



**FOREST-FRIENDLY PALM PRODUCTION:
CERTIFYING SMALL-SCALE FARMERS IN INDONESIA, 2011–2016**

Blair Cameron drafted this case study based on interviews conducted in Jakarta, Bogor, and Riau, Indonesia, in October 2016 and in Bangkok, Thailand in November 2016. The British Academy-Department for International Development Anti-Corruption Evidence (ACE) Program funded the development of this case study. Case published January 2017.

SYNOPSIS

In 2011, the World Wide Fund for Nature (WWF), a global environmental group, launched a pilot project to help 349 Indonesian palm oil farmers reduce the environmental impact of their farms. The initiative was a first step towards ushering more than one million small-scale palm oil farmers into a new era of forest-friendly production that would help to save rain forests across Sumatra, Borneo, and other Southeast Asian islands. While some large plantations had already agreed to engage in sustainable practices, designed to improve yields while reducing social and environmental impacts, about 40% of Indonesia's production came from growers who cultivated small plots—often in remote areas. Aiming to open the door to widespread adoption of sustainable practices in the palm oil industry, the WWF's pilot project targeted a small group of farmers, introducing them to the Roundtable on Sustainable Palm Oil (RSPO), a global organization of palm companies, retailers, financial institutions, and environmental groups. The RSPO operated a voluntary certification system for sustainable palm oil production. In July 2013, the WWF pilot group became the first independent small-scale farmers in Indonesia to get certified under RSPO standards. During the next three years, a handful of similar groups followed, but significant challenges remained ahead for efforts to shift the palm oil industry as a whole toward sustainability.



INTRODUCTION

“Whatever you’re eating right now, there might be two or three grams of palm oil on your plate,” said Jan van Driel of the Roundtable on Sustainable Palm Oil (RSPO), an organization that aimed to reduce the environmental impact of the palm industry. In the early 2000s, when environmentalists first drew global attention to the link between palm expansion and forest loss, few consumers recognized the extent to which they relied on the ubiquitous oil. According to the World Wide Fund for Nature (WWF, known in North America as the World Wildlife Fund), palm oil was an ingredient in about half of the packaged products consumers found on supermarket shelves and anyone who ate instant noodles or who chewed gum shared responsibility for millions of hectares of deforestation and the dwindling populations of critically endangered species like the Sumatran tiger and the orangutan.¹

For Indonesia, which in 2006 overtook Malaysia as the world’s largest palm oil producer, palm oil cultivation had broad repercussions. At the local level, chemicals used in palm production ended up in rivers and streams, contaminating water sources and killing fish. At the regional level, the burning of forests to clear land for palm plantations created a choking haze that crossed national borders. Most critical for international environmental activists, the fires released greenhouse gases that contributed to climate change around the world.²

In the absence of direct government action to correct the problem, environmental groups hoped to persuade growers to implement standards, set by the RSPO, that aimed to expand sustainable palm oil production while protecting the tropical rain forests that surrounded many palm plantations.³ The WWF had helped found the roundtable in 2004, bringing together a group of nongovernmental organizations (NGOs), palm companies, manufacturers, retailers, and financial institutions. The group envisioned a future where palm oil could be a force for good, boosting the economies of Indonesia and other developing nations—without having a negative environmental impact.

Some multinational companies with large plantations were quick to adopt RSPO standards. But extending the program to an estimated 1.7 million small farms, responsible for about 40% of the country’s palm oil production, was far more difficult.

Aware that any effort to address the environmental impact of palm oil production in Indonesia required the participation of small farms, the WWF took on the job of ushering the first independent smallholders into the certification program. “The smallholders were beyond everyone’s radar,” said Putra Agung, WWF Indonesia’s sustainable palm manager. “They moved silently and slowly but surely, converting forest land into palm.”

THE CHALLENGE

A tangled supply chain, uncertain land rights, farmers' low capacity, and murky incentives complicated the effort to engage with independent smallholders.

Commodity certification systems like the RSPO's called for participation by all the links in the supply chain, starting with individual plantations and farms. But in Indonesia, the supply chain for palm oil—especially among smallholders—was more like a web. Although large plantations typically processed their palm fruit at their own on-site mills, the same mills also typically took in fruit from a variety of other sources, including small-scale independent growers.

From the mills, palm oil was transported to refineries and processing plants where it was turned into a huge array of goods, from foods, to personal care products, to biofuels (see Figure 1).

Because of the huge global demand for palm oil, companies built dozens of new mills across Indonesia, and each mill acquired and processed as much palm fruit as possible. The more palm fruit that mill staff could get their hands on, the more profit the mill made. Many mills bought from uncertified farms as well as RSPO-certified plantations, and mills often contracted local agents to play an intermediary role in acquiring fruit from uncertified small-scale growers. Because mills competed fiercely, they had little incentive to ask where the fruit came from, and neither mills nor the government monitored agents' activities.

The issue of land rights added another layer of complication in dealing with smallholders. The RSPO required certified growers to have legal rights to the land they farmed. However, many smallholders in Indonesia lacked formal title to the land they cultivated. Land claims had always been a contentious issue in Indonesia, where millions lacked security of tenure, and disputes festered. Initially, the WWF could work with smallholders in areas where land rights were clear, but to achieve widespread certification, the government would have to settle land disputes and improve the effectiveness of the National Land Agency, the office responsible for issuing land titles.

Persuading smallholders to join the RSPO was another significant challenge because the costs were high in terms of both time and money, and incentives were unclear.

To earn RSPO certification, palm growers had to meet 39 criteria divided into eight principles: transparency, law compliance, commitment to long-term economic viability, use of best growing practices, environmental responsibility and conservation, consideration of employees and communities, responsible development of new plantings, and commitment to continuous improvement. To comply with the standard, growers had to have business management plans, use best agricultural practices—for example, by monitoring plant and soil health and using fertilizer efficiently—keep records of activities, have storage facilities for chemicals and use proper safety

procedures when handling them, minimize fire usage, and protect any areas on their property defined as of “high conservation value,” such as land near waterways. Any land that had been primary forest or an area of high conservation value and had been cleared after November 2005 was ineligible for certification.

Because many smallholders lacked the knowledge and skills to implement the requirements, someone would have to train the farmers in

sustainable practices, and farmers would have to devote valuable time to participate in workshops and training sessions. Fees for compliance audits, which often totaled several thousand dollars per year, were higher than most smallholders could afford. The RSPO also required additional investments, such as the purchase of safety equipment for applying chemicals and investments in the planting of trees in areas of high conservation value.

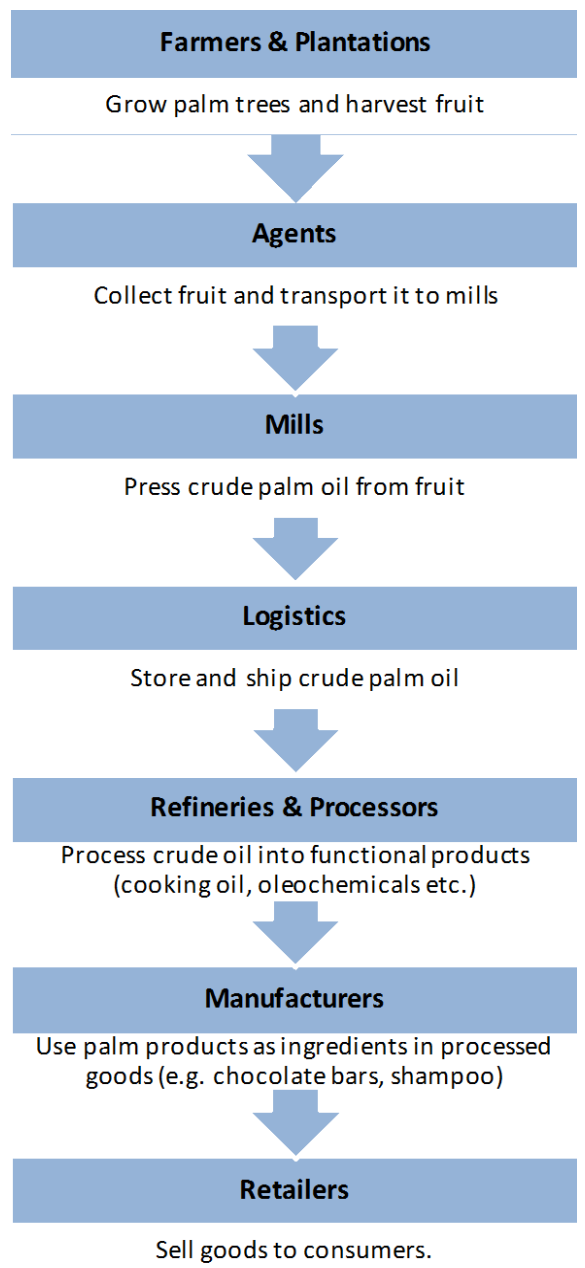
Financial support for smallholders was unlikely to come from other participants in the supply chain. Palm oil mills, for instance, were reluctant to provide financing for independent smallholders who sold their fruit through a web of middlemen (see Figure 2).

“Independent smallholders can sell their fruit to anyone they want,” said Dani Rahadrian, WWF Indonesia’s senior officer for smallholder engagement. “Mills think that financing their suppliers will not bring them any benefit because they cannot guarantee that the independent smallholders will sell to their mill. There is no guarantee [the company] will get any benefit from supporting them.”

Furthermore, lack of immediate and concrete incentives discouraged smallholders from joining the program. Although large palm companies could sometimes sell certified oil at a premium above normal market prices, smallholders were unlikely to share in the added profitability until the global market for sustainably produced oil expanded. At the time, the supply of certified palm oil outweighed the demand. From 2008, when RSPO-certified palm oil first became available, through the end of 2011, less than 50% of the sustainable palm oil produced globally had been sold as certified. The remainder had been sold as regular palm oil, with no price premium.⁴

The RSPO and the WWF argued that certification had long-term economic benefits for

Figure 1. Palm oil supply chain



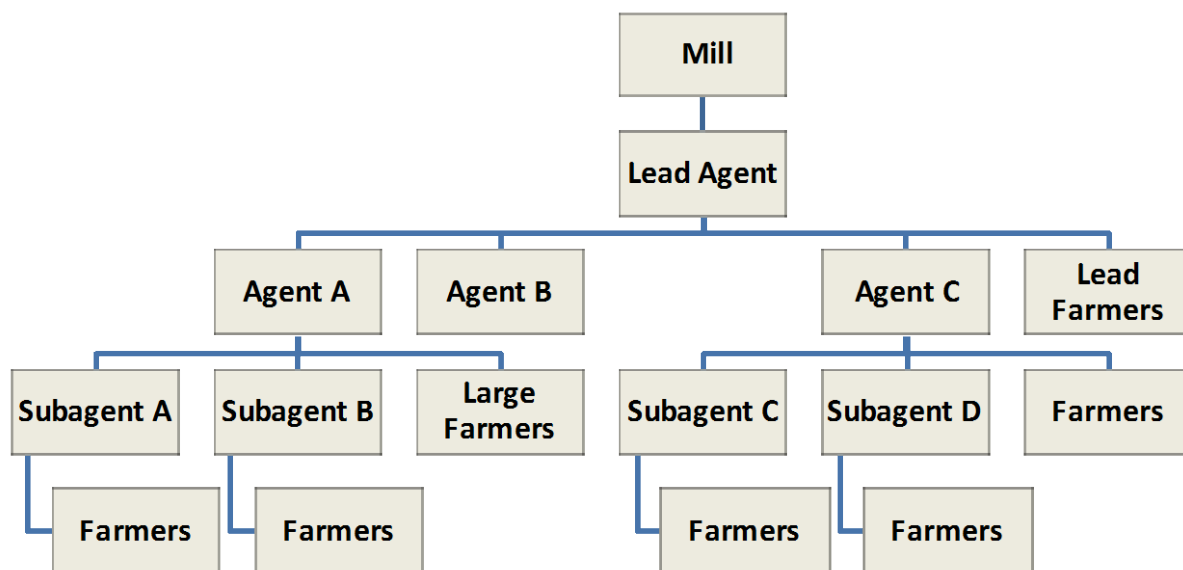
smallholders even without a premium. On average, small-scale farms produced far less palm oil per hectare than company plantations. A 2013 diagnostic study commissioned by the International Finance Corporation found that independent smallholdings yielded 116% less per hectare than plantations that used best agriculture practices.⁵ Implementing RSPO-compliant practices could potentially help independent smallholders boost their yields—and their profits.

FRAMING A RESPONSE

While environmental activists’ long-term goal was RSPO certification for all 1.7 million smallholders in Indonesia, the WWF team knew the first step was to launch a pilot. A proven model would encourage more farmers to join the system and could be replicated by other RSPO members in Indonesia and around the world.

In 2010, RSPO members approved a new standard for group applications that made it possible for smallholders to achieve economies of scale by working together. Groups had to be legally registered as associations and had to adopt the RSPO’s recommended management structure, including standard operating procedures, internal rules for group membership, policies for including or excluding members, and a process for conducting internal audits. Members had to appoint a group manager in the form of either an individual or a committee to make decisions, communicate information, and monitor compliance. The group manager was also responsible for maintaining up-to-date information on each group member,

Figure 2. Independent smallholder supply chain for palm fruit



Some “lead farmers” supply palm fruit directly to the mill, but most farmers sell their fruit through a web of subagents and agents. The mill rarely, if ever, has contact with the farmers that grow the palm.

maps of each member's land, estimates and records of all palm fruit sales, and written contracts with intermediaries that supplied the group's palm fruit to a mill.

For the pilot, the identification of a prominent location and an appropriate target group was important because the WWF wanted its success to resonate across Indonesia. The best site would be a location where palm growers were actively threatening critical forest areas and where implementation of sustainable production would likely have significant environmental impact.

Because of the fixed costs and the investment required to implement RSPO certification, the WWF wanted to involve a group of farmers who, taken together, owned about 1,000 hectares. But farmers' associations were rare in Indonesia, and the cooperatives or farmers' groups that existed were relatively small. If the WWF was unable to find a group that met its requirements, the organization would have to create one.

GETTING DOWN TO WORK

In 2011, from their national office in the capital city of Jakarta, WWF Indonesia staffers had a difficult task. In addition to selecting a location and a group of farmers to participate, the WWF team had to implement RSPO principles effectively, guide the group through the certification process, and ensure the continuity of the group's commitment. The corporate foundation of French multinational supermarket chain Carrefour agreed to provide €100,000 (about US\$130,000 at the time) to help WWF launch the certification project.

Finding a site---and a leader

The WWF focused its site selection on the area surrounding Tesso Nilo National Park in Riau province on the island of Sumatra. The area was especially important because it was one of the few remaining habitats of several threatened species of plants and animals, including the Sumatran tiger. Tens of thousands of independent smallholders grew palm in the area surrounding the park and across much of the province, and some had encroached on the park grounds. By 2011, about half of the national park had been converted to palm plantations, according to Irwan Gunawan, deputy director of WWF Indonesia.

Gunawan said government officials had been unable to stop powerful individuals and groups looking to profit from occupying the land. "The government simply did not have enough capacity or political will at the time to enforce the law," he said.

To find a suitable group to work with, the WWF approached Asian Agri, an RSPO member with a subsidiary that operated mills near the park. Asian Agri was one of Indonesia's largest palm companies, and its own plantations, which accounted for about half of the company's production, were already

RSPO certified. The company also helped its affiliated small-scale farmers—called *scheme smallholders*—gain certification. Scheme smallholders, who together accounted for an additional quarter of Asian Agri’s production, were contracted by the company or its subsidiaries and sold their palm fruit directly to the company’s mills. The scheme smallholder arrangement was common on palm plantations across Indonesia.

Independent smallholders accounted for the remaining quarter of the company’s production, and Asian Agri sustainability director Freddy Widjaya said getting them to work together was difficult. “There can be a reluctance to form groups,” he said. “You need to nurture leadership, and finding a leader among smallholders is a challenge.”

In Riau, as in much of Indonesia, some independent smallholders had formed groups of 10 to 30 farmers to share costs, negotiate better palm fruit prices with local agents, and share knowledge about farming techniques. Although the groups varied in the extent of their organization, some were functional cooperatives and just the kind of highly organized group the WWF wanted.

After speaking with Asian Agri staff, WWF approached Narno, the head of a cooperative of 30 independent smallholders who owned land about 28 kilometers from the national park, to gauge his interest in partnering with WWF for the pilot project. Narno, who like many Indonesians used just one name, said he quickly grasped the potential of RSPO certification for elevating the group’s profile and improving the livelihoods of individual smallholders. “I knew that some of the companies around had RSPO certification, so I thought, if the companies had certification, then it must be a good thing,” he said. “I didn’t really have any idea about what the certification involved. However, I had faith that it would benefit the farmers and increase their welfare.”

Encouraged by the WWF’s offer to pay for training, infrastructure investments, and audit fees, Narno persuaded members of his group to participate in the pilot project.

Building the growers’ group

Although enlisting Narno’s cooperative was a good start, the group’s members together held less than 100 hectares—far less land than the amount the WWF wanted for the pilot project. Narno and WWF staff set about recruiting more farmers to partner with the group and pursue certification. “Changing the mind-set of the farmers was really hard,” Narno recalled. “However, the farmers in my small group understood about the certification, and then I asked them to spread the knowledge to other farmers outside the group. Eventually, more farmers became interested.”

The final pilot project consisted of 349 smallholders from 10 different groups in the region. Together the farmers owned 763 hectares—only three-quarters of the WWF’s target of 1,000 but enough that the NGO considered

it worthwhile to push ahead with the project. With help from a consultant hired by the WWF, the new farmer group established itself legally as the Amanah Association in April 2012.

WWF staff and consultants helped Narno set up committees based on members' individual skills and knowledge. An auditing committee was in charge of monitoring association members for compliance, a group of marketers managed palm fruit sales, a third group handled training, and another was in charge of health and safety.

As the farmers began learning about the RSPO certification process, the association took the important step of establishing a formal supply link between its members and Asian Agri by signing a memorandum of understanding. The group's members agreed to sell all of their palm fruit to the company's mills, and in return, Asian Agri agreed to provide training in cultivation techniques and facilitate access to loans and high-quality fertilizers.

The memorandum of understanding benefited both sides. Asian Agri gained a reliable supply stream and ensured none of the association's fruit would go to competitors. The agreement was in line with the company's new efforts to tighten connections with the independent smallholders that supplied its mills and to help them improve production. "We wanted to build loyalty and commitment and improve the consistency of the fruit supply in terms of quality and quantity," Widjaya said.

In addition to receiving valuable training, association members benefited from faster processing of their fruit. Smallholders who sold through informal networks often faced costly delays in getting their fruit to processing mills. Once cut from the tree, palm fruit deteriorated relatively quickly, reducing the yield of oil. Although local agents still played an intermediary role in the process by transporting the palm fruit to Asian Agri's mill, the formal agreement facilitated regular and timely pickups of fruit.

Narno said that before the agreement, "It took two or three days for the fruit to reach the mill because we did not have any partnership with the company." After the partnership was formed, he said, "We harvest the fruits in the morning, and that same day they are sent to the mills." The result: fruit produced more oil, smallholders earned more per fruit harvested, and the mill processed more oil for the company to sell.

Implementing RSPO principles and criteria

While WWF staff were beginning to set up formal processes for the association and helping members fulfill legal requirements (smallholders needed authorization from local government to grow palm on their land), Narno, Rahadrian from WWF, and Asian Agri staffers got to work teaching the farmers how to implement RSPO standards. Another full-time WWF staff member lived in the community throughout the project, helping organize and train the farmers.

Because few of the farmers had completed high school, instructing them on how to meet such complex criteria was a challenge, Narno said. WWF staffers focused the initial teaching on association members who expressed enthusiasm for the new program, and then relied on those farmers to teach their neighbors.

Professional advice from staff at Asian Agri provided major benefits for association members. Company staff taught the farmers how to analyze palm leaves in order to decide when to apply fertilizers based on the quality of the trees and the needs of the plantation, thereby enabling farmers to optimize the fertilizer they purchased, Narno said.

In addition to cutting costs and increasing crop yields, improvement in fertilizer and pesticide usage had an environmental benefit. “Before, no one had really cared about the environment, so they used heavy chemicals,” Narno said. “The level of chemical use was very, very high.” Farmers learned about the environmental impact of the products they used; they were taught to never use chemicals near waterways; and they learned to spray pesticides only twice a year, Narno said.

Creating standard operating procedures

Alongside the training, WWF staff began to develop a manual of standard operating procedures for association members. Every week or two, Rahadrian and Margaretha Nurrunisa, of WWF’s local office in Pekanbaru, Riau’s capital, traveled to the association to discuss procedures with Narno and other farmers and incorporate their feedback into the document.

The manual outlined requirements for association members and potential sanctions for noncompliance. Members had to keep records that showed they managed their farms according to the established procedures. “We needed them to write what they do—and to do what they write,” said Gunawan. “If [the association members] agreed on a procedure, they had to stick to it, and they also had to report in log books what they had done. It was tough for them, because they were not accustomed to modern management techniques. They did not keep records about fruit sales and planning and so forth. The hardest part was to ask them to be more disciplined with their procedures and to document their activities.”

The WWF published the manual in July 2012 and distributed copies to leaders of the association’s 10 subgroups. In turn, the leaders explained procedures to their members, highlighting any changes or revisions that had occurred so that everyone knew exactly what to do, said Nurrunisa.

One difficult procedure involved the reforestation of areas of high conservation value. The RSPO set guidelines for identifying such areas—places where it was particularly important to conserve or restore forests. The concept was new to the smallholder farmers, however, and WWF staff had to help the farmers identify the areas, such as land next to rivers. When

necessary, association members planted trees to prevent erosion and comply with the RSPO standard.

The final manual outlined procedures to follow in case the group's auditors found that any association member had failed to comply with RSPO requirements. The auditors would issue a warning letter and then follow up to learn whether the farmer had cleared up the problem. Association members from the training committee would step in if the farmer needed help.

Earning certification

A few additional steps remained before the smallholders in the pilot could become RSPO certified. One of the core requirements was that all association members have two legal documents: a plantation registration certificate and an environmental permit.

"All palm oil plantations of less than 25 hectares had to be registered at the municipal agriculture office," said Gunawan. "But the law was not implemented fully, so in practice there were basically no legal requirements to establish yourself as an independent palm grower." Few farmers in the group had attempted to obtain the plantation registration, known as the STD-B, and some did not even realize the Ministry of Agriculture required it.

Even fewer farmers were aware of the environmental permit, known as the SPPL, issued by the local government's environmental department. With no clear benefit to getting the certificates and no threat of punishment for not having them, smallholders across Indonesia rarely bothered applying for either document.

Local government offices in some provinces had efficient procedures for issuing such registrations and permits, but obtaining STD-Bs and SPPLs from local district offices in Riau turned out to be an ordeal. Eventually, some of the farmers were able to obtain the required documentation, but it was an expensive process that took several months.

In addition to the authorizing letters, the smallholders had to reduce the risk of noncertified palm fruit from outside plantations getting mixed with the association's fruit. The association signed a memorandum of understanding with the agents that transported the fruit from the plantation to the mill to ensure the agents would prevent any mixing during transportation. Truck drivers agreed to pick up fruit from the Amanah Association on an established schedule, and the association implemented what Nurrunisa called "predictable harvesting." Association leaders calculated approximately how much fruit they expected to harvest, and they investigated if the actual amount differed by more than 5% from the prediction.

With the procedures manual and agreements with Asian Agri and the transporters in place, the association underwent a full audit from an RSPO-approved third-party auditor. Narno said that only some of the farmers had

been able to get the STD-B and SPPL documents, but that all of the farmers had applications in process. In July 2013, the auditor deemed the Amanah Association RSPO compliant, and the 349 members became the first independent smallholders in Indonesia to achieve RSPO certification.

Maintaining compliance & managing costs

The association's internal auditors had the job of ensuring that individual farms maintained compliance with RSPO standards. Every four months, members of the audit committee randomly selected 30 of the association's 349 members and conducted an audit of their properties. Rusman Efendi, one of the farmers on the audit committee, said the auditors met with the growers and asked questions about how the growers worked their farms. The auditors issued warning letters when they uncovered violations of RSPO criteria or association procedures. Farmers had a month to correct the problems and could ask members of the training committee for help if they needed it.

Efendi said the association's auditors initially had to issue many warning letters but that problems eased as farmers became accustomed to the rules. "Last year, we did not issue a single warning, because everyone has improved a lot," he said in 2016.

In addition, outside auditors returned every year to find out whether the association still met RSPO requirements. The external auditors surveyed a sample of 30 farmers, so, along with the 90 farmers audited internally, 120 individual audits took place each year, thereby covering about one-third of the association's total membership.

Every month, Narno convened a meeting with one of the association's 10 subgroups in order to discuss operations and distribute earnings from fruit sales. "From the total production, 65% [of revenue] goes to the farmers and 35% goes to the association," Narno said. "The funds that go to the association finance all of the matters related to the association, including meetings and internal audits." Some of the funding also paid for office space in the local village, and some was put toward future purchases of high-quality palm seeds (palm plantations had to be replanted approximately every 25 years).

After earning certification, the association could no longer rely on the WWF to pay its expenses. However, increased profits from improved productivity lessened the overall burden on group members. Reduced costs from better management and more-efficient fertilizer and pesticide usage also helped the smallholders boost their incomes.

The RSPO also provided financial assistance through a fund it set up in 2011 to pay audit costs for independent smallholder groups. The smallholder support fund covered audit fees for the Amanah Association in 2015 and 2016.

Tracing palm oil through the supply chain

Tracking certified palm oil was important so that end users could ensure they were purchasing sustainably produced goods and so that farmers could receive a premium for their commitment to RSPO standards. But tracing palm was extremely difficult in practice—especially when fruit came from independent smallholders that sold fruit to mills through a web of agents and subagents, none of whom were monitored by the mill, the government, or any other entity.

Once palm fruit arrived at the mill, it became even more difficult to trace the oil extracted from the fruit through the rest of the supply chain (see Figure 1). From the mill, palm oil went to refiners, processors, and manufacturers—usually crossing international borders. Shipments often weighed hundreds of tons, and separating certified product from uncertified was usually not feasible on such a large scale.

Because of the difficulties in physically tracing palm oil, the RSPO endorsed four separate systems for tracking and sale.

- *An identity-preserved system*, whereby mills and refineries processed palm oil in special batches and companies could guarantee the exact origin of oil sold.
- *A segregated system*, whereby mills and refineries processed only certified palm oil, so 100% of the oil they sold was RSPO certified.
- *A mass balance system*, whereby mills processed both certified and noncertified palm fruits. The palm oil was mixed, but only a percentage of the oil was sold as certified, corresponding with the amount of oil extracted from fruits that came from a certified plantation.
- *A book-and-claim system*, whereby certified growers were issued a GreenPalm certificate per metric ton of palm oil. The certificates were then sold online by GreenPalm, a British for-profit company endorsed by the RSPO. Companies could buy certificates to offset purchases of noncertified oil and could market their products with GreenPalm's sustainability seal. Buyers paid US\$1 to the RSPO and \$1 to GreenPalm for each certificate bought. Certificates fluctuated in price depending on demand, but in general sold for \$1 to \$6 each. This meant certified growers that sold certificates earned an average premium of 0.3% above the sale price of uncertified oil.⁶ GreenPalm periodically conducted audits of certificate sales to ensure there were no discrepancies between the amount of certified palm oil produced and the number of certificates sold.⁷

Only a small percentage of palm oil flowed through segregated processing systems that ensured that oil sold as RSPO certified actually came from a certified plantation. Mills that did sell segregated certified palm oil were usually operated by large companies that sourced all of their palm fruit supply from their own plantations and associated scheme smallholders.

Independent smallholders usually sold their palm fruit to company-owned mills that had excess processing capacity or to independent mills that did not have their own supply base. If a mill bought fruit directly from independent smallholders, the mill could trace the origin of the fruit it processed. But mills usually relied on many agents and subagents to source palm fruit from the area surrounding the mill (Figure 2), and they rarely knew the identity of the growers the agents dealt with.

Most of the certified palm oil not sold through the book-and-claim system was sold through the mass balance system. Because mills using the mass balance system processed both certified and noncertified palm fruits, the physical oil being sold as RSPO certified could theoretically come entirely from non-RSPO-certified sources. The RSPO did not allow mass balance mills to buy palm fruit from plantations within national park boundaries or from other illegal sources, but some mills did not fully trace where fruit had come from, relying on the agents that supplied the mill to self-police.

Selling GreenPalm certificates under the book-and claim system was the most practical option for the Amanah Association. Two-thirds of certified palm oil was sold through book and claim, and there was no economic incentive to do otherwise. Whereas most of the certificates were traded online through the GreenPalm website, the Amanah Association's certificates were sold in a special off-market deal negotiated with European consumer goods company Unilever. Under the agreement, Unilever agreed to pay the association a large premium for the certificates.

OVERCOMING OBSTACLES

The Amanah Association was the first group of independent smallholders in Indonesia—and the second in the world—to achieve RSPO certification (a group in Thailand earned certification in 2012). The WWF hoped its successful pilot project would serve as a model that could be adapted and replicated nationally and globally. As of 2016, several other NGOs were working with independent smallholder groups, and a few large palm-oil companies had launched projects to help independent smallholders that supplied their mills to get certified.

But barriers remained. Each group that began working toward certification encountered obstacles, and progress was slow and expensive. It seemed impossible to scale up the certification of farmers' groups to incorporate a significant number of the more than 1 million independent smallholders across Indonesia.

Implementation costs posed an obstacle. The RSPO's support fund eliminated the cost of audit fees, but those costs represented just part of the total. Farmers needed training and support from experts in sustainable palm production in order to implement RSPO criteria. And they needed help from the Indonesian government in order to meet legal requirements, such as land titles, plantation registration certificates, and environmental permits.

The WWF launched two more projects with independent smallholder groups: one in Kuantan Singingi, also in Sumatra, and one in Sintang, on the island of Borneo. Site-specific obstacles shaped adoption. “When we tried to replicate the Amanah success story, we found that there were big differences in the backgrounds, culture, and knowledge” of independent smallholders in different regions, said WWF’s Agung. Working with less-organized and less-knowledgeable farmers was far more challenging and time-consuming.

The Sumatran project began in 2014, but by late 2016, the prospect of certification still appeared to be far off. Nurrunisa blamed several factors. “Kuantan Singingi was a very different situation,” she said. “We were working alone; no local company was willing to partner with us.” Without support from a local palm company, it was more difficult—and more costly—to teach farmers how to improve their agricultural practices.

Nurrunisa also said the WWF lacked the funds to hire a full-time facilitator to work in the Kuantan Singingi community the way the organization had done when working with the Amanah Association. Further, she said, farmers in the region had less experience working together and were less motivated to implement RSPO certification than the Amanah Association had been.

The WWF’s project in Borneo faced an even greater challenge. Like many of the independent smallholders there, the WWF’s partner group had converted forest to palm plantations within the past decade. That created a roadblock because the RSPO would not certify any land converted from forest after 2005—about the time the organization began developing its certification standards. Without a cutoff date for deforestation, the system would be susceptible to exploitation by farmers or companies that established plantations by clearing forest and then later claiming to be environmentally friendly by complying with the RSPO standards’ other criteria.

Gunawan said the RSPO ought to reconsider the 2005 cutoff if it wanted to incorporate more smallholders into the system. “Most of the independent smallholders in Indonesia developed their plantations after 2005,” he said. The rule created “a systematic barrier for the majority of independent smallholders in Indonesia to benefit from RSPO certification and prove that they can be sustainable.”

A handful of large companies started to identify independent smallholders that supplied their mills and to help them improve productivity and sustainability. Asian Agri continued its smallholder assistance program, which provided training for independent growers near the company’s mills. Widjaya said that after pilots had worked successfully with the Amanah Association and a few other groups, the company now aimed to incorporate into the program by 2020 all of the independent smallholders that supplied its mills and who collectively farmed about 60,000 hectares.

Widjaya noted, however, that introducing sustainable practices and implementing certification would take far longer. “It doesn’t work to talk to poor farmers about sustainability. They need a certain level of income and livelihood first,” he said. “Our idea is to build trust by helping improve the productivity of their land. That can increase their incomes and, ultimately, their livelihoods. Once their livelihoods improve, then we can start to talk about sustainability.”

Although such projects were steps toward scaling up independent smallholder certification, the slow pace of progress made clear the need for new and innovative solutions.

ASSESSING RESULTS

For the Amanah Association, the implementation of RSPO certification improved environmental management and livelihoods for the 349 farmers who initially joined the group. After seeing the benefits, more farmers joined the association, and by 2016, the group had expanded to 501 farmers who collectively owned 1,048 hectares.

The 349 original group members increased their production by more than 50%, from 14 to 15 metric tons of palm fruit per hectare each year before the association became RSPO certified in mid 2013, to 24 tons yearly in 2015, according to Narno. He put the increased productivity down to the training farmers received during the certification process. Nurrunisa said that farmers’ property values had increased by 30%—an unexpected benefit to certification caused by demand to join the association.

The WWF achieved its primary goal of getting the first smallholder group in Indonesia certified. However, the pilot, though successful, did not trigger the widespread formation of comparable associations elsewhere. The initiative also had limited impact on palm growers in the immediate region. Tesso Nilo, the national park located just 28 kilometers from the Amanah Association, continued to be a major locus of illegal conversion of forests for palm cultivation. In 2016, the park—one of the last remaining habitats for Sumatran tigers and elephants—had just 18% forest cover remaining.⁸

Nationwide, as of 2016, just four independent smallholder groups had achieved RSPO certification. Collectively, the four groups comprised fewer than 5,000 farmers—not even 1% of the more than 1 million independent smallholders across the country. Most independent smallholders had still never heard of the RSPO; the costs of certification were still far clearer than the benefits; and it was still impossible for independent smallholders to gain certification without major outside support and investment.

The palm industry’s failure to correct course became clear in the second half of 2015, when a dense haze caused by approximately 100,000 individual forest fires across Sumatra and other Indonesian islands smothered eight Southeast Asian countries. One of the main drivers of the forest fires was the expansion of palm oil plantations, and the crisis the haze caused was a

dramatic sign that more than a decade after its founding, the RSPO still had a long way to go to achieve its goals.

The World Bank estimated that the fires, which covered about 2.6 million hectares, caused about \$16 billion of damage, and researchers at Harvard University said the haze, which hung over Indonesia for more than four months, caused more than 100,000 deaths, including more than 90,000 in Indonesia (although Indonesian health officials disputed the findings).^{9 10} In Riau, where thousands of the fires burned, schools closed, air carriers canceled flights, and thousands of residents fled to other regions to breathe clean air.¹¹

The RSPO stressed that its members were responsible for only a tiny percentage of the forest fires. “Only very few RSPO members were involved, out of all the hundreds of hot spots” where fires had occurred, said Jan van Driel, RSPO certification manager. “It was clear that RSPO members were better as far as hot spots were concerned, as opposed to non-members of RSPO. The issue was that even for certified plantations it was difficult to keep fires out when the whole landscape around them was burning.”

REFLECTIONS

Despite achieving success in reaching large palm plantations in its first decade of existence, the RSPO certification system faced significant barriers to continue progress toward its goals. Many questioned whether the RSPO’s standards were set too high, or too low, and how closely RSPO certified oil should be tracked. The organization was plagued by controversies over the quality of audits and labor issues on certified plantations, and struggled to boost demand for certified palm oil. Incorporating smallholders into the program remained a major challenge. In response, the RSPO began to embrace new approaches that could potentially increase take-up from smallholders.

At the RSPO’s annual conference in 2016, several stakeholders from government, palm companies, and Narno himself said the standard was already too challenging, and they called on the RSPO to avoid making certification criteria any stricter in a planned 2018 revision to its standard.

Some groups, including the Indonesian Palm Oil Grower’s Association (known by its Indonesian acronym, GAPKI), had earlier ended their support for the RSPO because they felt the standard was too demanding. GAPKI, which represented large-scale palm growers that owned more than 200 hectares, instead advocated for a government standard, called Indonesian Sustainable Palm Oil (ISPO, see Textbox 1), launched by the Ministry of Agriculture in 2011. The ISPO standard was to become mandatory for all Indonesian palm growers in 2020, but its criteria were considered far weaker than those the RSPO championed. Putra Agung of the WWF said, “When we compare the ISPO standard with the RSPO standard... the RSPO

standard is more advanced, especially in terms of environmental and social safeguards.”

Despite the weaker standards, several RSPO members saw the introduction of ISPO as an indication that the government might finally take a greater role in enforcing forest-friendly palm production. Agung expressed hope that implementation of the ISPO standard would be the government’s first step in enforcing laws to curb the illegal expansion of palm production—and not its last.

Some environmental groups, however, argued that even the RSPO standard was too weak. In its 2013 report “Certifying Destruction,” environmental action group Greenpeace criticized the RSPO standard for allowing conversion of forests not identified as being of high conservation value, and for having weak criteria regarding greenhouse gas emissions.¹²

Jan van Driel, RSPO certification coordinator, said it was possible that the standard would be tightened. “The world is changing, and the standard will change,” he said. “The demands of NGOs and retailers and food manufacturers will go up. Those groups are the drivers of change. . . . In 2018, we will have a new standard that may be stricter than the current standard. That said, we must also make sure that the development rights of the producing nations are also taken into account.”

Groups that could not wait for the RSPO standard to be strengthened chose to splinter off from the RSPO and create the Palm Oil Innovation Group, which called for companies to move “beyond certification” and implement stronger environmental and labor standards than those required by the RSPO standard.¹³ The RSPO responded in 2016 with the introduction of a separate standard, RSPO Next, for growers willing to commit to stricter requirements.¹⁴

Another ongoing debate centered on the importance of tracing certified palm oil through the supply chain. Most certified palm oil was sold through either the mass balance system or the book and claim system, both of which allowed palm fruit from certified farms to be mixed with that from uncertified farms, which eliminated the possibility of physically tracing certified oil through to the end buyer.

The WWF and some other groups wanted more companies to switch to the segregated system, which would force RSPO-certified mills to buy only from certified growers and not allow mixing with uncertified palm. But others felt that segregation would make it even more difficult to incorporate smallholders into the system. If smallholders were forced to comply with the RSPO standard in order to sell to a particular mill, they could simply sell to agents or mills that did not demand RSPO certification.

“Mills would have to choose to either kick out intermediaries and smallholders, or invest heavily in identifying and certifying smallholders,” said Jan Maarten Dros, palm oil expert at Solidaridad Network, a Dutch NGO. “So insisting on increased traceability and segregated palm oil could actually

push a lot of intermediaries, smallholders, independent mills, and independent estates out of the sphere of influence of the RSPO.”

Criticism of the RSPO did not focus solely on the quality of its standard and the level of traceability within the system. Investigations by activist organizations in 2015 and 2016 exposed serious flaws in the audit process and labor standards on RSPO-certified plantations.

In 2015, the Environmental Investigation Agency, a British NGO, raised questions about work done by RSPO approved third party auditors. The NGO’s report, entitled “Who Watches the Watchmen?” found that auditors were “conducting woefully substandard assessments,” and in some cases, “colluding with plantation companies to disguise violations of the RSPO standard.”¹⁵ Dros said the auditing problem was partly a result of power dynamics. “The palm oil companies being audited are often orders of magnitude bigger than the auditing companies,” he said. “There is competition for auditing palm oil estates, so companies select the auditor that offers the cheapest possible rate. That has resulted in a system where the auditors rely on the palm companies, and willingly or unwillingly, they start cutting corners.”

In 2016, another scandal rocked the RSPO when Amnesty International, a global human rights NGO, shone a spotlight on an RSPO-certified company that violated workers’ rights on its plantation.¹⁶ The investigation

Textbox 1. Implementing a new, state-endorsed certification system

In early 2011, the Indonesian government launched its own certification system for palm oil. The Ministry of Agriculture declared that the new system, Indonesia Sustainable Palm Oil (ISPO), would be mandatory for all palm oil producers in Indonesia. The ministry initially said all palm growers had to become ISPO certified by 2014, though the deadline was later extended until 2020. But by 2015, no independent smallholders had become ISPO certified, and the ISPO commission, part of the Ministry of Agriculture, was searching for a group of independent smallholders to pilot the ISPO standard.

The ISPO commission based the standard’s criteria partly on the RSPO standard and partly on Indonesia’s existing laws that covered the palm oil sector. Gunawan said the ISPO standard had far weaker environmental requirements than the RSPO standard did but that it could be a good stepping-stone toward RSPO certification.

In January 2015, the ISPO commission asked Narno whether the Amanah Association would be willing to be the pilot project for ISPO independent-smallholder certification. Narno was open to the idea. Because the Amanah Association was already RSPO certified, association members had already met most of the requirements of the ISPO standard. Further, because the Ministry of Agriculture had indicated that ISPO certification would be mandatory for all palm oil growers, getting ISPO certified was another way for the Amanah Association to be ahead of the curve.

In 2016, the Ministry of Agriculture and the United Nations Development Programme organized training sessions so the Amanah Association could learn the principles and criteria of the ISPO certification scheme. “Because the requirements of the two certification systems were similar, we just relearned what we already knew,” Narno said. “However, having another certification system is good for the farmers because they will get a more comprehensive understanding” of sustainable practices.

As of January 2017, the association was still in the process of becoming ISPO certified.

found evidence of systemic forced labor, child labor, gender discrimination, and other exploitative practices on plantations owned by subsidiaries of Wilmar International Limited, an RSPO member and one of the world's largest palm companies. The report showed how easily labor violations could be overlooked by, or hidden from, auditors. Amnesty International concluded, "the implementation and monitoring of the RSPO criteria are extremely weak and based on a superficial assessment system."

Given the continued forest destruction and the problems with RSPO certification, some environmentalists and companies had chosen to boycott palm oil.¹⁷ But industry representatives said a widespread boycott could potentially create even worse problems. Vegetable oil was an essential ingredient in a wide array of products, and palm oil substitutes required more land to produce the same amount of oil—potentially resulting in even greater forest loss. Each hectare of palm could produce more than five times as much oil as a hectare of soybean, sunflower, or rapeseed.¹⁸

"Demand is going to increase by at least five million tons per year up until 2025," said Fadhil Hasan, the executive director of GAPKI. "Which vegetable oil should fulfill that demand? You have a choice. If you ban oil palm expansion and instead rely upon soybeans, much more land will be needed to fulfill that demand. Where will that land come from? If it is in Brazil, then there will be deforestation in the Amazon, and on a much larger scale!"

The RSPO responded to critiques from watchdog NGOs, and suspended members identified for violations of its criteria, as well as auditors that conducted substandard work. The roundtable organized working groups and committees to find solutions to the weaknesses in its certification system, and those groups discussed innovations to improve audits, increase traceability, and incorporate more smallholders into the system.

As of 2016, the only independent smallholders that had earned certification were groups that had worked closely with NGOs or private actors to implement the RSPO standard. "When a smallholder group wants to get certification, support is crucial from the private sector and organizations like WWF to bridge the knowledge gap," said Imam A. El Marzuq, the RSPO's smallholder coordinator for Indonesia. "So far, no group that wanted to get certified has done it alone." Dros put it more bluntly: "Smallholder farmers will certify as long as an NGO or the RSPO pays them to do so. At the current scale there is no business case for certification."

Even Irwan Gunawan, who led the WWF's project with the Amanah Association, questioned the cost effectiveness of helping independent smallholder groups get RSPO certified. "How can we create a certification model for smallholders that is affordable and does not depend on external support?" he asked. "I'm not convinced it is possible—the certification cost is just too much."

Where smallholders did manage to successfully implement RSPO certification, there was still no guarantee that more forest would be saved. Forest conservation relied on the smallholders not just sticking to RSPO criteria on their certified farms, but also agreeing to not encroach on the forest in other areas. With increased profits from implementing more-productive practices, smallholders could choose to farm less land, or invest their profits in converting cropland to palm, or invest in converting forest to palm.

Dros said their decision would depend on the price and availability of land locally, and the price and availability of labor. “If there is plenty of labor and plenty of forest around, the farmers are likely to invest in deforestation with their profits from sustainable agriculture,” he said. “But if there is either a lack of land or a lack of labor, the opposite may be true. Farmers will invest in intensifying their production without expanding their total productive area.”

Another unanswered question moving forward was whether the Amanah Association and other certified groups would choose to stick with RSPO certification over the long term. As long as the RSPO continued paying the group’s audit fees and group members could earn a premium on selling oil, there was no incentive to drop out of the system. But if those financial benefits disappeared, there were few reasons to continue with certification. The main benefit for independent smallholders was increased productivity from learning best management practices through the certification training—a benefit that would continue to accrue with or without certification.

Convincing buyers to choose certified palm oil over non-certified oil was an ongoing challenge. While certified growers of other commodities—such as coffee or tea—could market their products directly to consumers, palm oil was an “invisible commodity.” Few consumers realized the amount of palm oil contained in the foods they ate and the products they used every day. “Every consumer understands tea and coffee,” said van Driel. “But the moment you say palm oil... the consumer will say no, I don’t use palm oil.”

In 2016, the demand for palm oil continued to grow worldwide, including in markets like Europe and North America, where companies and consumers often demanded that palm oil products be RSPO certified. But demand was increasing even faster in countries like India and China, where there was little awareness of certification. “Out of the increasing volume, only 15 or 20% is going to markets that are interested in sustainability at this point in time,” said Dros. “The demand for unsustainable palm oil is growing faster than the demand for sustainable palm oil.”

As forest clearing continued across much of Indonesia, support for a moratorium on converting forest to palm plantations grew. Although the Indonesian government in 2011 had already issued a moratorium on new licenses for palm oil concessions, the policy had failed to stop smallholder

expansion. Further, even before the 2011 moratorium, many palm companies had acquired more concessions than they planned to use immediately. As a result, companies could legally deforest an estimated 20 million hectares already approved for conversion to palm plantations.

Environmentalists had long called for the government to enforce a moratorium on palm conversion for *all* land in Indonesia, including areas where concessions had been issued. GAPKI opposed such a move, and, in 2016, Hasan said that more forestland would need to be converted to plantations in order to keep up with the growing global demand for palm oil, and questioned the fairness of the proposed moratorium. “Why would you apply a moratorium only for palm? Why not for other vegetable oils where expansion will cause even bigger environmental problems?” he said.

The WWF and other environmental groups continued to encourage the government to step up enforcement of existing regulations and provide greater support to smallholders. “The government has to monitor smallholders better and provide them with knowledge,” said Agung. “It must facilitate the process of producing palm oil by supplying good seedlings, subsidizing fertilizers, and, most important, providing assistance on how to implement good agricultural practices.”

In response to all of these challenges, several RSPO members began piloting a new approach that could potentially reach more smallholders, incentivize government enforcement, and achieve greater impact. The so-called jurisdictional-certification system would certify an entire district or province, and local governments would be responsible for ensuring that palm growers adhered to RSPO criteria. In 2016, the RSPO began developing a standard for jurisdictional certification and endorsed pilot projects that NGOs had begun in partnership with local governments in Indonesia and Malaysia.

The WWF hoped that local governments could play greater roles in promoting sustainable palm through the new approach. “The jurisdictional approach can help the government play its role,” said Agung, “because so far, the government has not played the role it needs to play.”

Through individual projects the number of independent smallholders certified increased very slowly. The jurisdictional approach could expand sustainability programs faster. “The real scale increase will be through the jurisdictional approach,” van Driel said. “Then you’re not talking about groups of 500 smallholders anymore; you’re talking about groups of 50,000 or more.”

However, local governments had to resolve certain underlying issues before the jurisdictional approach could be successful. “We need good governance, low corruption, strong land tenure, and low social conflict,” said Agung. “So we are still quite far.”

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