



11 PALM OIL MARKET



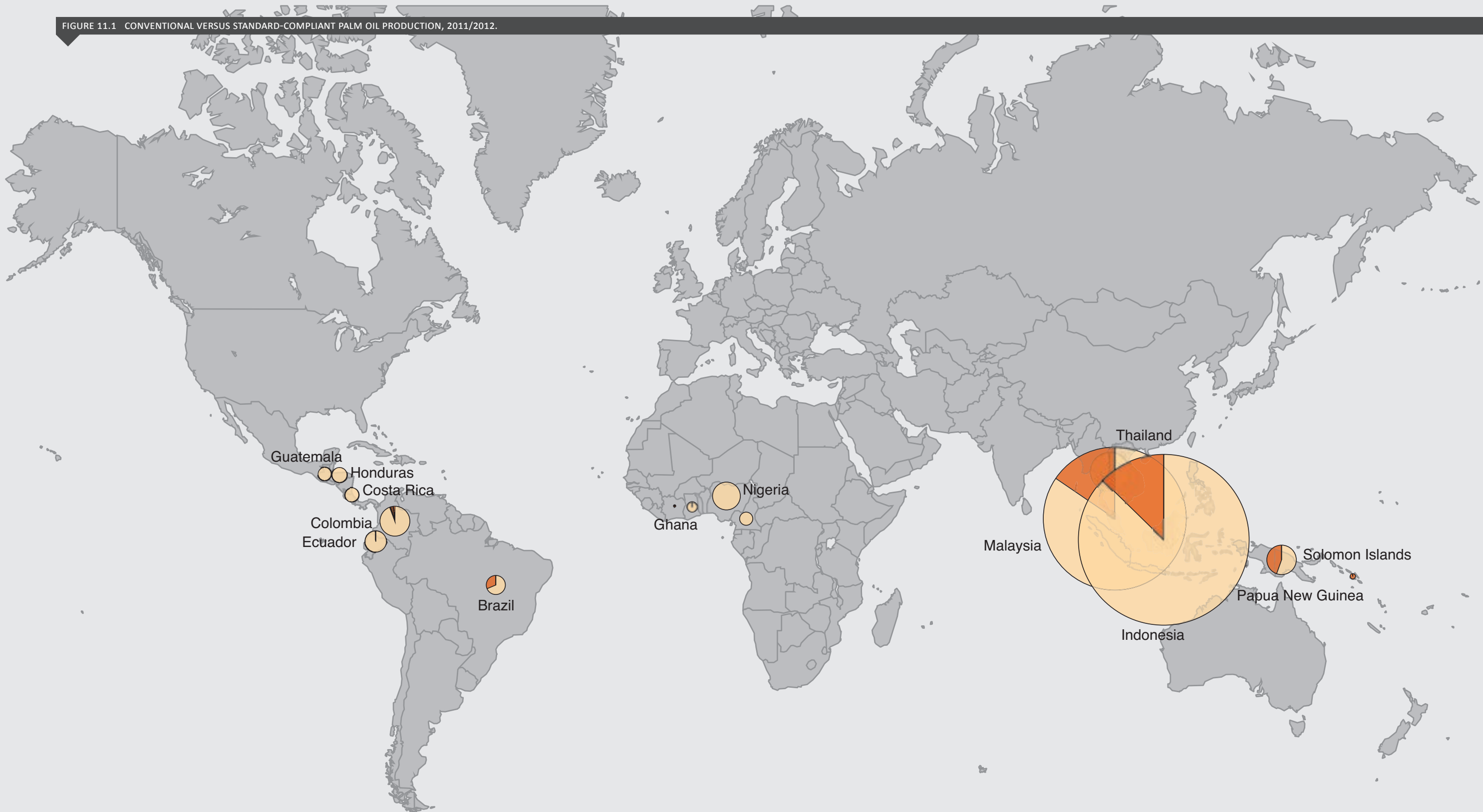
Palm oil is an economically important and versatile vegetable oil that is used as raw material for both food and non-food products. Large red and orange ‘fresh fruit bunches’ grow on palm oil trees, which can be broken up into individual fruits. Both the flesh and the kernel of the fruit yield palm oil. Each fresh fruit bunch weighs between 10 kg and 40 kg, and the flesh of the fruit (not the kernel) yields over 50 per cent oil (Food and Agricultural Organization of the United Nations (FAO), 2002). Around the world, vegetable oil production totals approximately 150 million metric tons per year, of which approximately one-third is palm oil (FAO, 2013). Palm oil is the most widely used vegetable oil in the world and is found in supermarket products ranging from margarine, cereals, sweets and baked goods to soaps, washing powders and cosmetics. Increasingly, palm oil is also being used as a first-generation biofuel. In 2011 oil palm plantations produced over 53 million metric tons of palm oil on 16 million hectares. Most of this production (89 per cent) comes from Indonesia and Malaysia (see Figure 11.1), where palm oil is a key economic driver and is an important component of GDP.

Over the last few decades the growing consumption of palm oil and simultaneous expansion in plantation area has been criticized

by civil society organizations as a driver of deforestation as well as displacement and disruption of human and animal populations. The sustainability standards emerging in the context of these concerns include the Roundtable for Sustainable Palm Oil (RSPO), Organic and Rainforest Alliance.¹ The International Sustainability and Carbon Certification (ISCC) and the Roundtable on Sustainable Biomaterials are other standards involved in the palm oil industry, and are covered in Section 6. Palm oil compliant with voluntary sustainability standards accounted for 15 per cent of global production in 2012 (RSPO accounted for the vast majority of this; Organic production accounted for 0.1 per cent of global production volumes; see Figure 11.2 and Table 11.2 for a breakdown by voluntary sustainability standard).

¹ Since Rainforest Alliance’s palm oil program is in its early stages, only RSPO and Organic are discussed below.

FIGURE 11.1 CONVENTIONAL VERSUS STANDARD-COMPLIANT PALM OIL PRODUCTION, 2011/2012.



Circle size represents total production volumes; coloured slices represent volumes of standard-compliant palm oil production. Indonesia and Malaysia are the largest producers of standard-compliant palm oil and the largest producers of palm oil by volume. In Papua New Guinea, most palm oil is RSPO compliant.

Sources: FAO, 2013; IndexMundi, 2012; IISD, H. Willer, Research Institute of Organic Agriculture/Forschungsinstitut für biologischen Landbau (FiBL), personal communication, August 26, 2013; S. Yaacob, RSPO, personal communication, April 15, 2013.



TABLE 11.1 STANDARD-COMPLIANT AND CONVENTIONAL KEY STATISTICS FOR PALM OIL PRODUCTION AND TRADE.

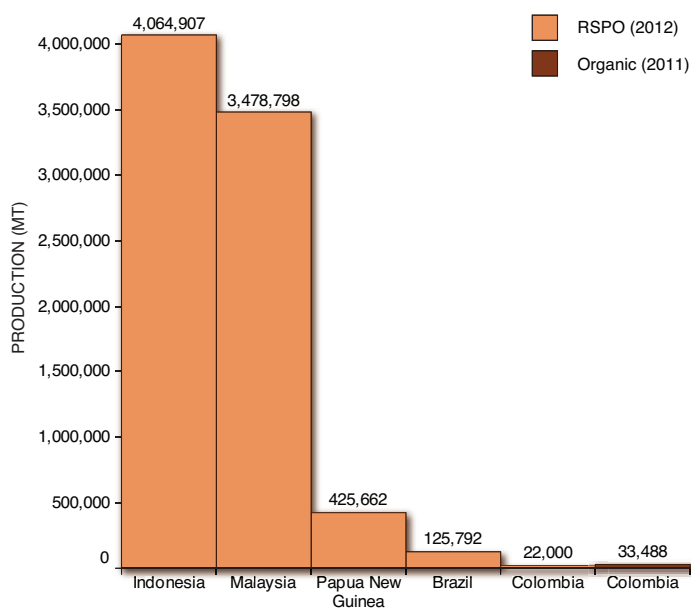
KEY STATISTICS

Top 5 palm oil producers (96% of global) (2012)	Indonesia (53%), Malaysia (36%), Thailand (3%), Colombia (2%), Nigeria (2%)
Top 5 standard-compliant palm oil producers (99% of global) (2012)	Indonesia (49%), Malaysia (42%), Papua New Guinea (5%), Brazil (2%), Colombia (1%)
Top 5 palm oil exporters (93% of global) (2013)	Indonesia (44%), Malaysia (29%), Ghana (18%), Guatemala (1%), Thailand (1%)
Top 5 palm oil importers (65% of global) (2012)	India (21%), China (16%), Netherlands (16%), Germany (6%), Malaysia (6%)
Major international voluntary sustainability standards	RSPO, Organic, Rainforest Alliance
Global palm oil production (2012)	53.8 million metric tons
Global palm oil exports (2012)	41.2 million metric tons (77% of production)
Global area harvested (2012)	16.4 million hectares
Total number of oil palm farmers (2012)	3 million smallholder farmers
Standard-compliant palm oil production (2012)	8.2 million metric tons (15% of global production)
Key sustainability issues	Deforestation, land rights, worker health and safety, effluent discharge

Sources: Top 5 producers, global production, global exports: IndexMundi, 2013d; Top 2 standard-compliant producers: IISD, H. Willer, FiBL, personal communication, August 26, 2013; S. Yaacob, RSPO, personal communication, April 15, 2013; Top 5 exporters: International Trade Centre, 2013c; Top 5 importers: International Trade Centre, 2013c, IndexMundi, 2013d; Global area harvested: FAO, 2013; Standard-compliant production

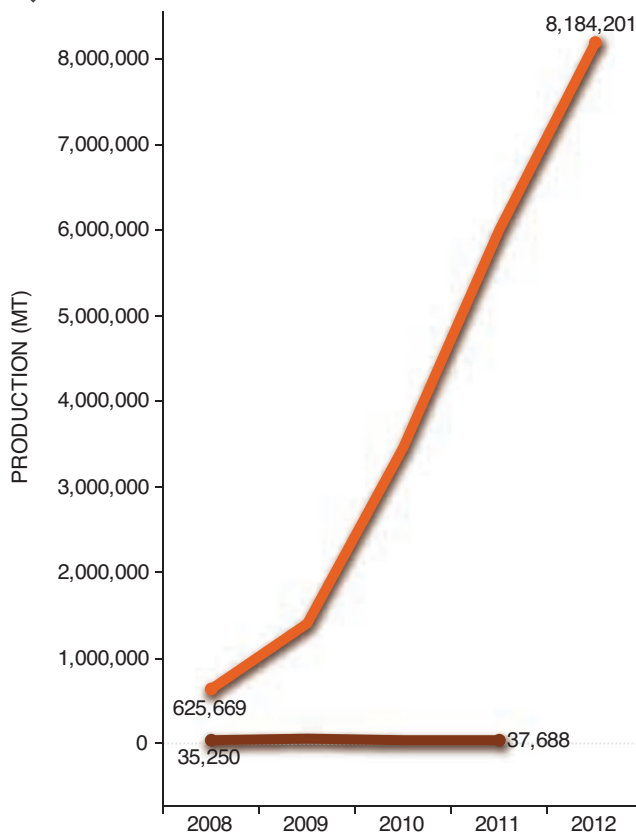
(2012 RSPO data and 2011 Organic data): IISD, H. Willer, FiBL, personal communication, August 26, 2013; S. Yaacob, RSPO, personal communication, April 15, 2013.

FIGURE 11.2 LEADING PRODUCERS OF SUSTAINABLE PALM OIL BY STANDARD, 2011/2012.



Sources: IISD, H. Willer, FiBL, personal communication, August 26, 2013; S. Yaacob, RSPO, personal communication, April 15, 2013.

FIGURE 11.3 ORGANIC AND RSPO PALM OIL PRODUCTION, 2008–2012.



COMPOUND ANNUAL GROWTH RATES:

- RSPO (2008-2012): 90%
- Organic (2008-2011): 2%

Sources: IISD, H. Willer, FiBL, personal communication, August 26, 2013; S. Yaacob, RSPO, personal communication, April 15, 2013.

11.1 MARKET REVIEW



Market reach

Approximately 8.2 million metric tons of palm oil were standard-compliant by 2012, equivalent to 15 per cent of global palm oil production (see Figure 11.3).

Growth

Standard-compliant palm oil production grew at a compound annual growth rate of 87 per cent from 2008 to 2012.

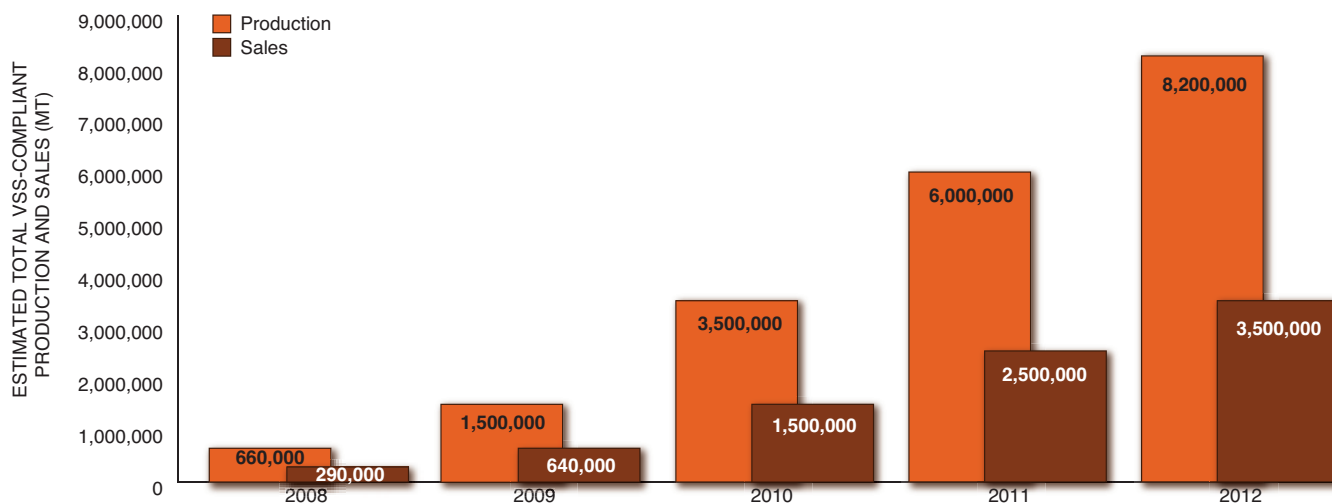
Regional importance

Together, Indonesia and Malaysia represent over 90 per cent of total land area and production volumes of standard-compliant production.

Pricing and premiums

Premiums for sustainable palm oil certificates (RSPO) have been shown to range from 1 to 6 per cent.

FIGURE 11.4 GROWTH IN STANDARD-COMPLIANT PALM OIL PRODUCTION AND SALES, 2008–2012.



Sources: IISD, H. Willer, FiBL, personal communication, August 26, 2013; S. Yaacob, RSPO, personal communication, April 15, 2013.





In 2012, 8.2 million metric tons, or 15 per cent of palm oil, was produced in compliance with a global sustainability standard. Despite the recent sharp growth in standard-compliant production volumes, calls for sustainability within the industry are not a recent phenomenon. Of particular note in recent history, the palm oil sector became an area of heavy contention during the Asian Crisis in 1997 when Indonesia, Papua New Guinea, Brazil, Colombia and parts of Africa suffered severe forest fires that caused much of Southeast Asia to be covered by smog for extended periods.² Various organizations such as WWF and the International Union for Conservation of Nature worked on establishing the causes of these fires and, in some cases, it was determined that they were being used to clear land for oil palm plantations (Rowell & Moore, 2000). Concerns over deforestation were the initial focus, but eventually the scope broadened to the impacts on biodiversity, land use and social conflicts related to palm oil production. In particular, the orangutan became a central figure of the movement due to the impact of deforestation on its habitat.

Civil society organizations, especially Greenpeace and WWF, have been a potent force in influencing change in the palm oil industry. WWF publishes scorecards that assess the performance of retailers and consumer goods manufacturers highlighting their commitments to, and actions on, the responsible purchasing of palm oil (WWF 2009, 2011, 2013). WWF has also issued a variety of recommendations for both companies and consumers in accelerating the uptake of RSPO certified products. With regards to influencing supply, WWF has published an assessment of the performance of RSPO producers (growers and mills) on their commitments to the RSPO (WWF, n.d.-e). Greenpeace has also published an RSPO producer scorecard, assessing producers' performance (Greenpeace, 2012). A Greenpeace campaign launched in 2008 in several countries pushed companies at various points in the supply chain to support sustainable palm oil, targeting some of the largest companies like Unilever and Nestlé (Greenpeace, 2008). These efforts by various NGOs have been key factors in encouraging

actors along the supply chain to accelerate their commitments to sustainable palm oil sourcing.

The three major international voluntary sustainability standards that have emerged within the sector are RSPO, Organic and Rainforest Alliance. The Roundtable on Sustainable Biomaterials and ISCC³ also publish standards for biofuel feedstock including palm oil (for more information on the biomaterials standards see Section 6). Of these three voluntary sustainability standards, RSPO⁴ dominates production (see Figure 11.3). Whereas 660,000 metric tons of palm oil and 150,000 metric tons of palm kernel were certified by the end of 2008 (first year of certification), these certification volumes had grown 87 per cent per year by the end of year 2012 to 8.2 million metric tons of palm oil and 1.9 million metric tons of palm kernel oil. This total certified volume represented 15 per cent of total global production of palm oil in 2012, a remarkable achievement given that the first certifications were issued in late 2008. RSPO's rapid growth is largely enabled by the organization's unique implementation strategy, which is closely related to the features and structure of the palm oil market more generally. The most obvious example of this is the GreenPalm certificate program, which allows companies to trade certificates linked to the application of sustainable practices independent of physical trades in palm oil (See Table 11.1).

² WWF even went so far as calling the year 1997 "the year the world caught fire" (WWF, 1997).

³ ISCC is a dominant standard for palm oil certification within the biofuel feedstock space. The ISCC model is very flexible and includes a Chain of Custody that recognizes all other EU-RED approved systems (including RSPO). The ISCC-PLUS standard was published in 2012, and allows producers under the ISCC EU or DE standards (for biofuel use) to convert to certified feed or food (ISCC, n.d.-b). ISCC-PLUS will be covered in the next edition of the SSI.

⁴ The RSPO Principles and Criteria define indicators and guidance for a set of criteria that aims to make palm oil operations more sustainable. Accordingly, the RSPO has three different types of certificates. One certifies the palm oil (Certified Sustainable Palm Oil, or CSPO), the other certifies the palm kernel (Certified Sustainable Palm Kernel, or CSPK) and the last certifies fresh fruit bunches produced by groups of independent smallholders (J.M. Dros, Solidaridad, personal communication, December 2, 2013).

BOX 11.1 GREENPALM CERTIFICATES: POINTING TOWARD THE FUTURE FOR SUSTAINABLE COMMODITY TRADE?

The vast majority of sustainability standards tie market claims to products actually produced in accordance with criteria. While book and claim allows for a degree of delinking sustainable practices from actual purchases, the GreenPalm certificate program allows for the direct trade of “sustainable practices” as distinct from the products themselves.

GreenPalm allows RSPO certified growers to convert their certified oil into GreenPalm certificates, which are then put up for bids on the GreenPalm market. All palm oil producers certified by the RSPO are also invited to register a quantity of their output with the GreenPalm program. These producers are awarded one GreenPalm certificate for each metric ton of palm oil that has been produced sustainably. The certificates are then traded, allowing companies that wish to support sustainable production to bid for these certificates online. Off-market deals are also possible and are currently the bulk of transactions.

Product manufacturers who use palm oil or palm-based derivatives in their products then place offers for these certificates in order to offset their actual use of conventional palm oil with the equivalent amount of certificates and thus be able to claim that their company or products support the production of RSPO certified palm oil (GreenPalm, n.d.). The full value of each certificate is then sent back to the RSPO producer, who can then reinvest this premium to help tackle the environmental and social issues created by the production of palm oil.

A select group of major companies such as AAK, KLK, Unilever and Sainsbury’s have led the way in transitioning the palm oil industry toward more sustainable practices by establishing the RSPO in 2004, with the objective of promoting the growth and use of sustainable oil palm products through credible global standards and engagement of stakeholders. Unilever, which is one of the largest buyers of palm oil with about 3 per cent (approximately 1.5 million metric tons) of the total world volume being bought annually, has played an instrumental role in the development and promotion of the RSPO Principles and Criteria (WWF, n.d.-e). The company has also worked with Greenpeace to support a moratorium on deforestation for palm oil in Indonesia and has committed to sourcing all palm oil from sustainable sources by 2015. In 2011 Unilever bought 800,000 GreenPalm certificates, covering two-thirds of its palm oil use globally and reaching 100 per cent of its palm oil use in 2012. The company made a more stringent commitment to source 100 per cent of its palm oil from traceable sources (certified sustainable palm oil, or CSPO) by 2020 (Unilever, 2014).

Nestlé, another major buyer, joined the RSPO in 2009 and partnered with The Forest Trust to establish its own responsible sourcing guidelines for palm oil. Since then, it has made significant progress, committing to sourcing 80 per cent of its total palm oil volume from RSPO certified sources by the end of 2012, and in 2013 it achieved 100 per cent sourcing of its volumes from sustainable sources (Nestlé, 2013b). Other companies that have implemented sustainable palm oil policy include Sainsbury’s (Sainsbury’s, n.d.), Young’s/Findus (Young’s, 2009), Cadbury (Cadbury, 2013), Mondelēz (Mondelēz International, n.d.-a), Johnson&Johnson (Johnson&Johnson, 2013) and Friesland Campina (Friesland Campina, 2012).

Although the RSPO is the leading voluntary standard-setting body in palm oil, Organic and the Rainforest Alliance also offer standards for the commodity. Organic palm oil production volumes have fluctuated around 135,000 metric tons over the last three years, while area harvested has declined remarkably, to about two-thirds of its hectareage in 2008. The Rainforest Alliance has certified one oil palm producer located in Guatemala, with production volumes for this producer currently unknown. Despite declining Organic production and a Rainforest Alliance program in its infancy, the momentum behind the RSPO commitments suggest that annual sales could within the next couple years approach 6 million metric tons (11 per cent of 2012 production volumes) and production volumes around 13 million metric tons (25 per cent) versus production of about 8.2 million in 2012 (15 per cent) (see Table 11.1).



Photo: Cayambe / CC-BY-SA



Roundtable for Sustainable Palm Oil (RSPO)

RSPO operates by allocating either certified sustainable palm oil (CSPO) certificates or certified sustainable palm kernel (CSPK) certificates. The allocation of certificates is determined by compliance with the RSPO Standard for Sustainable Palm Oil Production, which consists of a series of principles, criteria, indicators and guidance used by producers (oil palm growers and palm oil mills) to implement sustainable production practices.

RSPO has also developed the RSPO Supply Chain Standard, which describes the requirements related to the control of RSPO certified palm, palm derivatives and palm products along the supply chain, including the flows of material and associated claims. This latter standard is used by organizations in the palm value chain to demonstrate implemented systems for control of RSPO certified oil palm products. Downstream processors or users of RSPO standard-compliant palm oil can only claim use of RSPO certified products when they adhere to these standards.

The market performance of RSPO from the time of its first certification of sustainable palm oil in 2008 has been remarkable, growing 90 per cent per annum over the four years from 2008 to 2012, to cover 15 per cent of global palm oil production in 2012 (see Figure 11.5 and Table 11.4) (IndexMundi, 2013d; S. Yaacob, RSPO, personal communication, April 15, 2013). Although retail sales volume were lagging in the early years of the RSPO (2008–2009), sales have since grown quickly, reaching 3.5 million metric tons by the end of 2012.

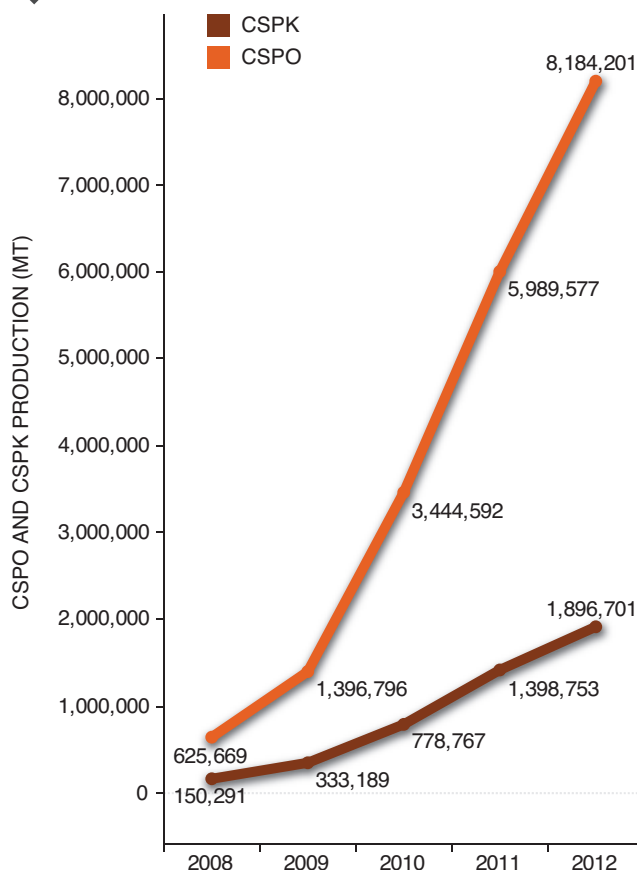
RSPO certified production area increased from 0.1 million hectares in 2008 to 1.6 million hectares in 2011, with total RSPO certified area now representing 10 per cent of total world area under palm oil cultivation (IndexMundi, 2013d; S. Yaacob, RPSO, personal communication, April 15, 2013). In 2012 alone, there was a tripling of the number of palm oil mills certified and a doubling of growers,⁵ which points to the potential for accelerated growth in certified palm oil and palm kernel volumes in the years ahead due to this important increase in the production capacity certified by the RSPO (RSPO, 2011b).

More specifically, based on members meeting their stated commitments, the annual production of CSPO is projected to increase about 50 per cent from 2012 to 2015, from 8 million metric tons to 13 million metric tons, representing 15 per cent and 24 per cent of 2012 production volumes, respectively. However, data suggest a significant mismatch between the projected volumes of RSPO certified products and the demand for these products (RSPO, 2012a). With the certification commitments made by palm oil producers (growers and mills), intermediaries (processors and traders) and the users of these products (consumer goods manufacturers and retailers), there emerges an important demand gap, suggesting that the current pattern of only half of available

CSPO being consumed may persist unless more manufacturers and retailers make commitments to use RSPO certified products. Whereas only 3.5 million metric tons of the 8.2 million metric tons in CSPO production were being used by retailers and consumer goods manufacturers in 2012, RSPO projects that 5.8 million metric tons of 12.9 million metric tons will be sold as RSPO compliant in 2015, according to current commitments (RSPO, 2012a).

The vast majority of RSPO certified supply comes from Malaysia and Indonesia (see Figure 11.6, Figure 11.7 and Table 11.3.). Although this is largely in line with the global distribution of palm oil production, RSPO compliant production is slightly more concentrated across these two countries (accounting for 93 per cent of global RSPO production) than global palm oil production (where Malaysia and Indonesia account for 89 per cent of global production). This is arguably a reflection of the strong involvement of these geographic regions in the development and implementation of RSPO itself. Nevertheless, other important palm oil producing countries like Papua New Guinea (accounting for 5 per cent of global RSPO) and Brazil (accounting for 2 per cent of global RSPO) also represent important suppliers for RSPO compliant palm oil.

FIGURE 11.5 PRODUCTION OF CSPO AND CSPK, 2008–2012.



Source: S. Yaacob, RSPO, personal communication, April 15, 2013.

⁵ The RSPO certifies palm oil mills and their supply bases (palm oil growers).

TABLE 11.2 IMPORTANCE OF VOLUNTARY SUSTAINABILITY STANDARD (VSS) PALM OIL PRODUCTION AND SALES RELATIVE TO THE GLOBAL MARKET.

	VSS production (mt)	VSS production market share of global production (%)	VSS production market share of global exports (%)	VSS sales (mt)	VSS sales market share of global production (%)	VSS sales market share of global exports (%)
Organic	37,687	0%	0%	30,650	0%	0%
RSPO	8,184,201	15%	20%	3,500,000	6%	8%
Global VSS production / sales (mt and %)	8,200,000	15%	20%	3,500,000	7%	8%

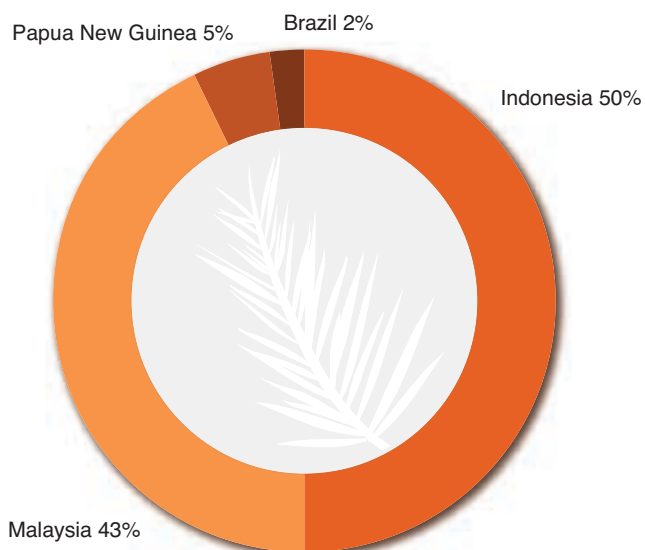
Sources: FAO, 2013; IndexMundi, 2012; International Trade Centre, 2013; IISD, H. Willer, FiBL, personal communication, August 26, 2013; S. Yaacob, RSPO, personal communication, April 15, 2013.

TABLE 11.3 RSPO PRODUCTION VOLUMES AND AREA HARVESTED, 2012.

	CSPO production volume (mt)	CSPK production volume (mt)	Area harvested (ha)
Brazil	125,792	44,216	33,272
Colombia	22,000	1,760	4,472
Thailand	9,201	3,161	2,648
Indonesia	4,064,907	846,050	729,187
Solomon Islands	31,592	3,637	5,346
Côte d'Ivoire	5,760	1,420	8,661
Cambodia	20,489	3,995	7,064
Malaysia	3,478,798	898,993	739,561
Papua New Guinea	425,662	93,469	85,757

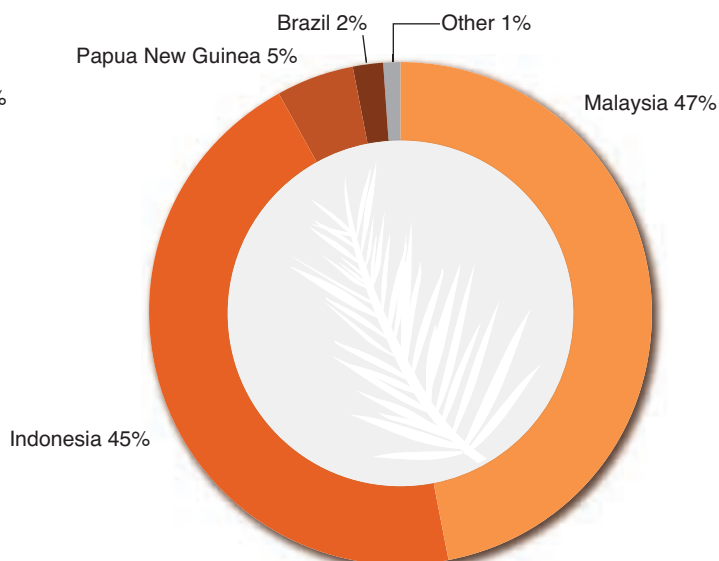
Source: S. Yaacob, RSPO, personal communication, April 15, 2013.

FIGURE 11.6 CSPO PRODUCTION BY COUNTRY, 2012.



Source: S. Yaacob, RSPO, personal communication, April 15, 2013.

FIGURE 11.7 CSPK PRODUCTION BY COUNTRY, 2012.



Source: S. Yaacob, RSPO, personal communication, April 15, 2013.

International Federation of Organic Agriculture Movements (IFOAM, or “Organic”)

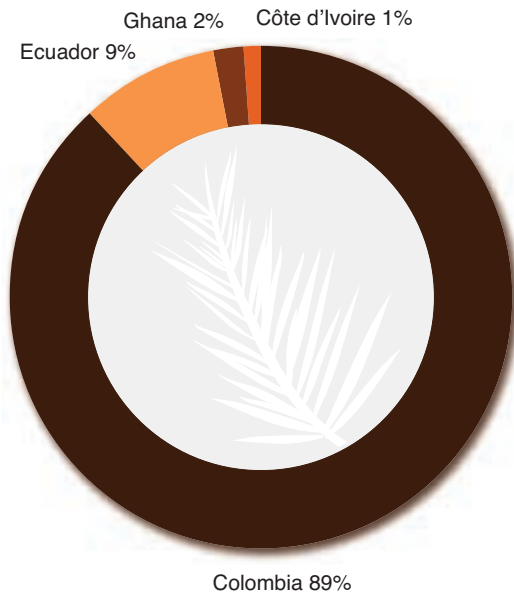
In 2011, Organic certified palm oil fruit represented 150,750 metric tons globally. Assuming that 25 per cent of the palm oil fruit is composed of palm oil and that 6.5 per cent is composed of the palm kernel (KL Maritime, n.d.), Organic palm oil accounted for approximately 38,000 metric tons, while Organic palm kernel accounted for approximately 10,000 metric tons. Organic certified palm oil accounted for approximately 0.07 per cent of global palm oil production. Organic palm oil fruit production has fluctuated around the 150,000 metric ton mark over the last three years, while Organic area harvested has decreased dramatically, going from 16,700 hectares certified in 2008 down to 7,200 hectares in 2011 (see Figure 11.9 and Table 11.6).

Ecuador and Colombia together represent 97 per cent of total Organic palm oil fruit production volumes globally, with Colombia alone representing 89 per cent (see Figure 11.8 and Table 11.5). Whereas the Organic standard often represents the most geographically diverse supply across different voluntary sustainability standards, in the case of palm oil, the Organic standard has a relatively low geographical presence, having penetrated only a handful of countries. Moreover, it is noteworthy that Indonesia and Malaysia do not have Organic penetration in the palm oil sector.

Rainforest Alliance

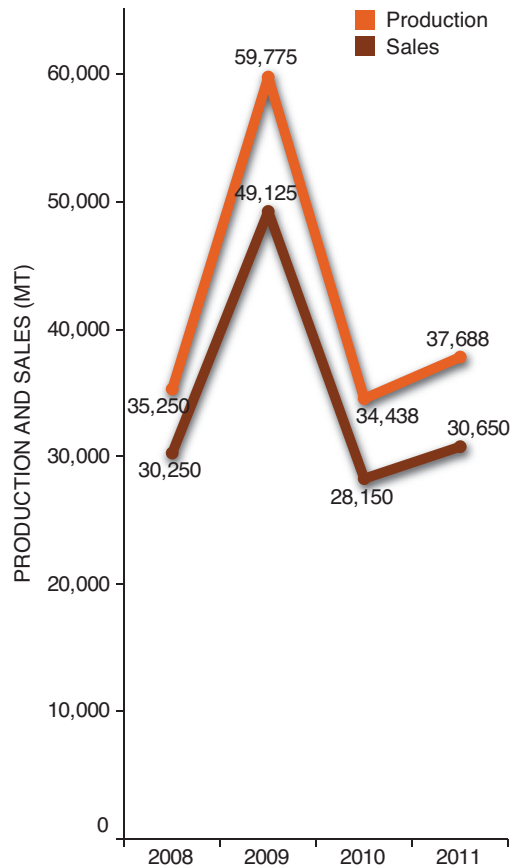
Rainforest Alliance has created its own certification system for oil palm based on the Sustainable Agriculture Network standard. This system aims to complement the RSPO and to support the expansion of sustainable production and manufacturing of palm oil and palm kernel oil as a means of reducing the social and environmental impacts of a growing and important palm oil industry. As of 2013, Rainforest Alliance had certified one oil palm producer located in Guatemala (Sustainable Farm Certification International, 2012).

FIGURE 11.8 ORGANIC PALM OIL PRODUCTION BY COUNTRY, 2011.



Source: IISD, H. Willer, FiBL, personal communication, August 26, 2013.

FIGURE 11.9 PRODUCTION AND SALES OF ORGANIC PALM OIL, 2008–2011.



Source: IISD, H. Willer, FiBL, personal communication, August 26, 2013.

TABLE 11.4 RSPO, CSPO AND CSPK PRODUCTION VOLUMES AND AREA HARVESTED, 2008–2012.

	CSPO production volume (mt)	CSPK production volume (mt)	Area harvested (ha)
2008	625,669	150,291	87,734
2009	1,396,796	333,189	239,949
2010	3,444,592	778,767	599,339
2011	5,989,577	1,398,753	1,140,020
2012	8,184,201	1,896,701	1,615,968

Source: S. Yaacob, RSPO, personal communication, April 15, 2013.

TABLE 11.5 ORGANIC PALM OIL AREA HARVESTED, SALES AND PRODUCTION VOLUMES BY COUNTRY, 2011.

	Production (mt)	Sales (mt)	Area harvested (ha)
Colombia	133,950	110,000	5,500
Côte d'Ivoire	1,100	400	100
Ecuador	13,000	10,000	1,000
Ghana	2,700	2,200	600

Source: IISD, H. Willer, FiBL, personal communication, August 26, 2013.

TABLE 11.6 ORGANIC PALM OIL PRODUCTION, SALES AND AREA HARVESTED, 2008–2011.

	Production (mt)	Sales (mt)	Area harvested (ha)
2008	141,000 (35,250 mt palm oil)	121,000 (30,250 mt palm oil)	16,700
2009	239,100 (59,775 mt palm oil)	196,500 (49,125 mt palm oil)	25,700
2010	137,750 (34,438 mt palm oil)	112,600 (28,150 mt palm oil)	6,400
2011	150,750 (37,688 mt palm oil)	122,600 (30,650 mt palm oil)	7,200

Source: IISD, H. Willer, FiBL, personal communication, August 26, 2013.

11.4 SUPPLY



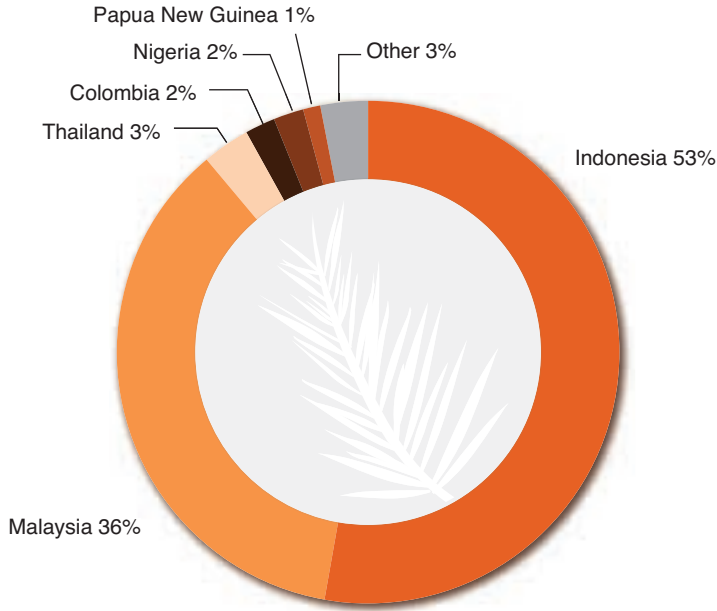
Indonesia and Malaysia represent the largest share of RSPO certified production and land area (see Figure 11.10, Figure 11.11 and Figure 11.12). Importantly, however, in addition to being the most important absolute sources of standard-compliant palm oil, both Malaysia and Indonesia have some of the highest sustainability intensities, at 15 per cent and 18 per cent of total production certified under the RSPO system (see Table 11.7). At the global level, these two countries together account for 92 per cent of total production volumes (CSPO and CSPK) and 91 per cent of land area certified by the RSPO, with Indonesia's share being larger than that of Malaysia's in both total and standard-compliant palm oil, although only marginally in the latter case (see Figure 11.10 and Figure 11.11).

The global distribution of the RSPO certification standards for sustainable palm oil production are therefore mostly consistent with the global distribution of total palm oil production; however,

some important deviations exist. For example, whereas Indonesia and Malaysia do account for 86 per cent of total global production, Malaysia's actual uptake of the RSPO in terms of market penetration is higher (18 per cent), proportionally, than in Indonesia (15 per cent). Moreover, eight of the remaining top 15 (three of the remaining top 10) producing countries in the world have no compliant production under RSPO program. However, major RSPO certification initiatives are ongoing in Honduras, Ecuador, Nigeria, Ghana, Guatemala and Cameroon, although the full set of RSPO requirements have yet to be met in these countries.

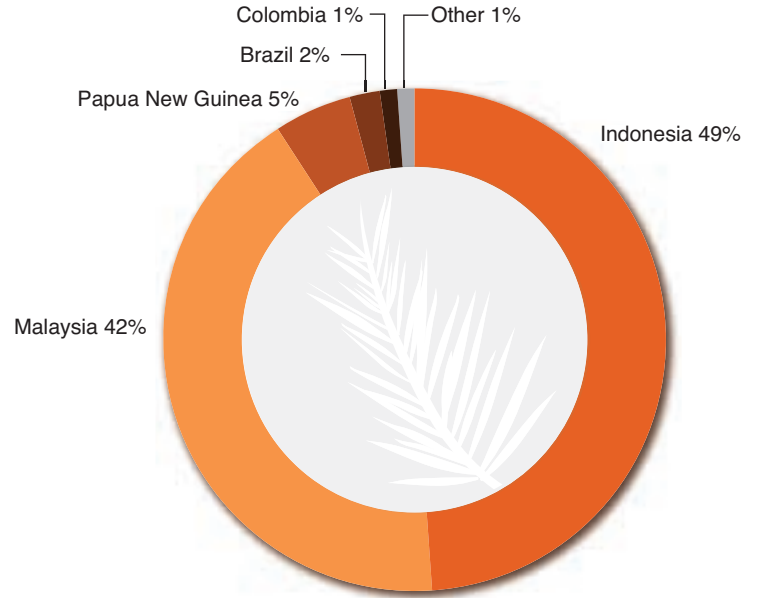
Countries like Brazil and Papua New Guinea have already experienced rapid uptake, achieving 46 per cent and 80 per cent, respectively, of RSPO certified production (CSPO) as a share of total domestic palm oil production. RSPO certified companies Agropalma and New Britain Palm Oil Limited are responsible for the entire

FIGURE 11.10 TOTAL (STANDARD-COMPLIANT AND CONVENTIONAL) PALM OIL PRODUCTION BY COUNTRY, 2012.



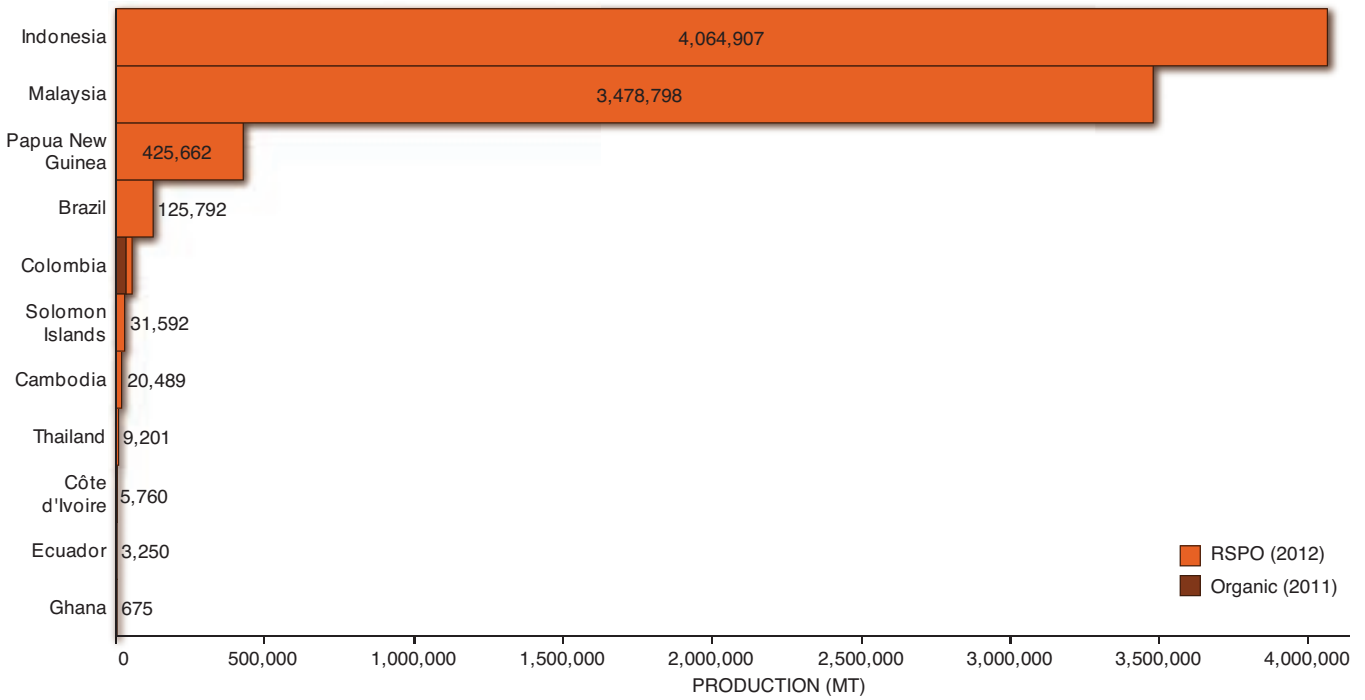
Source: IndexMundi, 2012.

FIGURE 11.11 STANDARD-COMPLIANT PALM OIL PRODUCTION BY COUNTRY, 2011/2012.



Sources: IISD, H. Willer, FiBL, personal communication, August 26, 2013; S. Yaacob, RSPO, personal communication, April 15, 2013.

FIGURE 11.12 RSPO AND ORGANIC PALM OIL PRODUCTION BY COUNTRY, 2011/2012.



Where space permits, data points are visible.

Sources: IISD, H. Willer, FiBL, personal communication, August 26, 2013; S. Yaacob, RSPO, personal communication, April 15, 2013.

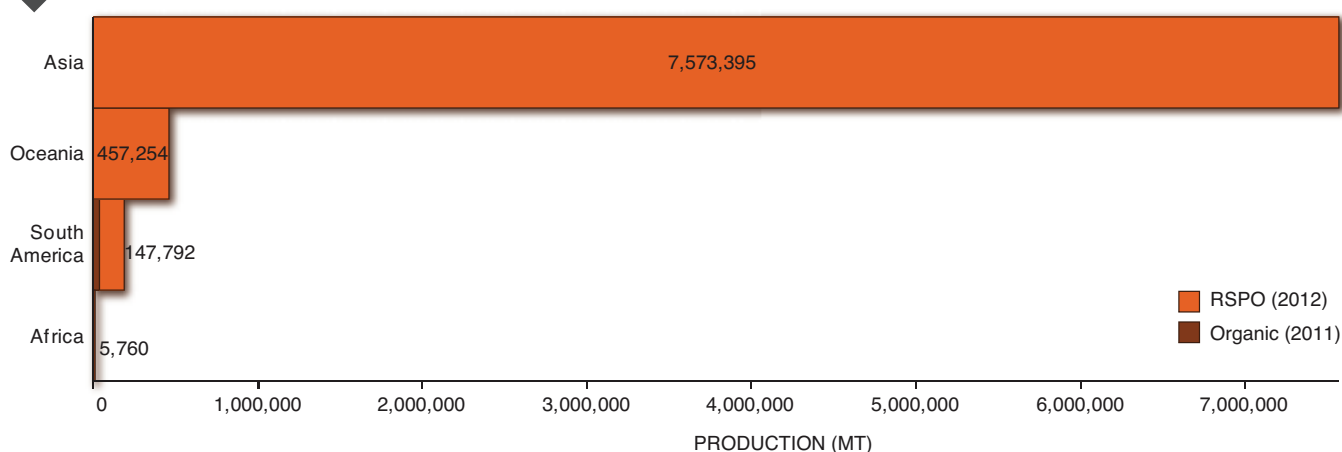
national production of CSPO in these countries. Other remaining countries have achieved lower uptake of RSPO, at levels below 3 per cent penetration.

Organic standards have reached 4 per cent of total palm oil production in Colombia, due largely to uptake by Daabon, a major Colombian producer. RSPO penetration in Colombia is lower, at 2 per cent. However, Organic has struggled to gain traction in existing supply chains more generally; penetration is relatively low globally, and growth is even lower than the growth of conventional production, at a mere 2 per cent (see Figure 11.13).

Palm oil production will continue to increase globally. Indonesia aims to increase its production by 10 million metric tons to

40 million metric tons by 2020 (UN Conference on Trade and Development, 2012b) while setting aside 50 per cent for biofuels. Malaysia, although more constrained by the availability of land, is projected to increase production by 11.5 million to 20.5 million metric tons by 2020 and to 24.6 million metric tons by 2030 (Gan & Li, 2012). According to these forecasts, palm oil production could increase about 20 million tons, or about 30 per cent by 2020 in those two countries alone, which represent over 90 per cent of palm oil produced globally. With only 14.5 per cent penetration of RSPO certification in Indonesia and 18.3 per cent in Malaysia, efforts are needed to ensure the sustainable expansion of the sector in the future.

FIGURE 11.13 RSPO AND ORGANIC PALM OIL PRODUCTION BY CONTINENT, 2011/2012.



Where space permits, data points are visible.

Sources: IISD, H. Willer, FiBL, personal communication, August 26, 2013; S. Yaacob, RSPO, personal communication, April 15, 2013.

TABLE 11.7 SUSTAINABILITY INTENSITY OF TOP 15 PALM OIL PRODUCING COUNTRIES, 2012.

	RSPO production 2012 (CSPO, % penetration)	Organic production 2011*
Indonesia	15%	--
Malaysia	18%	--
Thailand	1%	--
Colombia	2%	4%
Nigeria	--	--
Papua New Guinea	80%	--
Ecuador	--	1%
Côte d'Ivoire	2%	0%
Brazil	46%	--
Honduras	--	--
Costa Rica	--	--
Guatemala	--	--
Cameroon	--	--
Congo	--	--
Ghana	--	1%

*Assuming palm oil equivalent of 25 per cent of palm oil fruit.

Sources: IndexMundi, 2012; IISD, H. Willer, FiBL, personal communication, August 26, 2013; S. Yaacob, RSPO, personal communication, April 15, 2013.

11.5 PRICING AND PREMIUMS



Premiums for standard-compliant palm oil ranged, on average, between 1 and 6 per cent during 2012. While neither RSPO nor Rainforest Alliance collects pricing and premiums information, some pricing data are available for GreenPalm certificates. Anecdotal reports show that RSPO mass balance premiums vary between US\$10 and \$25 per metric ton (between 1.0 and 2.5 per cent), while RSPO segregated premiums vary between US\$15 and \$50 per metric ton (WWF, 2012).⁶

Over time, the premiums associated with GreenPalm certificates have declined as uptake has grown. Over the course of 2008 and 2009 GreenPalm certificates (both certified palm oil and certified palm kernel) were sold at a premium of between US\$50 and US\$40 per metric ton (RSPO, 2011b). Since 2010, however, GreenPalm certificate premiums have ranged between US\$0 to \$10 per metric ton.

⁶ UTZ provides the IT platform of traceability to the RSPO relating to physical trades.

11.6 CHALLENGES AND OPPORTUNITIES



Standard-compliant palm oil production and sales grew an average of over 85 per cent per annum between 2008 and 2012, reaching 8,221,889 metric tons and 4,122,751 metric tons, respectively, in 2012. The current commitments of RSPO members suggest that standard-compliant palm oil production will almost double to reach 15,000,000 metric tons in 2020, while sales will maintain at lower levels, with only a 50 per cent increase until 2020 to reach almost 6 million metric tons. According to these estimates, standard-compliant palm oil would account for about 28 per cent of total palm oil produced globally by 2020.⁷

Market expansion for RSPO certified production and consumption can be achieved through various means. As a general prerequisite, standard-compliant supply growth can only occur by recruiting additional RSPO members and/or accelerating existing members' progress toward achieving 100 per cent RSPO certification. RSPO has, in fact, been very successful at getting commitments from major manufacturers, supply chain actors and estates (see Figure 11.14). However, there is evidence that palm oil buyers are lagging significantly behind their commitments to source 100 per cent sustainable palm oil supplies by 2015 (WWF, 2013a). The 2013 edition of WWF's Palm Oil Buyers' Scorecard ranks 78 manufacturers and 52 retailers of products containing palm oil based on RSPO membership, compliance with targets, actions on using 100 per cent sustainable palm oil, and policies and plans for greenhouse gas emissions reduction from the palm oil they source.

“INCREASING MARKET PENETRATION IN THE TOP PRODUCING COUNTRIES LIKE INDONESIA, MALAYSIA AND THAILAND REMAINS THE MOST IMPORTANT OPPORTUNITY FOR EXPANSION.”

Only 45 of the 130 companies assessed were using 100 per cent CSPO, which totals approximately 2 million metric tons per year. However, all 130 companies together are sourcing close to 7 million metric tons of palm oil annually, which illustrates the degree of improvement possible (WWF, 2013a).

Nevertheless, with more 75 per cent of total production in major producing countries still uncertified, increasing market penetration in the top producing countries like Indonesia, Malaysia and Thailand remains the most important opportunity for expansion. Smallholders appear to have a far lower appetite for achieving 100 per cent RSPO certification. Overcoming this obstacle suggests particular value in building the business case for RSPO certification for such producers. By effectively engaging smallholders, the RSPO could significantly increase its supply (e.g., 70 per cent in Indonesia within five years) (la Croix, 2011). RSPO members have plans to develop partnerships and initiatives for such smallholder projects, including the Smallholder and REDD Plan and participation in other pilot projects (RSPO, 2012b). RSPO processors and traders are also an important constituency because they represent 48 per cent of global trade in palm oil. However, only 8 per cent of this volume is currently certified, suggesting another major opportunity for building demand through such actors and corresponding commitments.

Matching demand with actual supply also remains a major challenge. As of 2013 only about half of total RSPO compliant supply was sold as such. Current demand for CSPO is concentrated in Europe and the United States, (la Croix, 2011). However, these two markets account for only about 13 per cent (6.6 million metric tons) of the total world demand. In particular, India and China, which together account for about 30 per cent (14.5 million metric tons) of global consumption of palm oil, represent key bottlenecks for achieving ongoing growth in standard-compliant palm oil markets. At present, neither of these countries represents a significant source of demand for standard-compliant palm oil. Malaysia and Indonesia also account for a large proportion of global consumption (21 per cent) but have played virtually no role in generating domestic

⁷ Relative to 2012 global production volumes of 53,827,000 metric tons.

demand for RSPO certified palm oil. Attaining a majority share of standard-compliant palm oil as a percentage of global production will require uptake from one or more of these major consuming countries.

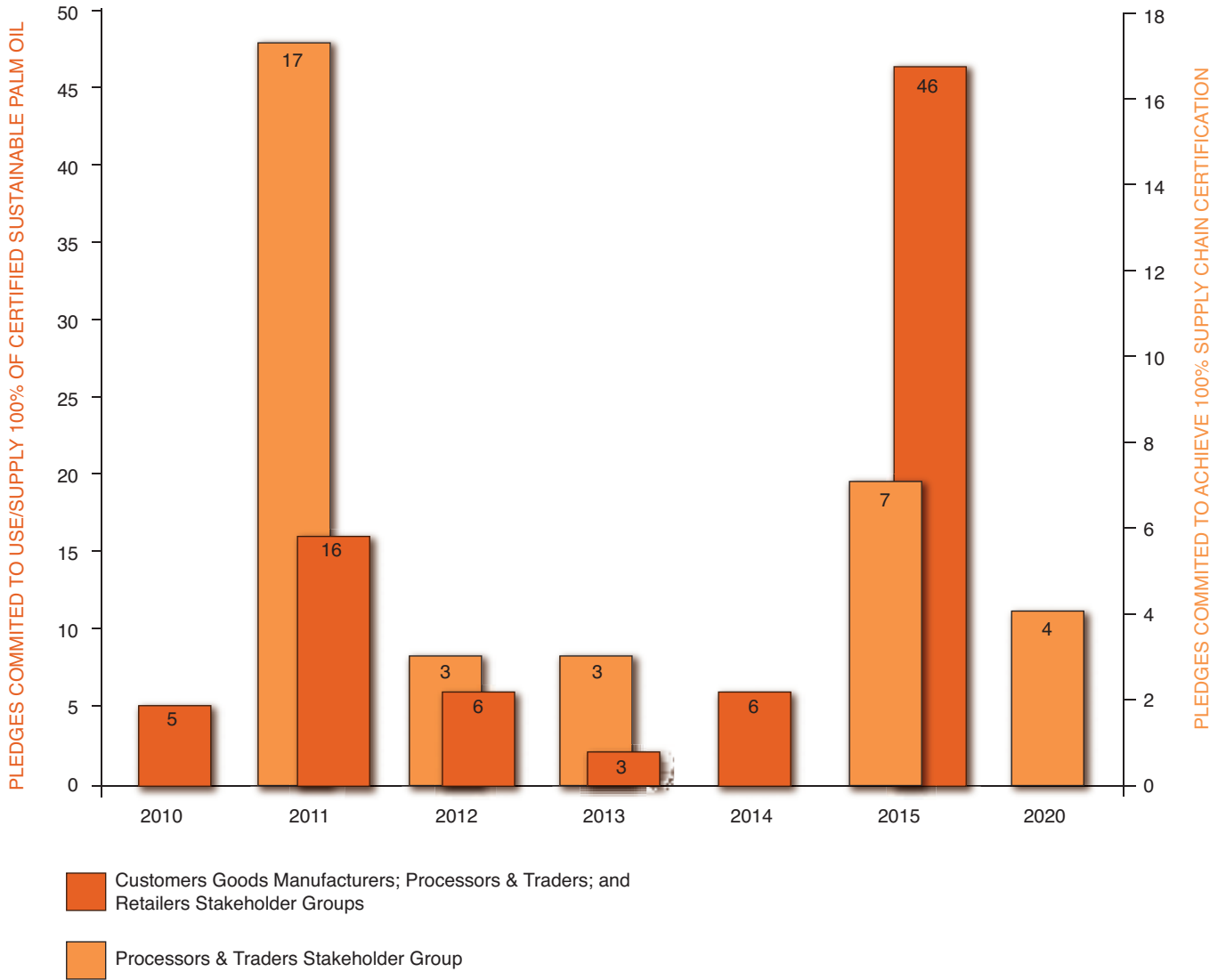
Developments in India and China seem promising. India has taken on several initiatives to promote sustainable palm oil, including the Oil Palm Development Programme and the Oil Palm Area Expansion Programme (RSPO, n.d.-b). However, these initiatives target sustainable production and not the demand for sustainable palm oil. In China, the China Chamber of Commerce for Import and Export of Foodstuffs, Native Produce and Animal By-Products has raised awareness about and promoted sustainable palm oil among its members since 2008, and in 2009 organized, in conjunction with the China International Oils and Oilseeds Industry, a summit that sought to foster stakeholder dialogue on sustainable palm oil (RSPO, n.d.-c). As a result, the Network for Promoting Sustainable Palm Oil in China was created to support the promotion and procurement of sustainable palm oil in China and the production of sustainable palm oil in producing countries.

The RSPO faces several operational challenges. Foremost is the conversion of its membership base into lending greater support to sustainable palm oil. Currently, the only criteria for becoming a member of the RSPO is that members act in good faith toward the objectives of the RSPO, which is to support, promote and work toward the production, procurement and use of sustainable palm oil, and that they acknowledge their membership of the RSPO “through informed and public endorsement.” However, some of the current RSPO members have been accused of continuing to engage in destructive deforestation practices and the destruction of ecologically sensitive habitats, while some cases demonstrate clear violations of the RSPO Principles and Criteria (Greenpeace 2013a; 2013b). If these sentiments were to gain traction among

industry or the media, it could threaten further uptake of RSPO in key consumer markets. However, at present, we do not expect this specific challenge to threaten further uptake of RSPO in light of the commitments already in place and actions being taken by the RSPO to rectify these issues.

There are several promising policy initiatives in Europe around sustainable palm oil as well (RSPO, n.d.-a). In the Netherlands, all food sectors committed to using solely 100 per cent sustainable palm oil by the end of 2015 (Dutch Task Force Sustainable Palm Oil, 2010). Similar initiatives were launched in Belgium (RSPO, 2011a) and the United Kingdom (Department for Environment, Food and Rural Affairs, 2012), which have both committed to 100 per cent sustainable sourcing by 2015, while stakeholders in France and Germany are currently discussing the potential to form similar national commitments. The RSPO has called for other countries in Europe to follow the leadership of Belgium, the United Kingdom and the Netherlands in setting high objectives for sustainable palm oil procurement and consumption. It has also co-organized meetings on European national endeavours to discuss the acceleration and uptake of sustainable palm oil in Europe, ways to secure industry commitment, common challenges, promotion of national endeavours and alignment with RSPO’s strategy for Europe. Another important driver is the European Commission’s recent approval of biofuels certified by the RSPO under its Renewable Energy Directive (RSPO, 2012f). If all current European (EU-27) consumption volumes were to become RSPO compliant today, it would equate to 5,585,000 metric tons of sustainable palm oil, or about 10.4 per cent of global production of palm oil in 2012.

FIGURE 11.14 GROWTH INTERPRETATION OF COMPANIES SOURCING CSPO.



Source: RSPO, 2011b.



11.7 REFERENCES

- AidEnvironment. (2007). *Towards effective conservation strategies: The application of strategic principles to increase the impact and sustainability of WWF conservation efforts*. Report commissioned by WWF Nederland, on behalf of WWF U.S. and WWF UK.
- Cadbury. (2013). *FAQ's*. Retrieved from <http://www.cadbury.co.nz/en/morechocolate-faqs.aspx>
- Department for Environment, Food and Rural Affairs. (2012). *Sustainable production of palm oil, UK statement*. Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/256254/pb13833-palm-oil-statement-1012.pdf
- Dutch Task Force Sustainable Palm Oil. (2010). *Manifesto of the task force sustainable palm oil*. Retrieved from http://www.taskforceduurzamepalmolie.nl/Portals/4/download/Manifesto_Task_Force_Sustainable_Palm_Oil.pdf
- Food and Agriculture Organization of the United Nations (FAO). (2013). *FAOStat*. Retrieved from <http://faostat.fao.org/>
- Food and Agriculture Organization of the United Nations (FAO). (2002). *Small scale palm oil processing in Africa*. Retrieved from <http://www.fao.org/docrep/005/y4355e/y4355e03.htm>
- Friends of the Earth. (2008). *Losing ground: The human rights impacts of oil palm plantation expansion in Indonesia*. Retrieved from Internal Displacement Monitoring Centre website: [http://www.internaldisplacement.org/8025708F004CE90B/%28httpDocuments%29/FA89FA0523761115C12574FE00480313/\\$file/losingground.pdf](http://www.internaldisplacement.org/8025708F004CE90B/%28httpDocuments%29/FA89FA0523761115C12574FE00480313/$file/losingground.pdf)
- Friesland Campina. (2012). *Efforts made by Friesland Campina to support sustainable palm oil are recognised* [Press release]. Retrieved from <http://www.frieslandcampina.com/english/news-and-press/news/press-releases/2012-03-27-efforts-made-by-frieslandcampina-to-support-sustainable-palm-oil-are-recognised.aspx>
- Gan, P.Y., & Li, Z.D. (2012). *A study on Malaysia's palm oil position in the world market to 2035*. Retrieved from The Institute of Energy Economics, Japan website: <https://eneken.ieej.or.jp/data/4362.pdf>
- GreenPalm. (n.d.). *Welcome to GreenPalm*. Retrieved from <http://www.greenpalm.org/>
- Greenpeace. (2008, April 21). *Orang-utans swing into action to stop Dove destroying rainforests for palm oil*. Retrieved from <http://www.greenpeace.org.uk/blog/forests/orang-utans-swing-into-action-to-stop-dove-destroying-rainforests-for-palm-oil-20080421>
- Greenpeace. (2012, October 29). *Greenpeace scorecard on palm oil producers*. Retrieved from <http://www.greenpeace.org/international/en/publications/Campaign-reports/Forests-Reports/Palm-Oil-Scorecard/>
- Greenpeace (2013a). *Certifying destruction*. Retrieved from <http://www.greenpeace.org/luxembourg/Global/luxembourg/image/2013/tiger%20shop%20window/RSPO-Certifying-Destruction.pdf>
- Greenpeace (2013b). *Is RSPO member Duta Palma breaking Indonesia's deforestation ban?* Retrieved from <http://www.greenpeace.org.uk/blog/forests/rspo-member-duta-palma-breaking-indonesias-deforestation-ban-20130424>
- IndexMundi. (2012). *Agricultural production, supply, and distribution*. Retrieved from <http://www.Indexmundi.com/agriculture/>
- IndexMundi. (2013d). *Crude palm oil futures end of day settlement price*. Retrieved from <http://www.Indexmundi.com/commodities/?commodity=palm-oil&months=60>
- International Sustainability and Carbon Certification (ISCC). (n.d.-b). *ISCC PLUS*. Retrieved from <http://www.iscc-system.org/en/iscc-system/iscc-plus/>
- International Trade Centre (ITC). (2013c). *Trade map*. Retrieved from <http://www.trademap.org/>
- Janurianto, A. (2010). *Indonesian palm oil industry: Impact on world oils supply and demand*. Paper presented at Palm Oil and Lauric Oils Conference POC2010, Kuala Lumpur.
- Johnson&Johnson. (2013). *Sustainable palm oil*. Retrieved from http://www.jnj.com/responsibility/ESG/Social/Supply_Chain/Responsible_Sourcing_of_Palm_Oil
- KL Maritime. (n.d.). *Basic facts on oil palm*. Retrieved from http://klmaritime.com.my/index.php?option=com_content&task=view&id=14&Itemid=37
- la Croix, N. (2011). *2015 and beyond: Future trends in the trade of CSPO*. Paper presented at the 9th Annual Roundtable Meeting on Sustainable Palm Oil, Sabah Borneo. Notes retrieved from http://rt9.rspo.org/ckfinder/userfiles/files/P3_4_Neil_La_Croix.pdf
- Mondelēz International. (n.d.-a). *Climate change*. Retrieved from <http://www.mondelezinternational.com/deliciousworld/sustainability/climate.aspx>
- Nestlé. (2013b). *Progress report palm oil*. Retrieved from <http://www.Nestlé.com/asset-library/documents/creating-shared-value/responsible-sourcing/progress-report-palm-oil-autumn-2013.pdf>
- Nordin, A. B. A., Simeh, M. A, Amiruddin, M. N., Weng, C. K., & Salam, B.A. (2004). *Economic feasibility of organic palm oil production in Malaysia*. Retrieved from <http://palmoilis.mpob.gov.my/publications/OPIEJ/opiejv4n2-borhan.pdf>
- Roundtable on Sustainable Palm Oil (RSPO). (n.d.-a). *Guidelines for the set-up of national endeavours for certified sustainable palm oil*. Retrieved from http://www.rspo.org/file/220313_TF_guideline_DL.pdf
- Roundtable on Sustainable Palm Oil (RSPO). (n.d.-b). *Market potential of CSPO in India*. Retrieved from http://www.rspo.org/en/Market_Potential_of_CSPO_in_India
- Roundtable on Sustainable Palm Oil (RSPO). (n.d.-c). *Prospects and challenges of sustainable palm oil for China*. Retrieved from http://www.rspo.org/file/Prospects_and_Challenges_of_Sustainable_Palm_Oil_for_China.pdf

- Roundtable on Sustainable Palm Oil (RSPO). (2010a). RSPO celebrates first 25,000 certified palm oil family farms [Press release]. Retrieved from http://www.rspo.org/file/101111_rspo_pr_sh.pdf.
- Roundtable on Sustainable Palm Oil (RSPO). (2011a). Belgian palm oil market pledges to become sustainable by 2015 [Press release]. Retrieved from http://www.rspo.org/sites/default/files/Press%20Release%20Belgian%20Alliance%20for%20Sustainable%20Palm%20OilFINAL_o.pdf
- Roundtable on Sustainable Palm Oil (RSPO). (2011b). *Growth interpretation narrative*. Retrieved from http://www.rspo.org/files/pdf/2011%20RSPO%20CSPO%20GIN_web.pdf
- Roundtable on Sustainable Palm Oil (RSPO). (2012a). *ACOP 2011/2012 by time bound plan*. Retrieved from http://www.rspo.org/en/acop_2011-2012_by_time_bound_plan
- Roundtable on Sustainable Palm Oil (RSPO). (2012b). *Annual communication of progress*. Retrieved from http://www.rspo.org/file/rspo_acop_digest_2012.pdf
- Roundtable on Sustainable Palm Oil (RSPO). (2012f). *RSPO announcement: On the approval from the European Commission of RSPO-RED, the biofuels certification scheme of the Roundtable on Sustainable Palm Oil*. Retrieved from http://www.rspo.org/news_details.php?nid=137
Retrieved from http://www.rspo.org/file/rspo_acop_digest_2012.pdf
- Rowell, A. & Moore, P.F. (2000). *Global review of forest fires*. WWF and the International Union for Conservation of Nature.
- Sainsbury's. (n.d.). *Is the palm oil in your products from sustainable sources?* Retrieved from <http://help.sainsburys.co.uk/help/company-values/palm-oil-sources>
- Sheil, D., Casson, A., Meijaard, E., van Noordwijk, M., Gaskell, J., Sunderland-Groves, J., Wertz, K., & Kanninen, M. (2009). *The impacts and opportunities of oil palm in Southeast Asia: What do we know and what do we need to know?* (Occasional paper No. 51). CIFOR: Bogor, Indonesia.
- Sustainable Farm Certification International. (2012). *Certified producers*. Retrieved from <http://sustainablefarmcert.com/certified-producers-2/>
- Teoh, C. H. (2010). *Key sustainability issues in the palm oil sector* (World Bank discussion paper No. 7). Retrieved from <http://www.usaidgems.org/Workshops/Zambia2012Materials/stand-alone%20docs--EGSSAA%20excerpts/oilpalmsuspaper.pdf>
- UN Conference on Trade and Development. (2012b). *Infocomm commodity profile: Palm oil*. Retrieved from <http://www.unctad.info/en/Infocomm/AACP-Products/Palm-oil/>
- UN Development Programme. (2010a). *Palm oil scoping paper Part II (POSPII)*. Retrieved from http://www.greencommodities.org/attachments/126_UNDP%20Green%20Commodities%20Facility_Palm%20Oil%20Scoping%20Paper%20Part%20II%20%28POSPII%29%202010.pdf
- Unilever. (2014). *New commitment on palm oil*. Retrieved from: <http://www.unilever.com/sustainable-living/news/news/Newcommitmentopalmoil.aspx>
- Wetlands International. (2011, February 1). *New figures: palm oil destroys Malaysia's peat swamp forests faster than ever*. Retrieved from <http://www.wetlands.org/NewsandEvents/NewsPressreleases/tabid/60/articleType/ArticleView/articleId/2583/Default.aspx>
- WWF. (n.d.-c). *Roundtable on Sustainable Palm Oil*. Retrieved from http://www.wwf.org.au/our_work/saving_the_natural_world/forests/palm_oil/what_wwf_is_doing/roundtable_on_sustainable_palm_oil/
- WWF. (n.d.-e). *WWF assessment of RSPO member palm oil producers 2013*. Retrieved from http://www.wwf.panda.org/what_we_do/footprint/agriculture/palm_oil/solutions/responsible_purchasing/wwf_assessment_of_rspo_member_palm_oil_producers_2013/
- WWF. (1997). *The year the world caught fire* (Discussion paper).
- WWF. (2009). *2009 palm oil buyers' scorecard*. Retrieved from http://www.wwf.panda.org/what_we_do/footprint/agriculture/palm_oil/solutions/responsible_purchasing/scorecard2009/
- WWF. (2011). *2011 palm oil buyers' scorecard*. Retrieved from http://www.wwf.panda.org/what_we_do/footprint/agriculture/palm_oil/solutions/responsible_purchasing/scorecard2011/
- WWF. (2012). *Profitability and sustainability in palm oil production*. Retrieved from http://awsassets.panda.org/downloads/profitability_and_sustainability_in_palm_oil_production_update.pdf
- WWF. (2013a). *2013 palm oil buyers' scorecard*. Retrieved from http://www.wwf.panda.org/what_we_do/footprint/agriculture/palm_oil/solutions/responsible_purchasing/palm_oil_buyers_scorecard_2013/
- Young's. (2009). *Our position on palm oil*. Retrieved from <http://www.youngsseafood.co.uk/wp-assets/palm-oil.pdf>