CROSS-CUTTING ANALYSIS
NATURAL RESOURCES

INNOVATIONS FOR SUCCESSFUL SOCIETIES

PRESERVING FORESTS: WHAT ARE WE LEARNING ABOUT MAKING VOLUNTARY SUPPLY-CHAIN CERTIFICATION WORK?

This cross-cutting analysis draws on five case studies conducted by Innovations for Successful Societies under the auspices of a grant from the British Academy-Department for International Development Anti-Corruption Evidence Program. Published February 2018.

During the past three decades, growing local and global demand for lumber and food motivated many landowners in Africa, Asia, and Latin America to cut forested areas for timber or to expand ranching and agriculture. Loggers and farmers reaped short-term gains, but their actions had a significant downside, causing soil erosion, water pollution, and desertification that jeopardized their longer-term livelihoods. In addition, the destruction of forests added to the factors blamed for global climate change.

In 2015, five African countries—Uganda, Kenya, Tanzania, Mozambique, and Madagascar—agreed on a joint declaration to halt the illegal timber trade in their region and to reduce pressure to convert remaining forestland for agricultural use.[1]

Formally recognizing the need marked only a small initial step, however. The greater challenge was to identify what concrete actions these and other countries could take to achieve such an ambitious goal. Central governments were unwilling or unable to monitor forest loss and enforce environmental laws and regulations effectively, especially in remote areas where deforestation was rife. Local communities faced a common-pool resource problem that had intergenerational dimensions.

One option for confronting such a problem is to introduce a voluntary certification system that tracks crops, cattle, or timber from the point of production to the final point of sale and rewards producers of such sustainable commodities with a price premium or some other economic benefit. Landholders agree to observe a set of standards in return for a market advantage, and an independent auditor

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spot-checks compliance. In most instances, the standard includes not only forest protection requirements but also prescribed practices for pesticide and herbicide use or safety and labor protections.

But voluntary certification has failed to win broad adoption, in part because the process can be costly to implement and difficult to manage, especially when most producers are smallholders rather than owners of large plantations. In such cases, the gains relative to the cost of compliance often are low.

Innovations for Successful Societies took a hard look at five efforts—one from Africa, three from South America, and one from Southeast Asia—to engage smallholder farmers and ranchers in forest-friendly production using certification systems. We scrutinized crop characteristics, demand patterns, industry structure, and how those and other factors affected efforts to create and implement a price premium for certified products.

THE COMMON GOAL

Proponents of voluntary certification systems first aimed to win agreement on standards and practices that would enhance environmental sustainability, often while also improving labor conditions. They then sought to persuade buyers to favor commodities produced in compliance with these standards. Their third step was to design a supply chain monitoring system or audit process that would assure buyers and consumers that the commodities they purchased met the standards and were untainted by unsustainably produced commodities that entered the trade during transport or processing.

To stimulate interest and build support, a few pioneering companies and NGOs usually kicked off the process by creating pilot projects. Once they had tested market demand for certified products, they reached out to other landholders to persuade them to comply with voluntary standards, pointing to the price premiums on offer or to shifts in demand that favored sustainably produced commodities over others.

Voluntary systems aimed to make compliance economically rational on the successful models for Fair Trade coffee, organic products, or Forest Stewardship Council-certified lumber.

DELIVERY CHALLENGES

Proponents encountered varying obstacles related to the characteristics of each particular industry and the producers who were the targets of the certification effort.

- Diversity of interests among protagonists. Establishing standards that farmers, industry, and environmental activists considered acceptable was a tough task because of differing aims and motivations.
- Lack of clear incentives at the beginning of the supply chain. Persuading individual producers to embrace certification programs was

especially difficult until a market for certified products had developed to assure them a tangible reward.

- Lack of clear incentives at the end of the supply chain. Persuading companies and consumers to buy certified goods at a premium price—rather than the lowest price—ran contrary to economic rationality in most contexts.
- The high cost of auditing and monitoring systems. Several factors bedeviled the task of verifying production practices, including the number of criteria involved, the large numbers of producers, and the geographic size of the region. On-site visits were costly and time-consuming.

One of the biggest challenges was incorporating smallholders into the new systems. Most farmers in Latin America, Asia, and Africa owned a few hectares or less. Many were relatively poor, had little education and limited access to capital, and struggled to learn a living.

- Smallholders were often independent and loosely organized if connected at all, and it was costly to draw them individually into a certification system. To address this challenge, certification system sponsors had to organize farmers into associations, if these did not exist already, and win each group's agreement to adopt new standards and participate in audits.
- Complying with standards required significant investments and also required farmers to pay audit fees. Many smallholders could not afford to take on extra costs. They needed help upfront, and they had to be able to support the costs of continued compliance from better prices for their produce, higher yields, or lower expenses.

THE CASES

1. *Certifying Kenya's Smallholder Tea Farmers*

In 2007, multinational consumer-goods company Unilever launched a partnership with the Kenya Tea Development Agency (KTDA) to help bring Kenya's more than 500,000 small-scale tea farmers up to the certification standard set by the Sustainable Agriculture Network, a global coalition of environmental organizations. To participate, farmers had to fulfill dozens of criteria related to worker safety, environmental management, and agricultural practices. The KTDA, a private company that had been government-run until 2000, was able to roll out certification quickly and on an unprecedented scale, thanks to its large market share, its rapport with farmers, the willingness of multinational companies to support high-quality sustainably grown tea, and start-up funding from donor organizations. By mid-2016, all of Kenya's smallholders had met certification standards, and Unilever's flagship Lipton brand was selling 100%-certified tea. Soon after, other major global brands met the same target. Farmers pointed to increased yields,

stronger health and safety procedures, and improved livelihoods as benefits of the certification initiative. (For more detail, see the ISS Case Study Brewing a Sustainable Future: Certifying Kenya's Smallholder Tea Farmers, 2007–2017.)

Takeaways:

- Much of Kenya's tea production was highly organized through the Kenya Tea Development Authority, making it relatively easy to reach the smallholders at the beginning of the supply chain.
- Unilever's commitment to pay a price premium for certified tea helped incentivize producers' initial decision to adopt the certification standard and shifted the entire industry. Even after Unilever stopped paying the premium, producers continued to adhere to the rules because the system had become the industry standard in Kenya, and suppliers who lacked certifications were at a competitive disadvantage.
- The decision to adopt a single standard set by the Rainforest Alliance, a New York–based nongovernmental organization, kept producers focused on meeting just one set of criteria and prevented label-shopping.
- A system of farmer field schools subsidized by international donors facilitated peer-to-peer exchange at the local level and allowed small producers to observe how certification had benefited their neighbors.

2. Rainforest Alliance Certification in Colombia's Coffee Sector, 2006–2017

In the early 2000s, the 500,000 smallholder farmers who collectively produced more than three-quarters of Colombia's coffee gave little thought to the impact of their activities on the environment, as they struggled to earn a living. Many carelessly used dangerous chemicals and dumped contaminated water into rivers. Aiming to protect biodiversity in coffee-growing regions of Latin America, the Global Environment Facility supported the UNDP and the Rainforest Alliance to help farmers in Colombia meet a certification standard designed to enforce good agricultural practices and protect the environment. Through its network of grower cooperatives and satellite offices throughout the country, Colombia's National Federation of Coffee Growers helped facilitate access to certification for thousands of smallholder farmers across the country. Promoters of certification leveraged the federation's network to build awareness of Rainforest Alliance certification and recruit producers. Crucially, the funding also enabled the Rainforest Alliance to cultivate a global market for sustainably produced coffee by promoting the product to companies and consumers. By 2017, about 10,000 Colombian farms covering about 70,000 hectares had earned Rainforest Alliance certification. Other NGOs and coffee companies developed similar but less-demanding systems, and collectively, they covered more than one third of Colombia's coffee

production. By comparison to other countries that produced agricultural commodities, the rate of participation was high, and the inclusion of smallholders, who were usually hard to organize, was distinctive. However, many farmers did not participate in the voluntary systems, and Colombia's water and forest resources remained under threat in some areas. (For more detail, see the ISS case study Working Toward Sustainable Coffee: Rainforest Alliance Certification in Colombia, 2006–2017.)

Takeaways:

- Despite high compliance costs, Rainforest Alliance certification became more widespread in Colombia than in some other coffee-producing countries because of the influence and capacity of the National Federation of Coffee Growers. This pre-existing association, like the Kenya Tea Development Authority, reduced the transactions costs associated with winning smallholder participation in the certification system.
- The availability of multiple certification systems meant that farmers could sometimes switch to a different standard with less stringent criteria and still secure premiums attached to a "sustainable" label.
- In some instances, farmers were able to earn a financial benefit from certification, but price premiums for certified coffee varied over time. Matching the supply of certified coffee with the demand was difficult in the volatile global market.

3. Certifying Small-Scale Farmers in Indonesia, 2011–2016

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 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. The WWF helped farmers form groups, learn new practices, and increase their returns as they came into compliance. In July 2013, the WWF pilot group became the first independent small-scale farmers in Indonesia to win certification 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. (For more detail, see the ISS case study Forest-Friendly Palm Production: Certifying Small-Scale Farmers in Indonesia, 2011–2016.)

Takeaways:

- The group certification model lowered the costs associated with outreach to smallholders. Knowledge about the RSPO spread through word of mouth. After seeing how certification benefited the initial 349 farmers, more farmers joined the association, and by 2016, the group had expanded to 501 farmers.
- One challenge was ensuring that farmers had clear title to the land that they planted. Confusion in the land registration system slowed progress.
- Small producers often could not afford the initial investments required to change their cultivation practices. In this case, external support from the RSPO and WWF for training, infrastructure investments, and audit fees facilitated the recruitment of new farmers and ensured they could meet the RSPO standard. The approach taken created a possible model for other sectors and other countries.
- Linking the smallholder group with a single, nearby, buyer (typically a processing mill) reduced price risks for the farmers and guaranteed that the mill had a steady source of certified product.
- Crop characteristics and industry structure made participation a hard sell. There was no discernible difference in crop quality between sustainably produced palm oil and unsustainably produced palm oil. Further, many of the consumers in Asia and other regions favored low prices over sustainability.

4. The Round Table on Responsible Soy in Brazil, 2005–2017

In the early 2000s, deforestation accelerated in Brazil's Amazon rainforest, and global environmental groups began to raise the alarm. Greenpeace, one of the most vocal groups, published a report that placed the blame partly on the soy industry, which had grown rapidly in Brazil, Argentina, and Paraguay. In response, industry representatives joined with nongovernmental organizations, financial institutions, supermarkets, and others in the soy supply chain to form the Roundtable on Responsible Soy (RTRS). Following the model of the Roundtable on Sustainable Palm Oil, which worked to transform the environmentally destructive palm oil industry in Southeast Asia, the RTRS wanted to implement a supply chain certification system to help identify whether harvests came from land deforested without regard for environmental impact and nudge soy farmers into a new era of sustainable production. The roundtable participants successfully developed a standard for responsible practices, and enrolled a number of large farm enterprises. But low demand for certified soy and the high cost of becoming

certified slowed progress, especially among smaller producers. As of 2017, less than 1% of soy produced in Brazil was RTRS certified, and uncertified landholders continued to convert important natural ecosystems into soy farms. Although the RTRS succeeded in bringing together key players in the soy industry to talk about sustainability for the first time, it was clear that complementary efforts were necessary to shift the soy industry as a whole toward environmentally friendly production. (For more detail see the ISS case study A Step Toward Supply Chain Sustainability: The Round Table on Responsible Soy in Brazil, 2005 – 2017.)

Takeaways:

- The large farms that adopted certification benefited from improved management practices and the initial price premiums for certified soy. Smaller farms could not overcome the initial investment barriers without external assistance and support. They were also less likely to maintain certification without a price premium.
- Developing a market for sustainable soy proved more challenging than anticipated. Because soy is typically an ingredient in processed foods rather than a consumer product in itself, certification labeling had less impact than on coffee or tea.
- Becoming legally compliant with existing labor, agricultural, and forestry laws was a strong enticement for farmers to earn certification, because it reduced the chances of their being fined by the government for violations. But the incentive to participate remained low when law enforcement was weak.

5. Introducing Sustainable Cattle Certification in Brazil, 2009–2016

In 2009, after environmental action group Greenpeace labeled cattle ranching in Brazil as the biggest cause of deforestation worldwide, the country's giant beef industry was on the defensive. For many years, ranchers and land speculators had illegally cleared the Amazon rain forest and other important ecosystems to satisfy demand for beef. Amid calls for change, the Sustainable Agriculture Network (SAN), a global alliance of environmental organizations, created a certification system designed to encourage the adoption of sustainable ranching practices and foster a market for forest-friendly beef and leather products. After some early success—getting certified beef onto the shelves of a major supermarket chain—the initiative stalled. Few consumers and corporations cared about where the beef they bought came from, and ranchers were reluctant to change their ways in the absence of significant financial incentives. By late 2016, only a handful of ranchers, whose combined holdings represented a tiny fraction of 1% of Brazil's pastureland, had received certification. However, the program succeeded in developing niche markets for certified beef, and proponents expressed hopes for more gains as consumers became more interested in the sustainability of food production. (For more detail, see the ISS case study A

Drive to Protect Forests: Introducing Sustainable Cattle Certification in Brazil, 2009-2016.)

Takeaways:

- The first few farms that adopted SAN standards saw productivity and profit improve. These successful models helped make the case for adopting the standards. But the high upfront costs of meeting the SAN standards meant that only a few large ranches were able to make the investments required to join the system.
- Retailer partnerships with Carrefour-Brazil and Gucci helped to establish a niche market for sustainable beef and leather. But without greater consumer demand for the more expensive certified products, SAN could not guarantee a price premium for producers.
- The market for certified cattle products was very small because 80% of Brazilian beef was use locally, and Brazilian consumers showed little interest in purchasing certified beef. It was easier to gain traction in commodities exported to industrial countries than in commodities domestically consumed or purchased mainly by consumers in poorer countries.
- In order to recruit producers, certification systems need to consider applying different standards or approaches to dealing with large producers that are often already the top performers in an industry and smallholders who are typically struggling. The SAN attempted to apply the same criteria to both groups of ranchers in Brazil and struggled to achieve sufficient uptake.

LARGER LESSONS

For the signers of the 2015 agreement, formally called the Zanzibar Declaration on Illegal Trade in Timber and Other Forest Products, voluntary certification systems are likely to have more utility in some sectors than others. The policy community also needs to adapt further to reach smaller, poorer landholders.

- The chances of success with voluntary certification are highest where a few big producers with a sense of corporate social responsibility dominate—or where smallholders are already organized and the benefits of participation exceed the costs.
- The cost to the smallholder varies with several things, including the scope and complexity of the standards, whether consumers can distinguish differences in quality or are willing to pay more for sustainable production, and the ability to keep the costs of compliance low.
- A successful voluntary compliance system further depends on building a cooperative relationship with key industry players. For example, in Colombia the Rainforest Alliance benefited from a

strong relationship with the National Federation of Coffee Growers, but in Brazil the Roundtable on Responsible Soy's poor relationship with industry associations hampered progress.

In early 2017 the Sustainable Agriculture Network (SAN) concluded that voluntary certification was too complex, too difficult to scale, and too expensive to monitor relative to the gains the system provided to farmers.[2] The environmental coalition decided to seek new approaches, after more than 20 years of experimentation with certification systems. But future policies are likely to involve some of the key elements of the arrangements SAN and others have set up. Three trends are on the horizon.

- As the problems associated with deforestation intensify, it is likely that voluntary compliance will yield to legally mandatory standards. New laws that selectively limit or ban some practices will make it more costly to opt out, as it has in the case of the Kimberley Process Certification Scheme, the industry-managed regime that governs gem diamonds. The prior work done to organize voluntary compliance, focused on developing systems that are economically rational, will enable producers to adapt more easily and more quickly when this change takes place.
- Some countries have started to focus enforcement of forest protection laws on jurisdictions, not individual producers. This approach is easier for governments to manage, but it shifts the burden for building compliance onto communities within a targeted area. Under this approach, governments may fine companies that purchase commodities from areas where the observed rate of deforestation exceeds legal levels. Large businesses then have an incentive to monitor their supply chains, not just because they may have to pay a fine if they purchase commodities that originated in a blacklisted area, but also because the banks with which they do business may also face penalties and decline to run that risk. In order to escape the blacklist—the determination that a whole jurisdiction is suspect—landholders will have to persuade one another to abide by sustainability standards. The voluntary certification experiments provide these communities with a model for action.
- In a quest to reduce the impact of supply chain certification on poor farmers who just scrape by, a few jurisdictions have started both to help reduce compliance costs and to provide payments for environmental services when it is hard to secure a premium for sustainable production. This approach helps align compliance with economic rationality, but it requires a source of finance—from a carbon tax, for example—as well as ability to adjust for changing market prices.

To the extent that large agribusiness contracts with smallholders to produce part of the harvest, as in the Kenya tea case or the example of so-

called "scheme smallholders" in Indonesia, the prospects of success may rise, because the large firm is in a position to coordinate less expensively, help producers realize economies of scale, and market sustainable products more effectively. No certification system has been able to include the poorest, least technologically advanced farms, and teaming with larger companies in this way may be an effective avenue in these instances.

References

[1] Chatham House Illegal Logging Portal accessed at https://www.illegal-logging.info/regions/uganda

[2] See "SAN abandons certification," accessed at https://sustainableagriculturenetwork.squarespace.com/blog/2017/11/10/it-is-time-to-recognize-the-limits-of-agriculture-certification