

Tackling Deforestation Through A Jurisdictional Approach:

Lessons From The Field



Political Leadership



Participatory Design



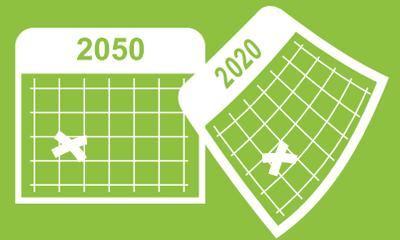
Sustainable Financing



Private Sector Role



Storytelling



Expectation Management

Akiva Fishman, Edegar Oliveira and Lloyd Gamble

September 2017



EXECUTIVE SUMMARY

The persistence of global deforestation and environmental degradation has increased pressure on both governments and companies to address these challenges. Further, limitations of existing mitigation strategies and the convergence of public and private sector commitments to reduce deforestation (e.g., Nationally Determined Contributions under the Paris Climate Agreement and “deforestation-free” pledges in the New York Declaration on Forests) have expanded interest in public-private collaborations widely referred to as “jurisdictional approaches.” With origins in Reducing Emissions from Deforestation and Degradation (REDD+) and landscape approaches, jurisdictional approaches seek to align governments, businesses, NGOs, and other stakeholders around shared goals of conservation, supply chain sustainability, and green economic development; jurisdictional approaches also focus on the political level at which land use decisions are made and enforced.

The multiple jurisdictional initiatives that are underway around the world can be roughly grouped into three categories. First, models that deliver blanket demand signals to the market, such as corporate pledges to preferentially source commodities from geographies that demonstrate improved sustainability. Second, models that deliver blanket supply signals to the market, including ongoing efforts to achieve jurisdictional palm oil certification. And third, place-based initiatives that bring together supply- and demand-side stakeholders to agree on sustainability goals and implementation strategies.

Increased understanding of these approaches has not kept pace with growing expectations, in part because they are widely varied and mostly nascent, and because detailed information on their progress is not easily accessible. To help bridge this gap, WWF convened a workshop of practitioners from five place-based initiatives¹ to deeply explore each one in a peer-to-peer setting with additional global experts, and to extract theories of change, successes, challenges, and common lessons. This paper provides case studies and a detailed comparative analysis of the initiatives and lessons learned.

¹ Examples of the first two categories are still in methodological development and were not included.

★ KEY LEARNINGS



POLITICAL LEADERSHIP

Political leadership is key to advancing a jurisdictional approach, but it is also a primary risk; initiatives need to be designed to be resilient to political change.



PARTICIPATORY DESIGN

A push for quick results and a desire to avoid opposition to a jurisdictional initiative sometimes interfere with early, inclusive engagement; however, **success in the long term depends on stakeholder engagement in initiative design and implementation.**



SUSTAINABLE FINANCING

Several types of financing are needed, likely in stages, to support and sustain jurisdictional approaches; **proponents need to differentiate categories of finance and to be able to articulate and align specific needs (and deliverables) to financial offerings.**



PRIVATE SECTOR ROLE

Private sector actors are crucial for success, given the dominant role that market forces often play in driving land use change compared with public finance. That said, **proponents must distinguish the needs and roles of different private sector actors to delineate asks, expectations, and compelling partnerships.**



STORYTELLING

Skilled and tailored **storytelling that articulates a jurisdictional initiative's goals, needs, and early successes is critical to building support** and growth among different audiences.



EXPECTATION MANAGEMENT

The complexity and duration of jurisdictional initiatives require sustained investment to achieve systemic change; therefore, **local and global expectations should be thoughtfully managed to avoid creating unachievable goals or time frames,** and to help ensure lasting results.

CASE STUDIES



In **Mato Grosso**, Brazil’s “Produce, Conserve and Include” strategy, a government-led, multi-stakeholder steering committee advances a sustainable rural development agenda through implementation of the Forest Code, intensification of commodity production within existing degraded lands, restoration of other degraded lands to forest, and provision of improved extension services and rural credit to producers.

In **Liberia’s** oil palm outgrower and forest conservation scheme, Production Protection Agreements adjust the concession-based development model to one that empowers smallholders at the community level and weaves in incentives for forest conservation. A major palm oil company will invest in extension and guarantee offtake, while ensuring a growing, sustainable supply base.



In **Ghana’s** Cocoa-Forest REDD+ Programme, the Forestry Commission and Ghana Cocoa Board are teaming with private cocoa buyers to leverage international climate finance and advance a national development and conservation vision. The government will implement rural zoning aligned with optimal growing conditions, and private sector partners will support efforts to advance climate-smart growing practices.

In **Acre**, Brazil, a statewide economic and agricultural zoning plan and System of Incentives for Environmental Services support sustainable agricultural practices in predetermined production areas; diversification of a “green” commodity base including natural rubber, wood flooring, furniture, and Brazil nuts; and provision of benefits to indigenous peoples.



In **Colombia’s** Orinoquia Sustainable Integrated Landscape program, the government will leverage climate finance to prepare for agricultural expansion through careful land use planning, climate-smart agricultural practices, and investment in protected areas management.

It is too soon to collectively assess the success of jurisdictional models; if successful, they will deliver results in years rather than in months. However, given the growing understanding of the complexity and systemic nature of the issues underlying continuing forest loss in many geographies, these initiatives are increasingly compelling. They contain the building blocks to align multiple stakeholders and incentive mechanisms around core, common interests such as responsible commodity production, improved economic growth and livelihood opportunities, and a resilient natural resource base that can continue to provide crucial ecosystem services. This long view of jurisdictional approaches, and the time needed to build effective multi-stakeholder initiatives, is also likely the greatest challenge to their success, because governments and businesses alike are often motivated to seek short-term results and rewards. In this light, workshop participants widely viewed jurisdictional approaches as a complement rather than a replacement for other strategies—critical for building improved governance over time, reaching more producers with improved practices, and maintaining focus on the ultimate metric of success: reduced forest loss at landscape or jurisdictional scales.

Another significant challenge is the limited degree to which companies have engaged thus far in jurisdictional initiatives. Companies have historically emphasized sustainability activities that can be quickly and easily measured, such as reductions in their own environmental impacts, instead of evaluating themselves against broader landscape- or jurisdiction-level metrics (e.g., reduced deforestation rates) that take longer to achieve and are harder to attribute to individual actors. This has likely kept demand signals for sustainable commodities delivered at landscape or jurisdictional scales relatively weak, and limited direct financial or technical investment by the private sector in sourcing geographies (although these are becoming more numerous).² Buyer and trader interest in jurisdictional approaches is growing, both due to transaction costs of alternative strategies and persistent deforestation-related supply chain risks; however, they need clearer road maps for how they can specifically engage, and whether and how this engagement will be viewed as a credible step in meeting their sustainability commitments. Multi-stakeholder platforms like the Governors Climate and Forests Task Force and the Tropical Forest Alliance 2020 can seed innovative partnerships as they increasingly focus on implementation.

Collectively, jurisdictional approaches are worthy of increased focus and investment, bearing in mind that they will not be the best strategy in every context and that greater clarity is needed concerning the preconditions that lend themselves to success. And even when such preconditions are present, it is clear from the diversity of approaches that initiatives should be tailored to regional conditions and designed flexibly. Care also needs to be taken to ensure that deforestation eliminated in one jurisdiction does not simply shift to another. Academic interest in these initiatives must

² Indeed, a recent CDP analysis on palm oil showed that while 87% of reporting manufacturers and retailers said they were engaging their suppliers, only about a third conduct supplier audits or provide training to suppliers, and fewer than 10% provide technical support. McCoy & Servent (2017), Public- and Private-Sector Roles in Achieving Zero Deforestation, section 5.1 in ETFRN News 58, <http://www.etfrn.org/index.php?id=49>.

translate to more on-the-ground piloting and direct engagement by all stakeholders involved in landscapes where commodity production is driving deforestation and environmental degradation. The time is now for governments to demonstrate their commitments to the Sustainable Development Goals and Paris Agreement (in particular as they strive to achieve and increase ambition in Nationally Determined Contributions), and for actors across the private sector to show how they can help achieve these goals, as well as make good on rapidly approaching deadlines to end deforestation announced in individual corporate supply chain commitments and in the New York Declaration on Forests. Time is short, and jurisdictional approaches can play an important role to scale up measurable progress toward reaching these goals.

Workshop participants framed seven questions that require further analysis as jurisdictional approaches continue to be tested:

- 1.** Many jurisdictional initiatives seek to blend agricultural production with forest protection by intensifying production so that greater outputs can be obtained from the same area of land. What interventions need to be paired with intensification to ensure that deforestation actually declines?
- 2.** Policy reform to align laws and regulations with conservation objectives is fundamental to jurisdictional approaches. But what are the mechanics of successful policy reform, and at what level of government is it needed?
- 3.** Workshop participants called out early stakeholder engagement as a key condition for jurisdictional initiatives to succeed in the long term. What are effective strategies for proponents of these initiatives to determine the motivations of the various stakeholders that need to be engaged so as to develop compelling value propositions for them?
- 4.** Jurisdictional initiatives seek to leverage market forces to drive conservation in several ways, including via direct buying power. How can the market be moved to preference products from sustainable sources or to offer a premium for such products?
- 5.** Many jurisdictional initiatives rely on market pressure exerted by international companies responding to international consumer demand. How can domestic markets be moved to exert pressure where external market levers are limited or where demand for sustainable products is weak?
- 6.** Workshop participants agreed on the importance of markets rewarding jurisdictions that make progress toward achieving environmental goals. But given that blacklisting could harm rather than help nonperforming jurisdictions, how should markets treat lack of progress?
- 7.** Jurisdictional initiatives differ in the level of environmental ambition captured in their targets. How should the value of a jurisdictional approach be judged, given that some may fail, and that some may not set a very high bar?

INTRODUCTION

The persistence of deforestation and environmental degradation,¹ driven to a large extent by agricultural expansion,² has elevated global attention to the problem. Hundreds of influential companies that produce, trade, purchase, and finance agricultural commodities have signaled their intent to reduce their forest footprints,³ and are seeking ways to make good on pledges with rapidly approaching deadlines. In parallel, governments have committed to Sustainable Development Goals that highlight the importance of forests and other ecosystems, and Nationally Determined Contributions under the 2015 Paris Agreement, which will hinge in many cases on improving development trajectories in the land sector.⁴

Prevailing forest conservation strategies have yielded some successes: for instance, voluntary certification schemes have articulated best practices for production of many high-volume commodities, and areas under some form of improved management or protection have increased considerably. But these successes have struggled to translate to clear results at scale. Substantial transaction costs associated with certification have prevented the standards from reaching a critical mass of producers. Disaggregated farm-by-farm efforts have also been subject to impermanence of forest protections, and may displace deforestation pressures to other locations. And underlying challenges of land tenure insecurity, limited land use policy and planning (including existing policies with perverse outcomes), and weak governance remain unresolved in many places.

“Jurisdictional approaches” to address deforestation and environmental degradation have emerged from the recent convergence of major public and private sector commitments as a means to scale positive results both for responsible production and conservation. These are a suite of models that seek to align governments, businesses, NGOs, local communities, and other stakeholders

1 Each year between 2010 and 2015, the world lost an average of 8.8 million hectares of natural forest. FAO (2015), Global Forest Resources Assessment 2015 - How Are the World's Forests Changing?

<http://www.fao.org/resources/infographics/infographics-details/en/c/325836/>.

2 WWF (2015), Living Forests Report Chapter 5: Saving Forests at Risk,

<https://www.worldwildlife.org/publications/living-forests-report-chapter-5-saving-forests-at-risk>.

3 See <http://www.supply-change.org/>.

4 Petersen & Braña-Varela (2016), INDC Analysis: An Overview of the Forest Sector,

http://wwf.panda.org/wwf_news/?257883/INDC-Analysis-An-Overview-of-the-Forest-Sector.

around common interests in conservation, supply chain sustainability, and green economic development. Building on decades of experience with landscape approaches that emphasize multi-stakeholder partnerships to tackle regional environmental challenges, jurisdictional approaches focus on the political level at which land use decisions are made and enforced. They leverage partnerships to address environmental challenges like deforestation at scale by advancing careful land use planning of production and protection areas with geographically tailored policy interventions, market incentives, and often climate finance.

Previous analyses have framed jurisdictional approaches in the context of other landscape management initiatives and corporate deforestation-free pledges, explored their opportunities and limitations, and distilled early lessons.⁵ However, understanding of jurisdictional approaches continues to be limited, and has not kept pace with growing expectations that the approaches will deliver reduced deforestation at scale. The opportunity is substantial, but decisions about whether and how to accelerate engagement need to be more firmly grounded in experience.

WWF convened a three-day workshop in Brasilia in May 2017 to complement earlier work by deepening the base of understanding from which to make these decisions. An expert group that included proponents of five leading jurisdictional initiatives “unpacked” and analyzed each initiative in a peer-to-peer setting. This paper distills six key learnings from the workshop as well as several strategic questions for further inquiry. Analysis is grounded in the case discussions and, to some extent, experiences and existing literature that complement the workshop’s content. This analysis is not exhaustive; the cases examined at the workshop were limited to Africa and South America, excluding for logistical reasons several important pilot initiatives in Asia (e.g., provinces in Indonesia and Malaysia).

Each of the key learnings is accompanied by a snapshot from one of the workshop cases that helps articulate the learning, and is followed by a discussion. More detailed write-ups of each case are provided in an appendix. As these are referenced throughout the paper, readers may find it useful to look through the case write-ups first.

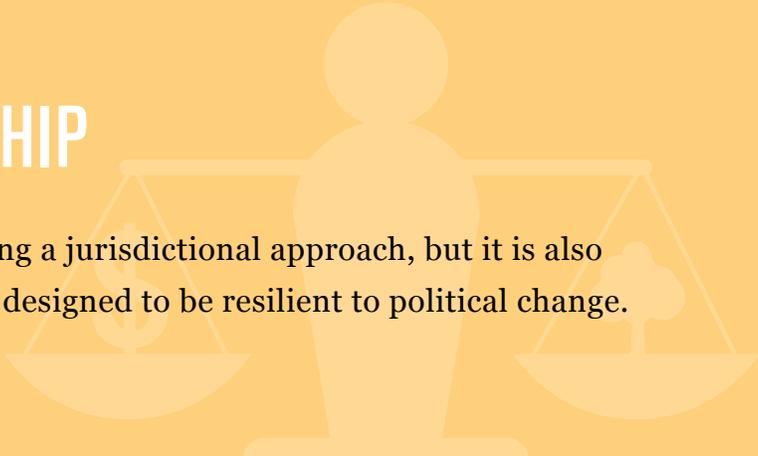
Jurisdictional Approaches

- include a suite of models
- seek to align governments, businesses, NGOs, local communities, and other stakeholders around common interests in conservation, supply chain sustainability, and green economic development
- focus on the political level at which land use decisions get made and enforced
- advance careful land use planning of production and protection areas with geographically tailored policy interventions, market incentives, and often climate finance

⁵ See, e.g., Wolosin (2016), WWF Discussion Paper: Jurisdictional Approaches to Zero Deforestation Commodities, http://www.panda.org/wwf_news/?283050/JAZD; Proforest (2016), Introduction to Landscape or Jurisdictional Initiatives in Commodity Agriculture, <http://www.proforest.net/en/publications/introduction-to-landscape-or-jurisdictional-initiatives-in-commodity-agriculture>; Jurisdictional Sustainability: A Primer for Practitioners, http://earthinnovation.org/wp-content/uploads/2017/02/JS-primer_Englishonline.pdf; TFA2020 (2017), Tropical Forest Alliance 2020 Annual Report 2016-2017, https://www.tfa2020.org/wp-content/uploads/2017/01/TFA_Annual_Report_2017_v8.1_Web-Report-Small.compressed.pdf; Fishbein & Lee (2015), Early Lessons from Jurisdictional REDD+ Programs and Low Emissions Development Programs, https://www.forestcarbonpartnership.org/sites/fcp/files/2015/January/REDD%2B_LED_web_high_res.pdf; Paoli et al. (2016), Jurisdictional Approaches to Reducing Palm Oil Driven Deforestation in Indonesia, http://daemeter.org/new/uploads/20161105234503.DAEMETER_extended_summary_Final.pdf.

★ KEY LEARNING 1

POLITICAL LEADERSHIP



Political leadership is key to advancing a jurisdictional approach, but it is also a primary risk; initiatives need to be designed to be resilient to political change.

Government buy-in is fundamental to the success of a jurisdictional initiative. It lends legitimacy to overall objectives, aligns policy-makers with actors who operate within the policy framework, and enables those actors to participate confidently without worrying about regulatory backlash. But there is no single formula that dictates how governments should be involved; rather, there is a spectrum of involvement.

- In Liberia, various national-level agencies have important roles to play in clarifying land tenure and enabling Production Protection Agreements signed by communities and palm oil companies (see below). Concurrently, IDH, the Sustainable Trade Initiative, is piloting designs for these agreements, with inputs from ministry, company, and CSO representatives on a national-level steering committee.
- By contrast, Acre's government plays a central role in directing the forest sector economy, even to the point of creating "green" businesses intended to reduce pressure on forests.
- Sabah, Malaysia, represents a middle ground; a multi-stakeholder steering committee is managing the process of rolling out 100% certification to the Roundtable on Sustainable Palm Oil (RSPO) standard across the state's palm oil plantations, but the state government provides leadership and drives the discussions.

One critical factor is high-level political will to pursue progressive policies. In every jurisdiction analyzed, government leadership was central to getting the initiative off the ground. Leadership can come from different places, such as the state governor in Mato Grosso, or national-level agencies in Ghana and Liberia. But a common theme was the key role of influential individual champions who can initiate connections and maintain momentum in the early stages of jurisdictional initiative formation.

Given the importance of political leadership, a fundamental question is how such leadership can be created and strengthened, particularly in jurisdictions where the status quo promotes deforestation in the name of development.

Like any other stakeholder, **political leaders require a business case to support their decisions.** Motivations might include advancing the public good (often with jobs and economic opportunity), benefiting their constituencies, or cementing their legacies.

- The case for undertaking a jurisdictional approach in Acre was linked to the social upheaval that ushered in new government leadership, demonstrating the potential impact of dramatic events that may shift a political landscape to create the necessary conditions for leadership to emerge.
- In Sabah, Malaysia, government officials realized they could turn to jurisdictional RSPO certification as a means of differentiating the state's palm oil crop in a competitive global marketplace.

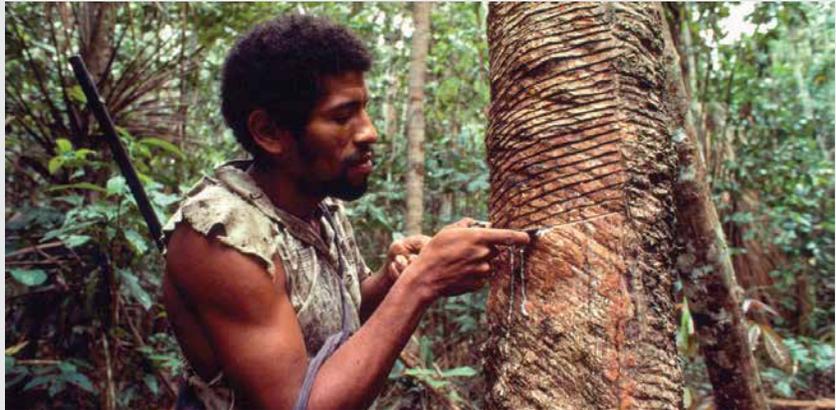
Successful models and supporting numbers can help build a business case. The experiences in Acre and Mato Grosso, for example, demonstrate that strong economic results need not be dependent on deforestation.

- Per capita incomes in Acre have risen and the percentage of the extremely poor has declined more than 50% since the mid-2000s, at the same time that annual deforestation declined.
- In Mato Grosso, conversion in both the Amazon and Cerrado has remained stable at a relatively low level since 2009 (despite recent upticks) while production of soy has doubled and production of cattle has increased slightly. Beyond pointing to successful results, it is important to also speak to the ways in which such results might be achieved. Projects like Novo Campo in Mato Grosso, which combines livestock intensification with forest conservation targets, offer blueprints for generating value for diverse stakeholder groups.

External factors created leverage that enabled political leadership to emerge or strengthen in several cases. For example, the first annual meeting of the Tropical Forest Alliance 2020 in 2015 provided a forum for the managing director of Liberia's Forestry Development Authority to meet representatives from Norway's International Climate and Forest Initiative and from IDH who were interested to partner and provide financial and technical support. At the same time, the international architecture of corporate deforestation-free commitments that emerged over the previous decade and the norms around responsible management promoted by RSPO contributed to the willingness of a large oil palm developer to partner. Similarly, a 2013 WWF publication that recognized Acre as having the most advanced jurisdictional REDD program in the world reinforced efforts of conservation champions in the government to push for further reforms.

CASE SNAPSHOT

ACRE, BRAZIL



Rubber tapper scoring the bark of a wild rubber tree, with latex oozing out. Alto Juruá Extractive Reserve, Acre, Brazil

The jurisdictional approach in Acre, one of Brazil's 26 states, has deep grass roots. Decades of economic growth in the latter part of the 20th century saw cattle ranches replace massive areas of rain forest. Forests in Acre, as elsewhere in Brazil, were viewed by politicians and their supporters as “green deserts” that hindered development. But politically marginalized populations, who had long depended on the forests for their livelihoods, suffered tremendously under this shift. Conflict came to a head in 1988 with the assassination of rubber tapper and leader of a growing socio-environmental movement, Chico Mendes. The uproar that followed helped sweep a new state administration into power in the late 1990s that quickly began creating policies and institutions to shift away from an economic model premised on forest destruction.

The new government has proven durable, managing to win continuous reelection through to the present day. This stability, combined with strong political leadership supportive of forest-friendly development, enabled creation of a comprehensive framework of legislation and rationally interlinked institutions over a period of years. Together, these yielded statewide zoning laws that define where production can and cannot take place, and limited encroachment into remaining natural forests by promoting tree plantations in previously deforested areas and intensification on existing agricultural land. They also enacted sustainable management regimes in forested areas, created businesses that depend on standing forests for production of non-timber forest products, and provided benefits to indigenous peoples who live in and around forests. Since the mid-2000s, deforestation has fallen dramatically and remained low.

Despite this reversal, threats loom. The government's dominant role in shaping the transition toward forest-friendly development—arguably the central factor that enabled the transition to occur—renders the gains of the past 20 years vulnerable. Political opposition has been brewing, and the green development agenda could backslide dramatically if different leaders were to take power. A long period of political stability has enabled implementation of thoughtful policies over time, but without additional safeguards these could be lost to political turnover.



Aerial view of an unpaved road dividing a soy (*Glycine max*) monoculture from the native Cerrado, in the region of Ribeiro Gonçalves, Piauí, Brazil.

Political will and strong government champions are only the first step; these need to be channeled toward reforming laws that inhibit progress on addressing deforestation.

- Policies in Brazil have prompted populations to migrate to undeveloped areas and clear land despite concurrent policies aimed at conserving natural ecosystems.
- Regulations in Indonesia that mandate concessionaires to develop even environmentally sensitive parts of their concessions can make deforestation-free set-asides fleeting.
- Liberia’s national strategy to issue extensive palm oil concessions to drive economic growth is likely to spur forest conversion if not paired with strategies to avert this outcome.
- Ghana’s law granting the government ownership over trees occurring naturally on farms incentivizes farmers to suppress tree regeneration.
- In Acre, multiple state-level agencies successfully aligned their priorities around sustainable business and forest conservation to eliminate policies that undermine these goals and secure the budget needed to implement them. Most other Brazilian states have larger economies and budgets than exist in Acre, but insufficient coordination can lead to spending on destructive forms of agriculture that undermine conservation objectives.

KEY QUESTION:

What are key enabling conditions for successful land policy reforms and what does it take to create them?

Clearly, jurisdictional initiatives depend on government involvement. But **the critical role of government also poses substantial risks if continued success of the initiative becomes dependent on a particular leader or administration.** An early assessment of jurisdictional approaches in several countries found political and bureaucratic turnover to be a common problem.⁶ The greater the government’s role, then, the greater the risk.

⁶ Fishbein & Lee (2015), Early Lessons from Jurisdictional REDD+ Programs and Low Emissions Development Programs, https://www.forestcarbonpartnership.org/sites/fcp/files/2015/January/REDD%2B_LED_web_high_res.pdf.

Two types of strategies can mitigate these risks. The first is to **build policy resilience**—that is, identify strategies to maintain momentum toward ambitious conservation targets, regardless of the particular administration that is in power. One way to grow policy resilience is for influential donors and other stakeholders to articulate that continuity is critical. Early and significant investment by the private sector can also reduce a jurisdictional initiative’s dependence on public sector support, meanwhile making it economically and/or politically disadvantageous for the government to change course.

Another way to build policy resilience is to increase the government’s accountability to meet the initiative’s goals.

- Mato Grosso’s governor took a step to insulate the deforestation agenda from future backsliding by announcing the Produce, Conserve and Include (PCI) initiative at the Paris Climate Conference in 2015. Following this high-profile public commitment to the international community, Mato Grosso’s government has felt continued pressure to deliver on its commitments. Other stakeholders can then help advance deforestation goals by framing their efforts as helping the government implement its own commitments.
- Acre’s government, meanwhile, has sought to build accountability by promoting education and understanding of its initiative’s benefits to secure the population’s long-term support.

Another strategy to limit the risks associated with political turnover is to **build structural resilience** to help the initiative survive shifts in political will. A basic step is to authorize the initiative’s governance structure via the most authoritative legal instrument available (e.g., state law rather than executive decree), which raises the hurdle for future detractors to overcome. Relatedly, the government could abdicate some control to a multi-stakeholder governance coalition that includes but is not limited to government actors. For instance, the PCI State Committee in Mato Grosso and the Climate Change Institute in Acre evenly divide the decision-making power between government and other actors. In the case of Mato Grosso, the government realized it couldn’t meet its objectives on its own, and opted to share power as a way to secure participation.

Alternatively, specific institutions or mechanisms can be designed to sit outside direct government control so as to withstand political change.

- Mato Grosso’s planned PCI Facility, responsible for fundraising and coordinating donors, would be independent of the government.
- Each Production Protection Agreement in Liberia will be signed by multiple parties (community, oil palm development company, Forestry Development Authority, and Ministry of Agriculture), allowing each party to enforce the agreement irrespective of what future government might take power. These types of strategies can balance the need for direct government involvement with the need to shield jurisdictional initiatives from political transition. 

★ KEY LEARNING 2

PARTICIPATORY DESIGN

A push for quick results and a desire to avoid opposition to a jurisdictional initiative sometimes interfere with early, inclusive engagement; however, success in the long term depends on stakeholder engagement in initiative design and implementation.

Effective participation from all affected segments of society is critical, in all phases of a jurisdictional initiative, from design through implementation. Insufficient or belated engagement was the most widely cited risk to success throughout the workshop. Acre's initiative, considered by many observers to have done an excellent job soliciting broad participation during the design phase, has reaped benefits in the form of enduring stability and legitimacy in the eyes of both internal and external stakeholders. Meanwhile, Mato Grosso's PCI initiative launched before many stakeholders had been brought on board,⁷ and continuing lack of trust among stakeholder groups poses challenges for attaining broad buy-in to its objectives.

The actors whom multi-stakeholder initiatives engage least frequently, such as small-scale producers, are often the very ones with the most relevant experience, and greatest impact, on the ecosystems that these initiatives are designed to protect. In Ghana, a significant contributor to deforestation is the "sun cocoa myth," a common belief among small-scale farmers that cocoa trees grow best under direct sunlight. In fact, sun cocoa produces good yields for only 10 years before declining, while shaded cocoa is productive for 30 years.⁸ Ghana's jurisdictional initiative is trying to improve production practices in part by educating growers with the best available information and providing crop insurance to mitigate concerns about trying different practices.

Communities and smallholders can be difficult to reach because they are dispersed and their land use impact, although often large in aggregate, is diffused across large landscapes. And even when communities are successfully engaged, the fact that they represent collections of individuals means their preferences can be difficult to discern. Despite these challenges, workshop participants emphasized that broad outreach and engagement should be prioritized. Communicating through producer or community associations, or respected community members, can help reduce costs.

⁷ For example, although producer associations were engaged early on, internal communication with the membership did not effectively convey the initiative's objectives and actions.

⁸ Expert workshop participant.

Engagement with on-the-ground actors is even more challenging when they don't want to be involved. Many local communities in Colombia's Orinoquia, for example, are not welcoming to externally driven development initiatives. Resistance to new ideas brought in from outside grew out of prior entry to the region by the hydrocarbon industry that harmed the social fabric by injecting migrants into a regional economy based on low-density cattle ranching, several attempts by the central government to develop agroindustry without clarifying land tenure, and low capacity of regional and local governments. Any efforts to engage local small-scale actors, as with any stakeholder group, must be accompanied by an honest and realistic value proposition to improve their quality of life.

Engagement serves three primary functions:

- Obtain consent from affected stakeholders. Since preferences tend to change over time, engagement needs to be approached as an ongoing process. In Liberia, a series of checkpoints are used to consult communities and confirm their consent to proceed. These occur when a community signals initial interest to enter into a Production Protection Agreement (PPA), after an assessment has identified the lands eligible respectively for production and conservation, and before a Community Legal Entity is established to negotiate the agreement. A final check by an independent third party then verifies that the community broadly understands the terms of the agreement and was involved in decision-making throughout, in accordance with principles of free, prior, and informed consent.
- Solicit stakeholder input to shape a successful initiative. For example, most jurisdictional initiatives incorporate an element of land use planning by which certain areas are designated for commercial production, livelihoods, and protection. This planning process needs to be participatory to ensure that the right delineations are selected, drawing on local expertise, and to ensure buy-in from stakeholders who will be expected to abide by the plan.
- Empower local natural resource users to help shape the initiative in which they are being asked to participate. Initiatives that are well designed but which lack this component may fail to influence behavior. Even if presented with a compelling incentive package intended to improve their well-being, they may not be receptive if they feel they were overlooked in decision-making or that their priorities have not been addressed. In Liberia, community involvement in negotiating the terms of the PPAs is just as important as the terms themselves because this engagement feeds understanding which in turn improves trust.

The arguments for early and sustained stakeholder engagement may compete with other important considerations, whether in planning or implementation stages. Engagement and trust building take significant time and can delay progress toward substantive outcomes, especially when key voices oppose the agenda. It also requires substantial resources that are often limited at the start of a new initiative. Meanwhile, funders wish to see quick progress that justifies their investment and clear pathways for investments to bring about rapid change—even when systemic change might require longer time horizons.

CASE SNAPSHOT

COLOMBIA'S ORINOCO WATERSHED



The savannah in the Bojonawi Natural Reserve along the Orinoco River.

Colombia's Orinoquia is a vast region that includes over 20% of the country's landmass but only 3% of its population. The savannas and wetlands that dominate the landscape have largely escaped intensive development pressures, playing host instead to cattle grazing with relatively low impact. Due in part, however, to the recent end of the conflict with the FARC, this second-largest savanna system in South America has drawn interest from agroindustries including oil palm, soy, maize, rice, cattle, and plantation forestry. It is now considered Colombia's last agricultural frontier and the locus for future economic development.

Aiming for a more sustainable development pathway, the national government formulated the Orinoquia Sustainable Integrated Landscape (OSIL) initiative. OSIL was designed carefully, considering the key drivers of land conversion, lining up funding from multiple sources, and aligning with high-level government objectives. It also broadens the envelope on deforestation-free commitments, placing savanna conversion front and center so that development pressures taken off forests don't leak to other ecosystems critical for biodiversity, aquifer protection, and other environmental services. The initiative will combine land use planning with climate-smart agricultural practices and investment in protected areas management to chart a green growth development pathway.

The initiative's designers appreciate the importance of consultations with multiple stakeholders, including communities, industrial and small-scale producers, and local leaders, to ensure successful implementation. A key question is whether this consultation will take place early enough in the process of developing and executing the initiative for on-the-ground stakeholders to feel sufficient ownership and to inspire meaningful engagement. Some of the initiative's proponents worry that these voices were not sought out during the earliest design phases, and that the initiative may be perceived as a top-down effort being forced on local stakeholders by the national government.

As difficult and delaying as it can be to do effective stakeholder engagement at the outset of an initiative, the long-term benefits often outweigh the costs. Better to learn early on that critical stakeholders are opposed and change course if necessary than to pour investments into an initiative that cannot succeed because not all necessary stakeholders will get on board. Further, engaging stakeholders from the beginning can help improve the initiative so it avoids running into fatal pitfalls down the road.

The initiative in Liberia is expending resources early to improve community capacity to participate by setting up Community Legal Entities to negotiate PPAs on behalf of the communities. Although costly, this initial investment ensures that the agreements will be durable if they are agreed on and enables the initiative's proponents to assess at an early stage whether the initiative is likely to succeed, based on the communities' receptiveness. This engagement process is being undertaken voluntarily; in other places the government may wish to mandate opportunities for local participation.

Some initiatives are experimenting with institutional structures designed to pass information smoothly between local and regional or national levels.

- In Ghana, a national-to-local governance structure allows for information to flow up and down the hierarchy between site-level governance boards comprising traditional authorities, farmers and forest users, and communities ("hotspot intervention areas"); consortiums comprising regional government bodies, the private sector, and civil society that oversee hotspot intervention areas at the regional level; and the Forestry Commission, Cocoa Board, and National REDD+ Secretariat and Working Group, which provide strategic direction at the national level. Establishing champions across constituencies so that stakeholders hear from individuals they trust may facilitate transmission of information from top to bottom.
- The PCI initiative is working to link Mato Grosso's State Municipalities Program, under which municipal administrations take voluntary action to advance environmental objectives, to the conservation goals agreed at the state level. Municipal committees throughout Mato Grosso would feed reactions to new developments to regional committees, which in turn would pass these to the PCI State Committee. This would put ears in more places to facilitate the responsiveness of state-level decision-makers and lower the barrier for on-the-ground actors to participate.

The reality is that, given constrained resources and time demands, not all stakeholders are likely to be reached. The next best option in this case is to facilitate easy access to all information generated by the initiative and concerning decisions taken, even if not everyone is able to participate directly. The ability to stay informed combined with the option to participate creates transparency and a sense of inclusivity, even if not acted upon. 

★ KEY LEARNING 3

SUSTAINABLE FINANCING

Several types of financing are needed, likely in stages, to support and sustain jurisdictional approaches; proponents need to differentiate categories of finance and to be able to articulate and align specific needs (and deliverables) to financial offerings

Jurisdictional initiatives drive toward systemic and sustained change, and therefore require a range of financing types to support different phases of implementation. These include:

- Initial funds to erect the initiative's structure (e.g., start-up, multi-stakeholder meetings, capacity building to participate effectively)
- Continuous capital inputs for ongoing activities (e.g., improved seeds, fertilizer, infrastructure investment)
- Monetary rewards for delivery of conservation results
- Investment for scaling up early successes

These categories lend themselves to different types of financiers, and initiative proponents need to both articulate the initiative's gaps that must be filled and match these to available financial offerings. Private financiers, which require returns that are competitive with those of other investment opportunities, may not be well suited to fund activities needed to get an initiative going, but could finance agricultural inputs or invest to scale up proven models that blend high yields with forest conservation. Althelia Ecosphere, for example, invested €11.5 million into PECSA, a spin-off of the Novo Campo program in Mato Grosso, to support adoption of sustainable cattle ranching practices with the expectation of capturing returns from improved yields. If this initial investment succeeds, Althelia is considering a much larger investment to scale this project across the state's Alta Floresta region and beyond.

On the other hand, public finance is often associated with slow bureaucracies and considerable transaction costs, making it ill-suited to support activities typically financed via financial markets. However, public finance may require lower or no returns, and with adequate planning can provide significant up-front and/or ex-post funds to support implementation costs and complement other sources.

- Ecuador's government manages the Socio Bosque program, which pays poor families to keep their forests standing and supports forest-friendly livelihoods such as ecotourism and beekeeping by collecting fees from companies that cause deforestation.
- Colombia's Orinoquia initiative has secured international funds from the BioCarbon Fund's Initiative for Sustainable Forest Landscapes and the Global Environment Facility to support integrated land use planning, protected areas management, promotion of low carbon agriculture, development of an emissions reduction program, and overall program management expenses.
- Vietnam secured funding from the Green Climate Fund (GCF) to strengthen resilience of vulnerable coastal communities to climate change impacts by improving infrastructure and rehabilitating mangrove forests. The project also supports protection of natural forests and increase of forest cover, in alignment with the government's national strategies for environmental protection. These activities typically do not generate significant economic returns.

⁹ Rudel et al. (2009), Agricultural intensification and changes in cultivated areas, 1970 – 2005, <http://www.pnas.org/content/106/49/20675.full>.

Agricultural intensification and land use planning

Intensification of agricultural production features prominently in many jurisdictional approaches. In theory, increasing yields on existing productive land allows farmers and ranchers to increase earnings and produce the food demanded by a growing population without having to convert additional forestland. It also helps secure participation by producers in jurisdictional initiatives by compensating them for the loss of cultivated area onto which they might have otherwise expanded. But **intensification needs to be paired with robust and well-enforced land use plans that prevent agricultural expansion onto forested land. Without this, introduced efficiencies could incentivize additional conversion to increase profits, particularly when commodity demand is strong.**⁹ Additionally, alternative strategies need to be formulated in places like the Orinoquia, where conversion is often driven by land speculation. Since speculators capture value by clearing and selling land rather than by farming it, intensification is unlikely to affect deforestation rates.

KEY QUESTION:

What interventions need to be paired with intensification to ensure that deforestation actually declines?

CASE SNAPSHOT

GHANA'S COCOA-PRODUCING REGION



Ripe Cacao (*Theobroma cacao*) fruit.

Climate change threatens to devastate Ghana's cocoa industry. Cocoa provides Ghana, the world's second-largest producer, more export revenue than does any other agricultural commodity. If projections are borne out, its cocoa cultivation area will shrink to half its present size by 2050 and to zero by 2080.¹⁰ As one of the country's primary deforestation drivers, the cocoa sector exacerbates this threat each time production expands into the forest. This led the Forest Commission and Ghana Cocoa Board to propose one of the first-ever national REDD+ strategies focused on greening a commodity supply chain.

Financing for this initiative comes from several sources, each of which plays a different role. The government makes annual budget allocations to support the cocoa sector, which fund efforts to zone the cocoa producing region, develop locally suited interventions to address deforestation drivers, and deploy extension services to train farmers on best practices. The Ghana Cocoa Board collaborates with cocoa companies to raise cocoa seedlings for small-scale farmers and to develop and maintain infrastructure in support of the cocoa value chain. Under a subnational REDD program, the World Bank's Carbon Fund will make performance-based payments into a Ghanaian endowment that will insure farmers who have switched over to best practices against poor crop yields.

The initiative has been structured to not fully depend on international funds, with specific sources of finance dedicated to supporting specific activities. The question is whether enough funds are being directed at the critical nodes of the overarching strategy. Success in reducing cocoa-driven deforestation depends on providing enough value to producers to persuade them to shift toward more sustainable practices. If they don't receive enough of the benefit from the various sources of funds supporting the strategy, they will continue down the destructive path of business as usual.

¹⁰ Study cited by expert workshop participant.

Bilateral and multilateral REDD+ instruments including the GCF, Carbon Fund, and BioCarbon Fund are available to support program implementation and/or reward quantified greenhouse gas emissions reductions linked to reduced or avoided deforestation. However, these fund pipelines may require several years to navigate, including to deliver the forest monitoring and carbon accounting needed to verify delivered results (although these systems are well developed in many countries already). REDD+ finance supports several of the initiatives the workshop examined, but in all cases was one of multiple complementary finance streams.

- In Ghana, which has structured its program as part of the country's national REDD+ strategy, climate finance is supplementing investments that the government is already making from fees levied on the cocoa sector and from other sources.
- REDD+ finance thus far contributes a relatively small fraction of the overall budget of Acre's initiative, though there is hope for additional opportunities through the GCF. The development of new market mechanisms—including potential options negotiated under Article 6 of the Paris Agreement, the International Civil Aviation Organization's carbon offsetting and reduction scheme, and California's cap-and-trade system—may eventually provide further resources for REDD+.

Despite delays in the development of carbon markets, Acre has taken the important step of aligning its greenhouse gas accounting methodology with Brazil's national REDD+ methodology (including linking emission reduction targets, reference levels, and buffers). This positions the state well to receive emissions reductions payments once carbon markets mature. Further, Acre has found the REDD Early Movers program to be a flexible mechanism that can fund activities that might fall outside the purview of other REDD+ financing mechanisms. A contract under this framework with Germany's Ministry for Economic Cooperation and Development is supporting Acre's State System of Incentives for Environmental Services, sustainable small-scale farming, indigenous projects, and subsidies for natural rubber. A separate contract with Germany's Ministry for the Environment, Nature Conservation, Building and Nuclear Safety is supporting program coordination and communication, valuing extractive resources, and modernizing livestock production.

Workshop participants explained that different tactics are needed to attract different types of finance. International public finance is most accessible to places that can demonstrate high deforestation risk and a robust plan for reducing it. The PCI experience also shows how useful it can be for attracting donor attention to make a big announcement at an international forum (in that case, the Paris Climate Conference). Mato Grosso is continuing its proactive search for international public funding by setting up a donors table to both coordinate and optimize resources already being directed to the state, as well as fundraise to cover identified gaps.



Palm oil plantation in the buffer zone of the Korup National Park Mundemba, Cameroon.

Private financiers are generally less willing to expend resources to define investment opportunities. Instead, they need “bankable” projects that are essentially ready to launch upon the receipt of the requisite level of investment; public monies may be needed in less developed economies to formulate and facilitate such projects. Public funds can also be used to reduce risk that often deters private investors from committing funds. For example, early investments in getting stakeholder engagement right can reduce the risk perceived by private investors, helping clear the way for greater flows of capital. Another strategy is to directly absorb risks that might otherwise be borne by private investors. In Liberia, discussions are underway to channel Norwegian contributions through a production protection fund that aims to de-risk private investments in the oil palm sector, which would effectively insure investors against losses.¹¹ This is critical in a place as risky as Liberia, where the recent Ebola outbreak and perennially weak governance make the country unattractive to most investors.

Ultimately, deforestation occurs when producers choose to expand production to meet their livelihood needs and/or in response to market demand signals (these dynamics differ when speculation is prominent—see box above). Therefore, the combination of financial sources and other incentive mechanisms that a jurisdictional initiative employs needs to change this basic calculus in order to change the decisions resulting in deforestation. 

¹¹ Launched in 2017, the AndGreen Fund is designed to direct capital toward projects that combine forest conservation with increased food production and economic growth.

★ KEY LEARNING 4

PRIVATE SECTOR ROLE

Private sector actors are crucial for success, given the dominant role that market forces often play in driving land use change compared with public finance. That said, proponents must distinguish the needs and roles of different private sector actors to delineate asks, expectations, and compelling partnerships.

Governments, alone, carry the mandate of land policy and related land use planning, but they cannot on their own drive the shifts in land use practices that are needed to address environmental degradation at scale. Jurisdictional initiatives must be designed to incorporate private sector actors because they possess powerful levers that government often lacks. First, they typically drive the bulk of economic activity in a jurisdiction, either by making investments that shape the economic landscape or by using their buying power to influence how commodities are produced and delivered.

Second, they possess substantial technical expertise.

- GVL and its industrial plantation peers are best positioned in Liberia to provide the know-how to develop high-yield oil palm plantations. An important way for the government or other stakeholders to unleash this knowledge and disseminate the technical ability to meet development needs without compromising forests is by partnering with these companies.
- The situation in Ghana is similar: the average yield for smallholder cocoa farmers (who produce the bulk of the country's cocoa crop) is 400 kg/ha, compared with yields three times as high for recipients of extension services. Large cocoa companies are piloting climate smart agricultural practices to share with smallholders so that they can extract more value from the same land without having to undertake additional conversion.
- In Sabah, Malaysia, the corporate members of the Jurisdictional Certification Steering Committee, including Wilmar and Sime Darby, bring the deepest experience navigating RSPO certification, and are looked to for ideas on how to extend the certification model to smallholders statewide.

CASE SNAPSHOT

LIBERIA



Palm oil plantations as seen from the air, near the border of Central African Republic and Cameroon

Golden Veroleum Liberia's (GVL) massive 350,000-hectare oil palm concession is the largest in Liberia. Years of civil war during which timber proceeds were used to supply militias, and post-war corruption and illegality in the timber sector, have driven the national government to turn increasingly to oil palm development as a means to boost economic growth. Wishing to include rural communities in this new economy, the government issued concessions to companies like GVL on the condition that the companies develop outgrower schemes to extend development to smallholders.

Within this rubric, GVL is reinventing the role companies can play in production landscapes. Whereas the conventional expectation of industrial commodity producers has been to set aside High Conservation Value (HCV) forests on the lands they manage, GVL is planning to enter into PPAs with communities in Sinoe and Grand Kru Counties under which it would serve simultaneously as an extension services provider, employer, offtake purchaser, and co-financier. The communities would agree to conserve five hectares of forest for every one hectare of oil palm plantation developed on their land. In exchange, they would receive loans to establish these plantations. During the loan repayment period, GVL would manage the plantations, employ and train community members to work them, and guarantee offtake of all fresh fruit bunches. Communities would also receive an annual income of USD\$50 per hectare of oil palm developed, conditional on their compliance with an agreed Forest Protection Plan.

This arrangement responds to the capacity dynamics in Liberia. The national government can authorize palm oil development and work to resolve regulatory impediments to conservation, but it lacks the budget or staff to carry out its plans to develop a palm oil sector that benefits impoverished rural populations. The PPA model leverages GVL's capital and technical expertise to develop plantations, and clarifies the role it is expected to play in addressing the risk of palm oil-driven deforestation in Liberia, while encouraging economic development for participating communities.

A fundamental question is how to motivate private sector involvement in landscape-level efforts to address deforestation and other environmental challenges, which historically have fallen to governments. The answer will certainly depend on government dynamics and the key commodities and private sector actors in a particular geography, but a few general strategies apply widely. First, while true that the private sector often drives most economic activity, governments play a key role in promoting or inhibiting this activity through the regulatory environment. Unclear or conflicting policies can significantly deter private investment, while appropriate, streamlined regulations and responsive regulators can produce the opposite effect. In Ghana, coordination between the Forest Commission and Cocoa Board to align their competing mandates sent a signal to the industry that they could increase investments without fear of regulatory backlash, and serious engagement from cocoa buyers such as Touton and Mondelez followed.

Second, many of the world's largest producers and purchasers of commodities implicated in deforestation have over the past decade committed to eradicating deforestation from their supply chains. Companies may view engagement with jurisdictional approaches as a means to meet their own commitments and/or as a strategy to further reduce their reputational exposure to deforestation that occurs at the outskirts of their supply chains.

Governments, NGOs, or other actors can leverage corporate deforestation-free pledges to engage companies that presently produce in or source from their jurisdictions and to attract attention from additional companies seeking to implement their pledges. At the same time, private sector actors need a tangible “ask” or opportunity that they can assess from a vantage point of impact and good business; initiative proponents often fall short on framing this ask.

A common mistake that proponents of jurisdictional approaches make is to lump all private sector actors into one bucket, either because of the assumption that all profit-motivated enterprises essentially behave similarly, or due to insufficient understanding of the spectrum of roles that private sector actors play. In fact, certain actors are more important to target for involvement in jurisdictional initiatives than others, and their needs (and therefore interests and ability to engage) will often differ. The key categories are:

Actors firmly rooted in a jurisdiction. These include community farmers, individual smallholder farmers, industrial growers, mill operators, and local commodity traders. **Such actors are essential to include in jurisdictional initiatives because they are grounded where they are, and any effort to meaningfully address deforestation must address their needs.**

KEY QUESTION:

How should the value of a jurisdictional approach be judged given that some may fail, and that some may not set a very high bar?



Forest clearance for “Socapalm” or Oil palm (*Elaeis guineensis*) plantation.

Communities and smallholders have different needs than those of industrial players; agriculture provides a basic livelihood for smallholders and a profit-seeking enterprise for industrial players. Communities and smallholders often have little choice about whether to farm. They need assistance to meet jurisdictional targets such as satisfying requirements of Brazil’s Forest Code in Mato Grosso or conserving five hectares of forest for every one hectare converted to an oil palm plantation in Liberia. Forest-friendly agriculture often requires significant up-front capital and/or technical knowledge. Failure to provide such assistance may condemn small-scale farmers to noncompliance for lack of resources.

The case of the PPAs in Liberia, where communities receive employment, training, support to develop oil palm plantations, and additional payments, represents a fairly comprehensive model for equipping communities to conserve forests as part of a jurisdictional initiative. Other models could focus on clarifying collective and individual land rights, or developing participatory land-use maps that are granted legal status. Confidence about what the future will bring and legal recognition can incentivize community participation in jurisdictional initiatives.

Industrial growers, processors, and traders, in comparison, have to run their businesses profitably so as to pay off investors or satisfy shareholders. Thus, they also need to see clear value propositions if they are to engage. The PPA vehicle in Liberia creates clear value for GVL as a way to grow production in line with its deforestation-free and RSPO commitments. Similarly, cocoa companies in Ghana have strong incentives to develop and share climate-smart cocoa practices with the smallholders who grow most of the country’s cocoa in order to increase yields and secure long-term supply.

Actors who source from a jurisdiction. These include international commodity traders, international manufacturers/brands, and retailers that stock these brands. There are differences, of course, within this group of actors as well; traders, for instance, are closer to the production stage of a supply chain, which has implications for commodity traceability. But all actors in this category share some flexibility to begin or continue sourcing from a particular jurisdiction, or to shift sourcing to lower-risk

locations. The degree of flexibility depends on factors including market dynamics, long-term purchase agreements, and constraints on where certain commodities can be produced.

Companies looking to improve their supply chains for commodities implicated in deforestation must decide whether to direct their sourcing away from jurisdictions with high deforestation risk and/or find ways to support land management reforms on the ground. Many Western buyers of vegetable oils recently chose to move purchasing away from Southeast Asian palm oil in favor of alternative oil varieties produced elsewhere, sending a clear market signal that quickly provoked responses from industry supporters. Although blacklisting undesirable jurisdictions can be a straightforward strategy to eliminate risk of deforestation from individual supply chains, it also removes positive market pressure to improve practices. In this vacuum, suppliers may turn to indiscriminate buyers and continue to be rewarded with market access for engaging in destructive management practices. Workshop participants felt that **the best approach for buyers to take with jurisdictions encountering difficulty meeting deforestation-free objectives is to recognize progress rather than punish imperfection.** Companies should use their business as currency to reward a jurisdiction's success at achieving a certain level of performance.

To persuade commodity buyers to invest in improvement rather than divest to avoid risk, the international community of environmental NGOs and financiers must, in turn, reward companies that “stay” and work at improving challenging landscapes. These groups influence corporate actions via expert guidance (e.g., on sustainability risks to supply chains) and reputational and financial pressure. NGOs need to help find ways to recognize companies for doing the hard work to improve practices on the ground rather than focusing exclusively on the degree to which a disaggregated supply chain has become free of deforestation. Similarly, private investors can improve the selection criteria they use to decide which companies they will finance to account for such distinctions.

Actors who invest in production within a jurisdiction. These include multilateral or bilateral donors, private financial institutions, and impact investors. Financiers have wide flexibility in choosing where to invest and whether to invest in agriculture at all as opposed to other sectors (e.g., infrastructure, manufacturing, energy). The previous section discusses strategies for attracting different types of investors to a jurisdictional initiative.

KEY QUESTION:

Given that blacklisting could harm rather than help non-performing jurisdictions, how should markets treat lack of progress?

KEY QUESTION:

What are effective strategies for proponents of jurisdictional initiatives to determine the motivations of the various stakeholders that need to be engaged so as to develop compelling value propositions for them?

In addition to the differences among private sector actors, different strategies may be needed to engage the private sector depending on whether a jurisdiction's market links are international or domestic. Demand from (predominantly)¹² Western multinational companies with deforestation-free commitments is a potent signal to export-oriented producers that market access hinges on adoption of forest-friendly production practices.¹³ Where producers serve domestic markets in countries with little demand for deforestation-free products, influence levers are less straightforward. The most durable solution might be to build such demand in domestic markets, although this is clearly a longer-term avenue.

A different approach is to build linkages to international markets. Acre's government has gone this route for high-value goods like Brazil nuts and honey, for which provenance is often important to consumers. Branding products to raise awareness around their quality and association with conservation can attract demand in lucrative Western markets that seek these qualities. For products such as rubber and wood, which are more commoditized and for which marketing is more difficult, a good first step could be to add value before seeking export markets, by processing these into shoes and furniture for instance.

Another way to link commodities to international markets is to actively pursue international buyers. For example, Mato Grosso is engaging the China Soybean Industry Association and the European Feed Manufacturers' Federation in an effort to forge long-term contracts to purchase deforestation-free soy. Proponents of jurisdictional initiatives could similarly seek out partnerships with individual companies like Unilever and Marks & Spencer, which signaled their willingness in 2015 to preferentially source commodities implicated in deforestation from jurisdictions that can demonstrate progress toward deforestation-free goals. However, introducing large buyers to new sourcing regions must be done cautiously to ensure that increased demand does not overwhelm supply and drive producers to clear additional forests. 

KEY QUESTION:

How can domestic markets be moved to exert pressure where external market levers are limited or where demand for sustainable products is weak?

¹² Non-Western companies that purchase commodities abroad, such as those based in China, India, and the Middle East, have been slower to announce pledges and take action to address deforestation in their supply chains. But there is reason to hope that things may be changing. For example, the China Soybean Industry Association signed a memorandum of understanding in 2016 with Mato Grosso's Soybean Producer Association and the Brazilian Vegetable Oils Industry Association to work toward eliminating deforestation from soy production in Brazil.

¹³ Even in jurisdictions that export a significant portion of their commodity production that is linked to deforestation, there likely is domestic-facing production that also contributes to deforestation and may be insensitive to environmental demands imposed on exports. One of the primary justifications for a jurisdictional approach is to leverage international market drivers, where they exist, to reform land use policy and planning so as to influence even production that is disconnected from these markets.

★ KEY LEARNING 5

STORYTELLING

Skilled and tailored storytelling that articulates a jurisdictional initiative's goals, needs, and early successes is critical to building support and growth among different audiences.



The announcement of a new jurisdictional initiative can generate interest and excitement, which can be channeled toward initiating design and implementation. To maintain momentum, even the best-designed initiative must be accompanied by robust communications. Investors and other external stakeholders need to be kept informed of new developments and progress against agreed targets to maintain their engagement and support. Internal stakeholders, including politicians and their constituents, need to not only understand the initiative's tangible value but also have this value communicated in a politics-relevant time frame (i.e., ahead of election cycles).

Storytelling is also important to strengthen markets for a jurisdiction's products. Acre's government is employing a strategy to highlight the flavor, innovation, indigenous income, biodiversity, and low carbon associated with every product produced within the state. The strategy is to differentiate its products along these lines, using the label "Acre, made in Amazonia," to increase market penetration and ideally even command a premium.

The hope is that this sort of communication can help de-commoditize products by appealing to customer preferences to know the origins of their purchases. This preference is clear with respect to luxury goods, such as Burgundy wine or Kobe beef, and further research is needed to determine whether it holds for goods that are responsibly produced. To garner further interest of international buyers, Acre could develop criteria governing the application of the "made in Acre" label, which independent third parties could use to verify proper application of the label. This could both build consumer confidence in the claims made and reduce the cost to buyers to ensure a certain level of quality.

🔍 KEY QUESTION:

How can the market be moved to show a preference for products from sustainable sources or to offer a premium for such products?

CASE SNAPSHOT

MATO GRASSO



Cowboy and cattle at the Millennium Cattle Farm, Campo Grande, Brazil. This organic farm aims to be a model farm for sustainable beef production in Brazil.

Mato Grosso's Produce, Conserve and Include (PCI) strategy vaulted into the international spotlight at the 2015 meeting of the UN Framework Convention on Climate Change in Paris. The state governor, Pedro Taques, told a compelling story: the government and all relevant stakeholders across the state would set and implement joint targets for production of soy and beef, conservation of forest cover, and inclusion of all segments of society. The international community responded enthusiastically. After all, Mato Grosso encompasses a huge swath of the Brazilian Amazon and is the country's largest producer of both beef and soy. Getting these diverse stakeholders to partner in the name of conservation would be an enormous win for the climate agenda.

Mato Grosso's deforestation rate had already been in decline for a decade prior to the Paris Climate Conference. Many efforts contributed, including work by the soy and beef sector to eliminate deforestation from supply chains, reforms to the national Forest Code clarifying legal requirements concerning protection of natural ecosystems, and launch of the Rural Environmental Register to link remote sensing data on deforestation with land ownership records. After Paris, though, the conversation shifted to a focus on Mato Grosso's prominent commitment to address deforestation. Suddenly, an array of important donors was jumping to support its efforts.

Although the governor's announcement was sufficient to transform Mato Grosso's narrative, it provided few details. A PCI State Committee launched several months following Paris and went on to hire an executive director who helped develop a work plan. This plan fleshed out the governor's vision, defining a pathway for implementation that includes plans for a financial mechanism, monitoring of progress against agreed targets, and development of business cases to pique private sector interest. But the time gap between the PCI initiative's launch and articulation of an implementation road map has led to some confusion among stakeholders regarding what is expected of them. In addition, not all internal stakeholders are as enthusiastic as the international community. Proponents of the initiative are coming to recognize the critical need to distill messaging from the high-level vision in ways that resonate with diverse stakeholder groups that are being asked to collaborate toward a common objective.



Cattle at the Millennium Cattle Farm, Campo Grande, Brazil. This organic farm aims to be a model farm for sustainable beef production in Brazil.

To tell an initiative's story in a compelling fashion, it is important to communicate clear end goals and a vision for how to reach them. This provides context to any specific asks that are made of individual stakeholders and enables them to see how their contribution would fit into the broader strategy. At the same time, it is critical to be able to tell stories about early wins, which add tangibility to requests for support and demonstrate that further progress is in reach. Part of the reason that Mato Grosso has been so successful at drawing interest from donors and investors in its strategy to conserve forests via agricultural intensification is because it could point to the Novo Campo program, which has successfully piloted this approach with respect to beef. If such pilots are not already ongoing, it may be important to expend initial capital to develop these models, which can then be communicated to funders as an opportunity to scale impacts.

It may be more difficult to articulate the rationale for conservation to certain stakeholders than to make the case, for example, for agricultural intensification. Some stakeholders of Colombia's Orinoquia initiative are arguing that the objectives are becoming too "green"—that forests are the key ecosystem in need of protection and therefore development should be permitted in savannas. This highlights the importance of co-creation in storytelling. Much like the engagement process discussed above, the goal is twofold: to gain buy-in from key stakeholders and to make sure the story being told is correct and impactful. A compelling story should be developed using perspectives gathered from the intended audience. For example, talking about the importance

of savanna conservation from the perspective of the initiative's convener may miss the mark and fail to secure buy-in from communities. Instead, the convener should listen to what communities themselves value in savannas and fold that into the story of the initiative that they communicate back to communities.

Different versions of the same story may resonate with different audiences. This is not to suggest providing misinformation or even incomplete information to any interest group (both of which could pose substantial risks to trust and sustainable support), but rather to note that emphasizing the elements that matter most to each audience is common sense and most likely to garner their additional feedback and engagement. In the Ghana case, the government is motivated to defend the

cocoa sector from climate change because the sector provides livelihoods for a large percentage of the population and is an important source of public revenue. Large cocoa buyers are motivated to build resilience in their supply chains and differentiate their products within the global cocoa market on sustainability grounds. Smallholders are likely to be motivated by a desire to secure crop insurance and long-term income from farming cocoa into the future. These various motivations can serve as the basis for differentiated storytelling when engaging each audience.

Specific language also matters. For instance, proponents of a jurisdictional initiative in Brazil who want to engage new stakeholders may wish to avoid referring to the initiative as a "jurisdictional approach," which in Portuguese connotes a level of government control that may not be intended. This could turn off stakeholders who distrust the government, even if the initiative is intended to share decision-making authority among a wider range of stakeholders.

The technical and coordinating skills that it takes to launch a jurisdictional initiative involving multiple stakeholders with diverse interests do not always overlap with the storytelling and facilitation skills needed to grow support and momentum for an initiative. Dedicated communications staff and resources can be immensely useful to initiative proponents. Specialist staff can help develop a communications plan that identifies key audiences, determine the information need (i.e., who needs to know what, and when), tailor the message to each audience, and define effective communications channels. 



Cacao tree (*Theobroma*) in a plantation. Bioko Island, Equatorial Guinea.

★ KEY LEARNING 6

EXPECTATION MANAGEMENT

The complexity and duration of jurisdictional initiatives require sustained investment to achieve systemic change; therefore, local and global expectations should be thoughtfully managed to avoid creating unachievable goals or time frames, and to help ensure lasting results.

Expectation management is the counterpoint to telling a compelling story; the higher expectations are raised in the hope of attracting support, the greater the risk of disappointment if things don't go exactly as planned. Expectations must be considered regarding both the pace at which change will occur and the scope of an initiative.

Proponents may be tempted to build as much hype as possible to secure buy-in and investment for a fledgling initiative, but progress that is slower than expected, or backsliding against short-term targets, could cause key supporters to abandon the initiative. It should be made clear from the outset that the change trajectory is complex and lengthy so that delays or reversals may be viewed in perspective as blips rather than fundamental failures justifying major departures from the underlying change strategy.

For example, following a decade of falling deforestation rates in Amazon states like Mato Grosso and Acre, deforestation has risen in the past few years. An observer expecting to see only down-ticks in deforestation every year might conclude that present efforts to address deforestation are failing and need to be overhauled. Meanwhile, an observer expecting change to take place more slowly might recognize that the overall deforestation rate is still significantly lower than it was in the early 2000s and conclude that the underlying strategy for addressing deforestation remains effective but needs adjusting. **How expectations have been managed can determine whether stakeholders interpreting the same facts will extend or pull their support for an initiative.**

In addition to the pace of change, proponents need to manage expectations regarding an initiative's scope: what it does and does not propose to accomplish, and any needs that may not be fully addressed. Some initiatives focus on reducing deforestation from one or a few commodities that have been identified as the largest drivers of conversion. This approach necessitates involving fewer actors and understanding fewer supply chains, and can seem more manageable than tackling multiple drivers of deforestation at once. But it is important to communicate that these approaches

are not designed to reduce deforestation caused by other drivers so that continued deforestation is not necessarily held against the initiative's performance, and so further interventions can be developed to address other drivers. Likewise, clarifying that conversion drivers can shift depending on market prices, demand, regulatory conditions, and other factors, can prevent a jurisdictional approach from becoming so entrenched in its focus on just a few commodities that it is unable to adapt to new dynamics.

- The community loans being designed in Liberia are specific to palm oil development, which focuses their application to the activity that is projected to drive much regional deforestation in the coming years. One risk, though, is that communities may see more value in abandoning the loan and clearing forest for a different, more lucrative crop if the price of palm oil declines. The initiative's proponents recognize the need in the future for scope expansion beyond palm oil to reduce the dependence of forest conservation on the price of palm oil, and are working to diversify sources of livelihoods to reduce incentives to deforest.
- Ghana's initiative is also focused primarily on a single deforestation driver: cocoa. The government has sought to address the potential that deforestation could simply leak from the cocoa sector to other sectors by launching distinct programs for addressing other sectors that drive deforestation. In combination, these programs effectively create a moratorium on forest conversion from all sectors that presently contribute significantly to deforestation. But there are already indications that this sector-by-sector approach creates gaps; the Ministry of Food and Agriculture is considering expanding citrus production, which would most likely necessitate further conversion since there is little cleared land that is both suitable and available. Clarity on exactly what Ghana's initiatives seek to achieve can help ensure that proponents do not let down their guards to other threats to forests.

Beyond the question of which expectations to manage is the question of whose expectations need to be managed. First, it is critical to be up front with producers about what is expected of them and what they stand to gain. Producers are liable to feel deceived and will disengage if they are surprised late in the game by an initiative's bottom line goals. Similarly, overpromising, or even vagueness about what the benefits of participation in a jurisdictional initiative might be, is a recipe for disappointment. The loan agreements being negotiated with communities in Liberia are designed to extend for 15 years. To prevent long-term complications, there needs to be clarity about what will happen after this term expires when communities gain ownership of the plantations that have been developed (e.g., who will be responsible for providing material inputs and harvesting equipment? will offtake be guaranteed?), as well as what will happen 10 years later when the oil palm trees reach the end of their productive lives (e.g., will there be support for felling and replacing trees?).

Proponents of jurisdictional initiatives also need to manage their own expectations. As discussed above, there is a tendency to think of all members of a stakeholder group as being driven by the same motivations. But communities do not all want the same thing (let alone members of an individual community!), smallholders may respond to incentives differently, and

even larger companies are subject to differing internal cultures and pressures. Thus, initiative proponents need to expend the effort to understand what individual stakeholders need and not expect too much from any particular stakeholder.

Finally, it is crucial to manage the expectations of the international community, in particular those of donors and multinational companies that are looking to jurisdictional approaches as a means to deliver deforestation-free and climate results at scale by 2020. There is no guarantee that jurisdictional approaches will succeed everywhere. In effect, they represent a range of large-scale experiments to test different change theories that are unproven, albeit highly compelling in many cases. 

CASE SNAPSHOT

MATO GRASSO & BRAZIL



Aerial view of unpaved roads dividing a soy (*Glycine max*) monoculture from the native Cerrado, in the region of Ribeiro Gonçalves, Piauí, Brazil.

As discussed above, the announcement of the PCI initiative in Mato Grosso generated considerable attention. This was powerful for securing stakeholder engagement and funding, but it also created high expectations that may be difficult to meet. Critically, the initiative is built on the backs of hundreds of individual projects, most of which are beyond the government's direct control, but the successes of which underpin the PCI State Committee's ability to deliver on its goals. There is also a question whether multinational commodity buyers will agree to source their supply from Mato Grosso to reward progress toward its goals.

Meanwhile, Brazil's economy has experienced significant decline in recent years. The GDP dropped in 2015 by its largest margin in 25 years, and the three largest credit rating agencies at various times downgraded the country's debt to junk status. Leaner times have led the federal government to slash budget allocations to the two primary government bodies that regulate deforestation. At the same time, the agricultural lobby has advanced changes to the national legislation that would loosen restrictions on forest conversion while the government is distracted by a national corruption scandal. This could deal a devastating blow to the rigor of the PCI initiative's goals, given their focus on eradicating illegal deforestation.

ASSESSING THE COLLECTIVE POTENTIAL OF JURISDICTIONAL APPROACHES

The primary goal of this workshop and synthesis was to build a better foundation of understanding about jurisdictional approaches—both for practitioners in attendance and for the broader sustainability community that is actively assessing the potential of this family of models but often lacks detailed information about them. This paper provides concise narratives describing five of these initiatives (in case snapshots above and case profiles in the annex), and the six key learnings that emerged from a “deep dive” comparative analysis. The learnings represent conclusions from the workshop and anchor the body of this paper. In this closing section, the conveners provide a few additional takeaway messages considering the five case studies with an eye toward their potential for replication, and the potential for jurisdictional approaches more broadly to play a significant role in reducing deforestation and environmental degradation globally.

- 1. In most cases, it is too soon to assess the success of these models; they are nascent and, if successful, will deliver results over a period of years rather than months.** The time and investment required to develop effective multi-stakeholder coalitions, and the challenge for both governments and private sector actors to commit to long-term strategies, are significant obstacles to success. **On the other hand, lack of proven success is not a reason to wait to support these innovations.** Persistent deforestation in many regions, despite years of investment in other strategies, is evidence that current efforts are not sufficient. Voluntary certification standards, for example, continue to be a mainstay of corporate and NGO efforts, and provide essential footing in the spread of best management practices; but their role in reducing forest loss at scale remains difficult to quantify. Moreover, continuing deforestation in many cases is due in part to lack of integration or coordination of public and private sector efforts. Systemic challenges like conversion of forests and other natural ecosystems generally require systemic solutions; collaboration among the most impactful players in a landscape or jurisdiction to identify and work toward common goals therefore opens new possibilities for success.
- 2. The amount of innovation in this space is encouraging.** Each place-based partnership represented in the workshop, and others discussed in the literature, takes a different form, responding to different deforestation drivers, scale of commodity production, market dynamics, governance

capacity, government leadership, available sources of finance, etc. Meanwhile, industry leaders like Unilever and Marks & Spencer are sending global demand signals that sustainable commodity production efforts that achieve results at landscape and jurisdictional scales will be rewarded with preferential sourcing. Separately, several jurisdictions in Asia and Latin America are providing blanket supply-side signals by announcing ambitions to achieve jurisdiction-wide palm oil certification, which would assure buyers that oil produced in these geographies are deforestation-free. This diversity of approaches makes it clear that flexibility and adaptability to regional conditions are much more appropriate than one-size-fits-all strategies.

3. **Significant corporate engagement remains a limiting factor.** Companies are metrics-driven, and their sustainability efforts have historically targeted activities that can be easily measured, such as reductions in a company's own environmental impacts. Companies have been slower to undertake actions that contribute to sustainability outcomes beyond the direct reach of their supply chains in part because of the difficulty in quantifying their contributions and justifying these expenditures to their boards. Demand signals for sustainable commodities delivered at landscape or jurisdictional scales remain weak, and examples of direct financial or technical investment by the private sector in sourcing geographies, though increasing, are still exceptional.¹⁴ **Buyer and trader interest in jurisdictional approaches is growing, due both to transaction costs of alternative strategies and persistent deforestation-related supply chain risks. But they need clearer road maps for how specifically they can engage, and whether and how this engagement will be viewed as a credible step in meeting their sustainability commitments.** Multi-stakeholder platforms like the Governors Climate and Forests Task Force and the Tropical Forest Alliance 2020 can help seed innovative partnerships as they increasingly focus on implementation.

Collectively, jurisdictional approaches are worthy of increased focus and investment, bearing in mind that they will not be the best strategy in every context and that greater clarity is needed concerning the preconditions that lend themselves to success. Academic interest must translate to more on-the-ground piloting and direct engagement by all stakeholders involved in landscapes where commodity production is driving deforestation and environmental degradation. The time is now for governments to demonstrate their commitments to the Sustainable Development Goals and Paris Agreement (in particular as they strive to achieve and increase ambition in Nationally Determined Contributions), and for actors across the private sector to show how they can help achieve these goals, as well as make good on rapidly approaching deadlines to end deforestation announced in individual corporate supply chain commitments and in the New York Declaration on Forests. Time is short, and jurisdictional approaches can play an important role in scaling up measurable progress toward reaching these goals.

¹⁴ Indeed, a recent CDP analysis on palm oil showed that while 87% of reporting manufacturers and retailers said they were engaging their suppliers, only about a third conduct supplier audits or provide training to suppliers, and fewer than 10% provide technical support. McCoy & Servent (2017), Public- and Private-Sector Roles in Achieving Zero Deforestation, section 5.1 in ETFRN News 58, <http://www.etfrn.org/index.php?id=49>.

ACKNOWLEDGEMENTS

WWF wishes to thank the workshop participants whose experiences and insights provided the foundation for this paper:

Violaine Berger

Camila Cammaert

Mariano Cenamo

Ernest Dwamena

Renato Farias

Akiva Fishman

Lloyd Gamble

Pavel Jezek

Yaw Kwakye

Daniela Mariuzzo

Edegar Oliveira

Marcelo Oliveira

Luke Pritchard

Fernando Sampaio

Alberto Tavares

Isabella Vitali



Annex 1: Case Summaries

Liberia

Adjusting the concession-based development model to one that empowers smallholders and weaves in incentives for forest conservation.

LOCATION AND SCALE:

Sinoe County (1M ha) and Grand Kru County (400,000 ha) in southeastern Liberia; target of 8,200 ha of sustainable farmland and 70,000 ha of forests conserved.



ORIGIN:

In 2009 and 2010, the Liberian government issued over 800,000 ha of concessions to four multinational plantation companies: Equatorial Palm Oil, Golden Veroleum Liberia, Maryland Oil, and Sime Darby Plantations Liberia. The concession agreements are conditioned on the companies working with external funders and the Liberian government to develop approximately one hectare of smallholder-run plantations for every five hectares of company plantations. In 2014, the government published a 4-year Oil Palm Export Strategy which identified oil palm as a strategic crop for generating revenue to boost the economy still struggling to recover following Liberia's emergence from war in 2003 and the more recent Ebola crisis.

In the years following, Golden Veroleum Liberia (GVL) began establishing its first oil palm plantations in southeast Liberia. It committed to operate in accordance with Roundtable on Sustainable Palm Oil criteria and to expand its production of oil palm in a deforestation-free manner. Since much of its concession contains High Conservation Value areas and High Carbon Stock forests that cannot be converted pursuant to these commitments, and since the government's



Palm oil plantation which replaced the coastal rainforest in the western parts of Ivory Coast

policy to promote smallholder oil palm presents an opportunity to expand production while improving local wellbeing and community relations, GVL views the outgrower program as an important growth strategy.

Meanwhile, Norway's International Climate and Forest Initiative (NICFI) had been seeking investment-based approaches to forest conservation in response to perceived limitations with funding mechanisms under the UN Framework Convention on Climate Change's Warsaw Framework for REDD+ (Reduced Emissions from Deforestation and forest Degradation). At the first annual meeting of the Tropical Forest Alliance 2020 in 2015, NICFI and IDH the Sustainable Trade Initiative met with the Managing Director of Liberia's Forestry Development Authority (FDA), at which he made a strong case link community productivity to forest protection. NICFI agreed to fund IDH's landscapes program to design and build multi-stakeholder landscape coalitions that can support the development of Liberia's oil palm concessions in an environmentally benign and inclusive manner.

THEORY OF CHANGE:

Forest conservation will result from establishment of legally binding Production-Protection Agreements between communities, GVL, and the government, under which communities commit to conserve forestland in exchange for a clear package of incentives negotiated via a participatory community-based decision-making process based on free, prior, and informed consent:

- a) The community will receive a loan to fund development and operation of an oil palm plantation.
- b) GVL will employ community members to develop and manage the plantations during the loan repayment period, guarantee offtake of palm fruit, and provide technical, organizational, and financial management skills training.
- c) The community will receive additional income of 50 USD per oil palm ha per year conditional on the community complying with an associated Forest Protection Plan.

These agreements will leverage at least 5 ha of forest protected for every 1 ha of oil palm development via the Forest Protection Plan. The first pilot effort aims to develop 4,000 ha of community oil palm plantations and protect 20,000 ha of natural forests. Land for production, livelihoods, and protection will be delineated and agreed via a participatory land use planning process, and production land will both be directed to previously degraded land only and be 100% RSPO certified.

Together with related IDH-led pilots in north-central Liberia with ArcelorMittal, the intent is to scale this model of sustainable production, forest protection, and smallholder inclusion across Liberia by attracting investors to support replication.

GOVERNANCE STRUCTURE:

At the national level, a steering committee provides oversight and strategic support to the community oil palm outgrower scheme. Meeting quarterly, it supports implementation of the scheme in connection with the Production-Protection Agreements. The steering committee is comprised of government entities (e.g., Forestry Development Authority, Ministry of Agriculture, National Bureau of Concessions), oil palm concessionaires, an NGO and civil society representative, and representation from participating communities. Direct community engagement occurs locally rather than at the level of the national steering committee.

KEY ROLES AND RESPONSIBILITIES:

- Concession holder – Direct point of contact with communities, manages newly developed community oil palm farms until community loans are repaid, and provides skills training. Will be a signatory to Production-Protection Agreements (PPAs).
- Communities – Establish Community Legal Entities (CLEs) to negotiate PPAs and receive loan funds, identify employees to manage community oil palm farms, define how benefits will be shared, protect the forest areas agreed under Forest Protection Plans. Each CLE will be a signatory to a PPA.
- Liberian government – The FDA and Ministry of Agriculture will be signatories of the PPAs, enhancing their legitimacy and legality, and will facilitate resolution of land-related disputes.
- IDH – Support development of and fundraising for the community oil palm outgrower scheme and community benefit sharing structures, and hire implementing partners. Current implementing partners include:
 - Parley – NGO working to build community capacity for internal governance and decision making, organize sessions to inform communities about the initiative’s process and goals, and support them to establish inclusive CLEs.
 - Fauna & Flora International – Working with the communities to develop Forest Protection Plans by mapping the land, clarifying ownership and past use, and zoning for oil palm development and protection areas.

MOTIVATIONS:

- Concession holder – Expand production while delivering on deforestation-free commitments by working with communities, and improve community relations.
- Communities – Obtain jobs and income, invest in assets (i.e., oil palm farms) that will deliver long-term livelihood benefits, and clarify rights to land.
- Liberian government – Partner to fundraise for and implement the community oil palm outgrower scheme.

FINANCING:

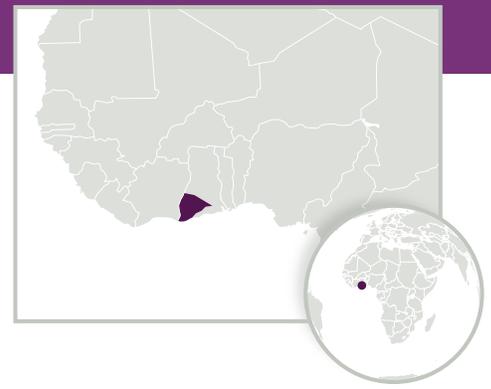
International development finance institutions, the AndGreen Fund, and GVL finance the loan, which is used to fund plantation preparation, purchase of seedlings, worker salaries, and the additional income that is contingent on compliance with the Forest Protection Plan. IDH coordinates provision of technical assistance to support stakeholder capacity building and land use planning.

Ghana

Linking national leadership, private sector action, and international climate finance to advance a national development and conservation vision

LOCATION AND SCALE:

Southern Ghana's cocoa-producing region (5.9M ha)



ORIGIN:

Cocoa has served as Ghana's economic backbone for over a century. It is the country's most important agricultural export commodity, second only to gold among all exports. But whereas gold generates relatively little wealth for the Ghanaians who mine it, cocoa is a key pathway for many ordinary Ghanaians to economic empowerment. Indeed, most cocoa in Ghana is produced by smallholders. The government strongly supports maintaining a thriving cocoa sector, which provides jobs, generates tax revenue, and provides an alternative to unemployed youth who often otherwise turn to illegal and environmentally degrading mining practices.

However, strong cocoa demand is driving farmers to expand production into the forest frontier, producing enormous greenhouse gas emissions due to deforestation and degradation, which in turn threatens to shrink the area in Ghana suitable for producing cocoa. A common misconception among farmers that cocoa grows best without tree cover compounds the problem; below-average yields cause farmers to push ever farther into the forest to plant more low-yielding cocoa trees. Meanwhile, a law that gives the government ownership over trees that naturally occur on farms further incentivizes farmers to keep their properties free of trees lest the government grant other parties concessions to their land.



Cocoa fruits in the Atlantic forest in Bahía, Brazil

The Forestry Commission (which regulates forest use) and Ghana Cocoa Board (which facilitates production, processing, and marketing of cocoa) had long operated in silos with overlapping authorities over forested areas. But recognizing their mutual interest in addressing deforestation, they decided to coordinate around simultaneously promoting cocoa production and forest conservation, and turned to the international Reduced Emissions from Deforestation and Degradation (REDD+) mechanism as an organizing framework.

The government did not have sufficient upfront funding to tackle the full scale of the challenge. Meanwhile, it recognized cocoa companies as a potential source of funds and technical knowhow, and saw that they were already working to improve smallholder production practices by providing them inputs and information on best production practices. Looking to leverage these ongoing investments, the government decided to work closely with the private sector in implementing the national REDD+ scheme.

Cocoa companies were amenable because they seek a secure, long-term cocoa supply in the face of climate risks to the sector. Further, they recognized the need to scale efforts to halt deforestation to the landscape level to effectively communicate sustainability success to their customers who increasingly demand deforestation-free products. Success along landscape-level sustainability metrics could even provide a means of differentiating chocolate products in the marketplace.

THEORY OF CHANGE:

Forest conservation will result from a combination of smarter regulation, stronger enforcement, and agricultural extension.

- The national government will work with district assemblies (which hold mandates to undertake land use planning) to zone rural areas along soil and moisture gradients so that cocoa is not produced (and forests are conserved) on marginal soils. It will also reform the tree tenure law to remove disincentives to maintain forest cover on private property.
- A 10-year wind down period before enforcement actions commence will enable smallholders who have encroached on forest reserves to leave the reserves. During this period, they will have to use a portion of their earnings to restore the areas they have deforested.
- The government and cocoa companies will educate smallholders about improved growing practices, and in exchange for adopting these practices, the government will provide crop yield insurance and enhanced access to credit.

GOVERNANCE STRUCTURE:

At the national level, the Forestry Commission—which hosts the National REDD+ Secretariat—and the Ghana Cocoa Board, with support from the multi-institutional National REDD+ Working Group, provide strategic direction for the Ghana Cocoa-Forest REDD+ Programme. Consortia comprising regional government bodies, the private sector, and civil society oversee “Hotspot Intervention Areas” (HIAs) at the regional level. Each of the nine HIAs is governed by a board comprising traditional authorities, farmers and forest users, and communities. Interventions will be tailored to account for the available capacity and existing efforts being undertaken by private sector and state actors.

KEY ROLES AND RESPONSIBILITIES:

- Ghana Forestry Commission – Zone cocoa producing region into HIAs and develop locally suited interventions to address deforestation drivers, including by reforming policies to promote forest conservation.
- Ghana Cocoa Board – Deploy agricultural experts to educate farmers on best practices for sustainable cocoa cultivation, provide crop yield insurance to farmers implementing new practices, and work with banks and buyers to increase availability of finance to smallholders.
- Cocoa companies – Pilot climate-smart cocoa practices, socialize these practices among smallholder growers, and convene other stakeholders to scale efforts up.
- Smallholders – Adopt climate-smart cocoa practices.
- Civil society – Watchdogs to ensure good governance/rule of law and support to communities.

MOTIVATIONS:

- Government – Ensure a resilient cocoa sector that provides jobs and generates tax revenue, reduce youth unemployment that drives illegal mining and environmental degradation.
- Companies – Ensure a sustainable and secure cocoa supply, differentiate products in the marketplace based on landscape-level sustainability, meet consumer expectations for deforestation-free products, communicate sustainability success to customers by scaling efforts to the landscape level.
- Smallholders – Ensure long-term secure income from cocoa farming, obtain crop insurance.
- Civil society – Elevate attention to human and labor rights.

FINANCING:

The Ghana Cocoa-Forest REDD+ Programme is designed as a 20-year project. For the first 5 years, the Forest Carbon Partnership Facility's Carbon Fund will make up to \$50M in performance-based payments for emissions reductions that the Programme generates. The following 10 years will be a period of scaling up, followed by 5 years of consolidation. Throughout, the government will use funds collected from taxes levied on the cocoa sector to provide extension services to smallholders, subsidize agricultural inputs like fertilizers, and support cocoa-related infrastructure such as storage (current funding is \$5M per year). These funds will leverage private sector investments into the sector.

Acre

Using REDD+ as a tool for consolidating a green economy

LOCATION AND SCALE:

State of Acre, Brazil (16.4M ha, ~87% of which is forested)



ORIGIN:

In the 1970s-90s, beef drove 80% of deforestation in Acre and represented 90% of its GDP; a 2007 study showed that business as usual would result in a loss of over 30% of Acre's forest cover by 2030.¹ During this time, forests were commonly viewed as 'green deserts' and were targeted for development. Forest-dependent peoples, including those who made their living collecting Brazil nuts and tapping rubber trees, were marginalized in the name of advancing economic growth.

Chico Mendes came to lead the union of rubber workers, which lobbied the government to create forest extractive reserves, and often physically blocked machinery sent to clear forested areas from accessing them. Following a campaign to stop a cattle rancher from clearing land that was being used by rubber tappers, the rancher murdered Mendes in 1988. The assassination helped galvanize Acre's population to usher new leaders into power in the late 1990s. The new government quickly began erecting the pieces of a comprehensive framework of legislation and rationally interlinked institutions seeking to conserve and create value from the state's forest resources.

Together, these have yielded state-wide zoning that defines where production can and cannot take place, and have promoted tree plantations in previously deforested areas and agricultural intensification to limit encroachment into remaining natural forests. They have also enacted sustainable

¹ IPAM study cited by an expert workshop participant.



Rubber tapper scoring a rubber tree (*Hevea brasiliensis*), in the community of Cumari, Acre, Brazil

management regimes for forests, created businesses that depend on standing forests for production of non-timber forest products, and provided benefits to indigenous peoples that live in and around forests. Since the mid-2000s, deforestation has fallen dramatically and has stayed down.

THEORY OF CHANGE:

Forest conservation will result from a comprehensive legislative and policy framework that creates substantial incentives to direct development activities in a forest-friendly manner.

- The 2007 Ecological and Economic Zoning Plan divides Acre into geographic zones that regulate economic activities in previously deforested areas, and provides the basis for sustainable management in areas that remain forested.
- The SISA law, enacted in 2010, established a framework under which land managers can earn ecosystem service incentives for employing sustainable management practices, including practices traditionally employed by indigenous peoples.

- The state government is promoting income-generating activities that are not premised on clearing forested areas, including fish farming, Brazil nut processing, natural rubber condom manufacturing, wood flooring and furniture production using sustainably managed timber, and reforestation with rubber, acai, and other native species.
- The state-level REDD+ program (the Acre Carbon Standard) is aligned with Brazil's national REDD+ methodology.
- The government is marketing Acre products as "Acre, made in Amazonia" to try and command a premium for goods produced without causing deforestation.

GOVERNANCE STRUCTURE:

Acre's jurisdictional initiative is overseen and managed by multi-stakeholder councils comprised of governmental and non-governmental organizations. An important innovation in this regard is the Commission for Validation and Monitoring (established under the SISA law—see below), which is made up of four civil society organizations and four governmental organizations. Another avenue for non-governmental involvement was an extensive and highly acclaimed public consultation process used to develop the SISA law.

KEY ROLES AND RESPONSIBILITIES:

The SISA law created several key institutions to drive forward Acre's forest-friendly development agenda –

- Institute of Climate Change and Regulation of Environmental Services – regulates SISA and registers and monitors private REDD+ projects
- Scientific Committee – provides technical advice to the Institute
- Commission for Validation and Monitoring – monitors the Institute and revises and approves norms, regulations, and sub-programs
- Ombudsman – receives, analyses, and monitors complaints and mediates conflicts
- Company for the Development of Environmental Services – prepares action plans and projects under each of SISA's ecosystem service programs, and procures/administers private funding to sustain the SISA system, including through the management of carbon credits and other ecosystem service assets that the system generates

MOTIVATIONS:

- Government – Promote and diversify economic activities without harming parts of the population that depend on forests for their livelihoods; conserve the state’s natural heritage; recognition as an environmental leader in Brazil and globally
- Communities – Ensure sustainable livelihoods

FINANCING:

- The World Bank and Inter-American Development Bank provided loans in support of a number of sustainable development initiatives.
- The Amazon Fund provided financing to strengthen the institutions responsible for managing environmental assets, control forest fires, and implement the national rural environmental cadaster in Acre.
- The German Development Bank (KfW) has supported some of the key institutions that implement SISA, and makes annual performance payments for emissions reductions—a percentage of which (at least 70%) is required to be distributed as payments for ecosystem services to local beneficiaries.
- A signed agreement with the state of California, facilitated by the Governors’ Climate and Forests Task Force, could in the future provide funding through trade of emissions offsets on California’s carbon market.
- In-kind support from a broad network of organizations has been fundamental to implementing SISA: WWF, Environmental Defense Fund, Earth Innovation Institute, Global Canopy Programme, IPAM, IDESAM, FGV, and others.

Mato Grosso

A new approach to achieve rural development while mitigating climate change

LOCATION AND SCALE:

State of Mato Grosso, Brazil (91M ha, ~60% of which is forested)



ORIGIN:

Mato Grosso is Brazil's largest producer of several important commodities, including soy and cattle. Increased production of these commodities, land speculation, and illegal logging drove high levels of deforestation during the 1980s and 1990s. The deforestation rate peaked in 2004, with conversion of 1.8 million ha of natural vegetation in the Amazon and cerrado biomes—close to 2% of the state's entire landmass in a single year.

Numerous public and private efforts to combat deforestation in the years following have had a significant impact. Soy and beef companies launched public commitments to reduce deforestation in their supply chains and began developing private monitoring systems to implement them. The Rural Environmental Register was created in Mato Grosso (and later incorporated into the national Forest Code), which provides a map of farms that enables rapid identification of deforestation. The 2012 revision to Brazil's Forest Code clarified requirements to protect forests on private property. IBAMA, the federal environmental protection agency, stepped up enforcement actions against landowners found to be illegally clearing forests.



Cattle at the Millennium Cattle Farm, Campo Grande, Brazil

By the time of the 2015 Paris Climate Conference, Mato Grosso's deforestation rate had fallen 87% since its peak a decade prior.¹ In August of that year, a visit to the state by Norway's Minister of Climate and the Environment sparked a visioning process to build on the state's achievements and attract international interest to support its forest agenda. Successful programs such as Novo Campo and Soja Plus facilitated uptake of this vision by demonstrating that production of beef and soy, respectively, could increase in tandem with forest conservation and even restoration. In addition, circumstances had shifted that enabled more collaborative engagement around forest conservation. With the enactment of the new Forest Code, civil society and the private sector began cooperating in ways they had not previously to ensure effective implementation. The private sector began to view the environmental agenda less as a barrier to competitiveness and more as an opportunity to reduce social and environmental supply chain risks.

¹ Instituto Centro de Vida (2015), Deforestation in Mato Grosso's Amazon Forest, <https://www.icv.org.br/wp-content/uploads/2015/12/Deforestation-in-Mato-Grosso%E2%80%99s-Amazon-Forest-PRODES2015.pdf>.

At the Paris conference, Governor Pedro Taques announced the state's new Produce, Conserve and Include (PCI) strategy, under which the government and all relevant stakeholders across the state would set and implement joint targets for production of soy and beef, conservation of forest cover, and inclusion of all segments of society. A multi-stakeholder process articulated timebound goals in the months following for each of the strategy's three prongs. Through this evolution, the PCI's vision emerged: increased commodity production through intensification of production on already-cleared land; protection of remaining forests and restoration of forests cleared above the amount allowed by law; and participation by family farms, indigenous peoples, and other traditional communities in the state's development, leading to increased living standards.

THEORY OF CHANGE:

Forest conservation will result from –

- Mapping and aligning disparate initiatives across the jurisdiction around shared goals on production, protection, and inclusion
- Coordinating donor and investor funds in support of these goals
- Regularizing land tenure
- Monitoring deforestation at the state level
- Associating commodities produced in Mato Grosso with sustainability to secure market access from international buyers demanding deforestation-free commodities

GOVERNANCE STRUCTURE:

The PCI is governed by the PCI State Committee, which includes representation from the state government (e.g., Mato Grosso state secretaries for Planning, Family Agriculture and Land Affairs, Economic Development), federal government (e.g., Federal Public Prosecutor's Office, Embrapa), NGOs (e.g., EDF, EII, ICV, IPAM), producer interests (e.g., Aprosoja, Famato, Fetagri-MT), corporate buyers (e.g., Amaggi, Marfrig), and other private actors (e.g., Agroicone, Althelia Ecosphere, IDH). The PCI State Committee oversees two implementation bodies: the state government's Strategic Affairs Office, which handles strategy coordination; and the State Committee Secretariat, which handles operations.

KEY ROLES AND RESPONSIBILITIES:

- Government entities – Create and enforce forest regulations, reduce bureaucracy, improve infrastructure, create incentives to conserve and restore forests.
- Producers – Register with the Rural Environmental Register, adopt and disseminate good production practices.
- NGOs – Identify gaps and actions needed to achieve PCI’s goals, technical support.
- Other partners – Enhance supply chain transparency, develop markets for deforestation-free commodities.

MOTIVATIONS:

- Government – Increase commodity production while protecting existing forests and restoring forests cleared beyond the legal limit and including smallholders and indigenous communities in the state’s development trajectory.
- Producers – Secure market share.
- NGOs – Ensure long-term forest protection and inclusion of marginalized stakeholders.

FINANCING:

A range of multilateral funding instruments, foundations, and other sources are currently supporting over 200 individual projects across the state. With the announcement of PCI’s goals, funders including IDH, KfW, and Althelia Ecosphere have begun to mobilize their support around these goals. For example, IDH has signed an MOU with the Mato Grosso government under which it will seek international investments that support the PCI’s objectives, attract foreign buyers to source deforestation-free commodities from Mato Grosso, and develop public-private partnerships to manage investments. The PCI State Committee is planning to develop a PCI Facility—situated outside direct government control—which would be responsible for fundraising and coordinating among donors and investors to ensure that resources do not work at cross-purposes.

Colombia

Implementing low-carbon and biodiversity-friendly development in Colombia's last agricultural frontier.

LOCATION AND SCALE:

Departments of Arauca, Casanare, Meta, and Vichada (25.4M ha) comprising the Orinoquia watershed



ORIGIN:

With the recent signing of a peace agreement between Colombia's government and the FARC, the Orinoquia watershed in eastern Colombia suddenly became a viable region for agroindustrial expansion. Decades of violence had discouraged economic activity that would have required capital investments. As a result, the Orinoquia's savannas and wetlands are still largely intact, and though it boasts more than a fifth of the national territory, it only possesses 3% of the population. Locals raise cattle with fairly low impact on the land, and a large portion of the region is currently available for development: less than 4% is subject to formal public conservation status, and about 5% is managed under some form of private conservation regime. Production from the region currently serves the domestic market, but multinational companies have indicated their interest in beginning to source commodities for the international market.

The Colombian government created the Orinoquia Sustainable Integrated Landscape (OSIL) initiative in anticipation of an influx of agricultural interests to the region, wishing to promote development while protecting the integrity of the second-largest savanna system in South America. OSIL comprises 3 primary components: integrated land use planning and improved governance to regulate conversion, sustainable land use and management, and strengthened public/private coordination around low-carbon development goals. The first component will work to mainstream environmental



Aerial photo of Orinoco River and tepui of Colombia

sustainability into land use planning at the regional and local levels, strengthen national capacity for spatial planning, and reform the land administration system. Under the second component, funds will support national and local government entities to create enabling conditions and incentives to promote use of low-carbon development practices and technologies in priority areas. The third component will focus on developing the technical and social aspects of an emissions reduction program for the Orinoquia that will provide long-term results-based financing for low-carbon and biodiversity-friendly development. Critical challenges the emissions reduction program will have to overcome include aligning the environmental and agricultural agendas under coherent policy instruments and developing a methodology to enable climate finance mechanisms that were designed with forest protection in mind to support conservation of non-forest ecosystems.

If successful, OSIL will contribute to geographically specific planning instruments that use sustainable land use and ecosystem services criteria to determine where development should and should not occur; apply tools including the Management Effectiveness Tracking Tool to increase the effectiveness of protected area management; increase the area managed using sustainable practices; and submit an emissions reduction program to the BioCarbon Fund that will secure additional resources to support this work into the future.

THEORY OF CHANGE:

Greenhouse gas emissions in the Orinoquia have historically been driven by ecosystem conversion and degradation, unsustainable use of fertilizers, and fires. An acceleration of these trends—in particular, increased land use change—is expected to drive future emissions. Underlying conditions that enabled these drivers include deficient land use planning, weak land tenure due in part to an outdated land registry, lack of knowledge concerning low-carbon agricultural practices, fertilizer subsidies, and a lack of incentives for low-carbon development. OSIL's three components will address these drivers in concerted fashion. The first component will enhance the government's regulatory and enforcement capacity with respect to conversion, improve land use planning, and strengthen land tenure. Component 2 will narrow knowledge gaps with respect to low-carbon production practices and help design incentives to promote uptake of these practices. And component 3 will develop a future emissions reduction program, including by setting up the monitoring, reporting, and verification system that will underpin it.

GOVERNANCE STRUCTURE:

The Ministry of Agriculture and Rural Development (MADR)—the entity responsible for formulating policies to develop the agricultural, fishing, and rural sectors—has primary responsibility for implementing OSIL. It will be the formal recipient of the World Bank grant agreement to fund OSIL, and will sign interinstitutional agreements to ensure close coordination with other government entities tasked with implementing components of the program.

The Project Implementation Unit (PIU), to be housed within the Innovation and Technological Development directorate of the Vice Ministry of Agriculture Affairs, will lead project implementation. The PIU will have strong links to the two main partners: the Ministry of Environment and Sustainable Development, in charge of formulating and implementing national environmental and sustainable development policy; and the National Planning Department, an administrative agency responsible for defining and promoting a national social, economic, and environmental strategic vision by evaluating public policies, allocating and managing public investment, and defining frameworks for private sector performance. Additional agencies will provide technical support to these lead entities:

- Newly created agencies working on integrated rural reform, including the Rural Development Agency, the National Land Agency, and the Territorial Renovation Agency, will support MADR in implementing component 1. The Rural Agricultural Planning Unit and the agricultural and livestock investment fund FINAGRO will provide technical support to implementation of component 2.
- The Institute of Hydrology, Meteorology and Environmental Studies will play a key role in program development and implementation of Component 3. The implementation model contains four main features: (i) technical leadership and project management through the PIU; (ii) a Steering Committee that provides high-level, multi-sectoral coordination between the three ministries and regional entities; (iii) a Technical Committee that provides technical guidance to the PIU; and (iv) regional implementation arrangements.

KEY ROLES AND RESPONSIBILITIES:

- National government – Ensure that national environmental and sectoral strategies, public policies, and programs support low carbon and biodiversity-friendly development in the Orinoquia.
- Department governments – Support development of planning instruments and other activities to enable local stakeholders to lead multi-stakeholder processes that promote conservation and low-carbon rural development strategies.
- Municipalities – Create zoning plans that incorporate low-carbon rural development criteria and good management practices.
- Civil society – Formulate strategies to sustainably finance protected areas; conduct regional modeling of development scenarios; provide information to support regional planning instruments and strategies.
- Private sector – Align with OSIL activities and the scheme of payments for emissions reductions developed in the departments where they operate (producers); finance producers working in OSIL program areas (financiers); purchase products sustainably produced in OSIL program areas or emissions reductions (buyers).

MOTIVATIONS:

The government entities and civil society organizations involved in this initiative share a common motivation to capitalize on intact ecological conditions and production interests in the Orinoquia to develop the region in a way that avoids the sort of environmental degradation caused by development elsewhere in the country. The private sector is motivated to transition the agricultural sector toward a model based on higher productivity rather than expansion into natural ecosystems.

FINANCING:

OSIL is funded by the BioCarbon Fund's Initiative for Sustainable Forest Landscapes, with the following breakdown:

- Integrated land use planning, regulation of conversion, and improved governance: \$5.9M
- Sustainable land use management: \$6.1M
- Emissions reduction program development: \$6M
- Project management and implementation: \$2M



Aerial photo of Orinoco River and tepui of Colombia.

Photo Credits:

Page 5: Rubber tapper scoring the bark of a wild rubber tree, with latex oozing out. Alto Juruá Extractive Reserve, Acre, Brazil © Edward Parker / WWF. Page 6: Aerial view of an unpaved road dividing a soy (*Glycine max*) monoculture from the native Cerrado, in the region of Ribeiro Gonçalves, Piauí, Brazil © Adriano Gambarini / WWF-Brazil. Page 10: PUERTO CARREÑO, COLOMBIA - JULY 4, 2015: The savannah in the Bojonawi Natural Reserve along the Orinoco River © Meridith Kohut/WWF-US. Page 14: Ripe Cacao (*Theobroma cacao*) fruit © WWF-Indonesia / Nurman. Page 16: Palm oil plantation in the buffer zone of the Korup National Park Mundemba, Cameroon © Mauri Rautkari / WWF. Page 18: Palm oil plantations as seen from the air, near the border of Central African Republic and Cameroon © Jaap van der Waarde / WWF-Netherlands. Page 20: Forest clearance for “Socapalm” or Oil palm (*Elaeis guineensis*) plantation. Kribi, Cameroon © N.C. Turner / WWF. Page 24: Cowboy and cattle at the Millennium Cattle Farm, Campo Grande, Brazil. This organic farm aims to be a model farm for sustainable beef production in Brazil © Jaap van der Waarde / WWF-Netherlands. Page 25: Cattle at the Millennium Cattle Farm, Campo Grande, Brazil. This organic farm aims to be a model farm for sustainable beef production in Brazil © Jaap van der Waarde / WWF-Netherlands. Page 26: Cacao tree (*Theobroma*) in a plantation. Bioko Island, Equatorial Guinea © Jeffrey A. Sayer / WWF. Page 29: Aerial view of unpaved roads dividing a soy (*Glycine max*) monoculture from the native Cerrado, in the region of Ribeiro Gonçalves, Piauí, Brazil © Adriano Gambarini / WWF-Brazil. Page ii: Palm oil plantation which replaced the coastal rainforest in the western parts of Ivory Coast © Hartmut Jungius / WWF. Page vi: Cocoa fruits in the Atlantic forest in Bahia, Brazil © Juan Pratginestos / WWF. Page x: Rubber tapper scoring a rubber tree (*Hevea brasiliensis*), in the community of Cumari, Acre, Brazil © WWF-Brazil / Juvenal Pereira. Page xiv: Cattle at the Millennium Cattle Farm, Campo Grande, Brazil © Jaap van der Waarde / WWF-Netherlands. Page xviii: Aerial photo of Orinoco River and tepui of Colombia © Day’s Edge Productions. Back cover: Aerial photo of Orinoco River and tepui of Colombia © Day’s Edge Productions.

© 2017 WWF. All rights reserved by World Wildlife Fund, Inc. 5-15

www.panda.org

For more information please contact Akiva Fishman – akiva.fishman@wwfus.org