

# Understanding ‘Deforestation-Free’: An Application to Indonesia to Inform TFD’s April-May 2015 Dialogue

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# Executive Summary

Global economic integration and deregulation have diminished state control over corporations. This has motivated civil society groups to push for alternative “self” and “multi-stakeholder” regulatory approaches to manage corporate conduct. NGOs and advocacy organizations have used consumer awareness campaigns to pressure companies to acknowledge their responsibility for the social and environmental impacts of their economic activities. Such initiatives began in developed countries with high-profile campaigns focused on issues like labor standards and sustainable timber sourcing, but more recently initiatives have expanded to key emerging countries. These campaigns are increasingly assisted by new technologies that help produce information (e.g. cheap satellite imagery, tracking devices) and transmit it rapidly (e.g. social media).

The deforestation-free movement is one example of NGO efforts to find a way to improve corporate conduct in the absence of government regulation. In response to pressure from NGOs, or in partnership with them, a number of companies have launched commitments to eradicate deforestation from their operations and supply chains. The movement has developed rapidly over the past few years, and many observers now consider it to be one of the most promising approaches for reducing deforestation worldwide. Indonesia plays a central role in this context. It contains some of the world’s largest tropical forests, but it also has one of the world’s highest deforestation rates. Deforestation-free policies that target Indonesian commodity producers and efforts to implement policies thus far make Indonesia an important trial ground for deforestation-free efforts. Further, while deforestation-free commitments began as private sector initiatives, they will require the involvement of governments to construct regulatory environments that can support their implementation. Indonesian government policies offer examples of both viable strategies for effecting forest conservation as well as significant barriers to implementation.

There are real opportunities to reform business and social practices in Indonesia in ways that could help reduce deforestation, particularly in the context of the oil palm and pulp and paper sectors, which are responsible for much of the forest conversion that has taken place in the country. A number of companies have already invested resources in altering their business models and investment approaches to implement deforestation-free principles. Interesting developments are at play with the application and ongoing refinement of the high carbon stock (HCS) approach and the High Conservation Value (HCV) tool for demarcating conservation forest zones, consultations with rural communities, and acknowledgment that peatland requires specific management strategies. In addition, a number of processes have been launched to drive multi-stakeholder discussion around implementation.

A number of issues will need to be clarified to ensure that the deforestation-free movement is effective in reducing forest loss:

1. Deforestation-free commitments are not always clear on whether they pledge zero net deforestation or zero gross deforestation. **Scopes need to be clarified** to enable effective monitoring and verification, and a discussion needs to be had regarding whether net or gross commitments are most appropriate and whether different targets are most appropriate for different types of stakeholders.
2. The **definition of “forest,”** and in turn which actions constitute deforestation, need to be agreed. At present, companies typically use the HCS approach and the HCV tool to identify no-go areas. But there are challenges with both and questions about how best to harmonize them. A critical question is how the application of these instruments will be audited to assure downstream supply chain actors that commitments are being met.
3. In terms of implementation, an important observation is that **scale matters**. At this point, most corporate pledges concern companies’ supply chains. While this narrow focus was prompted by a lack of action on the part of governments to regulate on a jurisdictional basis, it may not be sufficient to significantly reduce deforestation globally because of leakage problems. First, non-pledging companies could continue to deforest to expand commodity production and pick up the “slack” left by pledging companies. Second, deforestation may continue due to drivers other than conversion of forests for agriculture. A jurisdictional or landscape deforestation-free approach may ultimately be needed to address this problem. Either of these would involve tighter collaborations between the private and public sectors and civil society actors, but care would need to be taken to ensure that individual responsibilities are not diluted by overly broad targets.
4. The **role of government** is a cross-cutting issue. The private sector-led deforestation-free movement will

need to better engage governments, not simply to scale up beneficial impacts, but to ensure the success of private sector policies in the first place. In Indonesia, for example, the legal framework is not fully supportive of, and in some instances a hindrance to achieving deforestation-free policies. The abandoned land policy that discourages virtuous companies from setting aside land for conservation is a particularly poignant example of the need to bring governments on board with the deforestation-free movement.

5. **Weak public governance** is a particularly important challenge in a number of countries with high rates of deforestation. Beyond the challenge this poses to scaling up deforestation-free to the jurisdictional or landscape level, weak governance impedes the ability of companies to meet their deforestation-free commitments. Major challenges involve continuing uncertainties regarding community land tenure and the rising importance (especially in Indonesia) of forest conversion by smallholders. These stakeholders are important to consider in two contexts: those that supply companies that have adopted deforestation-free commitments need to be audited to ensure that they are complying with those commitments; others who encroach on the boundaries of concessions managed by companies with commitments, whether legitimately by communities lacking official recognition of their rights or illegally by actors including migrants, need to be deterred and presented with alternative sources of income. Despite the Indonesian government's clear support for the protection of local rights, these rights continue to go unenforced. Companies often find themselves in positions where they are unable to secure the boundaries of their concessions and meet their deforestation-free pledges.
6. The **impacts that commitments may have on smallholders** are insufficiently understood. Large companies with economies of scale are better equipped to make and implement deforestation-free commitments, and there is a risk that smallholders and community land managers may lose access to premium markets. Another risk is that large areas of set aside land and increased activity on degraded land could reduce community access to forest areas on which they depend for their livelihoods. Beyond clarifying land rights, a possible way forward could be to provide a degree of flexibility within deforestation-free commitments to enable limited forest conversion in certain circumstances in order to accommodate community rights. In addition, incentive schemes designed to promote the inclusion of smallholders into international supply chains and improved benefit-sharing schemes could transform smallholders into deforestation-free partners as opposed to obstacles requiring management.
7. The issue of **deforestation legacies** is critical. Most of the companies that have announced deforestation-free commitments are implicated in historical deforestation, including Indonesian companies responsible for massive conversion of primary forests in Sumatra and Kalimantan. These legacies must be addressed as part of companies' efforts to make good on their deforestation-free commitments. However, a balance needs to be struck between rewarding historic deforesters for successfully implementing deforestation-free policies and holding them accountable for past actions. One option is to encourage investment in restoration, especially given the system of Ecosystem Restoration Concessions that the Indonesian government created, which allows companies to manage degraded areas so as to restore ecosystem services.

This background paper considers the evolution of deforestation-free standards and some of the definitions they use, the problems associated with on-the-ground implementation of commitments, and potentially major obstacles in the form of weak governance, insecure land tenure, and an insufficiently supportive legal framework. But there remains work to be done in assessing the positive and negative direct and indirect effects of these policies. First, there is a capacity gap within companies that have made deforestation-free pledges, which suggests that full implementation will likely take some time; pledges are made by management-level employees, but implementation will require involvement, understanding, and support at all levels of each company. Second, there are as yet uncertain implications for supply chains actors in terms of how costs (including payment for traceability measures) and risks will be distributed, and how local people will be impacted. Trade-offs will need to be understood and resolved in a transparent and inclusive manner if the deforestation-free movement is to be deemed credible going forward.

# 1 Introduction

Global economic integration and deregulation have diminished state control over corporations. This has motivated civil society groups to push for alternative “self” and “multi-stakeholder” regulatory approaches to manage corporate conduct. NGOs and advocacy organizations have used consumer awareness campaigns to pressure companies to acknowledge their responsibility for the social and environmental impacts of their economic activities. Such initiatives began in developed countries with high-profile campaigns focused on issues like labor standards and sustainable timber sourcing, but more recently initiatives have expanded to key emerging countries. This trend is supported by new technologies that help produce information (e.g. cheap satellite imagery, tracking devices) and transmit it rapidly (e.g. social media).

The deforestation-free movement is one example of NGO efforts to find a way to improve corporate conduct in the absence of government regulation. Deforestation has remained high on the international agenda since the failed attempt to negotiate a binding forest convention at the 1992 Rio Earth Summit, but numerous attempts to address the issue so far have yielded limited impacts on the ground. Forest cover continues to be lost, driven primarily by the production of agricultural commodities by corporations and smallholders. A number of tropical developing countries have particularly high deforestation rates, which is especially concerning because of the importance of tropical forests for climate change mitigation, maintenance of habitat for biodiversity, and provision of ecosystem services. Recent data suggest that some developed countries are experiencing deforestation at high rates as well (Sizer et al. 2015).

In the context of these dynamics, private sector actors have announced a large and increasing number of commitments to eradicate deforestation from their supply chains (Fishman 2014). Many now consider the deforestation-free movement to be one of the most promising approaches to halting deforestation worldwide. While led by the private sector, the movement also involves governments, which are critical to creating regulatory environments that can facilitate private commitments. Some governments have also made commitments of their own.

In 2010, Nestlé became the first company to make a deforestation-free pledge. It has been followed by over 50 other commercial giants, including Golden Agri Resources (GAR), Asia Pulp & Paper (APP), L’Oréal, McDonalds, and Walmart (Fishman 2014) as well as companies comprising 96% of the global trade in palm oil (Mongabay.com 2015, citing Forest Heroes). Companies that have announced commitments to date include those that produce agricultural commodities such as palm oil, beef, and forest products; commodity processors and traders; food companies; consumer goods manufacturers; retailers; and financiers (Peters-Stanley et al. 2015).

This paper presents the concept of the deforestation-free commitment, and some of the issues – both conceptual and technical – that it raises. These include challenges associated with monitoring and verification, implications for local populations, and the scope needed for effective change. While the deforestation-free movement has been driven largely by private actions to date, it is likely to create substantial space for public action, so the paper will address the role of governments in effecting a deforestation-free future as well.

The paper’s geographic emphasis reflects the Indonesia-focus of TFD’s April-May 2015 dialogue. Indonesia contains some of the world’s largest tropical forests, but it also has one of the world’s highest deforestation rates. Deforestation-free policies that target Indonesian commodity producers, efforts to implement policies thus far, and government actions that both support and hinder implementation make Indonesia an important trial ground for deforestation-free efforts. This paper examines the circumstances at play in Indonesia, taking into account the historical background, political economy, and realities on the ground. It provides special consideration of developments in the two industrial sectors responsible for much of the deforestation to date in the country: oil palm and pulp and paper.

## 2 Trends concerning private governance of deforestation

### 2.1 The evolving nature of market-based governance initiatives and their limits

Over the past few decades, NGOs, corporations, and international development agencies developed market-based certification mechanisms to promote “good” social and environmental practices in numerous sectors, including both oil palm and pulp and paper. The first such mechanism to address the environmental externalities of oil palm agriculture was the Roundtable on Sustainable Palm Oil (RSPO), established in 2003. This multi-stakeholder body represents a business-to-business approach to address the environmental and social impacts of oil palm cultivation, informed by inputs from civil society and public interest groups. Today, the RSPO has more than 1,631 members worldwide, and it covered 18% of global production in 2014 (RSPO 2014). Although it has been slow to gain traction among a broad range of Indonesian growers, the RSPO’s membership continues to grow, in particular among downstream stakeholders such as retailers and manufacturers. However, it is criticized due to weak compliance among some of its members, and insufficient enforcement. Further, some question whether its rapidly expanding membership is simply a result of the limited financial demands that its standards impose, and the flexibility it allows for companies to purchase GreenPalm certificates rather than certifying their palm oil.

Other certification standards have also emerged for palm oil. These include the International Sustainability and Carbon Certification standard, a certification system used to demonstrate compliance with the European Renewable Energy Directive, the Indonesian Sustainable Palm Oil System with which Indonesia’s government mandated all national producers to comply in 2014, and the three-year-old Sustainable Agriculture Network standard. The recently created Palm Oil Innovation Group seeks to go above and beyond the RSPO by setting ambitious standards that break the link between palm oil and negative environmental and social impacts, in particular deforestation.

Certification in the forestry sector developed in the 1990s after timber production began to be widely seen as driving forest degradation (through wood extraction from natural forests) and to a lesser extent deforestation (through replacement of natural forests with timber plantations). The Forest Stewardship Council (FSC) was the first certification scheme to emerge, and it helped pioneer requirements for stakeholder consultation and transparency as components of the certification process. Other certification schemes such as the Programme for the Endorsement of Forest Certification (PEFC) have since helped develop similar requirements. These have become critical and contentious elements in the implementation of deforestation-free policies. While the FSC focused initially on avoided natural forest degradation, it later adopted rules that essentially ban certification of plantations that were converted from natural forests after 1994. This common cut-off date for forest conversion eliminates the possibility for individual companies to set their own deforestation baselines, and establishes the basis for determining responsibility for rectifying legacy deforestation. Legacy deforestation will have to be addressed in the context of an Indonesian forest landscape that has already been highly reduced and fragmented by past conversion.

Despite these and other existing standards, NGOs and consumers have continued to press for more change. Standards like the RSPO are deemed insufficient to end deforestation brought on by oil palm cultivation. Forest certification standards like those of the FSC and PEFC have little impact when forests are converted to non-forest uses. Targeted deforestation-free policies are intended to fill these gaps, and have made major inroads at multiple levels of commodity supply chains. Companies with commitments now include commodity growers (including GAR, APP, and APRIL), traders (including Wilmar and Cargill), purchasers (including Nestlé, Mars, Unilever, and Krispy Kreme), and retailers (including Walmart, Safeway, and Carrefour).

### 2.2 Zero, zero gross, zero net ... where is the trend and why does it matter?

The large number of commitments and the short timespan in which they have been announced have contributed to the confusion that exists around some key terms. It may also be that some companies prefer to maintain some ambiguity in their commitments in order to enjoy the flexibility to adapt implementation based on the challenges they encounter.

Four main terms have been used to characterize different commitments to eradicate deforestation from supply chains. “Deforestation-free” (also “zero deforestation” or “no deforestation”), is the most widely used term. It is also the most ambiguous since it does not, without further elaboration, indicate whether “deforestation” refers to gross or net deforestation.

“Zero gross deforestation” is a more specific term, denoting that no natural forests may be converted to other land uses. If forests elsewhere are afforested or reforested, they cannot be used to compensate for lost forest area for purposes of determining whether deforestation has occurred. Whether replacement of natural forests with planted forests constitutes gross deforestation depends on the definition of “forest” that a particular zero gross deforestation commitment adopts. Most commitments made by Indonesian companies and many that impact Indonesia commodity producers take the “gross” approach.

“Zero net deforestation” is a more complex standard. The idea that conversion of a natural forest in one location can be offset by additional forest cover in another location poses a number of challenges. For instance, it may be difficult to prove that the additional forest cover is attributable to the efforts of the deforesting entity, and to avoid double-counting when multiple requirements to increase forest cover overlap. It is also not yet clear how to determine whether compensating forest areas are comparable to converted forest areas in terms of ecosystem services, and it may be problematic if certain regions lose forest cover in favor of other regions. Zero net deforestation is often advanced as a jurisdictional or landscape target rather than as a supply chain target, but these complications could nonetheless introduce substantial transaction costs that might limit its feasibility from a monitoring and verification perspective. The advantage of a net approach, however, is that it affords flexibility to land managers to pursue economic development where it would be most efficient while conserving forests with lower marginal economic land values. The difference between gross and net deforestation can be huge. The UN Food and Agriculture Organization (FAO) estimates annual net deforestation at 7 million ha and annual gross deforestation at 13 million ha.

A fourth term, “zero illegal deforestation,” is typically the least restrictive of the various forms of deforestation-free commitments. Unless a jurisdiction prohibits forest conversion, it may not further deforestation-free objectives at all; rather, it requires only that legal requirements be met. Still, it can be a difficult standard to meet, especially in countries like Indonesia that have large numbers of laws and regulations that sometimes conflict. It can often be extremely difficult to prove the legality of a given unit of commodities, especially when the supply chain that produced them is long and when numerous actors participate at each node of the chain.

Regardless of the particular term used, the emphasis of deforestation-free commitments is on forests. Agricultural commodities produced on land that was not previously classified as forested are not automatically subject to these commitments, meaning that other sensitive land types such as Cerrado and Miombo could still be converted if not specifically addressed in commitments. In fact, pressure on these ecosystems could increase if forestland becomes increasingly unavailable for commodity production. In Indonesia, peatlands – which may or may not support trees – are increasingly at risk, and serve as particularly important greenhouse gas sinks that are released to the atmosphere when drained and burned to make way for plantations. Many deforestation-free commitments that affect Indonesia specify the inclusion of peatlands in their scope, but commitments that affect countries with other sensitive biomes less frequently specify these land types. The ostensible focus of deforestation-free commitments on forests may pose challenges in the future.

# 3 Key issues on the path to realizing deforestation-free

This section analyzes a number of issues that are crucial to consider in implementing deforestation-free pledges.

## 3.1 Definition of “forest”: More than a detail?

The previous section describes the various permutations of the terms used to characterize pledges to eradicate deforestation from supply chains. In addition to understanding whether a commitment refers to gross, net, or illegal deforestation, it is important to understand the commitment’s operational definition of a forest, as this determines what qualifies as “deforestation.”

Debates over how to define “forest” have been going on for a long time; deforestation-free pledges are just the most recent field in which this definition question has arisen. Forests are variously understood as groupings of trees, property, landscape features, economic resources, locations of cultural importance, and many other things. A single definition cannot hope to reflect such a wide range of meaning, and in the case of deforestation-free, is further constrained by the need to be subjectable to objective measurement. The FAO, for statistical purposes, long ago created its own definition: a vegetation type with trees taller than 5 meters and crown cover greater than 10% that covers more than half a hectare. Although this definition is implied every time FAO data is cited, it is just one among more than one hundred definitions used around the world, and deforestation-free commitments typically do not reference this definition.

There appears to be convergence around defining “forest,” for purposes of deforestation-free commitments, through use of the High Conservation Value (HCV) tool and high carbon stock (HCS) approach.<sup>2</sup> HCV has a longer history. It was developed by the FSC in 1999 for use in forest management certification as a tool for identifying forest areas with special value that require strong protection. An HCV Resource Network brings stakeholders together and promotes the concept worldwide by providing technical support and guidance on implementation across all sectors. It also recently introduced an assessor licensing scheme to promote quality control. The HCV concept encompasses six main forest values: biodiversity; interactions with and contributions to landscapes or larger ecosystems, habitat, or refuges; basic ecosystem services; vital resources for local populations; and cultural or historical significance. The HCV tool is highly regarded for its ability to recognize a broad range of values held by stakeholders with varying conceptions of and relationships to forests. However, it was not designed to address forest conversion for agriculture or to inform land-use planning decisions as to which areas might be most appropriate for conversion. Actors who convert forests to non-forest plantations are not eligible for FSC certification, which assumes that the land being managed will continue to be forestland. Further, many HCV assessments are shoddily done, particularly in places like Indonesia where price competition is undermining quality.

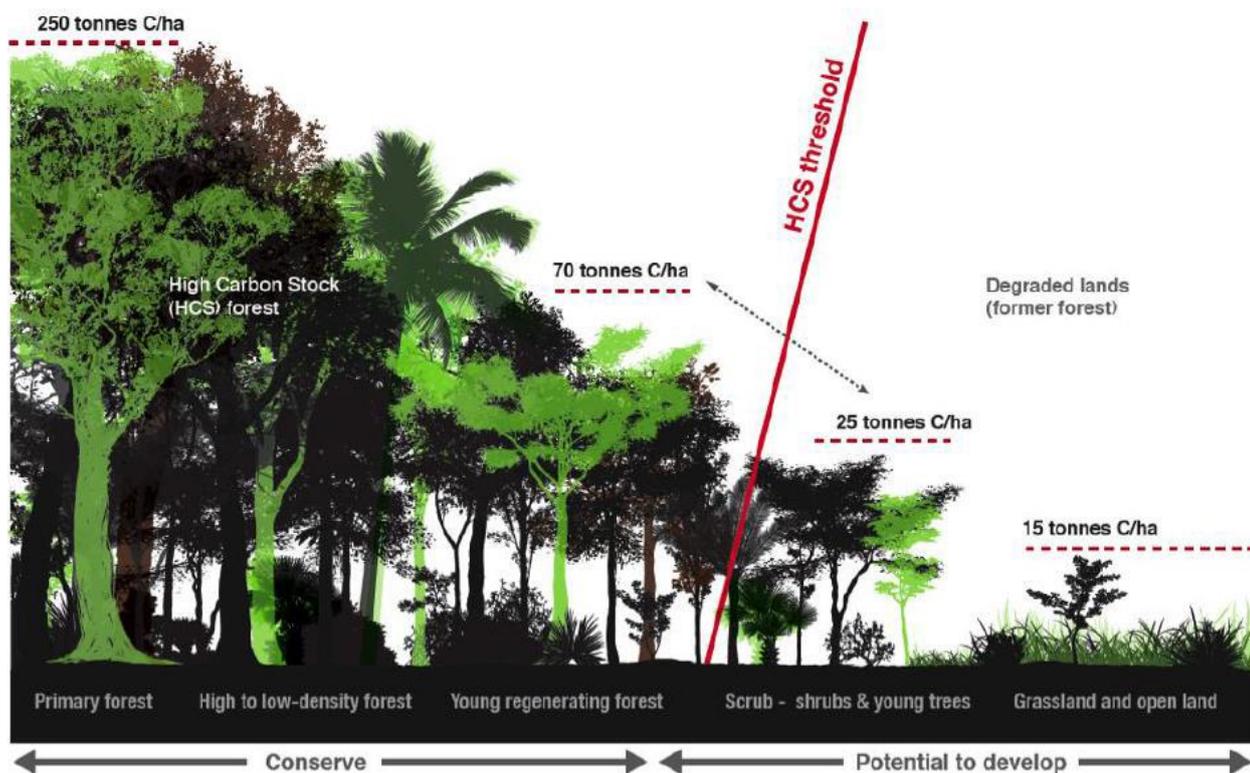
To address this gap, Golden Agri Resources (GAR), Greenpeace, and The Forest Trust (TFT) developed the HCS approach in 2011. Despite the centrality of “carbon” in its name, HCS brings together carbon considerations with biodiversity and social considerations to determine which areas must not be cleared of forest cover. Carbon measurement does play a key role, however, by approximating the condition, density, and structure of vegetation to avoid the need for more expensive measurements. Under the HCS approach, the carbon content of above-ground vegetation with stems above 5 cm in diameter at breast height serves as the basis for classifying vegetation types on a spectrum from high-density forests to scrub and open land, as represented in Figure 1. The HCS Approach Steering Group has developed a toolkit that provides guidance on implementation of the HCS approach.<sup>3</sup> Developed in Indonesia, this approach is currently designed to work in the humid tropics on mineral soils, but its application is in the process of being adapted to other contexts.

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<sup>2</sup> L’Oréal’s deforestation-free commitment provides an example: “As part of its ‘zero deforestation’ commitment by 2020 ... L’Oréal commits to ultimately work with suppliers whose responsible practices can guarantee ... the conservation and restoration of High Conservation Value and High Carbon stocks Areas [sic] when expanding palm plantations” (CDP 2014).

<sup>3</sup> <http://highcarbonstock.org/the-hcs-approach-toolkit/>.

**Figure 1.** HCS vegetation classifications



Source:

Source: Greenpeace, Mar. 10, 2014. "The HCS Approach: No Deforestation in Practice,"

[http://www.greenpeace.org/international/Global/international/briefings/forests/2014/HCS%20Approach\\_Breifer\\_March2014.pdf](http://www.greenpeace.org/international/Global/international/briefings/forests/2014/HCS%20Approach_Breifer_March2014.pdf)

In mid-September 2014, a separate group of major palm oil producers comprising the Sustainable Palm Oil Manifesto (SPOM) group – Sime Darby, Asian Agri, IOI Corporation, Kuala Lumpur Kepong, Wilmar, and Musim Mas – announced a voluntary moratorium on clearance of HCS areas while it awaits the results of a study it commissioned to determine the threshold for designating HCS areas. The RSPO has also progressed with work on HCS via its Emissions Reduction Working Group. To a degree, these approaches compete for legitimacy in the marketplace. They distinguish themselves based on their origins (the RSPO is industry-driven, the SPOM group is dominated by a subset of companies, and the original HCS developers are multi-stakeholder), the details of how they address key issues such as deforestation and peatland development, and the ways in which they implement and monitor progress against commitments. The Indonesian Chamber of Commerce (KADIN) and the government appear to be pushing for convergence between these approaches, and the various players have committed to collaborate.

The definitional challenges confronting deforestation-free pledges are similar to those faced by the single-commodity certification standards that preceded them, but the challenges are made more complex by the multi-commodity nature of deforestation-free commitments. This issue creates significant uncertainty regarding the potential economic and social impacts of these commitments, which may present major concerns for governments. Many national governments are looking to adopt "green growth" and sustainable landscape management strategies, particularly in agricultural sectors that both significantly impact the environment and contribute to poverty alleviation and rural development. As a result, governments may want to keep a firm grip on land-use decisions to control the trade-offs they entail.

Another effect of the multiple standards that are emerging, the variety of terms used to communicate them, and their non-integration with national regulation is that there is confusion in the market that has limited uptake of deforestation-free commitments among supply chain stakeholders. Engagement in capacity building varies between companies, commodities, and importantly, across supply chains. Achieving sector-wide change may require a consolidation of standards that feature an agreed set of key performance indicators that would account for both the environmental and social aspects of deforestation-free commitments. It may also require governments, industry,

and civil society to coordinate their efforts beyond simply agreeing on standards, for instance to develop mechanisms to ensure that more growers are able to participate in deforestation-free supply chains. Some commentators argue, however, that a one-standard approach would be problematic because it would lack sufficient flexibility to address diverse conditions on the ground and legal frameworks. There is a trade-off between having one common standard with universally agreed rules and relatively low monitoring costs versus having a palette of options that are tailored to particular circumstances.

A critical implication of whatever definition is chosen for “forest” is the degree of reforestation that historical deforesters will be required to undertake. Many observers have underscored the importance of addressing legacies of deforestation as part of company commitments to delink their supply chains from deforestation. But no clear path has yet been developed to guide companies in rectifying these legacies. Overly stringent demands would dissuade key actors from going deforestation-free, while overly accommodating standards could affect the credibility of the deforestation-free movement and encourage additional environmental damage before companies decide to convert their operations to a model that does not require additional forest loss.

### 3.2 Legal frameworks as potential barriers

The Indonesian government has taken a number of steps to promote forest conservation. For example, the regulations governing timber plantations require concessionaires to set aside about 10% of their concession for conservation purposes (such as riparian buffers) and another 20% for other purposes (such as native species plantations and infrastructure). Only about 70% of the total concession area, then, may be used for industrial plantation activities. Other regulations forbid plantation concessions from being allocated on land with productive forests (i.e., forests that contain over 20 cubic meters of commercial wood per hectare). The government has indicated its support for further improving forest sector governance by imposing a two-year moratorium in 2011 (and renewing it at least once so far) on issuing new licenses for companies to operate in primary natural forest areas.

While regulations such as these provide some legal support for conservation, others impede the implementation of deforestation-free policies. For example, companies with timber concessions on public land pay taxes based either on their production or the size of the concession. Where taxes are production-based, the government’s interest is to see companies maximize their use of the concession so as to generate more volume that can be taxed, and it requires minimum establishment levels for plantations and/or production levels. This is one reason why Conservation International pushed a few years ago for the concept of “Conservation Concessions,” whereby NGOs would acquire concessions rights and pay the government the foregone revenues when conservation takes place instead of production.

As minimally protective of natural forests as the above regulations may be, the oil palm sector is not even subject to these rules. Concessions are allocated on land classified as “conversion production forests” (that are allocated for agriculture), “areas for other uses,” or “non-forestry cultivation areas,” which are governed by a different set of regulations. The Forest Peoples Programme has identified a number of deficiencies in these regulations, which stand in the way of deforestation-free objectives. For instance, one regulation enables the government to excise areas from concessions that have not been cleared within a minimum time period and reallocate them to other companies. Some RSPO-certified companies have, as a result, conducted HCV assessments and subsequently released the identified HCV areas from their concession permits, which the government then reallocated to other non-certified companies that had not committed to conserving such areas. In other cases, certified companies had planned to retain control of HCV areas and set them aside, but the government released these areas from their concessions in order to allocate them to non-certified companies. In still other instances, companies have lost their licenses because the lengthy HVC assessment process meant that they were not able to develop their land within the required timeframe (Colchester et al. 2009, 2011).

Forest sector actors exist within a regulatory context that defines their operational parameters. Deforestation-free commitments can only be met to the extent that they fit within these parameters. Regulations that restrict set asides within concessions on public land are clearly contrary to the deforestation-free agenda. The government, then, will need to be a key player in enabling action to implement corporate deforestation-free policies.

### 3.3 Verification and monitoring

Voluntary corporate standards of conduct require clear, measurable targets that can be monitored and verified if they are to play a significant role in changing industry practices. This enables firms to know what they are committing to, stakeholders such as investors and retailers to make informed decisions about the companies they are supporting and the products they are stocking, and consumers to be assured that their purchases are not indirectly causing any harm. Standards such as those administered by the FSC, the PEFC, and the RSPO contain sets of principles and criteria that are accompanied by indicators that help practitioners meet their commitments. Deforestation-free commitments, however, have been developed on a company-by-company basis. Lacking an agreed deforestation-free standard, some commitments include indicators while others do not, and some indicators are more specific than others.

Two primary arguments in favor of standardized key performance indicators (KPIs) that apply across sectors emerged during TFD's scoping dialogue on deforestation-free in 2014. First, "companies need clear targets to aim for, both to give them the confidence to make deforestation-free commitments to begin with and to facilitate implementation." In addition, "investors—who are increasingly concerned with the origins of the commodities that serve as inputs to the businesses they invest in—are demanding increasing amounts of information to fill the gaps left by current certification schemes, and unprecedented levels of transparency." Standardized KPIs would enable investors to compare deforestation-related performance across companies within a sector and across sectors (Beckham et al. 2014). Scoping dialogue participants also noted, however, that uniform metrics would make it more difficult to address variations in terms of ecosystems, drivers of deforestation, actors involved in forest conversion, and underlying tenure dynamics. In addition, standardized KPIs might stand in the way of companies wishing to implement commitments that go beyond the established standard baseline (Beckham et al. 2014).

When it comes to verifying progress toward meeting deforestation-free standards, there is a trade-off between simple and low-cost, but rough systems, versus more sophisticated and comprehensive tools that involve higher costs. Verification procedures could scrutinize every unit of a given commodity, providing a high level of certainty that the supply chain under review is deforestation-free, but the expense would be significant. An alternative approach would be to focus verification efforts on areas deemed at high risk of deforestation, and to use statistical sampling rather than reviewing every production unit. Given the size of commodity markets and the length of supply chains, the latter approach would likely be more feasible at scale, as it would significantly reduce compliance costs for low-risk areas while applying rigorous standards for areas of greater concern.

Currently, monitoring of deforestation-free commitments in the oil palm sector is carried out by contract via consultancy groups such as TFT or auditing firms, or voluntarily by NGOs such as the Forest Peoples Programme and Greenpeace. For example, Greenpeace helped develop the monitoring strategy for GAR's forest conservation policy, and has published progress reports that highlight some areas of progress but stress shortcomings in achieving the policy's social components in both Indonesia and Liberia.<sup>4</sup> The major challenge in extending monitoring across whole sectors is the continued opacity of most supply chains, as disclosure of supplier relationships remains voluntary. Some companies have taken significant steps forward in this regard. For example, Wilmar has begun producing quarterly updates on progress toward meeting its deforestation-free commitment,<sup>5</sup> and it recently announced that it would grant the public access to online maps showing the 800 mills in Indonesia and Malaysia from which it sources palm oil.

The pulp and paper sector may be somewhat easier to monitor in Indonesia. Two primary players—Asia Pulp & Paper (APP) and APRIL—dominate the industry, meaning that there are fewer players, and supply chains are relatively short, as both companies are vertically integrated with subsidiaries owning both plantations and processing facilities. In addition, APP recently launched an online dashboard that facilitates monitoring by providing updated information about the company's operations and grievances that have been filed against it.<sup>6</sup>

Despite advances in transparency and traceability in both the oil palm and pulp and paper sectors, the ability of

<sup>4</sup> See for instance <http://www.greenpeace.org/international/en/publications/Campaign-reports/Forests-Reports/GAR-Progress-Report/>.

<sup>5</sup> <http://www.wilmar-international.com/sustainability/information-resources/>.

<sup>6</sup> <http://www.fcpmonitoring.com>.

actors along commodity supply chains to provide information necessary for effective monitoring and to hire auditors will vary greatly with economies of scale. In particular, smaller third-party suppliers may struggle both financially and in terms of human resource capacity to meet demands to verify that their products are deforestation-free. Emerging platforms such as Global Forest Watch,<sup>7</sup> Supply Change.org (Peters-Stanley et al. 2015), and Forest 500<sup>8</sup> are helping to monitor progress toward meeting commitments at a high level, but other systems will be needed to extend monitoring and verification to small actors.

### 3.4 The first governance challenge: Private-public coordination

The deforestation-free movement got underway when pressure from consumers and NGOs moved companies that deal in commodities implicated in deforestation to commit to cleansing their supply chains of deforestation. Companies were likely motivated by a mix of interests: to do good in the world, to improve their reputations, to gain market share, and perhaps to gain the ability to charge premium prices. Companies have thus far acted largely as individuals in order to secure individual benefits.

While the movement's roots originate in private governance, deforestation is a public concern, and the scale of the problem suggests that government involvement will be needed. Some governments, such as Paraguay and British Columbia (Canada), have gone as far as mandating zero deforestation within their jurisdictions, but at the very least governments have a role to play in creating legal environments that enable deforestation-free policies to be implemented by private actors. In Indonesia, as discussed in section 3.2, a key challenge is to reform laws that stand in the way of deforestation-free objectives. In other countries, as in Indonesia, weak governance is partially to blame for high levels of encroachment into forest areas.

The 2014 New York Declaration on Forests may signal a shift from the current approach, in which multiple actors make individual commitments, toward a more collective approach. The Declaration was a pledge by a large group of companies, governments, NGOs, and other organizations to help “at least halve the rate of loss of natural forests globally by 2020 and strive to end natural forest loss by 2030[, and s]upport and help meet the private-sector goal of eliminating deforestation from the production of agricultural commodities such as palm oil, soy, paper and beef products by no later than 2020.”<sup>9</sup> Many commentators interpret the Declaration as a positive development that has raised the visibility of commodity-driven deforestation at the global level, but the collective approach also bears the risk that commitments may get weaker and that individual responsibilities may become diluted. In the context of the global biodiversity targets within the Convention for Biological Diversity, it was observed that “governance is less of a collective action issue and more of a strategic, conflict-prone policy area, which may mean that global, consensual goals are less suited” (Billé et al. 2010).

Whether or not deforestation-free targets are synchronized at the international scale, it is clear that governments will need to get involved. However, a number of issues need to be addressed if companies are to collaborate effectively with each other and with governments to promote deforestation-free objectives, including: degree of heterogeneity among pledges; willingness of companies to agree to the same standards and rules; capacity to deal with different commodities and supply chains within a single system; and the challenge of avoiding a lowest common denominator approach.

Beyond creating an enabling legal framework that would support companies' decisions to set aside forest areas for conservation, the Indonesian government is the key player that will have to resolve the current system of overlapping concessions. The problem is that the government is not a single entity – overlap exist precisely because concessions have been issued by actors at various levels of government that do not communicate effectively with one another. The government also has a central role in resolving conflicts that have arisen between companies and local populations as a result of uncertainties regarding property rights, and in prosecuting illegal encroachers on protected forest areas. Companies are not equipped to handle these tasks alone. While they are pressed to meet their commitments not to deforest, they have also been criticized for denying communities access to their customary forests. The government has taken an important first step in the form of launching the One Map

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<sup>7</sup> [www.globalforestwatch.org](http://www.globalforestwatch.org).

<sup>8</sup> <http://www.globalcanopy.org/forest500>.

<sup>9</sup> <http://www.un.org/climatechange/summit/wp-content/uploads/sites/2/2014/09/FORESTS-New-York-Declaration-on-Forests.pdf>.

initiative, which aims to harmonize mapping at all levels of the administration to authoritatively resolve the overlaps between permits issued by different official bodies. It has also taken the very earliest steps toward clarifying the rights of local populations (see section 3.5).

### 3.5 The second governance challenge: Thinking beyond supply chains, thinking landscape

Barring a few government deforestation-free commitments, which concern jurisdictions, almost all commitments to date have focused on corporate supply chains. Supply chain commitments can have significant impacts, and have already succeeded in increasing awareness of commodity-driven deforestation. Their achievements are all the more important given the absence of significant action by governments to curb deforestation, and in particular, the slow pace of REDD+ implementation. But the scope of supply chain commitments is relatively narrow, focusing only on actors associated with particular supply chains, and only on deforestation caused by commodity production. A landscape approach would address all actors within particular geographies and all deforestation drivers. Further, it would necessitate government involvement by bringing together corporate commitments with land-use planning, economic development agendas, law enforcement, and regulatory concerns.

The flurry of interest among both companies and governments in the deforestation-free agenda represents an opportunity to move governments to not only enable companies to pursue deforestation-free objectives, but to weave these objectives throughout their policy frameworks. Under a landscape approach, agricultural licenses would only be issued on degraded land, environmental requirements governing land managers would be strengthened, companies would be given latitude to go beyond these minimum environmental requirements, land tenure would be clarified and formalized, and laws would be enforced.

Companies are aware that supply chain commitments cannot solve the deforestation problem alone. A few of the big players in Indonesia have called publicly for the Indonesian government to regulate. This may be an example of the “California effect,” described by David Vogel, whereby progressive companies lobby their governments to require other companies to meet the same standards in order to spread out costs across the industry. If the government were to impose deforestation-free requirements across sectors, first mover companies would benefit from early market recognition for environmentally and socially friendly practices without having to shoulder disproportionate costs.

There is a question about whether efforts to move deforestation-free policies beyond the level of supply chains should focus on landscapes or on jurisdictions as the unit of concern. The benefit of working at the landscape level is that landscapes are often functional ecological units that are best managed as a bloc. For example, management decisions in a particular forest area can have implications for water quantity and quality in downstream areas, and for biodiversity habitat in adjacent tracts of land. Landscapes may be larger or smaller than the jurisdictions that are artificially imposed over them. Especially where they are larger, it may be that they can only be meaningfully managed at the larger scale.

On the other hand, jurisdictions may be the most practical units to manage in the deforestation-free context. Some NGOs, such as the Environmental Defense Fund, have advocated for this approach (Huston 2014). Jurisdictions, by definition, are governed as a unit, meaning that it should be easier (at least in theory) to make decisions than when dealing with a landscape that crosses jurisdictions. Further, if deforestation-free requirements were to be imposed across a jurisdiction, companies operating within it might face less of a burden to audit their supply chains, and deforestation-free efforts might be viewed as more legitimate given their sanctioning by the government. A challenge with this approach, however, which certainly applies in Indonesia, is that it relies on sufficient government capacity to adequately monitor entire jurisdictions and to enforce penalties for impermissible deforestation.

### 3.6 What implications for local populations?

The role of communities and smallholders in the deforestation-free context is not straightforward. On one hand, local actors are potential victims of pledges when marginalized in the process of designing and implementing them. On the other hand, communities and smallholders also drive deforestation through their own livelihood activities. The deforestation-free agenda needs to take an actively pro-community and pro-smallholder approach to ensure both that it does not harm these stakeholders and that local people ultimately contribute to a zero deforestation end result.

The deforestation-free framework presents at least two social challenges: how to proceed in the face of unclear property rights, and how to address negative impacts on local populations.

Unclear property rights and associated conflicts between local populations and companies operating with government-issued licenses are widespread in countries where deforestation-free commitments are to be implemented. In Indonesia, a history of ineffective legal protection of community land rights has led to a situation where concessions often overlap land claimed by communities. A 2013 Supreme Court ruling marked a step toward clarifying these rights by mandating that the state transfer community lands to the private control of indigenous communities. Following this decision, several ministries jointly promulgated a controversial regulation that would release any state forest land that has been controlled and exploited by local people for more than 20 years to those people (Kompas.com 2015). Critics have argued that this could have significant adverse consequences for forest conservation as the regulation would legitimate substantial agricultural expansion into the forest estate. Most recently President Widodo promised to redistribute 9 million ha of land to farmers, although the details of the plan have yet to be announced (Saturi 2015).

Although these developments mark a transition within the government toward recognizing local land rights, tenure insecurity remains problematic and will continue to do so until boundaries are defined and rights are administratively transferred. Tenure insecurity creates several potential challenges. First, communities may be unwilling to set aside land in order to meet deforestation-free objectives if they cannot be certain that the land will not be granted to other actors via concession. Second, deforestation-free commitments may enhance the legitimacy of private companies, as well as their power to exert control over the land, to the detriment of local communities.

At the same time, implementing deforestation-free commitments may be enormously challenging given the difficulty of enforcing concession boundaries against continuing economic activities undertaken by local people. In many cases, plantations were historically the main engine that attracted migrants from elsewhere in Indonesia. As land increasingly becomes set aside under deforestation-free commitments, and as populations increase, less and less land will be available for locals. In this context, local use of forest resources will be viewed by different actors either as pursuit of livelihood activities or as encroachment. From a human rights perspective, there is a strong argument that land should be restored to communities rather than locked up. Further, the conservation effect of set asides is uncertain: much as when a new protected area is designated, exclusion of people could either protect the resource or stimulate encroachment that degrades it. A multi-stakeholder approach will be needed that includes local populations and the local government to determine how to sort out these conflicting interests and to ensure that areas left forested by one actor are not converted by another.

Companies with deforestation-free pledges appreciate that their policies bear implications for local communities. There are in principle two approaches that could be used to protect local rights. One would be to exempt smallholders (with rights to their land) from restrictions on forest conversion. This approach is not prevalent. Most companies, including Indonesian agribusinesses, use the approach of extending forest clearance restrictions to smallholder suppliers, but incorporate free, prior and informed consent (FPIC) guarantees, conflict resolution mechanisms and other assurances that local rights will be protected. Regarding the pulp and paper sector in Indonesia, the main groups have made commitments that also include social aspects in terms of FPIC consultations for newly developed areas and conflict resolution mechanisms. For example, APP's Integrated Sustainable Forest Management Plans require public consultations when making decisions concerning assessments that present contradicting recommendations, such as forest areas that are deemed HCS that also support legitimate claims by local communities.

Despite protections such as these that are embedded into deforestation-free commitments, commitments may still have negative indirect effects on local communities. First, they are typically made without consulting affected communities. Although the feasibility of systematically consulting communities in designing pledges is questionable, the result is nonetheless that communities are left without a voice in shaping the commitments that affect them. Second, commitments are made by companies with high levels of production, significant market share, and relatively strong capacity to undertake changes in their supply chains. Meanwhile, smallholder producers and small and medium enterprises that process commodities often have limited ability to modify their practices or impose traceability mechanisms, and may consequently be excluded from lucrative markets. Tremendous growth in the

small-scale palm oil sector has meant that, according to some estimates, as many as 4 million producers, each tending farms between 1-100 ha, are now growing palm oil. One possible scenario going forward is that green and brown supply chains will segregate, with the small-scale sector being unable to supply deforestation-free markets; instead, they will have to sell to less discriminating downstream actors that will likely offer lower prices. In the event of a sudden drop in demand, they might be severely affected.

It is also possible that deforestation-free pledges could produce local benefits. Indonesia's pulp and paper sector is highly concentrated, with two firms – APP and APRIL – dominating. Together with the ban on the export of unprocessed wood, this oligopoly has dramatically constrained the development of smallholder pulpwood plantations. The results of the national program for smallholder plantation forestry on state forest land (Hutan Tanaman Rakyat, HTR), initiated in 2007, are telling: no more than a few thousand hectares of plantations have been developed despite an official target of 5.4 million ha by 2016. In this context, deforestation-free pledges may present an opportunity to increase the involvement of smallholder plantations for at least two reasons: less concession land will be available for plantation development, and requirements and procedures to engage with local populations may facilitate partnerships and outgrower schemes. In addition, companies with deforestation-free policies that are looking to increase supply to their mills, whether it be wood fiber or palm fruit, will be unable to expand their plantations via deforestation. Instead, they may need to work with smallholders to boost productivity on their land. There are thus opportunities to build on the success of programs like the Nucleus Estate and Smallholder scheme that promotes collaboration between corporations and smallholders in the oil palm sector.

Involving smallholders might prove difficult because of their huge numbers and the large areas involved. Smallholders in the oil palm sector comprise about 2 million households, over 4 million ha of plantations, and more than 100,000 small and medium enterprises, excluding outgrowers. Still, President Widodo hinted at this approach in declaring that Indonesia could become food- and energy-independent by 2020 (Lumanauw & Hardum 2015). Whether deforestation-free pledges benefit or harm local communities may depend on the sector and on location. To promote positive impacts, NGO activity and/or government policies are needed that encourage local partnership and that hold companies accountable to their social promises.

## 4 Implementation in Indonesia: Early action in a difficult context

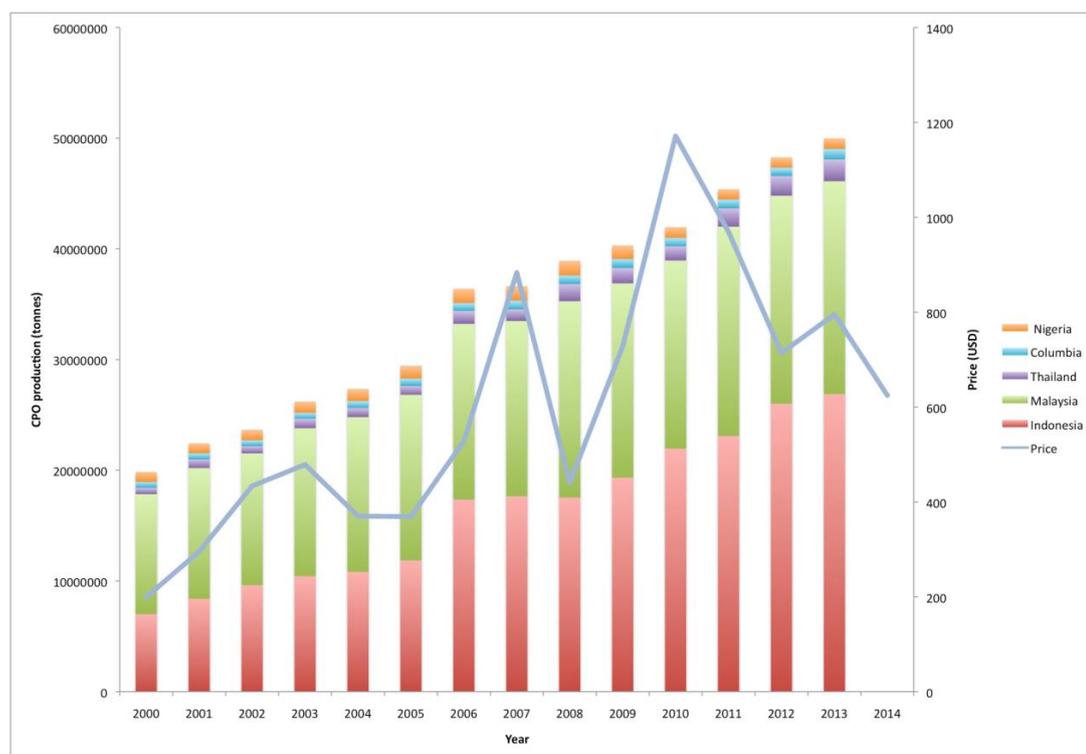
This section describes the Indonesian case that provides the backdrop against which the issues discussed above are playing out in that country. The two sectors that are most closely associated with deforestation – oil palm and pulp and paper – have a history of problems regarding sustainability and legality. Deforestation free commitments are being touted as capable of cutting through the inertia.

### 4.1 Oil palm: A pioneer

Palm oil is a prominent, internationally traded, tropical agricultural commodity, with derivatives found in half of the products on supermarket shelves. In addition, it is emerging as a viable feedstock for biofuels, particularly for domestic biodiesel production in Indonesia. With consumers in emerging economies achieving a higher standard of living and greater access to luxury goods, demand for products containing vegetable oils is growing. Oil palm has the highest productivity of any vegetable oil crop per hectare. This makes it not only efficient, but also less expensive to produce than alternatives, and highly profitable. As a perennial crop, oil palm has enormous poverty alleviation potential, providing year-long employment and income to tens of thousands of farmers and laborers. It also contributes to state revenues and the development of infrastructure in rural areas.

Indonesia is the world's largest producer of palm oil (see Figure 2): the oil palm sector comprises 6,404,377 ha of private estates, 4,551,854 ha of smallholder plantations (preliminary data for 2014 according to the Ministry of Agriculture), and 711,286 ha managed by state companies, which have shown almost no growth in the past 10 years (data for 2012 according to ISPO annual statistics). Comprehensive and reliable data on the composition and diversity of oil palm growers in Indonesia is lacking, however, especially concerning ownership, financing, plantation boundaries, and locations. Most of the area managed by smallholders and small and medium enterprises in Indonesia is located in Sumatra. This is in contrast to frontier regions such as East Kalimantan and Central Kalimantan, where large firms dominate.

**Figure 2.** International palm oil price and production among the top 5 global producers



Source: Adapted by the authors from Indexmundi, 2015 and FAOSTAT, 2015.

Increasing numbers of smallholders are gradually expanding their plantation assets from 2-3 ha (managed by one household), to tens and even hundreds of hectares. In addition, as the oil palm industry has become better established in frontier areas, local and transmigrant investors and absentee landowners have rushed to develop land, contributing to deforestation. These new and expanding investments lack transparency, often as a result of their smaller size, rapid changes in ownership, the absence of comprehensive and up-to-date spatial plans at the provincial level, and poor monitoring and reporting at the district level.

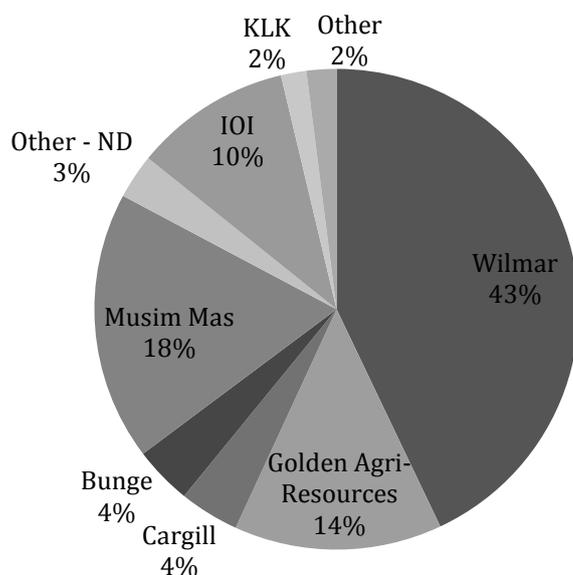
Frontier regions are experiencing some of the highest levels of new investment and therefore face the greatest deforestation threat. The diversity of producers and lack of transparency limit access to growers, understanding of their operations, and the ability to regulate. This has been one of the major hurdles concerning the uptake of existing standards for palm oil such as RSPO, International Sustainability and Carbon Certification (ISCC), and Indonesian Sustainable Palm Oil (ISPO), and has contributed to the perceived failure of these standards to significantly limit deforestation.

Conflicting legislation related to plantation development and land use in Indonesia has also limited the success of existing standards. For example, the Neglected Lands Act (Government Regulation No. 10 of 2010) allows the government to take land that had been granted as a concession, but which has not been deforested and planted, and reallocate it to other companies willing to develop. This law hinders companies that intend to preserve parts of their concession that are still naturally forested for and environmental and social purposes, such as areas designated as HCV under the RSPO (see sub-section 3.2). Legislative hurdles such as this are accompanied by nationalistic sentiments. Private sustainability standards, with their origins in Western markets, may be perceived as new manifestations of Western control. The emergence of ISPO was seen by many as an attempt by the Indonesian government to reclaim a key industry and chart its own course.

Many observers see the deforestation-free movement as a chance to change all of this.

Despite the vast number of producers operating in Indonesia, international trade of palm oil and palm kernel oil is dominated by a handful of firms (see Figure 3), mostly located in Singapore, Malaysia, and Indonesia. Wilmar alone controls nearly half of this trade. When launching their deforestation-free campaigns, civil society and advocacy groups targeted actors at this key supply chain bottleneck in an attempt to reach and reform the entire supply base. By requiring that these firms extend their deforestation-free commitments beyond the firms themselves to their third-party suppliers, advocacy groups translated the “brand reputational risk” felt by consumer goods manufacturers and retailers into “market and supply chain risk” for traders and producers. The fact that few companies control the international crude palm oil (CPO) trade might allow these actors to dictate their own terms of trade to the rest, hence raising the sustainability bar across the industry. But it remains to be seen whether this will succeed, or whether major palm oil import markets such as China, India, Pakistan, Bangladesh, and Gulf countries will simply create alternative trade channels.

**Figure 3.** Companies responsible for globally traded palm oil with deforestation-free commitments



Source: Finkelstein 2014. Percentages are based on the 2013 global consumption figure of 57 million metric tons, which reflects globally traded volume. Total global production volume is estimated at 63 million tons, suggesting that deforestation-free commitments now cover 87% of palm oil production. Company data may include some overlap due to inter-company trading. The potential to influence the global trade in palm oil toward excluding non-deforestation-free products is clear given the commitments by major traders. However, it is also important to keep an eye on the expanding domestic use of CPO in Indonesia and Malaysia – a development that may blunt the international trade approach and may require additional measures. Under the umbrella of renewable energy policy, Indonesia is taking steps to boost its biodiesel production that may result in a 4-5 million tonnes/yr increase in domestic use of CPO. This will elevate the relative importance of the domestic market and reduce the impact of international trade constraints. Additional thinking may be required around how to ensure deforestation-free compliance for domestically consumed CPO.

For many advocates of the deforestation-free approach, commitments have the potential to overcome the inertia that has dominated the Indonesian oil palm industry and unite all stakeholders, including the government, to transform the sector. The theory of change suggests that a coordinated and united message from producers, leveraged by traders, will create greater national-level ownership of environmental and social policy processes, and encourage the government to resolve conflicting legislation and policies, reconsider expansion strategies, and level the playing field among producers. These developments have not yet come to pass.

Numerous Western consumer goods manufacturers such as Kellogg’s and Pepsico have committed to deforestation-free supply chains. However, in December 2013, Wilmar was the first producer/trader to commit to “No Deforestation, No Peat, No Exploitation” for its own plantations and those of its third-party suppliers. The firm immediately started to map its extensive supply base and implement its commitments with assistance from TFT, and it began reporting on progress on a quarterly basis. Other major producers and traders of Indonesian palm oil including GAR, Cargill, Musim Mas, and IOI followed Wilmar’s lead in March 2014.

Implementation of these deforestation-free policies is still in the early days, and the economic, environmental, and social impacts are yet to be fully understood. One of the best indicators of challenges that might emerge, however, is GAR’s experience in implementing its Forest Conservation Policy, launched in 2011. According to Greenpeace (2014b), implementation in both Indonesia and Liberia has been mixed. Important progress has been made to develop the HCS methodology and identify forest areas to be conserved, but urgent action is needed to ensure FPIC and conflict resolution in dealings with local communities, and to improve the quality of HCV assessments.

GAR’s implementation challenges highlight the potential social and legal problems to come for many Indonesian CPO producers who are looking to develop their land banks under new deforestation-free commitments. The distance of plantations and suppliers from head offices presents a significant hurdle for internal monitoring and control. This seismic shift in operational standards will also take a long time to penetrate the industry and those who have worked in it for decades. While policy change can be rapid, behavioral change is a slow process, particularly given

internal incentives that relate to quantity of land planted or production rather than broader environmental or social outcomes. It will be interesting to see how each of the firms that have made commitments will work together and with other stakeholders, such as the government and civil society, to overcome these operational challenges. Collaborative engagement may be the key to coordinating and upgrading such an extensive and independent supply base.

## 4.2 Pulp and paper: Ambitious plans

The second sector in Indonesia that is caught up in the deforestation-free movement is pulp and paper. The sector is huge; Indonesia ranks among the world's top 10 producers of pulp and of paper (and it is one of the top 5 non-OECD member countries). Further, it is growing rapidly. One company, APP, is currently building a 2 million tonne/yr pulp mill in South Sumatra at a cost of USD 1.5 billion, which will be the largest single line mill in Southeast Asia when completed. The number one and two pulp producers in Indonesia – APP and APRIL, respectively – dominate the sector, which also includes several much smaller companies with discontinued production. APP and APRIL have both made deforestation-free commitments while the other companies have not.

Both APP and APRIL have histories of bad practices. Current fiber supplies are mostly derived from plantations developed on former natural forest areas that were clearcut over several decades. The industry has repeatedly pledged dates by which it will source timber only from plantations (2006, 2009, and 2014), but it has failed to live up to these commitments as the rate at which pulpwood plantations have been developed has not kept pace with demand. Of particular concern is the fact that plantations have largely been established on peatland, causing severe environmental impacts. With the emergence of the deforestation-free movement, however, the industry has signalled a new level of seriousness in pursuing sustainability.

APP announced its Forest Conservation Policy (FCP), which took immediate effect, in February 2013. The policy has several pillars (some of which were clarified in subsequent statements), including: halting the clearing of natural forests (i.e., non HCV/HCS forests) along its Indonesian supply chain (the company is a producer in China as well), suspending activities in areas where HCV assessments have not yet been completed, halting the processing of natural forest logs cut after the FCP's entry into force, extending the policy to external suppliers, and adhering to FPIC principles when dealing with local populations in the context of new plantation development.

The company also committed to an independent evaluation of its policy by the Rainforest Alliance, which released its report in February 2015 (Rainforest Alliance 2015). Most stakeholders praised this move as a demonstration of APP's willingness to change practices on the ground and its acceptance of transparency principles. The evaluation concluded overall that moderate progress had been made in implementing the FCP. It reported that natural forest conversion to plantations had ended, but stressed that natural forests continued to be degraded and deforested by third parties operating illegally. Further, the evaluation noted shortcomings on the social side, including inadequate application of FPIC principles in South Sumatra around construction of the new pulp mill, which were echoed by other NGOs (HuMa et al. 2015). Other critiques have expressed concern about the absence of evidence that existing plantations would be able to satisfy the added pulp production capacity, which could incentivize a return to reliance on logging in natural forests. The company has denied that this risk exists.

In addition to its commitments to improved practices, APP has announced a one million hectares forest restoration and conservation program. It says that it may neither lead nor fund this program in the future, rather it intends only to promote the approach as part of its sustainability goals. The rationale behind the program, according to APP, is that action at the concession level only is not up to the challenge of conservation in the Indonesian context. Therefore, the program proposes ten landscapes across the islands of Borneo and Sumatra, of which five are priorities for immediate action, to be subject to coordinated management and conservation among all stakeholders.

APRIL launched its own Sustainable Forest Management Policy in January 2014, which includes the following elements: exclusive sourcing of fiber from non-HCV forests as identified by independent assessors, a moratorium on plantation development in concessions where HCV assessments have not yet been completed, application of "robust" chain of custody procedures, no increase of pulp production capacity as long as the ability of plantation fiber to meet that capacity is not guaranteed, and application of FPIC principles when dealing with local populations. A major difference between APRIL's policy and APP's policy, which has been roundly criticized by NGOs, is that

APRIL's policy does not require full reliance on plantation fiber until 2019.<sup>10</sup>

APRIL established a Stakeholder Advisory Committee (SAC) to monitor compliance with its pledge and provide advice on steps for improvement. Further, it announced a "one-to-one" policy that proposes to conserve one hectare of natural forest for each hectare of plantation forest in the company's concessions. With almost 500,000 ha of plantations already established, but only about 250,000 ha having been set aside, there is still some way to go.

The SAC hired KPMG to conduct an independent assessment of APRIL's progress toward meeting its deforestation-free goals, which was completed in 2015. The assessment took place on a much smaller scale than the one that the Rainforest Alliance conducted for APP, and it is poorly advertised, being unavailable on the company's website and only accessible upon request (although the recommendations by the SAC based on the evaluation's findings are downloadable). The evaluation appears to have found that APRIL has made moderate progress overall toward implementing its policy (it does not provide a rating for the policy as a whole, instead disclosing findings for each of the policy's components individually). It reported an absence of conversion of HCV forests or of forests that have not been assessed, and good progress toward plantation self-sufficiency by 2019. But it criticized the policy's limited application to new concessions, the lack of peer review of HCV assessments by the HCV Resource Network, and the controversial distinction between long-term supply partners, who are subject to the policy, and others, who are not.

APRIL transmitted this evaluation to the SAC to provide guidance on next steps. Among its recommendations, the SAC urged the group to build better relations with the HCV Resource Network and to seek its review of HCV assessments, to clarify the status of non-long term supply partners, to more effectively seek FPIC, and to better address conflicting land claims in its concession areas. In response, APRIL released an Action Plan in March 2015.

The cases of APP and APRIL in Indonesia highlight the challenges companies face in maintaining control over their concessions and supply chains. Encroachment is a constant worry, and it can be difficult to bring third party suppliers into compliance with deforestation-free policies. It is interesting to note, however, the convergence between the two companies around use of the HCV tool to operationalize their commitments, and around incorporating explicit restoration and/or conservation targets as a part of their plans. This latter focus might translate into sources of funding for the management of ecosystem restoration concessions, which the Ministry of Forestry created as a legal category a few years ago. These concessions are designed to restore the production potential of over-logged natural forests for a second cut, and to ensure the provision of ecosystem services.

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<sup>10</sup> APRIL announced a new deforestation-free policy about a month and a half after the TFD dialogue in Indonesia, which was largely met by NGO approval.

## 5 Conclusion

This paper has presented the origins of the deforestation-free movement and discussed a number of issues that will determine its effectiveness in Indonesia. Opportunities exist for reducing forest conversion in the oil palm and pulp and paper sectors, which have historically driven substantial deforestation, and a number of companies have indeed started to modify their operations. Progress is being made in terms of applying the HCS approach and HCV tool, consulting with rural communities, and acknowledging that peatland requires specific management measures.

However, the movement is still in the early stages of implementation, and a number of issues will have to be tackled to ensure substantial and long-term impacts on the ground. Importantly, what began as an initiative by the private sector under NGO pressure will have to engage national and sub-national governments to ensure both that deforestation-free efforts are not confined to individual supply chains, and that policies are durable into the future.

Indonesia's legal framework is not only unsupportive of deforestation-free objectives, but in some instances contrary to them. Most problematic are the abandoned land policy that bars natural forest set asides in oil palm concessions on public land, and rules that revoke permits when HCS and HCV assessments delay plantation establishment. Deforestation-free proponents will have to better engage the government to reform obstructive policies.

Another major obstacle to effective implementation is the context of land tenure uncertainty that persists despite recent policy shifts at the national level. Oil palm and pulp and paper companies have historically converted natural forest areas without recognizing the rights of forest-dependent communities. What is termed "encroachment" into plantations represents a mixture of traditional communities seeking to maintain their livelihoods and migrants from other parts of the country seeking to carve out a piece of land for themselves. This poses challenges for companies wishing to fulfill deforestation-free pledges, especially in light of the government's weak efforts to enforce laws. Government involvement is needed to clarify land tenure, secure local rights, and address the encroachment that threatens to render deforestation-free commitments little more than paper promises.

Even if tenure issues are sorted out, companies will still have to address the legacies of deforestation that contributed to their current plantation estates. Recent policies to end deforestation are a step in the right direction and should be encouraged by companies that have yet to make deforestation-free commitments, but past actions will have to be rectified if current policies are to be meaningful. This will have to be done in a way that does not pose too strong a disincentive to laggard companies while still rewarding early committers to deforestation-free principles. One option is for companies to invest in restoration, which is increasingly feasible now that the government has created the system of Ecosystem Restoration Concessions which allows companies to manage degraded areas in ways that restore their productivity and ecosystem services. Some groups are already thinking about how to extend this approach to the broader landscapes within which their concessions lie.

The impacts of deforestation-free policies on smallholders and communities is still insufficiently understood, but is likely to be substantial. Large companies with economies of scale are better equipped to make and implement deforestation-free commitments, and there is a risk that smallholders and community land managers may lose access to premium markets. Another risk is that large areas of set aside land and increased activity on degraded land could reduce community access to forest areas on which they depend for their livelihoods.

Certain aspects of the application of deforestation-free policies to Indonesia can be understood at this stage. This paper considered the evolution deforestation-free standards and some of the definitions they use, the problems associated with on-the-ground implementation of commitments, and potentially major obstacles in the form of weak governance, insecure land tenure, and an insufficiently supportive legal framework. But there remains work to be done in assessing the positive and negative direct and indirect effects of these policies. First, there is a capacity gap within companies that have made deforestation-free pledges, which suggests that full implementation may take some time; pledges were made by management-level employees, but implementation will require involvement, understanding, and support at all levels of each company. Second, there are as yet uncertain implications for the various actors along the supply chains in terms of how costs (including payment for traceability measures) and risks will be distributed, and how local people will be impacted. Trade-offs will need to be understood and resolved in a transparent and inclusive manner if the deforestation-free movement is to be deemed credible going forward.

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