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ENDING TROPICAL DEFORESTATION: A STOCK-TAKE OF PROGRESS AND CHALLENGES

JURISDICTIONAL APPROACHES TO REDD+ AND LOW EMISSIONS DEVELOPMENT: PROGRESS AND PROSPECTS

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KEY POINTS

- Subnational jurisdictions such as states, provinces, and districts are increasingly promoted as a strategic level of governance for reducing greenhouse gas emissions from land-use change and implementing corporate commitments to remove deforestation from commodity supply chains.
- The jurisdictional approach highlights the critical role of government and the need for wall-towall, holistic approaches to forest and land-use governance across a defined territory as key components of any realistic effort to protect forests and reduce land-use emissions at scale. Throughout the tropics, a growing number of subnational jurisdictions have embraced the jurisdictional approach as a framework for advancing their efforts to build durable programs for low emissions development.
- The jurisdictional approach offers important opportunities for experimentation and policy innovation, including partnerships with supply chain actors and indigenous and traditional communities. However, challenges to the approach include political turnover, limited public sector capacity, and lack of broader support and incentives—all of which can hamper the kind of long-term, sustained attention these initiatives require to succeed.

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THE ISSUE

The jurisdictional approach (JA) to REDD+1 and low emissions development has gained considerable currency in recent years. As understood here, JA refers to a government-led, comprehensive approach to forest and land use across one or more legally defined territories. Multiple efforts directed at building jurisdictional approaches have been underway across the tropics for more than a decade, proceeding mainly at the level of states and provinces. Although these programs exhibit considerable diversity and varying levels of maturity, several important lessons have emerged from experiences to date. These include the importance of broad, multi-stakeholder processes; the need for a complementary set of cross-sectoral policies and programs grounded in a realistic assessment of implementation capacity within the government and among key partners; and the critical role of political commitment and leadership.

WHY THE JURISDICTIONAL APPROACH IS IMPORTANT TO FORESTS, CLIMATE CHANGE, AND DEVELOPMENT

JA grew out of the conviction that individual projects aimed at protecting forests, reducing emissions, and enhancing livelihoods will never scale, and are thus unable to deliver significant reductions in deforestation and emissions over the long term (Nepstad et al. 2013a). It also stemmed from a recognition that government policies and programs at multiple levels must be a foundational component of any successful approach to protecting forests and climate (Boyd 2010).

Some of the most important early work on the jurisdictional approach emerged out of REDD+ and other incentives for environmental services, with the novel feature of results-based payments for reducing deforestation across an entire jurisdiction. Despite the fact that much early REDD+ experimentation focused on individual projects, the framework for REDD+ transactions negotiated under the United Nations Framework Convention on Climate Change (UNFCCC) supports subnational scales for accounting and implementation (as an interim measure on the way to adopting national-level approaches). California's ongoing efforts to craft provisions for sectorbased offsets from reduced deforestation in tropical forest states and provinces also take an explicitly jurisdictional approach, as does the Forest Carbon Partnership Facility.² While the term "jurisdictional approach" is sometimes used in the narrower contexts of either REDD+ or the implementation of corporate commitments to zerodeforestation supply chains,³ it is used here in its broader sense, reflecting a holistic, wall-to-wall approach to forest and land-use governance across a legally defined jurisdiction or territory (Nepstad et al. 2013b; Fishman et al. 2017). The jurisdictional approach thus resembles the "landscape approach" (Sayer et al. 2013; Reed et al. 2016; Arts et al. 2017), with the key difference that the jurisdictional approach is grounded in a political territory.

Although the jurisdictional approach can also apply to the national level, subnational JA is particularly significant because in many national contexts, states, provinces, districts, counties, and municipalities have important responsibilities for land use and forest governance. Particularly for large countries, the national scale may be too expansive, too heterogeneous, and too distant from land users to support feasible policy implementation. Subnational governments, on the other hand, are closer to the farmers and communities who manage the land, and often have substantial powers to shape land-use decisions (Stickler et al. 2014). Subnational governments are also already shouldering much of the burden associated with implementing various forest and climate policies, even though they are not adequately compensated for this work, given limited domestic budgets and very small flows (to date) of international climate finance (Hamrick and Gallant 2017; Luttrell et al. 2018a).

The jurisdictional approach provides a potential basis for linking with broader national and international incentives for low emissions development, including domestic policy and finance, REDD+ finance, and access to markets and finance related to deforestation-free supply chain initiatives (Nepstad et al. 2013a). It has also emerged in recent years as a platform for ongoing dialogue and partnerships with indigenous and traditional communities (DiGiano et al. 2016). In all such cases, it is vital to recognize the different constraints and opportunities that come with different national contexts, including the differences between federal and non-federal systems, varying stances toward REDD+, and different approaches to the role of land use and forests in Nationally Determined Contributions (NDCs) toward the goals of the 2015 Paris Agreement on climate change.

In theory, a successful jurisdictional program provides a platform for cross-sectoral policy alignment across government programs, vertical coordination among differ-

ent levels of governance (local, state/provincial, national, international), and a framework for bringing public and private sector activities together into a comprehensive approach to low emissions development. Translating theory into practice, of course, depends on political commitment across changing administrations as well as sufficient capacity and organization within the relevant government and among key civil society partners. Some of the most successful examples of JA to date have taken more than a decade to develop and are based on strong government commitment and robust multi-stakeholder processes. Although some observers may view this as an inordinate amount of time, it is important to recognize that the deep, systemic changes in forest and land-use governance that provide the foundation for any successful (and durable) jurisdictional approach take years to develop.

PROGRESS TOWARD LOW EMISSIONS DEVELOPMENT AT THE JURISDICTIONAL SCALE

Over the last ten years, JA has been embraced at multiple levels and across multiple geographies. Figure 1 illustrates the locations of nearly 40 initiatives, each of which is focused on a single, subnational political jurisdiction, as documented in a new study (Stickler et al. forthcoming). These initiatives are in different stages of progress toward low emissions development, and not all apply a wall-towall jurisdictional approach. It is difficult to assess with confidence whether JA has directly contributed to reductions in deforestation and/or advances in low emissions development (and the quality of the evidence varies across the many different initiatives). Nevertheless, in the more advanced jurisdictions, JA has clearly contributed to more robust multi-stakeholder processes and has led directly to the adoption of policies and programs aimed at reducing emissions from deforestation and land use. It has also provided an important framework for recent, ongoing experiments directed at preferential sourcing and jurisdictional certification of forest-risk commodities.

More generally, the JA concept has had an important influence on various policy domains. At the international level, policy discussions related to REDD+ and sustainable supply chain efforts have both recognized the potential of the jurisdictional approach in reducing transactions costs and moving to scale, and state and provincial leaders have emerged as important voices in these policy arenas.

The jurisdictional approach has also provided a common point of reference for states and provinces to share experiences and develop communities of practice across the tropics. The Governors' Climate and Forests (GCF) Task Force provides an important network for this kind of cross-jurisdictional learning and exchange. Moreover, as states and provinces in larger tropical forest coun-

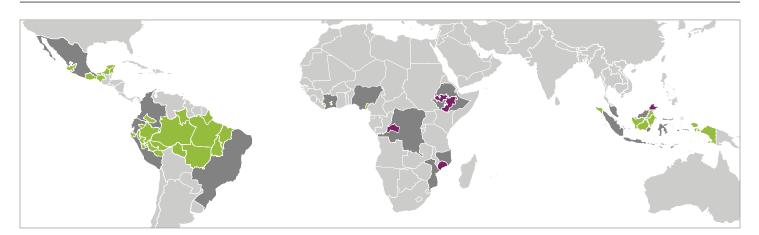


Figure 1 | Sample of Tropical States and Provinces Developing Low Emissions Development Strategies

MEMBERS OF THE GCF TASK FORCE

DEVELOPING LOW EMISSIONS DEVELOPMENT STRATEGIES OUTSIDE OF THIS NETWORK

Source: Stickler et al. forthcoming.

tries (such as Brazil, Indonesia, and Peru) have worked together to articulate and advance their own understandings of a jurisdictional approach, they have raised the profile of subnational actors and the challenges they face within various national policy arenas. Box 1 further describes the GCF, as well as a national-level platform to facilitate such exchange among districts in Indonesia. These sorts of positive "network effects" are hard to quantify, but anecdotal evidence suggests that they can be very important in facilitating and consolidating advances in specific jurisdictional programs.

Box 1 | Subnational Networks That Promote the Jurisdictional Approach

The Governors' Climate and Forests (GCF) Task Force was established in 2009 and is a unique subnational collaboration of 38 states and provinces from 10 countries working to promote jurisdictional approaches to REDD+ and low emissions development. More than one-third of the world's tropical forests are in GCF member states and provinces, including all the legal Amazon in Brazil, the vast majority of the Peruvian Amazon, and more than 60 percent of Indonesia's forests. The GCF Task Force includes tropical states and provinces that are leading the way in building robust jurisdictional programs to protect forests and climate while enhancing rural livelihoods, as well as the only jurisdiction in the world (California) that is considering provisions that would recognize emissions reductions from jurisdictional REDD+ programs as part of its mandatory cap-andtrade program.

Meanwhile, a new platform for Green Districts in Indonesia arose in 2017, when eight districts (kapubaten) from Sumatra, Kalimantan, and Sulawesi came together to establish the Roundtable for Sustainable Districts (Lingkar Temu Kabupaten Lestari; LTKL). The purpose of LTKL is to provide a platform to support cross-learning among districts that share a vision for sustainability and to build a support system to implement that vision. At the first LTKL General Assembly in July 2017, member districts declared their commitments to increasing local income and budget efficiency, alleviating poverty, and moving toward reduced deforestation. They established a Secretariat and a Partnership Network that includes several wellknown civil society organizations. Member districts also concluded a memorandum of understanding with APKASI, Indonesia's main association of districts (which are one level below provinces), as a vehicle to introduce other districts to their vision of sustainability. LTKL's priority programs include preventing forest and peat fires, promoting sustainable commodities, supporting social forestry and agrarian reform, promoting conservation and restoration, and pursuing clean energy and electrification. In February 2018, LTKL accepted an additional 7 districts, bringing membership to 15.^a

Source: a. Seymour and Aurora 2017, 2018

In addition to increased appreciation for the role of subnational governments in meeting objectives related to forests and climate change, there is a general recognition of and commitment to robust multi-stakeholder processes as a key component of successful JA. JA processes underway across the tropics have provided important opportunities for collaboration and engagement among civil servants, civil society groups, and private sector actors. More recently, JA has provided a platform for ongoing and deepening dialogue between subnational governments and leaders from indigenous and traditional communities. Although these kinds of multi-stakeholder processes take time to develop and mature, they can help provide legitimacy and political durability to the resulting programs.

Finally, JA has encouraged new ways of thinking about the role subnational governments play in a broader multi-level approach to forest and land-use governance, recognizing their important role as laboratories for experimentation and learning. Rather than seeing states and provinces (and districts and municipalities) exclusively as the implementers of national and international policy, JA at its best provides an important illustration of the broader phenomenon of subnational policy innovation and leadership on climate change.

As noted above, there are many specific examples of JA underway at varying levels of maturity. The following case studies provide a brief snapshot of some of the more important examples, but they should not be taken as a representative sample of JA (either by type of program or geography). Rather, they were chosen largely to illustrate the diversity of approaches underway, some of the challenges and opportunities that come with JA, and progress to date in specific jurisdictions.

ACRE, BRAZIL. The state of Acre in western Brazil has developed one of the more advanced jurisdictional programs to date. Acre's program has deep roots in the state's past, having evolved out of the grassroots movement of independent rubber tappers led by Chico Mendes in the 1980s and a history of relative isolation from the main Amazon deforestation frontier. Since 1998, successive state governments have translated Mendes's vision of a forest-based, sustainable economy into a set of complementary policies and programs. Furthermore, Acre's sustained focus across multiple political administrations has allowed it to experiment with several novel approaches to natural resource management, rural governance, and the development of a forest-based economy (Schmink et al. 2014). These approaches include

economic-ecological zoning that places restrictions on land-use activities; economic incentives for forestdependent livelihoods (including natural rubber harvest and Brazil nut processing); and sustainable forest management for timber. In addition, a rural property licensing and certification system has allowed Acre to become one of the first states in Brazil to resolve most of its land titling disputes. Acre is well-known for its 2010 System of Incentives for Environmental Services (SISA) and for being the first subnational jurisdiction to receive performance-based payments via the German government's REDD+ Early Movers (REM) program (€25 million was disbursed in the first phase). Less wellknown are its innovative low emissions enterprises, such as Cooperacre, a community-based initiative aimed at strengthening Acre's sustainable forest economy at the producer level, and Peixes da Amazônia, which focuses on the production of native fish for local, domestic, and international trade. Deforestation has remained below 400 sq. km/year since 2005, having peaked at 1,100 sq. km in 2003. However, this is still above the 120 sq. km/year that represents an 80 percent reduction in deforestation below the 1996-2005 reference period, and which Acre is obligated to achieve by 2020 under Brazil's National Climate Change Policy. Other challenges facing Acre's jurisdictional strategy include limited market access for sustainable commodities, lack of investment capital for low emissions enterprises, and political turnover (Mendoza et al. forthcoming; Leal et al. forthcoming.). Furthermore, to receive funding promised for the second phase of REM (€30 million), a comprehensive monitoring system has to be functional by mid-2018.

MATO GROSSO, BRAZIL. Mato Grosso's jurisdictional strategy grew out of the prospect of losing access to international soybean markets in the early 2000s, when the state saw some of the world's highest annual deforestation rates, reaching nearly 12,000 sq. km in 2004. A commitment to reduce deforestation 89 percent (below the 1996-2005 reference level) by 2020 was announced in 2009 and first achieved in 2012, with a comprehensive statewide REDD+ law established shortly thereafter (INPE 2018). Today, deforestation remains comparatively low (but still among the highest area of a sample of 39 jurisdictions), hovering around 1,500 sq. km per year, despite a large, expanding agro-industrial sector led by soybean cultivation. Annual deforestation tallies have been consistently above the 89 percent reduction goal (INPE 2018). Nevertheless, since 2005, reductions in deforestation in Mato Grosso have resulted in avoided emissions of some

3.5 gigatons of CO2 (UNFCCC 2018). At the UNFCCC COP21 in Paris in 2015, Mato Grosso launched its statewide "Produce, Conserve, and Include" (PCI) strategy to reduce emissions, eliminate illegal deforestation, and promote sustainable agriculture. Since then, the strategy has evolved to specify 21 performance targets and include 40 partner organizations. The challenge going forward is to translate the PCI into new partnerships and private sector investments. Mato Grosso is characterized by a high degree of professionalization and sophistication in many of its private enterprises, civil society organizations, and government agencies. However, it is also marked by deep divides in ideology and tactics among its many stakeholders, which makes the PCI's emergence and survival as the state's guiding strategy, despite such divisions, noteworthy. In 2017, the state signed contracts with the German and British governments for performance-based payments (based on a more restrictive adjustment of the Brazilian subnational Forest Reference Emission Level for Mato Grosso) totaling approximately US\$50 million to combat deforestation and provide support to smallholder agriculture and traditional communities via the PCI-the first climate finance the state has received. The government has initiated a formal dialogue and consultation process with indigenous communities, but specific targets to address their needs are still not included in the PCI (Stickler et al. forthcoming).

CENTRAL KALIMANTAN, INDONESIA. Central Kalimantan illustrates the challenges for JA that come with political turnover, but also the potential of JA to foster collaboration and engagement between different levels of governance. Official Indonesian Ministry of Environment and Forestry data indicate that forest clearing in Central Kalimantan climbed to a high of nearly 1,900 sq. km in 2015.⁴ Although the recent spike in deforestation is still being studied, evidence points to continued clearing for palm oil expansion (Austin et al. 2017) and possibly an increasing proportion due to climate-driven fire spread (Chen et al. 2016). Against the backdrop of consistently high deforestation, Central Kalimantan has been pioneering jurisdictional sustainability programs and strategies for over a decade. In 2005, the first year of then-Governor Agustin Teras Narang's 10 years in office, Central Kalimantan initiated a province-wide policy framework that became the basis for its Green & Clean Province program in 2010. In 2013, Teras Narang launched a roadmap for low emissions development for the entire province based on a multi-stakeholder process, with particular attention

to district-level action, sustainable palm oil production, and recognition of indigenous rights. In 2016, the JA effort in Central Kalimantan lost one of its key champions when Governor Teras Narang stepped down at the end of his term. Since then, provincial-level progress toward these goals has considerably slowed, highlighting the challenge of maintaining long-term political will-a key element of successful jurisdictional approaches. Nevertheless, the provincial roadmap paved the way for the Roundtable for Sustainable Palm Oil (RSPO) to select districts in Central Kalimantan for two of its four "jurisdictional certification" pilots in 2015. District, provincial, and national governments were keen to see this initiative begin by mapping and registering independent smallholder farmers. The partnership that developed between Unilever, Inobu, an Indonesian nongovernmental organization (NGO), and the Kotawaringin Barat District government has mapped 4,000 smallholders; 190 were recently RSPO certified, which has already reaped financial benefits.⁵ Two districts, Kotawaringin Barat and Seruyan, have become laboratories for JA and promise to provide models and reference points for spatial planning (that meets both Indonesian government and RSPO certification requirements) and for smallholder services if and when interest in JA increases at the provincial level. Multi-stakeholder processes in these districts have yet to finalize goals for reducing deforestation and addressing other issues, but working groups have been established to define these targets.

SABAH, MALAYSIA. The forests of Sabah were subjected to aggressive logging and converted to agricultural plantations during the 1990-2010 period (Reynolds et al. 2011). In response, several major forest rehabilitation, restoration, and conservation initiatives were launched through Sabah's jurisdictional strategy for improved forest governance, which began in 1997. The provincial government supported the implementation of sustainable forest management standards in all commercial forest reservesincluding natural forests, industrial timber plantations, and agroforestry areas-in partnership with the private sector and local communities. It also increased the area of strict protected areas from 9,000 sq. km in 2007 to 19,000 sq. km in 2016. Outside of these areas—primarily in areas zoned for commercial uses (and thus often destined for clearing)-deforestation has continued to increase, reaching 15-year highs of 1,131 sq. km and 952 sq. km in 2014 and 2016, respectively. In 2015, Sabah became one of the pilot jurisdictions for RSPO jurisdictional certification to ensure that palm oil and its derivatives are produced in

a legal, ecologically sustainable, and socially acceptable manner. Current progress includes delineating high conservation value (HCV) and high carbon stock (HCS) areas, which will eventually be classified under strict protection, and cataloguing smallholders' requirements toward RSPO certification, such as training in best management practices and applications for land title to enhance tenure security. With strong political support at both provincial and national levels, and active multi-stakeholder participation, Sabah continues its effort to become internationally known for certified timber and palm oil in compliance with standards set by the Forest Stewardship Council (FSC) and RSPO. While the trajectory toward jurisdictional sustainability is institutionalized via new policies and supported by a wide range of stakeholders to ensure ownership of an idea or program, the inflexibility of international certification requirements causes frustration and could considerably hamper progress. For instance, FSC limits on the certification of newly established plantation forests is a barrier to timber certification across the jurisdiction (Bahar forthcoming).

SAN MARTIN, PERU. As part of Peru's national commitment to reduce deforestation, the government of the San Martin region-which has one of the highest rates of deforestation in the country-has committed to conserving 25,000 sq. km of forests (nearly 75 percent of the region's remaining forests) as part of a broader commitment to green development. Deforestation in the region reached a high of nearly 400 sq. km in 2009 and has since been declining, to just over 200 sq. km in 2016 (Ardila et al. forthcoming). Successive regional governments⁶ have embraced a jurisdictional sustainability agenda for well over a decade. Among other things, they have pursued the development of harmonized spatial plans across the region, innovative financing mechanisms to protect water resources, the development of a region-wide REDD+ strategy (the precursor to a broader JA), and the creation of a San Martin regional brand for marketing its products, especially coffee and cocoa. The principal focus areas for the regional jurisdictional sustainability strategy are increasing the productivity and sustainability of smallscale agriculture (high immigration rates into the region correspond to high deforestation rates) and improving indigenous rights recognition and protection (invasions of indigenous lands are also an important source of deforestation). Furthermore, with San Martin's leadership, the regional governments of the Peruvian Amazon are pioneering a type of "nested" JA in which each region is developing its own specific strategy that is aligned with a

joint strategy developed by the group of regions. In this way, the governments are addressing common challenges in a coordinated way, developing cross-border solutions, sharing information and support on implementation, and coordinating with national level mandates and policies (Stickler et al. forthcoming).

YUCATAN STATES, MEXICO. Under the Agreement for a Sustainable Yucatan Peninsula (ASPY 2030), the three states of Mexico's Yucatan Peninsula-Campeche, Quintana Roo, and Yucatan-have developed an innovative peninsula-wide approach to forest protection and restoration and low emissions development. Despite strong communal land ownership and the fact that more than 20 percent of the peninsula is under protected areas, cattle ranching, mechanized agriculture, fire, and urban expansion are responsible for high rates of deforestation (Ellis et al. 2017). In 2016, all three governors signed ASPY 2030, which committed them to reducing deforestation by 80 percent by 2020 and achieving net zero deforestation by 2030. As a whole, the peninsula has pledged to restore 20,000 sq. km of forest under the Bonn Challenge. Importantly, the regional approach of the Yucatan states has received strong support from the national government, including supplemental funding for their activities. To date, each state has adopted a REDD+ strategy, a State Climate Change Plan, a State Inventory of Greenhouse Gas Emissions, and an Investment Plan for the Emissions Reduction Initiative. ASPY 2030 also includes the backing of over 80 private businesses to promote sustainable economic growth and responsible business practices in the region. The Yucatan states have established strong multi-stakeholder processes as part of their overall effort and are working with municipal governments to encourage their active participation in the regional approach. For instance, the inter-municipal government alliances of JIBIOPUUC in Yucatan and AMUSUR in Quintana Roo aim to spearhead sustainable land use activities, and agreements between secretariats have been signed to foment cooperation among historically competing land use agencies. Additionally, given the lack of an official forest monitoring system on the peninsula, civil society supported the creation of the Observatorio Selva Maya, an interactive online tool that monitors deforestation and incidence of fire. Despite these advances, a lack of funding and authority for multi-stakeholder forums to influence the environmental agendas of state governments is considered a major challenge. It is also time-consuming to align international concepts (e.g., safeguards) and the national REDD+ strategy with state-level laws, and there is limited technical capacity to make progress toward national and international pledges (Rodriguez-Ward forthcoming a, b, c).

Remaining Challenges

Notwithstanding the considerable merits of JA and the progress achieved to date, the jurisdictional approach continues to face a number of conceptual, political, financial, and institutional challenges. At the conceptual level there is still a general lack of agreement about what the jurisdictional approach means, what constitutes success, and how to measure performance. Depending on one's views of the relative value of diversity and experimentalism versus a more uniform approach, this may not be a problem. But even in a world of diverse JA initiatives and alternative understandings of the concept, more clarity regarding different approaches to JA and its relationship to other initiatives—such as REDD+, sustainable supply chain efforts, and domestic policy would be helpful in assessing progress.

More importantly, there is a tendency to sometimes focus too much on the collection of declarations, laws, policies, and programs that have been adopted by a jurisdiction (those that are "on the books") rather than on functional capabilities and actual results. This creates challenges for those trying to understand where jurisdictions are in their efforts to build robust programs that can truly perform, including prospective providers of resultsbased finance and preferential market access. It also creates perverse incentives for jurisdictions to adopt laws, policies, and programs that look like successful best practices, but that in reality tend to elevate form over function (Andrews et al. 2017).

Perhaps the most important challenges facing the jurisdictional approach are political. In some cases, elected officials (governors, district heads, etc.) find it easy to sign on to international pledges without any real commitment to doing the hard work of realizing those pledges on the ground. In other cases, individual elected officials who are committed to reducing deforestation have yet to see any significant political dividends from investing their own political capital and futures in a jurisdictional approach to low emissions development, and often face significant political risks in opposing the powerful interest groups that benefit from continued deforestation. Even in Acre, which is arguably the most advanced jurisdictional program in the world today, the current government's commitment to forest and climate objectives is vulnerable in the face of the 2018 elections. If governors and local officials cannot get elected on this agenda, it will surely fail.

The limited political case for JA is compounded by a lack of tangible international and national support for nascent and ongoing efforts or meaningful incentives to move away from business-as-usual deforestation. Such support and incentives could come in the form of preferential access to public finance (including REDD+), substantial private investment in green economy initiatives, and meaningful commitments to preferential sourcing of commodities from jurisdictions making progress toward sustainability (illustrated in Figure 2). One recent review of the potential of JA in Indonesia concluded that there was not yet a convincing "value proposition" to entice subnational political leaders to participate (Paoli et al. 2016).

With respect to financial incentives, the prospect of significant international REDD+ finance that seemed within reach a decade ago has largely failed to materialize. Ten years after REDD+ entered international climate negotiations, very few subnational jurisdictions have concluded international agreements that provide certain financial reward for reducing deforestation (Seymour and Busch 2016). While there are prospects for increasing that number, attention has broadened in recent years to include the prospect of domestic fiscal reforms to incentivize sustainability. India is pioneering this approach; since 2015 it has included forest cover in its formula for allocating national revenues across states (Busch and Mukherjee 2017).

With respect to partnerships with supply chain actors and the growing enthusiasm among companies for the possibility of tying preferential sourcing of commodities to high-performing jurisdictions, there is still a lack of understanding by both companies and jurisdictions regarding respective needs, overall feasibility, risks, and timelines. To date, the various zero-deforestation commitments made by large companies have not resonated widely with tropical forest governments in key producing regions, and there has been limited progress on preferential sourcing from specific jurisdictions. Although Unilever and other leaders of the Consumer Goods Forum committed to preferential sourcing at COP21, very few actual partnerships have emerged. Unilever's ongoing work with Kotawaringin Barat, the soybean agreement being negotiated between Mato Grosso's soybean sector and the European Union animal rations federation (FEFAC), and RSPO's pilot program on jurisdictional certification are encouraging examples of partnerships that could lead to preferential sourcing in the future. However, all of these efforts remain at a very early stage.7



Figure 2 | Factors Affecting Jurisdictional Performance

For subnational jurisdictions, there are also challenges associated with their relationships to national policies and programs. When national policies and programs change or when they become subject to great uncertainty as a result of political shifts, national collaboration with and support for subnational JA can decline, creating tensions and conflict between national and subnational governments. In Indonesia, for example, the government that took office in 2016 dismantled substantial portions of the previous government's REDD+ program, including the National REDD+ Agency, which had been working closely with provincial governments. Likewise, in Brazil, the removal of President Dilma Rousseff from office in 2016 and ongoing uncertainty about the current government's environmental and climate commitments have hampered efforts by states to move forward with their own programs and develop international partnerships.

Another challenge stems from unrealistic expectations about what JA can achieve and over what time frame. This poses challenges for individual jurisdictions that have yet to develop sufficient implementation capacity and can test the patience of donors and others who are supportive of JA but eager to see results (Fishman et al. 2017; Pritchett et al. 2013; Andrews et al. 2017). Unrealistic expectations are sometimes compounded by an overemphasis on replicability, which often stems from the mistaken assumption that policy instruments and best practices can be easily transferred between different jurisdictions. In this respect, JA is not appropriate for "cut and paste" transfers of particular policies or programs. Overly simplistic models of policy diffusion and institutional change that assume successful efforts in one jurisdiction can be transplanted easily to others ignore substantial evidence to the contrary, and can detract from the more pressing need to develop distinctive approaches to specific problems that draw upon local, vernacular institutions and capabilities (Evans 2004; Pritchett et al. 2013).

Finally, coordination and cooperation among actors in subnational jurisdictions, and between levels of governance, will not lead to sustainability if long-standing questions about power over territory and the underlying interests driving land-use change are not adequately addressed (Rodriguez-Ward et al. 2018). Ultimately, JA efforts will only succeed when subnational actors with the authority to challenge those interests are able to muster the necessary political will to act. This will require leadership and political courage as well as support and partnerships that can stand up to the status quo and deliver on the promise of JA.

EVIDENCE GAPS AND AREAS OF CONTROVERSY

Despite ten years of experience, most JA experiments are relatively new, making it difficult to conduct rigorous assessments of progress and challenges. Nevertheless, there is a pressing need for more independent, critical assessments published in the peer-reviewed literature. Much of the available literature to date has been gray literature, some of which has been developed for the purpose of advocacy and/or in service to particular donor-funded initiatives and concerns.

Going forward, research on JA should include more analysis of the progress and challenges faced by individual jurisdictions in their efforts to build and maintain successful programs. While such research is beginning to show results (see for example Stickler et al. forthcoming), any thorough assessment of individual jurisdictional efforts will require longitudinal, field-based studies in specific jurisdictions that look not just at the laws, policies, and programs that have been adopted by the governments in question, but also at the actual record of implementation on the ground and the costs (both opportunity and implementation) associated with JA (Luttrell et al. 2018a).

Furthermore, there is a need to pay more attention to the challenges of political continuity and the factors that influence the durability of specific policies, programs, and institutional designs across national and subnational election cycles. More detailed understanding of existing implementation capacity (and related costs) within individual governments and among their civil society partners would provide the basis for a better and more realistic assessment of what is feasible to achieve within particular jurisdictions and time periods. Such analysis might also provide the basis for a typology of the different starting points and pathways to JA across the large and diverse set of jurisdictions that are seeking to build robust jurisdictional programs.

Likewise, it is past time to recognize and analyze the transnational aspects of these efforts, focusing on how transnational policy elites and actors (NGOs, the donor community, consultants, etc.) interact with political leaders, civil servants, and other local actors in particular jurisdictions, and how these interactions in turn shape policy agendas and affect outcomes at the jurisdictional level (World Bank 2017). Understanding the interconnected nature of forest and climate governance across scales, and the networks of local, national, and global actors involved in the development of JA in any particular jurisdiction, would provide a more realistic assessment of the challenges and opportunities of building successful programs (Boyd 2010).

Finally, with respect to partnerships with the private sector, there is a need for better understanding of the "business" case for JA-for both governments and companiesand a need to clarify how different private sector actors can engage with jurisdictional programs. Similarly, with respect to REDD+ and various carbon market opportunities, there is a need to analyze what constitutes a realistic and attainable jurisdictional performance standard for both voluntary and compliance markets. California's ongoing effort to develop rules for international, sector-based forest offsets to include in its cap-and-trade system holds considerable promise in this respect, given California's long-standing partnership with tropical forest states and provinces through its role as a founding member of the GCF Task Force and its ongoing work with North American tribal governments seeking a market for their own forest offsets.

As for remaining areas of controversy and disagreement, some observers have highlighted the continued lack of an internationally credible, shared definition of "success" in slowing deforestation that can be operationalized by different governments working in very different political, legal, and institutional contexts (EII 2017). Where some emphasize bottom-up, organic, "home-grown" examples of policy experimentation, others focus on the need for a common, top-down approach that can be scaled and replicated across many jurisdictions. To be sure, a more uniform approach and shared definition of success could prove valuable for private sector actors in their sourcing and financing decisions, as well as for the donor community in terms of directing their investments. However, there is also value in the diversity and experimentalism currently seen across the many different JA initiatives, raising questions about the utility of a single overarching conception of JA.8

There are also long-standing concerns and disagreements over how various JA efforts will affect indigenous and traditional communities. These concerns are often bound up with larger controversies over REDD+ and carbon markets, but there remain important questions regarding the effects that any jurisdictional program (at any scale) focused on forests and land use will have on indigenous land rights, community involvement in forest governance, and livelihoods.

Finally, there is also a lack of agreement on the potential role of JA-and public policy in general-in achieving the various private-sector zero-deforestation supply chain commitments. While recent analyses of the failure to achieve existing supply chain commitments recognize a role for government and public policy (Lambin et al. 2018; Nepstad et al. 2013a, 2013b), there is still disagreement and controversy over what is realistic to expect from governments (and JA) and how supply chain efforts and JA can be combined in practice. A recent study on sustainable supply chain initiatives for palm oil in Indonesia highlights the need for better alignment with relevant national policy agendas (e.g., agrarian reform, license review, social forestry) to support these public systems and bring about longer-term sustainability objectives (Luttrell et al. 2018b).

CONCLUSIONS AND NEXT STEPS

There is a long-standing tendency in international environment and development work to look for the next big thing—the silver bullet that will solve the problems that past efforts have so far failed to address. In their early iterations, REDD+ and sustainable supply chain initiatives both elicited this sort of enthusiasm, even if they were not initially presented as such. JA and the closely related landscape approach have also sometimes been embraced on the basis of similar expectations as a way of going beyond individual projects to secure emissions reductions at scale.

It is a mistake to view JA in this manner, however. Indeed, one of the most important lessons of JA over the last decade is that successful programs require long-term commitments from multiple actors at multiple levels matched with a realistic sense of what is reasonable to expect from governments, both politically and in terms of implementation capacity, and a need for fresh thinking on the potential for new public-private collaborations. Going forward, a more realistic assessment of what JA can accomplish needs to be combined with an appreciation for the diversity of approaches already underway and the importance of more experimentation and learning. In this respect, JA is different than REDD+ and sustainable supply chain efforts. It is not simply another policy initiative that can be adopted or rejected. Rather, JA is a recognition of the necessary and vital role that governments at multiple levels, with all of their many problems, must play in any realistic effort to protect forests, reduce emissions, and enhance livelihoods.

ABBREVIATIONS

- ASPY Agreement for a Sustainable Yucatan Peninsula
- FSC Forest Stewardship Council
- GCF Governors' Climate and Forests Task Force
- HCS high carbon stock
- HCV high conservation value
- JA jurisdictional approach
- NDC Nationally Determined Contribution
- NGO nongovernmental organization
- PCI Produce, Conserve, and Include
- RSP0 Roundtable for Sustainable Palm Oil
- SISA System of Incentives for Environmental Services
- UNFCCC United Nations Framework Convention on Climate Change

ENDNOTES

- 1. REDD+ refers to reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests, and enhancement of forest carbon stocks.
- 2. For more on REDD+, see the companion paper in this series, "REDD+: Lessons from National and Subnational Implementation" (Duchelle et al. 2018).
- 3. For more on commodity supply chains, see the companion paper in this series, "The Elusive Impact of the Deforestation-Free Supply Chain Movement" (Taylor and Streck 2018).
- 4. This represents the largest area cleared in one year since 1995, when the "Mega-Rice Project" led to the clearing of 3.2 million ha.
- 5. RSPO palm certificates were sold, generating approximately \$30,000 in revenues for the 190 smallholders.
- 6. In Peru, regions are the level of government between the national and provincial levels.
- 7. For more on commodity supply chain commitments, see the companion paper in this series, "The Elusive Impact of the Deforestation-Free Supply Chain Movement" (Taylor and Streck 2018).
- 8. For more on challenges related to forest monitoring, see the companion paper in this series, "Tropical Forest Monitoring" (Petersen et al. 2018).

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