Commodity Market Intelligence Update No. 2

Issue feature: Palm Oil

Demand Dynamics and Alternative Markets

As Indonesia and Malaysia seek to fulfill their sustainable development goals, they are betting on the oil palm industry to drive sustained economic growth. Oil palm growth in the world's two primary palm oil producing countries comes as demand markets are diverging. In some markets, such as the E.U. and North America, demand for palm oil is shaped by a preference for sustainable production. Other growing markets, including Russia, Pakistan and several African countries, as well as China and India, are less discerning in their desire for sustainable practices from suppliers. In India, Pakistan, and Sub-Saharan Africa, strong population growth combined with rising per capita palm oil consumption will drive demand into the future. Increased demand is further driven by palm oil's use in biofuels outside the E.U, in Indonesia's domestic market and in Japan, and as an emerging aviation fuel.

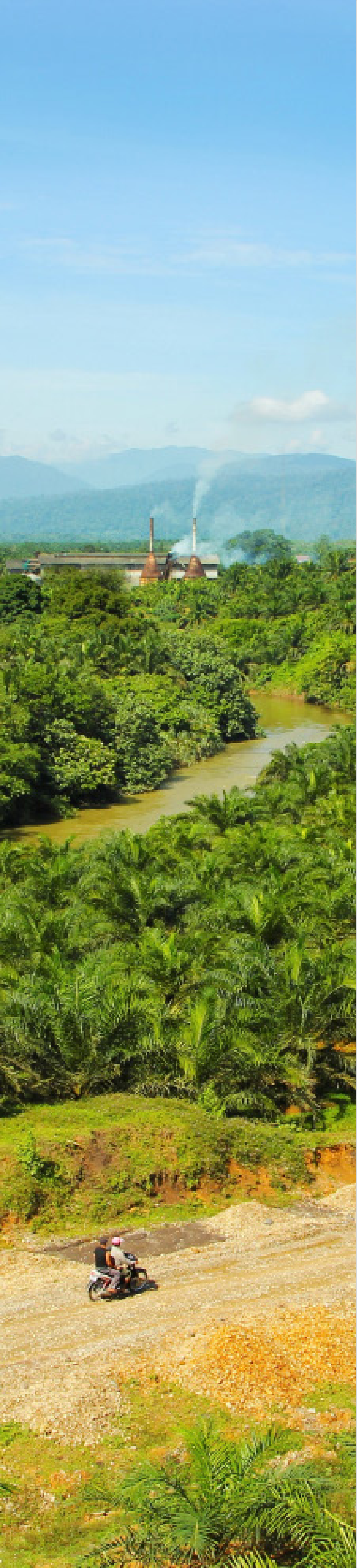
In Western markets, demand for palm oil is being impacted by the growing awareness of the link between its production and deforestation. The Amsterdam Declaration, signed by several large European countries in 2015, set a target to achieve 100% sustainable palm oil in the E.U. market by 2020. In alignment with this declaration and in recognition of the growing use of palm oil in biofuels, the E.U., which accounts for 13% of Indonesia's palm oil exports and 17% of Malaysia's, voted in Parliament to phase out incentives for palm oil's use in renewable energy by 2021. However, any large-scale shift in demand away from Europe will take time to materialize, and palm oil imports to the E.U are currently holding steady.

Meanwhile, rising demand in alternative markets may make up for any potential future loss in palm oil exports to Europe. Many large palm oil importing countries, including the Philippines, Nigeria, Myanmar, and Turkey have seen double digit average annual growth in palm oil imports in recent years. In Sub-Saharan Africa, where a large gap exists between local production and demand, Indonesia has even proposed a mutually beneficial exchange of trading palm oil for crude oil. Russia, the 12th largest palm oil consuming country, is also a target for expanded palm oil exports from Indonesia. Indonesia aims to boost exports of palm oil to Russia by 4-5% per year until 2023, and will potentially exchange palm oil as part of its payment for 11 Russian fighter jets. India and China remain enormous palm oil consuming countries, together accounting for two-thirds of Indonesia and Malaysia's palm oil exports. However, India is striving to incentivize local production, and has instituted higher import taxes on palm oil that may curb imports in the coming years. India, China, and other developing countries tend to be price sensitive, and have not yet demanded sustainable production practices from their suppliers.

Demand for palm oil is also being shaped by its use in biofuels outside of Europe. In Indonesia's domestic market, where 25% of the country's palm oil production is consumed in a typical year, rising biofuel blending targets will be a key ingredient to industry growth. Japan, the world's 15th largest palm oil consuming country, is embarking on a biomass energy program that will rely, in large part, on palm oil, and palm oil may soon become an alternative fuel source for aviation. A preference for a certified sustainable product has not yet been articulated for these emerging uses of palm oil.

The rising importance of alternative markets in Indonesia and Malaysia's growth strategies gives greater urgency to the need to ensure that the growth of palm oil production will not lead to further deforestation, which can be achieved by planting new trees and utilizing land already cleared for use. Indonesia and Malaysia are working towards sustainable palm oil production though initiatives like Indonesia's National Action Plan, Malaysia's MSPO scheme, and expanding RSPO membership for oil

Commodity Market Intelligence Update is a publication of the Good Growth Partnership's **Responsible Demand** Project



palm growers, including a greater focus on smallholder participation. Still, the types of sustainability measures that key markets are demanding from their palm oil suppliers, if any, are likely to have a large impact on how palm oil is produced.

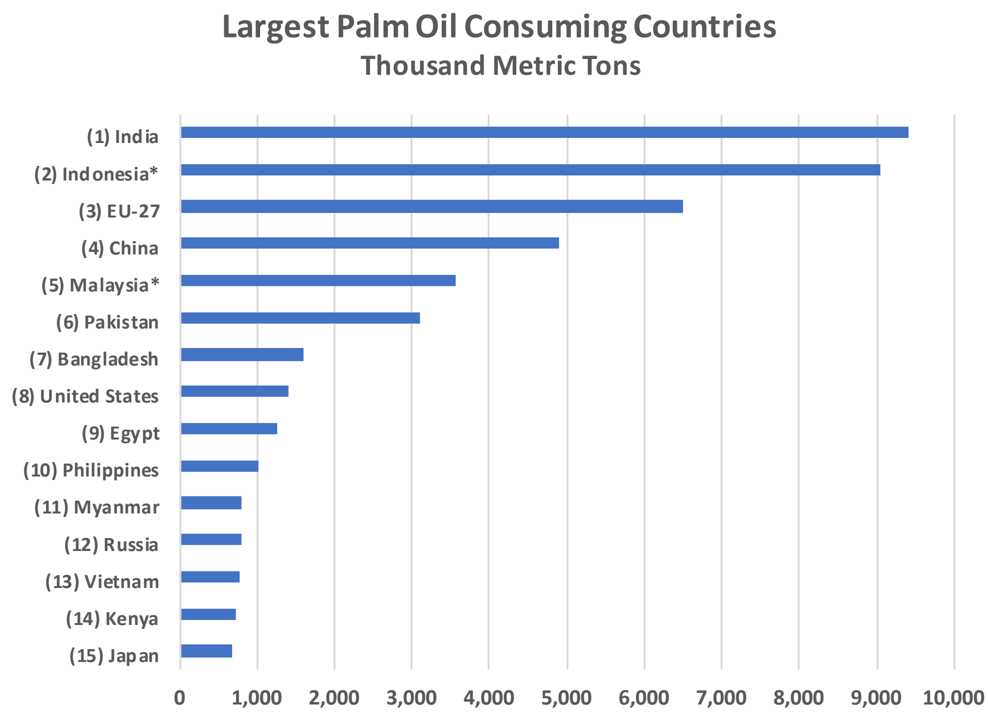
Sustainability concerns are shaping demand for palm oil in some markets, but not in others. Some of the largest and fastest growing importers, including India, Pakistan, and countries in Africa are not requesting commitments to zero-deforestation or CSPO from their palm oil suppliers as we see with companies, consumers, and governments in North America and Europe. In light of this, initiatives to ensure the deforestation-free expansion of palm oil production have never been more important.

Roundtable on Sustainable Palm Oil RT 15

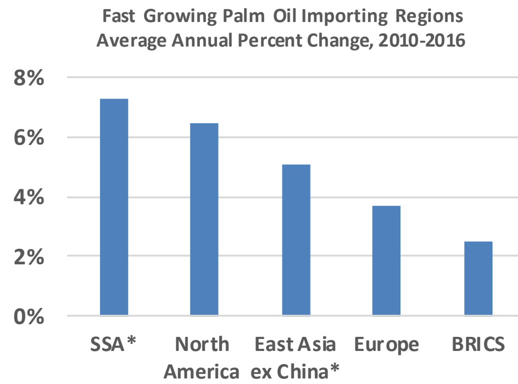
The Roundtable for Sustainable Palm Oil (RSPO) held its 15th annual roundtable conference in Bali, Indonesia from November 27th-30th, 2017. The RSPO is a non-profit organization which brings together thousands of members, including oil palm producers, processors and traders, consumer goods manufacturers, retailers, banks, investors, and environmental and social NGO's to develop and implement standards for a sustainable palm oil industry.

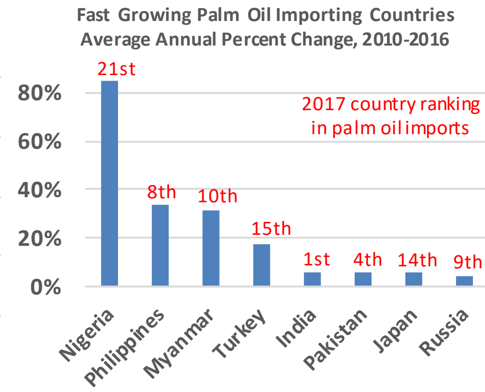
Highlights of the conference included the launching of the Smallholder Engagement Platform, which allows companies to directly support smallholders. Others included the presentation of a paper which found that deforestation rates on RSPO-certified oil palm plantations are significantly reduced, compared with non-certified plantations. Further discussions were held on sustainable palm oil in Africa, RSPO commitments to smallholders, the complaints panel, and the RSPO principles and criteria.

Trends in Palm Oil Demand



In 2017, India, Indonesia, and the E.U.-27 were the largest palm oil consuming regions, largely driven by demand for edible oils, biofuels, and consumer products. In China, palm oil is increasingly competing with soybean oil, while in India, Pakistan, and some African countries, growing per capita palm oil use coupled with rising populations will continue to pull demand. Indonesia and Malaysia's domestic markets are also enormous consumers of palm oil; Indonesia's consumption is almost equal to India's, and is propelled by use in cooking oil and biofuels. *Source: USDA via Index Mundi. Indonesia* and Malaysia* are domestic consumption of palm oil, all other countries are imports of palm oil. Philippines includes 105,000 metric tons of palm oil production that is consumed domestically.*

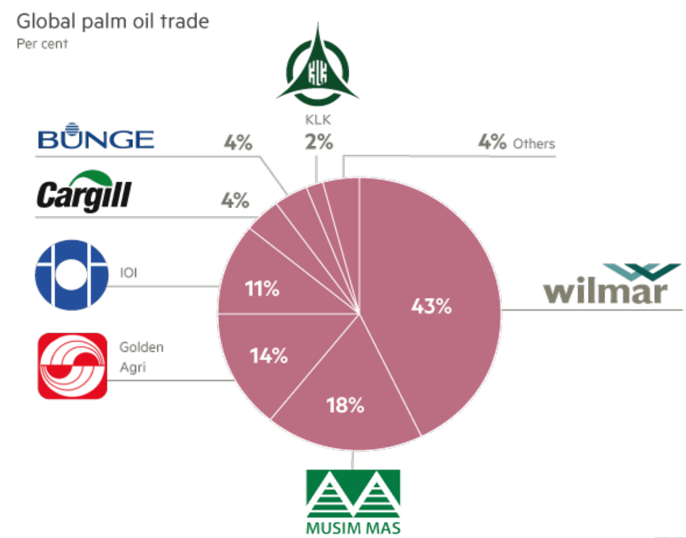




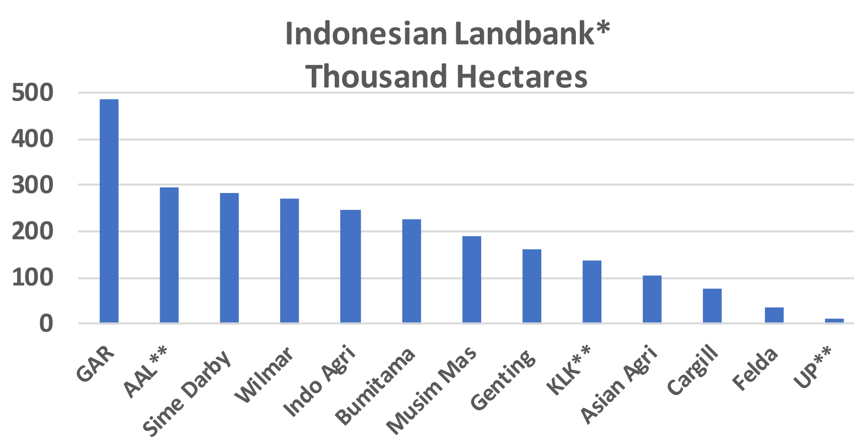
Palm oil imports are growing in many regions of the world. From 2010-2016, the volume of palm oil imported by European, North American, East Asian and large emerging market countries ("BRICS") grew by at least 2.5% per year on average, to over 7% per year in Sub-Saharan Africa (first chart). In Nigeria, Sub-Saharan Africa's largest palm oil consuming country, average annual growth of palm oil imports was 85% from 2010-2016 (second chart). Palm oil imports to the bloc known as the "BRICS" (Brazil, Russia, India, China, and South Africa) grew 2.5% per year on average. Individually, palm oil imports to Russia, India, and South Africa grew by over 6% per year, while China's imports shrank 2% per year, on average, dragging down the bloc's average annual growth of palm oil imports. Large markets like the Philippines, Myanmar, Turkey, and Pakistan are also seeing strong import growth. Indonesia and Malaysia are seeking to expand palm oil exports to these fast-growing markets. *Source: Chatham House Resource Trade Database and author's calculations. *SSA is Sub-Saharan Africa, East Asia excluding China includes Japan, South Korea, and North Korea.*

Palm Oil Companies

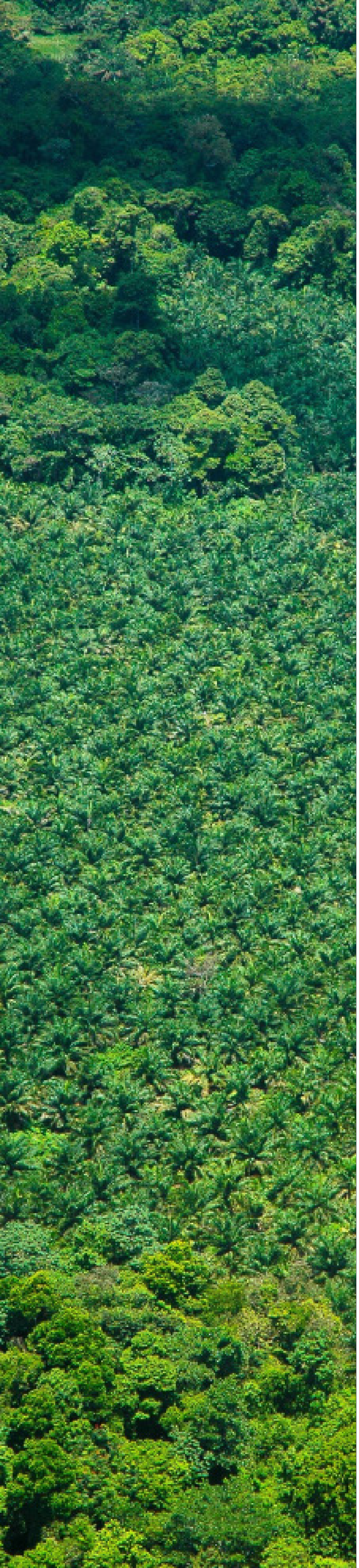
In terms of market share, companies headquartered in Singapore (Wilmar, Musim Mas, and Golden Agri-Resources) control 75% of globally shipped palm oil volumes (first chart below), with all companies shown in the chart representing 96% of shipped volumes. Malaysia's IOI Group and Kuala Lumpur Kepong, and United States' Cargill and Bunge are also important global palm oil traders. Many of these international traders are vertically integrated, and control sizeable portions of Indonesia's landbank for oil palm development (second chart below). Private companies, such as Indonesia's largest private landowner for oil palm cultivation, Golden Agri-Resources, account for approximately half of Indonesia's total landbank for oil palm. Landbank expansion is currently limited, in part, by palm oil buyers No Deforestation, No Peat, No, Exploitation (NDPE) policies.



Source: MSCI ESG Research, Chain Reaction Research, via Financial Times, June 2016. Data as of 2016.



**Landbank refers to the total area of land for oil palm development, in hectares, owned by each company. **AAL represents Astra Agro Lestari, KLK represents Kuala Lumpur Kepong, and UP represents United Plantations. Source: Company websites, as of November 2016.*



Key Companies Update (all commodities)

A series of mergers between large agricultural-biotechnology companies may soon have implications for a multitude of crops, including soy. Earlier this year, Chinese state-owned firm ChemChina purchased Swiss agribusiness firm Syngenta for $43 billion. Dow Chemical Company and DuPont have merged to create DowDuPont, the world's largest chemical company by sales. Global commodities trading company Archer Daniels Midland recently expressed interest in acquiring rival Bunge. Finally, pending regulatory approval, German pharmaceutical giant Bayer may acquire U.S.-based Monsanto.

All six companies operate in agrochemicals, including "crop protection" lines for soy. Monsanto has traditionally been a dominant force in Brazilian soy, though Bayer recently gained approval to operate in the market. Use of Monsanto's Roundup Ready soy seed peaked in the 2014 growing season, accounting for 84% of Brazil's soybean area. Monsanto's latest seed line, Intacta, is expected to account for 31%-38% of the total soy planted area in Brazil, Argentina, Paraguay, and Uruguay this season, up from 24% last season. In Brazil specifically, the Intacta soy seed line is estimated to be used by 170,000 farmers, covering 22 million hectares of land, or approximately 53% of Brazil's planted soy area. The Bayer-Monsanto merger is expected to raise regulatory concern in Brazil due to Monsanto's dominant position in the soy seed market.

Unilever, one of the largest purchasers of palm oil, has agreed to sell its spreads division to American investment group KKR for $8 billion, according to Chain Reaction Research. The deal is expected to be completed by mid-2018. Unilever's spreads division operates in 66 countries and includes popular brands such as Flora, Blue Band, Country Crock, and I Can't Believe It's Not Butter, which often use palm oil or palm kernel oil as a primary ingredient. In 2016, Unilever bought 10% of the world's certified sustainable palm oil.

With this sale, the volume of palm oil that Unilever procures is likely to decline, though its personal care units, including soap and shampoo, will remain large users of palm oil and its derivatives. The spreads division was responsible for 25% of Unilever's expenditure on sustainable agricultural raw materials in 2016, which includes palm oil. Unilever has emerged as a leader in sustainable sourcing, and is on target to reach its 2019 (previously 2020) goal of 100% physically certified palm oil.

KKR has stated that it will commit to following Unilever's responsible sourcing policies, and will continue to work towards the 2019 target.

Chinese state-owned commodities trading company COFCO is pushing ahead with plans to build a global agribusiness company to compete with Archer Daniels Midland, Bunge, Cargill, and Louis Dreyfus Company. The expansion plan includes nearly doubling the amount of soy COFCO procures from Mato Grosso, Brazil's top soybean producing state, from 4 million tons to 7.2 million tons annually. China is the largest soy importing country, importing 94 million tons of soybeans this year, primarily from Brazil, Argentina, and the United States.

China's footprint in Brazilian soy is not limited to COFCO. After fully acquiring Dutch grain trader Nidera B.V. in February 2017 (in addition to Singapore's Noble Agri in 2016), COFCO is transferring the business to Chinese-owned Syngenta. Nidera exported nearly three million tons of soybeans from Brazil last year, according to Trase, and also operates in corn, sunflower, and wheat.

The government of Mato Grosso and Brazilian companies are also in discussions with a consortium of Chinese investors for joint financing of 30 new grain storage complexes in the state, at a cost of nearly $500 million. Separately, Cargill is seeking to form a consortium for a $4.3 billion railway project in Brazil that would link soy growing regions in central Brazil with northern ports.

Minerva Foods, having acquired JBS' units in Argentina, Paraguay, and Uruguay, is eyeing the Middle East as a key destination for export growth. Minerva has mentioned Lebanon, Algeria, Egypt, Jordan, Qatar, Saudi Arabia, Kuwait, and Oman as prospective targets for expanded beef exports. Iran, Egypt, and Saudi Arabia are already the fourth, fifth, and seventh largest importers of Brazilian beef, respectively, after Hong Kong, China, Russia, and Chile. Minerva, which handles around 8% of the global beef trade, currently generates 24% of its foreign sales from Middle Eastern countries.

Brazil is currently the single largest country exporter of beef to the Middle East, and exports of both chilled and frozen beef to the region are growing. Saudi Arabia has seen a 182% surge in beef imports from Brazil since market access was regained in late 2015, and Saudi Arabia, Lebanon, Algeria, and the U.A.E. account for close to 10% each of Brazil's chilled beef exports.

Increasing disposable incomes, urbanization, a large expatriate population, and developing tourism and retail sectors are expected to drive increased beef demand in North African and Middle Eastern countries.

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