Farmers are only converting existing farmland, he says. Navabharat is also working on the proper disposal of pesticide cans and documentation as part of the certification process.

Better water-management

Farmers such as L. Rama Rao in West Godavari and K. Nagabushnam Rao in Krishna, who took to oil palm cultivation early, recall that water-intensive flood irrigation was the norm when they started. They have switched to drip irrigation over the last decade.

"Irrigating more will lead to leaching, leaving the root zone devoid of nutrients; irrigating less will lead to water-stress symptoms," said Mathur. "We have developed a mobile app which uses analysis of 60 years of weather data to inform farmers how much water to use."

The federal government advocates subsidies to help farmers install drip irrigation, but the Andhra Pradesh government stopped its subsidy in 2018. Reportedly it came to the conclusion that many farmers had moved over to drip systems already. Without subsidies, farmers like Nageswara Rao continue with flood irrigation.

Bujjibabu has sloped the ground and made a pit in which to dig his bore wells, so that there is more rainwater to recharge the aquifers where his bore wells are located. "Since I recharge, I get water at 160 feet, whereas others near me get it at 200 feet or more," he said.

"These are one-off initiatives by farmers," said Sreenivasulu. "All farmers should make similar efforts." Some horticulture officials point out that water-resource management need large-scale, long-term planning to improve the groundwater situation and safeguard the farming community.

Water scarcity affects all crops, not only oil palms, and has implications not just for farmers but whole communities living close to oil palm plantations.

What do young people in India think of palm oil?

Many young people have never heard of palm oil, but care deeply about environmental damage and are willing to pay more for sustainable produce, according to our survey

Chih-Ching Lan | May 17, 2021

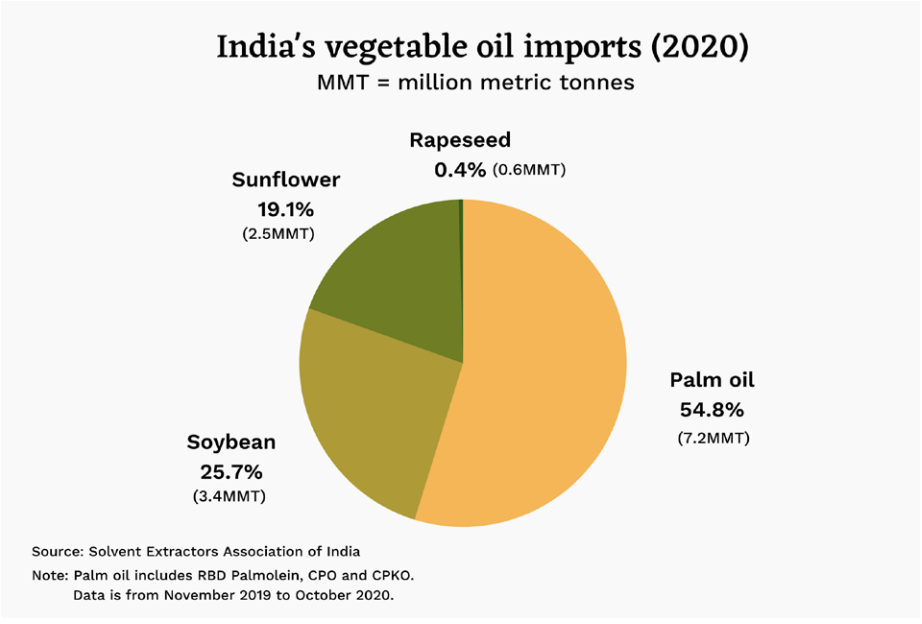
"Raising awareness, behaviour changes and achieving sustainability are a slow process. But we need to start somewhere. One step at a time." This is the view of Sanjeevani, a third-year college student who participated in a recent palm oil awareness survey in India.

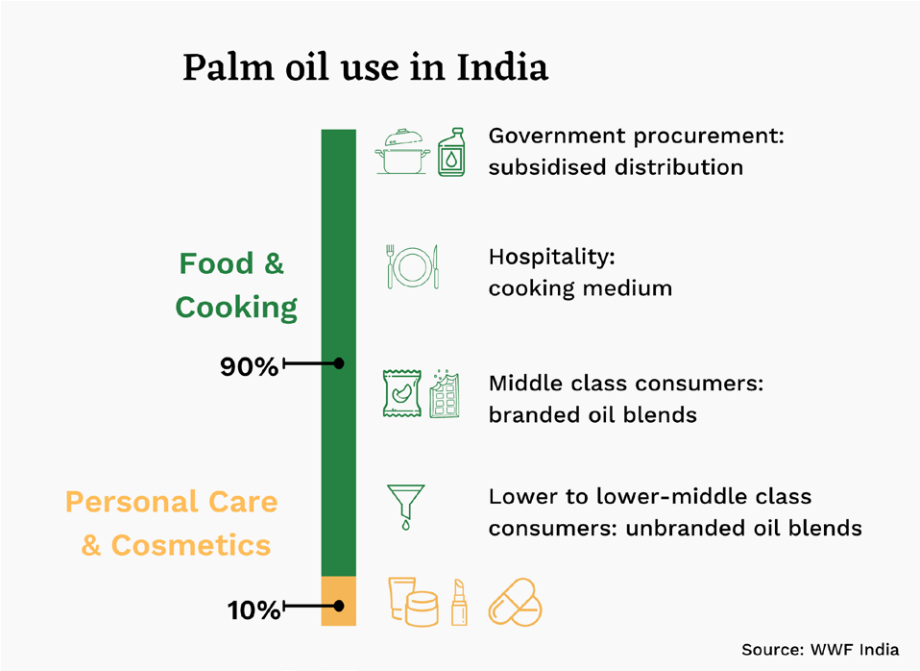
Of the 1,802 mostly young people who responded to the online questionnaire, 43% were not aware of the existence of palm oil. But the vast majority were concerned about the kind of negative environmental and social impacts unsustainably produced palm oil can have. Ninety percent said they were willing to pay more for sustainably produced palm oil.

Last year, India imported 7.2 million metric tonnes of palm oil, according to vegetable oil industry body the Solvent Extractors Association of India. This was less than in previous years, due to Covid-19 and the disruptions it caused to the palm oil supply chain.

Providing affordable, nourishing food to India's rapidly growing population of 1.3 billion is a challenge that has led to a highly competitive and price-sensitive market. Palm oil, which is cheap and versatile, accounts for 55% of edible oil consumption in India. Most is sold and traded without branding, usually in street markets, making its provenance hard to track. Demand has grown faster

Sanjeevani Mishra (front row, second on the left) is one of the 1,802 Indians who took part in the survey (Image: Punyasloka Panda / China Dialogue)





in India than in any other major importing nation, rising more than ten-fold between 1995 and 2019. At the same time, more and more young consumers like Sanjeevani are gaining knowledge about the commodity and the risks associated with it. And they are demanding companies and their governments do more.

The survey

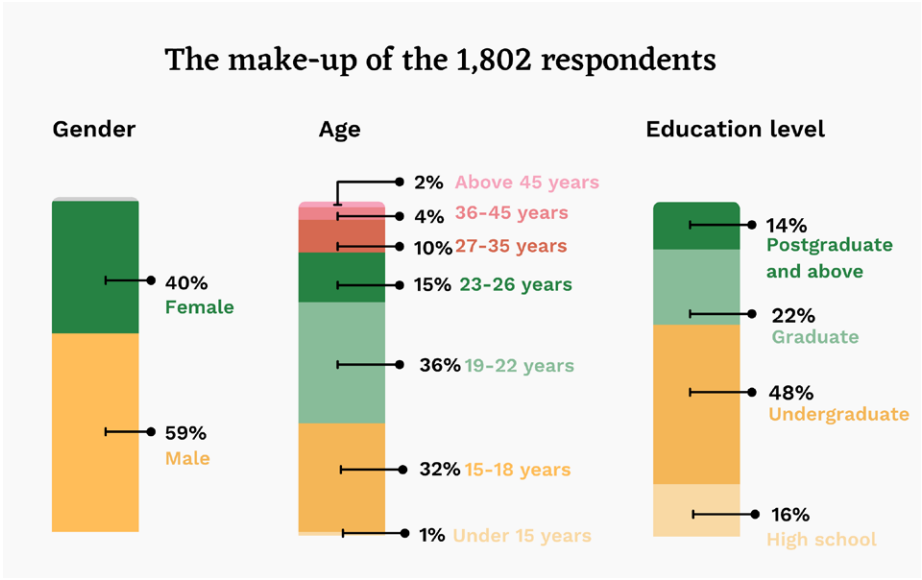
The 31-question survey was conducted in April by Human Circle, a non-profit focussed on career advice, in partnership with China Dialogue.

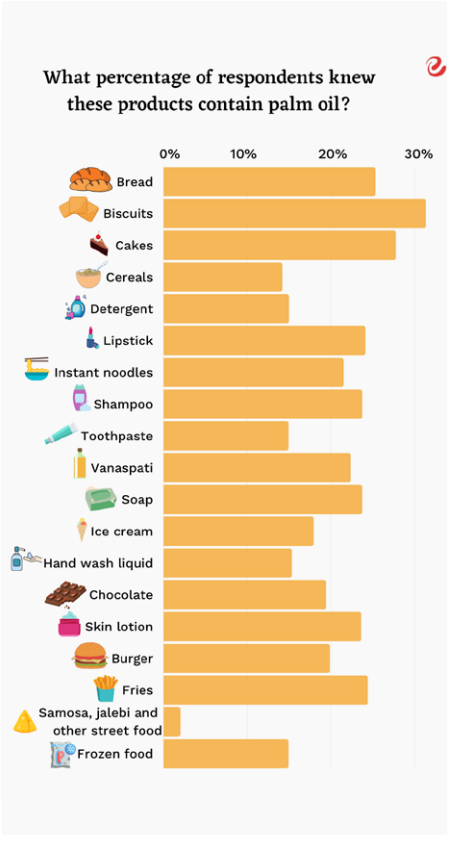
Human Circle has a broad reach among young people in India, but the survey was open to people of all ages and backgrounds. Some 40% of participants were female and 59% were male; 85% were under the age of 27; and the majority were students. Around 40% work or major in the engineering, science and IT sectors, with 12% working or majoring in education and skills development. More than half live in India's largest cities known as Tier 1 cities. Around one third live in mid-sized, Tier 2, cities and the rest live in Tier 3 cities or elsewhere. The majority live in families of around four to five people.

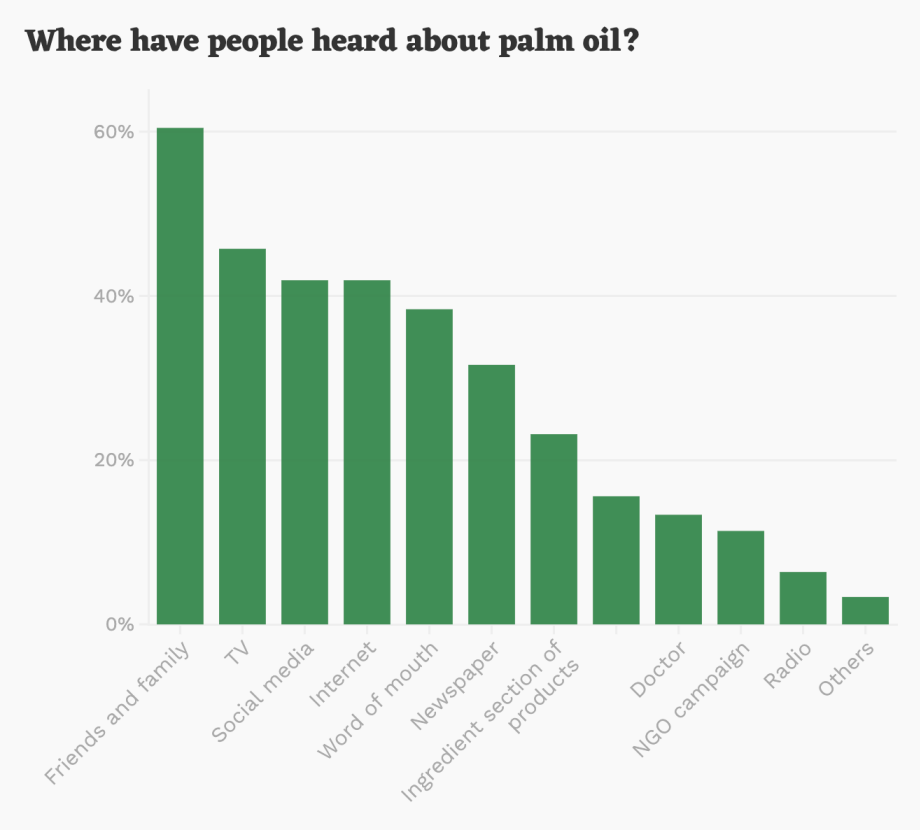
Due to the nature of online surveys, 84% of participants were either currently studying at university, or had graduated with their first degree (22.5%) or higher degrees (14% were at post graduate level or above). Those in the survey group therefore had more access to information and were better informed than average.

Awareness of palm oil and its impacts

Most consumers in India are not aware of palm oil's ubiquitous existence in foods such as instant noodles, vanaspati (a vegetable fat alternative to butter), ice cream, samosa, jalebi and other street food. Neither do they know of its place in non-edible products including detergents, cosmetics, toothpaste and skin lotion.







Unlike images of sunflowers, olives or coconuts, the oil palm fruit is not widely displayed on products or shown in TV commercials. The lack of publicity and awareness was reflected in our survey, with 43% of respondents having never heard of palm oil. When shown a list of products, respondents were able to correctly judge which contained palm oil only 20% of the time.

For those who had heard of palm oil, the most common primary source was word of mouth, with social media, the internet and TV also featuring.

For participant Arshad Qureshi: "Family communication is the most important. If we can convince and persuade our family to care about the issues… we are a big step forward in our society to create meaningful changes." Arshad emphasised the key role in the household played by women, who are often in charge of daily household decisions. Therefore they should be the key target group for information sharing, he suggested.

Arshad Qureshi thinks decision-makers need to do more to minimise the environmental impacts of unsustainable palm oil production (Image: Arshad Qureshi / China Dialogue)

For both Sanjeevani and Arshad, raising consumer awareness is insufficient: people and suppliers who work across supply chains should also know and understand the environmental and social impacts of unsustainable palm oil production. Upstream businesses and decision makers also need to do more, they added.

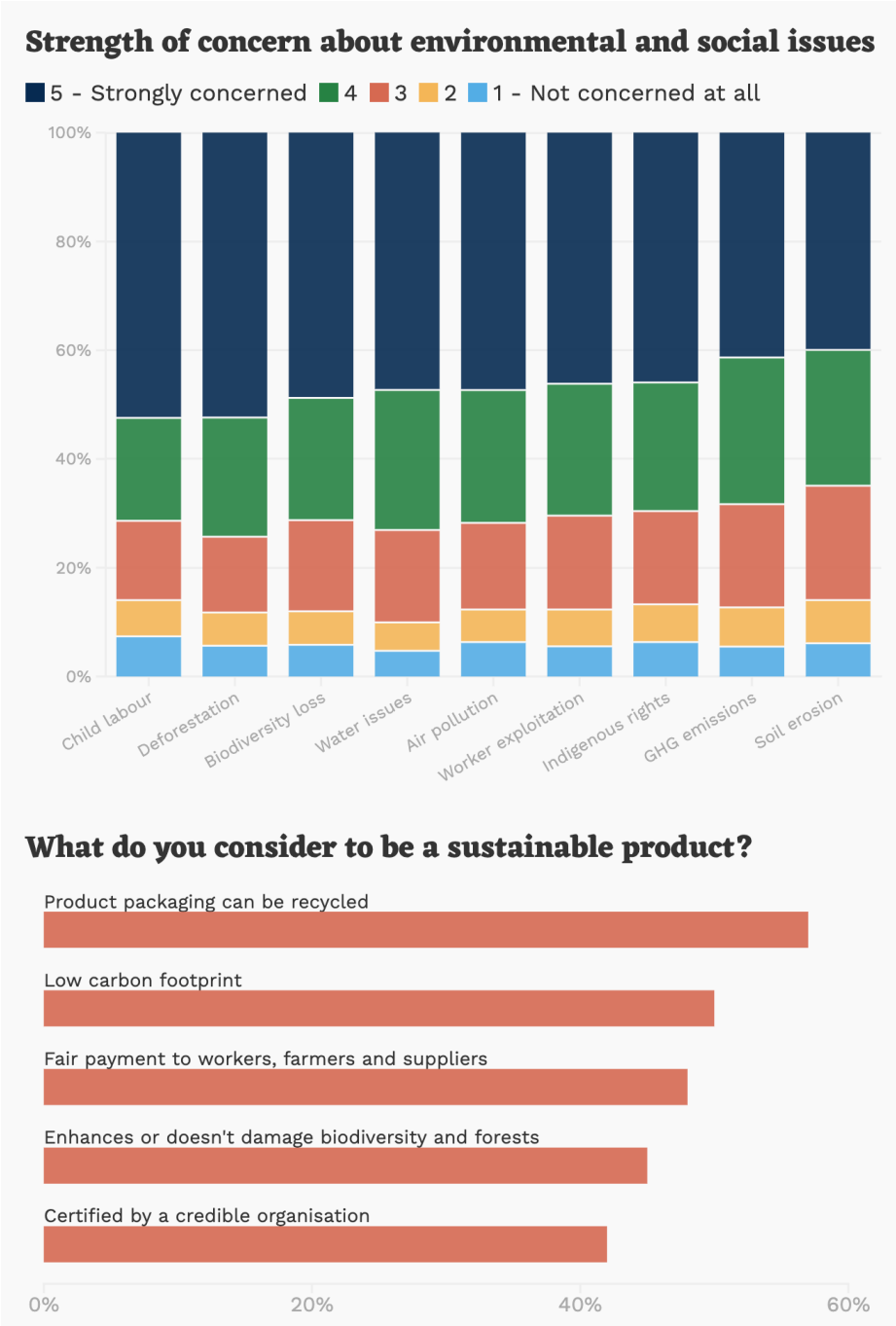
Participants who had heard of palm oil were largely aware of the environmental issues associated with its unsustainable production. Meanwhile, all participants, whether or not they had heard of palm oil, expressed strong concern about environmental and social impacts in general, especially regarding child labour, deforestation, biodiversity loss and water resource depletion. Social issues such as workers' and farmers' rights and the mistreatment of indigenous people received slightly less concern.

Knowledge about sustainable palm oil

Even though participants were concerned about the impacts of palm oil production, about half didn't really know what could be done differently and were relatively unfamiliar with the concept of "sustainable palm oil". For some participants, sustainability meant recyclable packaging. For others, it was low-carbon footprint, fair wages and no harm to biodiversity and forests. A few also mentioned ensuring the absence of cruelty and corruption in the supply chain.

Less than 30% of respondents could recognise sustainable certification logos such as those from the Rainforest Alliance, Forest Stewardship Council (FSC), FairTrade and Roundtable for Sustainable Palm Oil (RSPO). Fifty-eight percent had never heard of certified sustainable palm oil and 65% didn't know about the RSPO certification scheme. Some recognised the palm leaf logo but were not aware it denoted the RSPO or, vice versa, had heard of the RSPO but couldn't identify its logo.

The differences between sustainable and unsustainable palm oil are rather unclear to many consumers. Most companies processing and trading palm oil in India have produced no clear sustainability commitments, which could provide such information to consumers. And those with existing corporate sustainability polices don't always have the information readily available for consumers.



"At the moment, most multinational companies in India know about sustainable palm oil and many have started buying, selling or importing RSPO certified sustainable palm oil," said Kamal Prakash Seth, the RSPO Country Head in India and Deputy Director, Market Transformation (Global) for RSPO. However, Seth explained, not many companies are using the RSPO trademark to communicate this information externally. Demonstrating demand for this information, from consumers and retailers, would incentivise companies to provide it, Seth added.

RSPO India has collaborated with another initiative to start the #KnowYourPalm campaign, which aims to encourage people to ask their favourite brands for information on certified sustainable palm oil in their products and to tell family and friends to do the same. Seth said a WWF report in India showed the general public perceive palm oil as an ingredient neutrally and are "very willing to purchase or switch to products with sustainable palm oil if they know about it".

Willingness to pay for sustainable palm oil

"Consumer awareness can be done to a certain level but it is the actions that matter," said Punyasloka Panda, lead coordinator for youth for Sustainability India.

Survey participants identified several actions to encourage the production and consumption of sustainable palm oil. These were, in order of perceived importance: spreading awareness among family and friends; purchasing products containing sustainable palm oil; supporting NGOs; government regulations; and company actions.

Sanjeevani observed: "People might be aware of the problems and issues… They would feel bad from time to time, but [they're] not thinking about what's next or what can be changed through their actions." There is a need to communicate the impacts of people's actions and choices on both nature and people living in faraway countries. Access to information is the first step. Then people need knowledge they can act on.

Around 64% agreed that more stringent and transparent labelling should be put on products. Interviewees also felt better labelling is important not only for consumers but also for brand and companies to build trust. Readily available and transparent information for consumers can strengthen companies' accountability. However, considering the share of people who don't always read labels (around 40%) and don't think labelling is necessary, other methods need to be deployed simultaneously to encourage behavioural changes.

Despite the modest general awareness of palm oil use and its environmental and social impacts, the survey found a

Comparison of some essential consumer items and their price increases

Prices are in US dollars

	Vanaspati (1L)	Street food in Tier 1 cities	Chocolate (130g)	Hand wash liquid (750ml)	Lipstick
Current price	2.17	$0.27-$1.36	2.45	1.63	$10.19
+5%	2.28	$0.29-$1.47	2.57	1.71	$10.71
+10%	2.39	$0.30-$1.50	2.69	1.79	$11.21
+20%	2.61	$0.33-$1.63	2.94	1.96	$12.23

Note: Prices have been converted from Indian Rupees

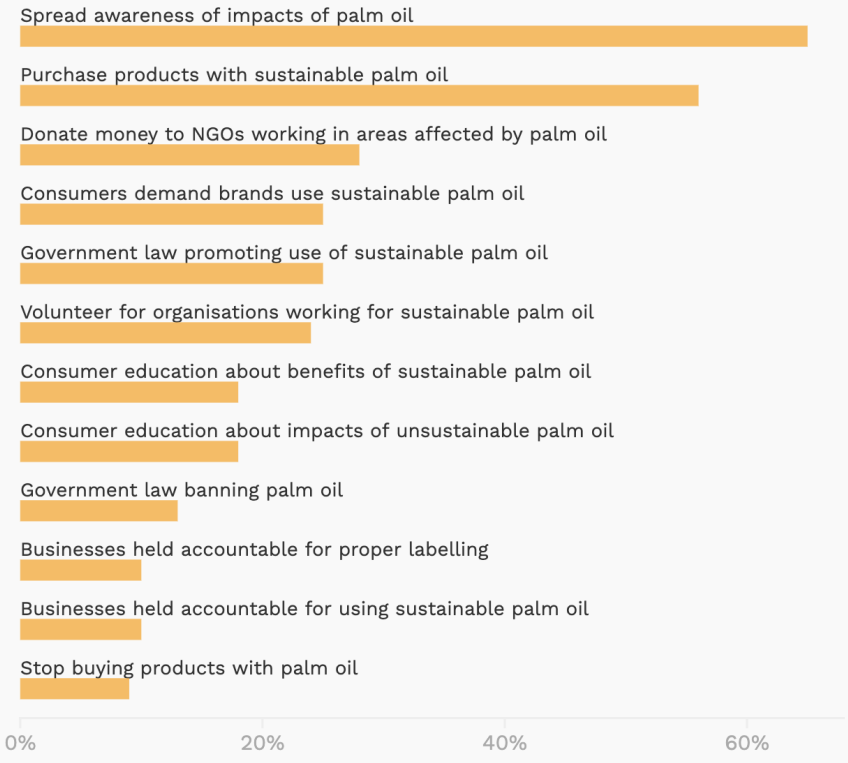
lot of interest and willingness to pay for products containing sustainable palm oil. When asked about their openness to buying sustainable products, 90% were willing to pay extra. Most were willing to pay 5-10% more, with around one third willing to pay even more. Participants interviewed by China Dialogue nonetheless indicated some products, such as street food, vanaspati, frozen food and handwash (especially during and after the pandemic) are especially price-sensitive. In other words, if these essential items are made more expensive by the inclusion of certified sustainable palm oil, people are likely to continue to opt for versions containing non-certified oil. Other factors that would deter consumers from buying sustainable products include lack of awareness, unclear labelling and limited product availability and accessibility.

"Persuading my mom about purchasing products with sustainable palm oil was the most challenging, especially on the cost front," Arshad explained. "I had to explain the long-term costs of direct and indirect impacts on our environment, in relation to our health and economy. The way we calculate and understand 'cost' and material value should change. Especially now with the [Covid] crisis, people start to understand that our health and the health of the environment are more valuable than anything else."

The price of palm oil and the premium paid for certified sustainable palm oil fluctuate but as a rough estimate, certified sustainable palm oil costs around US$30 to US$50 per tonne (around 4-7 %) more than conventional palm oil; the current average crude palm oil price is about US$710 per tonne. Interviewed survey participants felt consumers shouldn't have to foot all the extra cost. Government intervention should play a primary role, not only to provide subsidies for better products but also to regulate the private sector, they said. "For private companies, for instance, shifting money spent on marketing to more sustainable ingredients can be an alternative, effective 'marketing' strategy and establish brand trust with consumers," said Arshad. "Companies definitely have the capacity to absorb the costs along their supply chain. The more companies join, the sooner the market can reach economies of scale for sustainable palm oil," Punyasloka said.

A quarter of the survey participants felt boycotting palm oil altogether was also

What are the most effective ways to encourage the production and consumption of sustainable palm oil?



an option. This approach, however, is not feasible given how difficult it would be to exclude palm oil in the supply chains in India. Moreover, replacing it with other vegetable oil crops could worsen harm to natural habitats and biodiversity.

Consumer awareness in China

After India, China is the largest importer of palm oil by volume. A 2018 consumer survey carried out by WWF China produced similar results to our own. Of 5,000 respondents, 46% hadn't heard of palm oil and most were unaware of its usage in everyday products. Consumers were generally willing to accept a premium of 6-10% for sustainable palm oil, especially for cosmetics and personal care products. Interestingly, respondents over 45 years old showed less inclination to spread awareness on sustainable palm oil. A new round of findings from WWF China is due to be released in June 2021.

Given the prominent role of young people, in 2020 the RSPO teamed up with WildBound, a non-profit educational organisation, to form the Changemakers for Nature initiative. "Sustainable palm oil and green supply chains are still a very niche market in China. NGOs and advocators need to expand out of our social bubbles and reach out to more general public," said Isabel Nepstad, the co-founder of Changemaker for Nature.

The initiative focuses on working with young professionals and students between 16 and 28 years old, advocating the importance of biodiversity and tropical forests. Sustainable palm oil consumption naturally goes hand in hand with these topics. "Raising awareness in the youth group is one of our main campaign approaches. Young people are very active on social media platforms. They consume a significant portion of processed food products and often care more about the environmental and social impacts of their actions," said Wan Jian, stakeholder engagement manager at RSPO China. "We work with students in various

Customers shop for instant noodles in China's Jiangsu province. The country is the second biggest importer of palm oil by volume, but many Chinese people are not aware of the environmental impacts of unsustainable palm oil. (Image: Alamy)

events and projects to provide them with learnings, practical tools and [an] expert network so they can influence their social circles. We also select student representatives to join meetings with companies and participate in youth forums in international events."

Unlike the powerful market pressure leveraged by NGOs in Europe, the different cultural contexts of China mean consumer and environmental movements can only develop so far. Broader government measures are considered necessary to create larger impacts. The Chinese government in recent years has strengthened its policies favouring green and sustainable development, which gradually has helped bring this issue onto the agenda for public discussion. Governments and more companies along the supply chain need to coordinate their efforts.

Youth as impetus for change

Our survey in India suggested young people generally have only moderate awareness and knowledge about palm oil. However, they have serious concerns over environmental and social issues associated with its production, and an openness and willingness to pay more for sustainability.

Young consumers are more receptive and open to new information and to changes. They can be the foundation of a bottom-up approach and an entry point to spreading awareness to broader audiences. A focus on benefits to people and planet, on positive stories, should help foster a change in perceptions, as would showing people how they can make a difference.

Targeting real people and social groups can be effective, especially as the internet and social media are not available to everyone. This can include key family members, medical workers, nutritionists and people who work in the health and fitness industry. Arshad said: "Outreach in India is difficult but not impossible. The story should be made simple, easy to understand and communicated in local languages to minimise communication barriers." Understanding such consumer networks and attitudes would enable stakeholders to distribute balanced knowledge and information effectively, in turn creating behavioural change. Many of those who took our survey reported learning from it and also encouraging their family and friends to take the survey, suggesting the benefit of further such surveys in India, possibly targeting older age groups.

Palm oil imports in India will continue to grow in the foreseeable future while domestic production remains negligible. When Covid-19 finally subsides, food security and stable supply will continue to be prioritised over sustainability. The Chinese and Indian markets are key to transforming global palm oil supply chains. And immediate actions from governments and the private sector are more needed than ever. If governments and companies join forces with existing efforts and initiatives to improve the sustainability of palm oil supply chains, they can better reach consumers and producers. Faced with the hard road ahead, the young consumers in these markets could be catalysts for enlarging societal awareness and driving progress towards a future in which all palm oil is sustainable.

San Juan La Noria: the community abandoned to palm oil development

The village in Guatemala is surrounded by oil palm plantations but residents feel none of the benefits

Marvin Del Cid, Sonny Figueroa
June 25, 2021

There is only one road in and out of San Juan La Noria. This community of 2,600 people, located 150 kilometres southeast of the Guatemalan capital, is almost completely engulfed by rows and rows of oil palms.

In the 1970s, when the village was founded, San Juan La Noria comprised around 20 houses. Its inhabitants worked in agriculture, including livestock and nearby banana farms.

Then, in the late 1980s, palm oil came to Guatemala's Pacific slope, with growers making the switch from banana to oil palm as it was seen as more profitable. San Juan La Noria was chosen for its rich soil, wide open land and abundant water supply.

The plantations around the village all belong to the HAME Group, the largest palm oil producer in Guatemala. But the expansion of this highly profitable crop, used worldwide in everyday products from soap to ice cream and fuel, has not brought benefit to the inhabitants of the village.

Health problems

In half a century, San Juan La Noria has hardly developed. There are no drains, most of the houses are made of sheet metal and wood and the roads are unpaved. Many inhabitants still don't have access to clean drinking water. According to data from the National Institute of Statistics, 29% live in poverty, and 8% in extreme poverty.

Houses without running water depend on two nearby rivers: Madre Vieja and La Noria. Their water is used to irrigate crops and wash clothes. There is no local waste treatment plant and many houses pipe their waste into the rivers. The resulting polluted waters are deemed unfit for human consumption, but many inhabitants of San Juan La Noria have no choice but to drink it as they cannot afford to buy purified water.

Source: Landsat/Copernicus

Community members claim that the oil palm plantations also pollute the river. While there are no local public records of this, nationally there are similar cases. In 2015, more than 150km of La Pasión River in Sayaxché, Petén, was affected by an overflow of palm oil mill effluent at the Palmas del Petén Reforestation Plant (Repsa), causing a mass fish die-off. An investigation by the United States Environmental Protection Agency (EPA) found that Repsa, another company operated by owners of the HAME Group, had dumped its polluted waste into the river.

A separate case of severe water pollution occurred in July 2019 on another local river, the San Román. As well as significantly

People in San Juan La Noria feel the surrounding oil palm plantations are depleting the rivers they rely on for drinking and washing (Image: Marvin del Cid / China Dialogue)

compromising one of the communities' main food sources, the contaminated water reportedly led to an increase in diseases, especially among children and the elderly.

The consumption of polluted water often results in gastrointestinal illnesses among the residents. But the village has no hospital or healthcare centre, so those who are sick must travel to the health post in Tiquisate, about 10km away.

"The mayor of Tiquisate, far from supporting us, mocks us when we go to the municipality to ask for development works – health, drinking water and asphalt for streets. Sometimes they listen to us, but they never do anything for the village. We are abandoned," said Carlos Abán, president of San Juan La Noria's Community Development Council.

But Julia Barrera, spokesperson for the Ministry of Public Health and Social Assistance, said that a temporary health post arrived to give basic consultations once a week.

"There is no health post, since when the services were defined in the community there was little population. Currently there is a temporary position made up of two people [a nursing assistant and health promoter] who attend once or twice a week," Barrera said.

Community water diverted

As well as pollution, another frequent criticism of oil palm and other monoculture plantations is that they deplete water.

Three times a week, Elicita

Local families without running water depend on the nearby rivers, which community members say have been polluted by the oil palm plantations (Image: Marvin del Cid / China Dialogue)

Elicita Guzmán washes her clothes in La Noria River with her daughters (Image: Marvin del Cid / China Dialogue)

Guzmán washes her clothes in La Noria River, in temperatures sometimes in excess of 35C. Like more than half of the people in the village, she does not have running water.

"That is why we depend on this river. On several occasions it has dried up, because the little water in this river is going to the palm plantations," she explained.

In front of Guzmán and her two young daughters, who were bathing with a bucket, stretch the endless rows of oil palms belonging to the HAME Group. The flow of the La Noria River was low and the plantation was being irrigated with river water.

Guzmán explained that when the river is not diverted to water the palms, the water reaches her waist. On this day, the flow barely reached her knees. "The river is dying when you start to water the palms," she said.

The same happens with the nearby Río Madre Vieja, whose waters are also diverted to palm plantations. Women are already disproportionately impacted by oil palm, and having to find clean water to take care of their families places an additional heavy burden on them.

Supporting the community

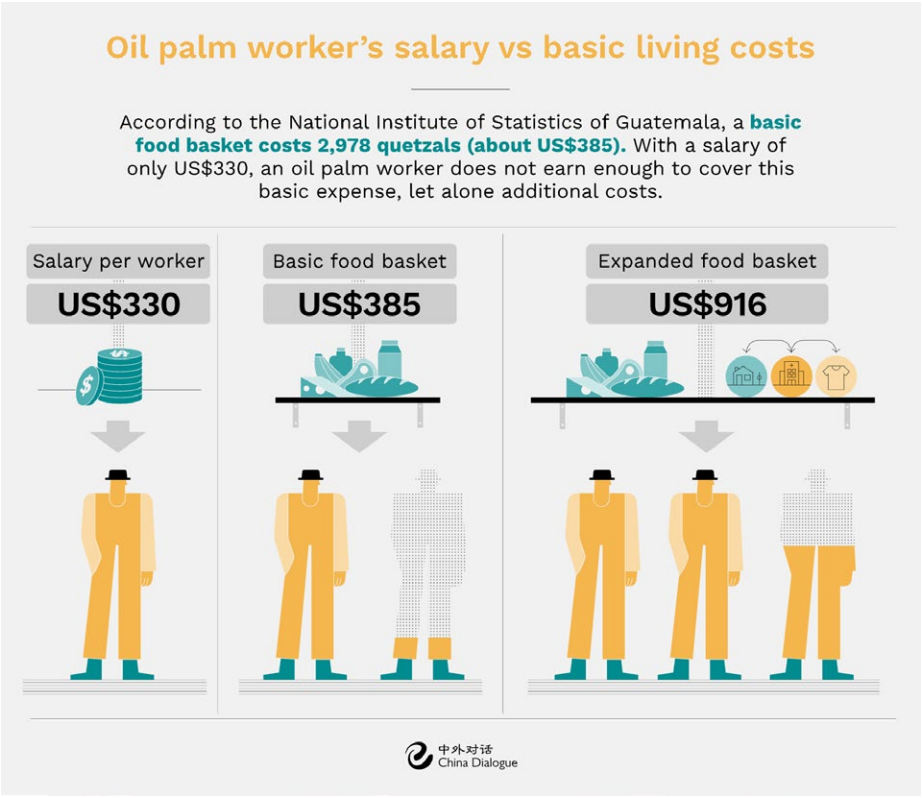
Most men in San Juan La Noria work in the oil palm plantations. Those who do not, work on local banana and sugar cane farms. Abán says that the HAME Group does not have enough projects to support the local population.

"The palm farms do not support the community with projects. They (the HAME Group) tell us that we should be grateful because they give work to our people," he said.

Twenty-year-old Edwin Juárez collects fruit in the palm plantations, receiving around 2,500 quetzals (US$330) a month. "They pay very little, but out of necessity I have to do it, because there is no other source of employment here," he said.

In Guatemala, the minimum monthly wage for agricultural activities is 2,992 quetzals, about US$400. This means that palm companies do not comply with the minimum wage established by the Ministry of Labour.

The priests José Luis Paiz and Mario Jolón offer mass once a week at the church of San Juan La Noria. Both agree that the village is abandoned and that the nearby farms exploit the workers.



Graphic: Catalina González / China Dialogue

"One of the great problems of the community is that the municipality [of Tiquisate] does not care about development. The mayor's office and the central government do not ensure that companies pay their neighbours a fair salary," said Jolón.

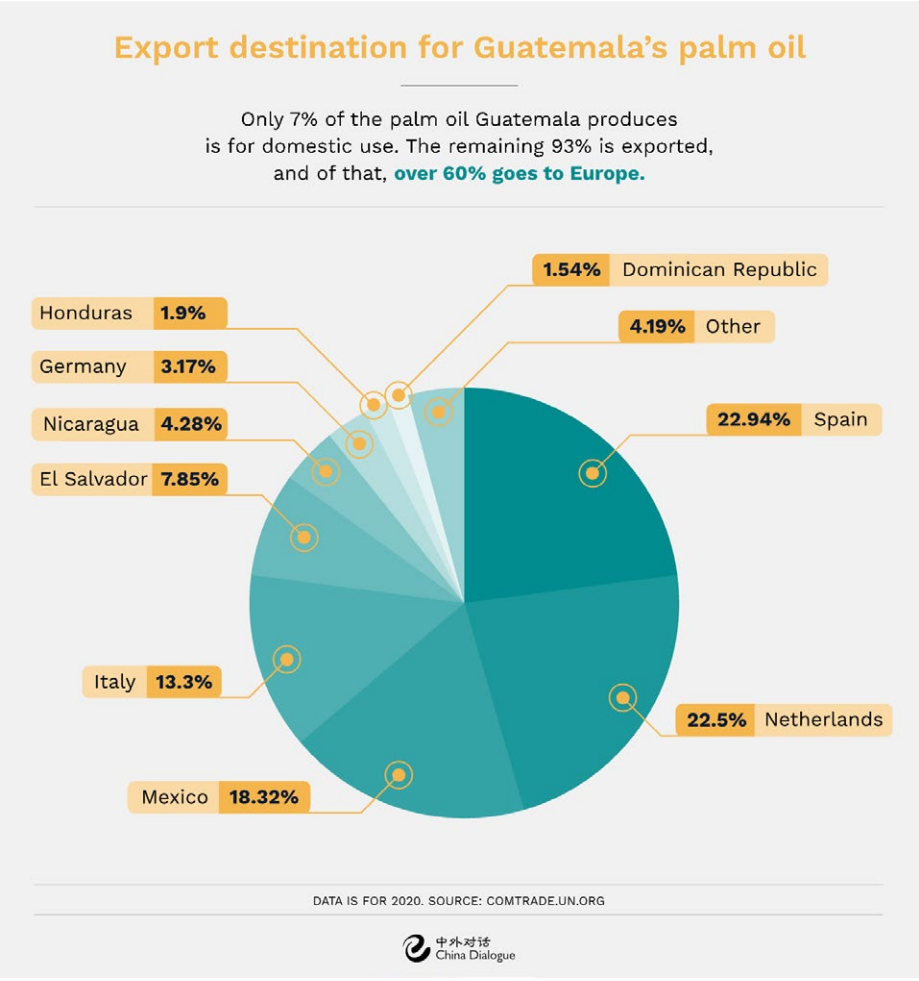
The mayor of Tiquisate, Francisco Carias, did not respond to requests for an interview. His PR team sent data about the community, but it was not possible to ask specific questions about residents' claims that San Juan La Noria had been abandoned.

Palm oil and sustainability

Palm oil, along with mining and hydroelectric projects, is among the fastest-growing industries in Guatemala. Its expansion has been linked to land grabs that displace indigenous communities, human rights abuses and the deaths of environmental activists. Deforestation to make way for oil palm plantations is making traditional subsistence farming harder, prompting increasing numbers to seek livelihoods elsewhere.

In 2018, seven-year-old Jakelin Caal died of fever in custody after trying to cross the southern border of the United States. Jakelin came from the Guatemalan village of Raxruha, where many farmers had sold their land to palm oil companies only to find that they could not earn enough working on the plantations. This has precipitated migration in search of wages to live off.

In the last 10 years, palm oil exports have represented about US$3 billion for the Guatemalan economy, according to the country's central bank. Nearly all of the palm oil production is for export, primarily to Mexico, Spain and the Netherlands. Just 7% is left behind for local consumption.



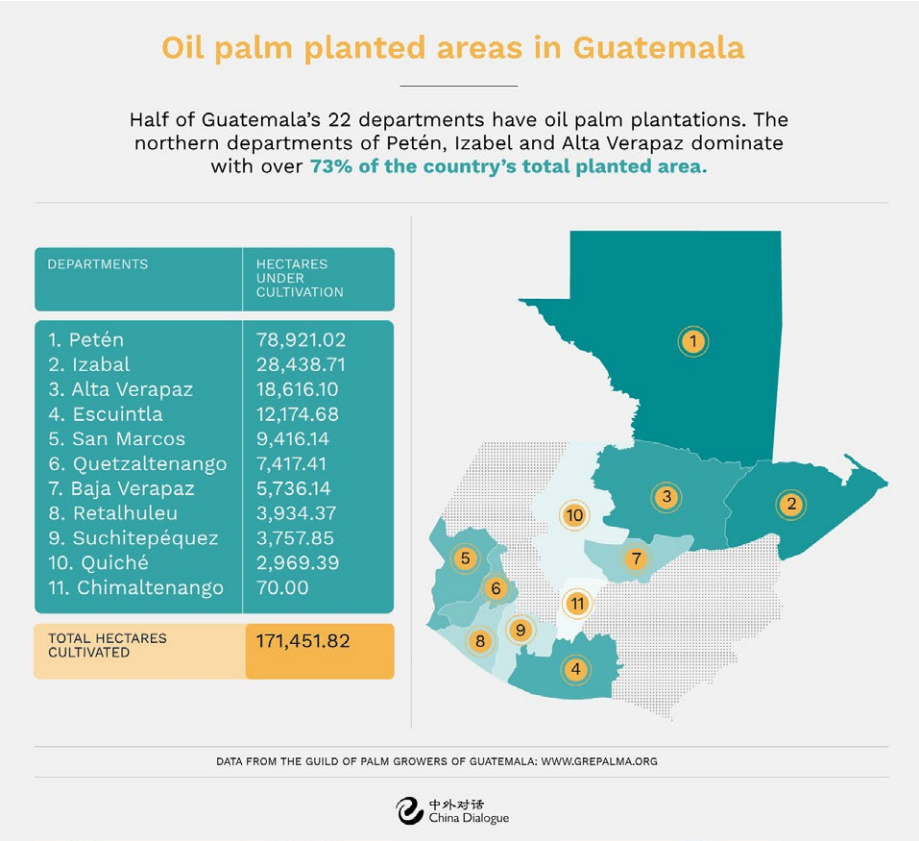
The latest data from the Palm Grower Association of Guatemala (Grepalma) shows that, in 2019, 39% of oil palm plantations were certified by the International Sustainability and Carbon Certification (ISCC) and the Roundtable of Sustainable Palm Oil (RSPO), both global initiatives that certify palm oil as sustainable.

According to RSPO data, there are seven certified growers operating 10 certified palm oil mills nationally, producing 496,376 tonnes of certified palm oil over an area of 64,162 hectares of land. This makes Guatemala the leading producer of RSPO-certified palm oil in Latin America.

According to Francisco Naranjo, technical director of the RSPO, the HAME Group does not operate any certified plantations in the country. Research shows that the plantations around San Juan La Noria all send their oil palm fruit to the HAME Group's Santa Rosa palm oil mill, which is certified by the RSPO and appears on the public mill lists of Nestlé, PepsiCo and Unilever. This discrepancy, with non-certified plantations sending oil to a certified mill, highlights weaknesses in the certification system, where non-certified oil is mixed with certified oil.

Palm oil production continues to expand in Guatemala. In the last 17 years, the planted area increased by more than 400% to 171,451 hectares and has turned the country into the world's sixth-largest producer. Oil palm plantations are found in half of Guatemala's 22 regional entities known as departments, the majority in the north.

Information from Grepalma indicates that there are 235 producers in the country, but 29 large groups dominate production – one of them being the HAME Group. The union



Graphic: Catalina González / China Dialogue

said the industry generates more than 28,000 direct jobs and contributes 1.09% of the country's gross domestic product (GDP).

HAME Group defends itself

HAME stands for Hugo Alberto Molina Espinoza, after the family that founded the firm. The family is one of the biggest landowners in the country and also owns the MEME Group (Milton Enrique Molina Espinoza). It has been involved in agribusiness since the 1950s, first with cotton, then banana and oil palm, and together has more than 45,000 hectares of oil palm planted across the departments of Petén, Escuintla, San Marcos and Quetzaltenango.

As well as the river contamination in 2015, the HAME Group and its associated companies have in recent years been targeted with lawsuits and accused of corruption. When asked about the way it treated the community of San Juan La Noria, HAME said it had a team that worked directly with the people there. In recent years various projects have been prioritised in the community, including repairing a bridge, road maintenance and rebuilding the school roof.

Some 340 people from San Juan La Noria work for companies belonging to the HAME Group.

"We comply with the provisions of the law and the Labour Code. All of the HAME Group companies guarantee the minimum wage to their collaborators. The Ministry of Labour has carried out inspections in the Group's companies on several occasions, corroborating the correct payment of the minimum wage to all collaborators," said Xiomara Lima, HAME's corporate communication manager.

"In some jobs, a productivity wage is encouraged where workers can earn much more than the minimum. As a company, we comply with the payment of our taxes and within our operating plans we have resources assigned to social projects," she said.

Lima dismissed claims that the firm gave little support to residents, saying that it acted responsibly towards Guatemalan families.

"We seek spaces for dialogue and joint prioritisation in order to establish long-term relationships," added Lima.

Lima also denied that the HAME Group pollutes rivers, and said the company promoted the responsible use of water resources.

About 340 people from San Juan La Noria work for companies belonging to the HAME Group, which operates more than 45,000 hectares of oil palm plantation across Guatemala (Image: Marvin del Cid / China Dialogue)

From palm to plate

Tracking sustainable palm oil along the supply chain

Josie Phillips, Nithin Coca, Lizi Hesling, Jessica Aldred

By now we have a good understanding of the extent to which palm oil is embedded in our daily lives. But something we probably aren't so aware of is the journey it takes from plantations in growing regions to manufacturing facilities that produce and distribute products containing it, and on to the retailers who market these products to us as consumers.

The series of stakeholders, facilities and steps involved in converting a raw material into an end product is known as a supply chain. The complexity of the palm oil supply chain plays a key role in the negative social and environmental impacts the production of this globally important commodity is having. Addressing this complexity is also central to efforts by industry actors and the Roundtable on Sustainable Palm Oil (RSPO) to make the sector more sustainable.

To explore these issues, China Dialogue used satellite imagery, open-access data and online resources from organisations such as Global Forest Watch, UN Comtrade and the RSPO, and companies like Unilever and Wilmar International, to build an interactive multimedia experience. It guides readers on a journey from a palm oil plantation in Indonesia's Central Kalimantan to end products consumed in Europe and China. Along the way, we examine how leakage markets and shortcomings in current certification systems are limiting efforts to promote sustainable practices on the ground.

By tracing a specific palm oil supply chain through real-world locations and actors, we aim to foster a deeper understanding of the wider challenges and opportunities facing the sector.

Experience the journey yourself at **www.chinadialogue.net/en/tag/palm-oil/**

中外对话
China Dialogue

London office: 15 Printing House Yard, London, E2 7PR, UK
Tel.: (+44) (0)207 683 2985

Subscribe to the
China Dialogue newsletter:
www.chinadialogue.net

Follow China Dialogue on:
Facebook, Twitter and WeChat