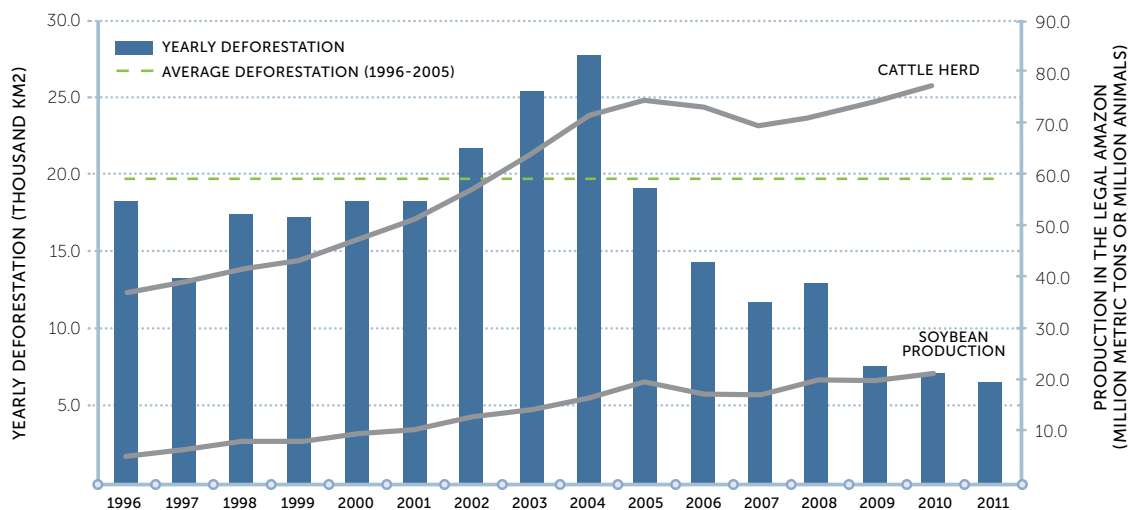# RE-FRAMING REDD+

Unlocking the potential of jurisdictional REDD+ as a policy framework for low-emission rural development: research results and recommendations for governments

IPAM Amazon Environmental Research Institute

FIGURE 1.

From 2006 to 2011, reductions in deforestation in the Brazilian Amazon region totaled 2.2 billion tons of CO_2 (equivalent). The new, lower rate of deforestation represents a 1.5 % reduction in annual global greenhouse gas emissions. If this historical accomplishment is to be secured and deepened, REDD+ must be re-framed. *(Figure 1)*

Authors | Daniel Nepstad,[1] Paulo Moutinho,[2] William Boyd, Andrea Azevedo,[2] Tathiana Bezerra,[1] Bernhard Smid,[2] Marcelo Stabile,[2] Claudia Stickler,[1] Osvaldo Stella[2]

Contact | Daniel Nepstad, dnepstad@ipam.org.br

1   IPAM, International Program, 3180 18th St., San Francisco, CA 94110
2   IPAM, SHIN CA 5 Lote J2 Bloco J2 - Salas 306,308,309, Bairro: Lago Norte, Brasília-DF | 71.503-505

1 | REDD+
at the Crossroads

REDD+ is at a crucial crossroads. It's early promise of providing a global framework that would deliver fair compensation to those developing nations that succeed in reducing their greenhouse gas emissions from deforestation[1] and forest degradation must be re-examined. After six years of negotiations and experimentation, the compensation mechanism has not materialized at scale. Many of the political leaders from both developing and industrialized nations who made courageous and politically risky decisions to put REDD+ into practice are frustrated by the lack of deeper financial commitments to REDD+. Many have left office through election cycles and their successors are wondering what to do with nascent REDD+ programs. Indigenous peoples and traditional forest communities have participated in numerous dialogues on REDD+, they have been approached by project developers proposing obscure carbon deals, but tangible benefits for their communities are virtually non-existent. Farmers and livestock producers have seen few or no benefits for the steps they have taken to forego deforestation and reduce their emissions.

The frustration with REDD+ is best illustrated by the states of the Brazilian Amazon, which have achieved a ~1.5% decrease in global greenhouse gas emissions (for 2011) by reducing deforestation 67% *(Figure 1)*. This was possible via a combination of: (1) law enforcement; (2) policy measures (including a 50% increase in protected areas); and (3) reinforced by unfavorable market conditions for Amazon soy producers[2,3]. These reductions were achieved with limited support from the international community. Norway has made a path-breaking $1 billion commitment to Brazil in recognition of this achievement. These funds are disbursed as Brazil continues to reduce deforestation in one of the first large-scale "pay-for-performance" REDD+ financial arrangements.[4,5] Much more recognition and support of Brazil's efforts is needed.

2 | What went wrong
with the top-down model?

The hope of a unified global system for compensating nations that successfully reduce their GHG emissions from deforestation is on hold, hostage to the larger political stalemate that has stifled progress in international climate policy. It now appears that the Kyoto Protocol will end its 2008-2012 compliance period with only limited potential for a modest extension. Meanwhile, efforts to negotiate a new climate instrument within the United National Frame-

1   Santilli, M. P., P. Moutinho, S. Schwartzman, D. C. Nepstad, L. Curran, and C. A. Nobre. 2005. Tropical deforestation and the Kyoto Protocol: an editorial essay. Climatic Change 71:267-276

2   Soares-Filho, B., et al. 2010. Role of Brazilian Amazon protected areas in climate change mitigation. Proceedings of the National Academy of Sciences 107:10821-10826.

3   Assunção, J., C. Gandour, and R. Rocha. 2012. Deforestation Slowdown in the Legal Amazon: Prices or Policies? Page 37 p. Climate Policy Initiative, Rio de Janeiro, RJ.

4   Nepstad, D. C. et al. 2009. The End of Deforestation in the Brazilian Amazon. Science 326:1350-1351

5   Moutinho, P., O. Stella, A. Lima, M. Christovam, A. Alencar, I. Castro, and D. C. Nepstad. 2011. REDD no Brasil: um enfoque amazônico - fundamentos, critérios e estruturas institucionais para um regime nacional de Redução de Emissões por Desmatamento e Degradação Florestal – REDD. Page 156 p. Centro de Gestão e Estudos Estratégicos, Brasília, DF.

work Convention on Climate Change will not generate any sort of binding agreement to further reduce their emissions until 2020.[6] The largest opportunity to create a compensation mechanism at scale for emissions reductions achieved through REDD+ —the US cap-and-trade legislation that included a provision for international offsets[7]—fell victim to the partisan political gridlock in the US that arose in the wake of the 2008 financial crisis and that was reinforced by the systematic attacks intended to undermine the credibility of climate science. Today, the United States appears to be the only major emitting country in the world that is still debating the science of climate change.

And yet, many tropical nations and states have taken bold steps to slow deforestation, demonstrating real leadership on climate policy. More than thirty nations and dozens of states and provinces have started to design the programs and policies to reduce deforestation and forest degradation *(Figure 2)* and in some cases they have achieved globally-significant results *(Figure 1)*. However, the benefits realized by tropical nations and states for these efforts have been small, and REDD+ is increasingly viewed in developing nations and states as a cumbersome, bureaucratic, time-consuming process that—as currently framed—yields surprisingly little funding on the ground, where it is most needed. It is, at least in part, this lack of progress in developing the global framework for recognizing and compensating these successes at scale (with important exceptions, such as Norway's commitments) that developing nations and states have made little progress in engaging key rural sectors and their respective ministries in the process of designing and implementing a low-deforestation, low emission rural development model capable of securing food and water supplies, alleviating poverty, and contributing to sustainable economic growth.

But beyond this lack of funding, the REDD+ dialogue has taken place through UNFCCC negotiations and related processes that are, in general, far removed from the complex political, economic, and cultural processes underway in developing nations that are defining policies, plans and priorities for rural development. In this regard, the top-down approach to REDD+ may have been flawed from the outset[8].

6   U.N. FCCC, Durban Platform, item 4. Available at
     http://unfccc.int/files/meetings/durban_nov_2011/decisions/application/pdf/cop17_durbanplatform.pdf.
7   Nepstad, D. C. et al. 2009. The End of Deforestation in the Brazilian Amazon. Science 326:1350-1351
8   Boyd, W. 2010. *Climate Change, Fragmentation, and the Challenges of Global Environmental Law: Elements of a Post-Copen-hagen Assemblage*, 32 University of Pennsylvania Journal of International Law 457.

FIGURE 2. More than 30 tropical nations are taking steps towards REDD+. Global map of tropical nations that are participating in the development of REDD+ mechanisms.

LEDS
GCF
FCPF
Norway
UN-REDD
FIP
FIP & UN-REDD
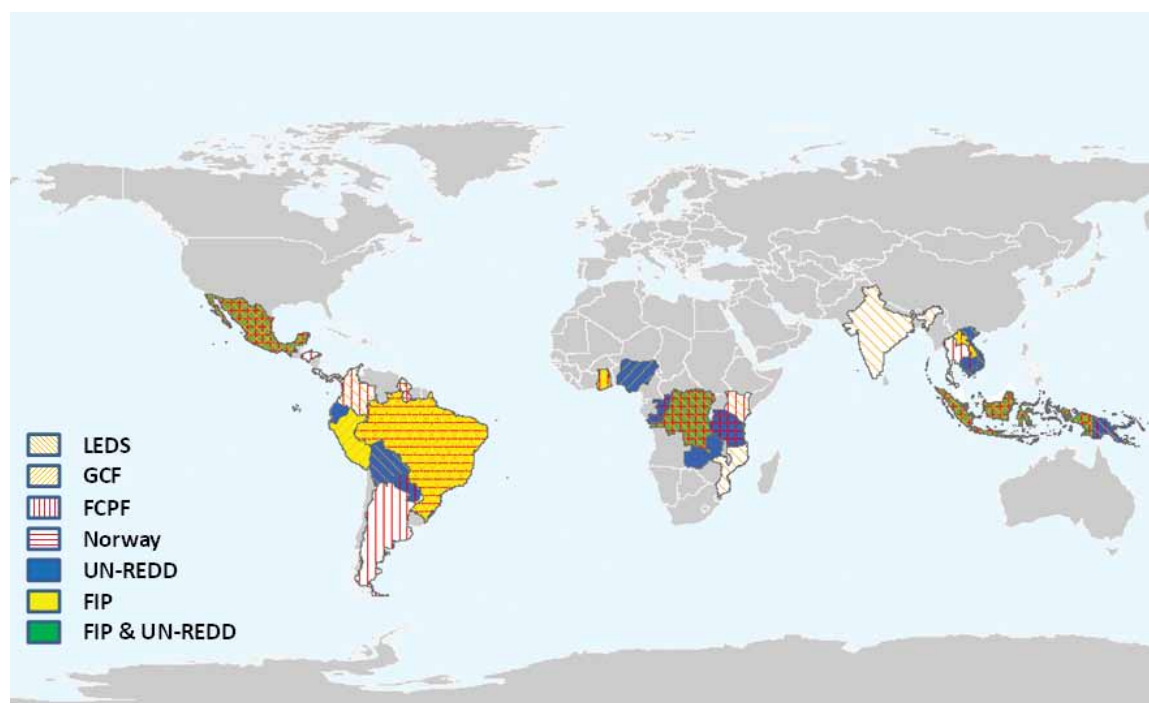
3 | Reasons for optimism

Notwithstanding the slow progress towards a grand global framework for REDD+, the idea of building viable frameworks and forms of governance for low emissions rural development *(Box 1)* is very much alive and evolving rapidly. For example, Brazil[9], Indonesia, Mexico, Guyana, Peru, and many other national governments are taking bold political and policy steps to achieve steep reductions in tropical deforestation as Norway, Australia, Germany, the UK, the US, Southern Korea and several other nations and states are implementing or examining innovative mechanisms for creating incentives for REDD+ that do not depend upon a global framework compensation scheme. These compensation mechanisms include "pay-for-performance".

One important beacon of progress in this respect is the "Governors' Climate and Forests task force" (GCF), a consortium of states and provinces that is aligning their REDD+ systems with the California climate policy *(see Box 1)*. Since its establishment in 2008, the GCF has emerged as an important source of innovation in REDD+ program development, providing a potential pathway to REDD+ compensation systems at scale in the context of the current fragmentation in climate change policy. Meanwhile, markets for some of the agricultural commodities whose expansion is a principal driver of deforestation—such as palm oil, soy, and beef—are beginning to reject deforestation from their supply chains through the agricultural commodity roundtables, the Consumer Goods Forum (whose member companies transact $2 trillion in annual revenues), and other initiatives.[10]

9   Moutinho, P., O. Stella, A. Lima, M. Christovam, A. Alencar, I. Castro, and D. C. Nepstad. 2011. REDD no Brasil: um enfoque amazônico - fundamentos, critérios e estruturas institucionais para um regime nacional de Redução de Emissões por Desmatamento e Degradação Florestal – REDD. Page 156 p. Centro de Gestão e Estudos Estratégicos, Brasília, DF.
10 Stickler, C., D. C. Nepstad, M. C. C. Stabile, A. Azevedo, and T. Johns. 2012. Slowing Climate Change through Better Farming. Page 10. Instituto de Pesquisa da Amazonia, Brasilia.

BOX 1.

The GCF at a glance

- 14 states and provinces in five tropical nations
- One fifth of the world's tropical forests
- Achieved emissions reductions of more than 1% of global total
- Aligning with California's cap-and-trade policy and other climate policies
- Launched the GCF Database[1]
- The "GCF Fund" established as a flexible mechanism for deliverable finance directly into State/Province REDD+ programs

1 The GCF Database provides an open, web-based source of information for individual GCF member states and provinces. For more information visit www.gcftaskforce.org

BOX 2.

Low-Emission Rural Development (LED) defined

We call the new rural development paradigm "low-emission rural development" for the purpose of this publication, and define it as rural development that minimizes greenhouse gas emissions as it alleviates poverty, recognizes indigenous rights/claims to land and resources, increases agricultural and forest-based production, secures food supplies/delivery, and conserves biodiversity, water, and soil resources.

REDD+ compensation mechanisms under development for compensation of jurisdiction-wide performance in reducing deforestation represent a new era of international and domestic finance for low-emission rural development. One of the most important experiences in this regard is the Brazilian "Amazon Fund", through which Norway disperses funds (capped at $1B) depending upon Brazil's performance in lowering Amazon deforestation. Forest stakeholders (indigenous, traditional communities and NGOs) in Brazil are also debating the best way to channel public funds to support REDD+ regimes across entire jurisdictions, with the potential for long-term improvements in the livelihoods of these stakeholders. For example, state REDD+ policies, like the Brazilian state of Acre's System for Incentives for Environmental Services[11,12] are based on the perspective that public funds (Amazon Fund and other international funds) followed by new domestic funding mechanisms including socio-environmental tax instruments, can provide significant resources for REDD+.

11 Alencar, A., D. C. Nepstad, E. Mendonza, B. S. Soares-Filho, P. Moutinho, M. C. C. Stabile, S. Mazer, C. Pereira, A. Azevedo, C. Stickler, S. Souza, I. Castro, and O. Stella. 2012. Acre State's Progress Towards Jurisdictional REDD+: Research, Analysis, and Recommendations for the State Carbon Incentive Program (ISA-Carbono). Page 53 p. Instituto de Pesquisa Ambiental da Amazônia, Brasília, DF.

12 Alencar, A., G. P. Asner, D. Knapp, and D. Zarin. 2011. Temporal variability of forest fires in eastern Amazonia. Ecological Applications 21:2397-2412.

4 | Lessons from the GCF:
A Critical Analysis of 13 States and Provinces

Since 2008, states and provinces of the GCF have been taking steps towards the design and implementation of jurisdiction-wide REDD+ programs. Their successes, frustrations, and courageous actions provide a valuable laboratory for assessing the state of REDD+ and to identify key changes that could be made to "re-frame" REDD+ for success in the context of the fragmented, plural, multi-layered processes that mark efforts to mitigate climate change through changes in land use.

The GCF is, by design, focused on jurisdictional REDD+ programs—programs that focus on performance in reducing emissions and improving the social and environmental performance of rural development across entire states and provinces. We begin with a definition of successful jurisdictional REDD+, then summarize progress made within the GCF, and conclude with a set of recommendations for re-framing REDD+.[13]

4.1 Defining Jurisdictional REDD+ in a fragmented world

Progress in developing REDD+ programs and institutions must be measured against clear criteria and a realistic definition of success. The complexity and rigor of these requirements will depend upon priorities within the jurisdiction, national commitments, and the type of system that the REDD+ program is expecting to connect to. "Pay for performance" programs, pioneered by Norway through its agreements with Brazil, Indonesia, and Guyana, can be quite simple. Greater rigor and formality as well as additional requirements will be necessary for jurisdictional REDD+ programs to issue offsets into regulated compliance markets. Here, we describe generically the minimum conditions and elements that we believe are necessary for a jurisdictional REDD+ program to deliver emissions reductions into a pay-for-performance agreement or into more formal compliance regimes, such as the GHG cap-and-trade program recently implemented in California.

An important premise of this policy brief is that *REDD+ is still evolving* and very much up for grabs in terms of how it will be defined and implemented in practice. It is now clear that there will be several pathways through which developing nations and states/provinces might receive benefits for their achievements in reducing emissions from deforestation and forest degradation. REDD+ is best seen as a pay-for-performance framework for rural development that will only provide a portion of the funding that is necessary to achieve the transition to LED, and must be complemented by domestic agricultural loan programs, public policies, and domestic and foreign investments and development assistance.

4.2 The Triple Goals of REDD+: Emissions Reduction, Socio-Economic Development, and Environmental Conservation

In its simplest form, jurisdictional REDD+ success can be defined as nation- and state/

13   Nepstad, D. C., W. Boyd, A. Azevedo, T. Bezerra, B. Smid, R. M. Vidal, and K. Schwalbe. 2012. Overview of State-based Programs to Reduce Emissions from Deforestation and Degradation (REDD) as part of the Governors' Climate and Forest Task Force EPRI, Palo Alto, CA.

province-wide reductions in emissions from deforestation and forest degradation[14], improvements in the livelihoods of indigenous and traditional people and other low-income rural groups, and improvements in the conservation of native ecosystems, biodiversity, soils, and water systems. Various systems are evolving that could provide a flow of benefits into nations and states/provinces that achieve these goals. REDD+, in this light, provides the framework for delivering performance-based benefits.

4.3 Minimum Requirements for "Pay-for-Performance" Jurisdictional REDD+ Programs

1. *Demonstrate Emissions Reductions For the Jurisdiction:*

   - *Establish a Reference Level and Target.* A jurisdiction-wide *reference level* defines the business-as-usual rate of forest carbon emissions in the absence of the REDD+ program. The default approach for determining the reference level is to assume that average emissions from an earlier period will continue into the future. In some cases, downward or upward adjustments may be necessary to account for new pressures or declining pressures to clear or degrade forests. Once established, the reference level can be used to measure changes in emissions (as the difference between the reference level and measured emissions). In most nations and states/provinces, deforestation is the primary cause of forest carbon fluxes to the atmosphere, and should be the initial target of the program. The scope of the program can be expanded to include emissions reductions from forest degradation and carbon removals from the atmosphere (through forest regeneration, tree planting, and forest recovery) as capacity to monitor these fluxes is achieved. Deforestation or GHG emission targets may be established and legally adopted together with the definition of the reference level. The target provides the state with a specific goal that facilitates planning and programmatic investments.

   - *Establish a reliable system for monitoring emissions.* The monitoring system can be as simple as a state- or province-wide map of deforestation and associated emissions developed every 2-3 years. It must account for both the area of change (the area deforested, degraded or undergoing recovery) and the changes in carbon density per area. (Maps of aboveground biomass[15] are now available that provide estimates of carbon stocks for the world's tropical forests for every 500x500 meter parcel.) With each new estimate of deforestation, degradation, and associated emissions, the amount of emissions reductions (if any) that have been achieved can be estimated by comparing measured emissions to the reference level. The monitoring system and emissions reduction estimates should be reviewed and reported on by technical experts.

---

14 Also, net carbon uptake from the atmosphere through forest regeneration, forest recovery following anthropogenic disturbance, and tree planting.

15 Baccini, A. et al. 2012. Estimated carbon dioxide emissions from tropical deforestation improved by carbon-density maps. Nature Clim. Change 2:182-185.

- *Design and implement a fast-track plan for reducing emissions.* Determine the major drivers of deforestation and forest degradation and the alternatives to deforestation and forest degradation (e.g. intensification of agricultural or livestock production in concert with command-and-control measures to restrict access to forests); design a "fast-track" program that steers the drivers towards these alternatives.

- *Harmonize national, state/provincial, and project-level emissions reductions.* Many tropical nations and states/provinces are beginning their REDD+ programs through projects, each with its own reference level and other design features. Flows of performance-based benefits to these projects must be accounted for within jurisdictional REDD+ programs through "nesting" or by simply allocating a portion of emission reductions to projects. This prevents "double payments" for emissions reductions. Similarly, state-level REDD+ programs should be compatible with national REDD+ approaches.[16,17]

2. *Demonstrate Social and Economic Benefits*

- *Consult with forest stakeholders.* Explain the goals of the REDD+ program and the changes that it could bring to the livelihoods of each stakeholder/constituency. Seek feedback, and build that feedback into the planning process.

- *Identify the principal needs/demands of low-income or otherwise vulnerable groups.* Evaluate the major restrictions (lack of economic opportunities, unclear land tenure, food insecurity, lack of technical assistance, lack of health care, education, potable water and other basic services) and the options for overcoming these restrictions

- *Design and implement programs for addressing needs and delivering benefits.* Design programs and projects for attending the critical needs and demands of rural stakeholders, and require their free prior and informed consent. The allocation of benefits and revenues flowing from the REDD program itself can be determined through: (1) carbon accounting (e.g. stock-flow allocation among different rural stakeholders); (2) through a programmatic approach (e.g. focusing on programs designed to address the needs and aspirations of major stakeholders); and (3) a combination of the two.[18] Additionally, the system to allocate benefits should be compatible with and integrated into policies and institutional arrangements.

3. *Demonstrate Environmental Benefits*

- *Slowing deforestation and forest degradation across a jurisdiction is a major environmental benefit.* The first requirement of REDD+ provides a range of important environmental benefits including biodiversity conservation, watershed conservation, and soil conservation.[19]

16 Moutinho, P., O. Stella, A. Lima, M. Christovam, A. Alencar, I. Castro, and D. Nepstad. 2011. REDD benefit sharing between subnational and national level: The Brazilian example * in K.-H. Stecher, editor. REDD Professional Dialogue 2. KfW Entwicklungsbank, Frankfurt, Germany.

17 EPRI. 2010. Brazil's Emerging Sectoral Framework for Reducing Emissions from Deforestation and Degradation (REDD) and the Potential to Deliver Greenhouse Gas Emissions Offsets from Avoided Deforestation in the Amazon's Xingu River Basin. EPRI,, Palo Alto, CA.

18 Alencar, A., D. C. Nepstad, E. Mendonza, B. S. Soares-Filho, P. Moutinho, M. C. C. Stabile, S. Mazer, C. Pereira, A. Azevedo, C. Stickler, S. Souza, I. Castro, and O. Stella. 2012. Acre State's Progress Towards Jurisdictional REDD+: Research, Analysis, and Recommendations for the State Carbon Incentive Program (ISA-Carbono). Page 53 p. Instituto de Pesquisa Ambiental da Amazônia, Brasília, DF.

19 Stickler, C. M., D. C. Nepstad, M. T. Coe, D. G. McGrath, H. O. Rodrigues, W. S. Walker, B. S. Soares Filho, and E. A. Davidson. 2009. The potential ecological costs and cobenefits of REDD: a critical review and case study from the Amazon region. Global Change Biology 15:2803-2824.

- *Evaluate and disseminate components of the REDD+ program that involve tree plantations.* The establishment of tree plantations is a major source of potential negative environmental (and social) impact in REDD+ programs. Plantations are an important component of many rural development plans, but they should be implemented with careful attention and documentation of their impacts on native vegetation, soils, biodiversity, and human communities.

4.4 Additional Requirements and Recommended Elements for "Compliance-Grade" Jurisdictional REDD+ Program

1. *Legal and Institutional Framework.*

   - The minimum requirements of "pay-for-performance" jurisdictional REDD+ will often be more easily achieved in the context of a legal and institutional framework. A clear framework must establish institutions, mandates, authorities, reference levels, and targets. This legal and institutional framework is mandatory for jurisdictions that wish to link with cap-and-trade programs (such as the one being implemented in California) or other regulatory frameworks.

2. *Institutions and Policies for Attracting Investments.*

   - The major determinant of governmental interest in jurisdictional REDD+ programs is performance—or potential performance—in achieving the minimum requirements described above and the institutional capacity to receive and manage funds. The major determinant of private investment in REDD+ programs is the management of risk. Institutional innovation in the ability to broker and manage performance-based revenues is an important feature of successful REDD+ programs. Risk can be managed by offering colateral on investments against the event of non-performance of the programs. REDD+ programs can attract investments by providing options on future REDD+ credits, or attracting investment into REDD+ bond structures.[20]

3. *System for Issuing and Tracking "Emissions Reductions" or "Offsets"*

   - A system to define, issue, register, and track offsets is necessary for REDD+ programs to link with regulated emissions trading systems.

4.5 The Status of REDD+ in the GCF States and Provinces

We used these elements of success as the basis of our evaluation of 13 states and provinces that are developing jurisdictional REDD+ program within the context of the GCF *(Table 1)*. This evaluation was conducted through the: (1) GCF Database;[21,22] (2) interviews with government officials and staff, and staff of non-governmental institutions working closely with the REDD+ programs; (4) and from publicly available online sources.

20 EPRI. 2010. Brazil's Emerging Sectoral Framework for Reducing Emissions from Deforestation and Degradation (REDD) and the Potential to Deliver Greenhouse Gas Emissions Offsets from Avoided Deforestation in the Amazon's Xingu River Basin. EPRI,, Palo Alto, CA.

21 For full report, see Nepstad et al. 2012

22 Nepstad, D. C., W. Boyd, A. Azevedo, T. Bezerra, B. Smid, R. M. Vidal, and K. Schwalbe. 2012. Overview of State-based Programs to Reduce Emissions from Deforestation and Degradation (REDD) as part of the Governors' Climate and Forest Task Force EPRI, Palo Alto, CA.

TABLE 1.

Number of States/Provinces (out of 13)

	1	2	3	4	5	6	7	8	9	10	11
1 | Demonstrate emissions reductions											
Reference Level Established[1]	■	■	■	■	■						
Plan for Lowering Deforestation[2]						■	■	■	■	■	■
Emissions Monitoring System	■	■	■	■	■						
2 | Demonstrate socio-economic benefits											
Stakeholder consultation	■	■	■	■	■	■	■	■	■	■	■
Rural needs assessment[3]	■	■	■	■	■						
Rural development plan[4]	■	■	■	■	■						
3 | Legal/institutional Framework[5]	■	■	■	■	■	■					
4 | Institutions/Policies for Attracting Investment	■	■	■	■							
5 | System for issuing/tracking offsets[6]	■										

1 No states/provinces have finalized their reference levels.
2 The focus of most these plans is currently on command-and-control approaches. No states/provinces have developed and implemented a state-wide plan for addressing the drivers of deforestation through a combination of command-and-control measures and positive incentives.
3 These assessments are preliminary.
4 These plans are preliminary.
5 Only one state has a legal framework that is fully designed, approved, and undergoing implementation.
6 No systems have been completed.

1. Bold Steps Already Taken to Reduce Deforestation

Of particular note among these states and provinces is the large number of politically risky steps taken towards the implementation of REDD+ even in the absence of a global compensation framework.

TABLE 2.

HIGHLIGHTS OF PROGRESS TOWARDS REDD+

Acre
• Approved SISA law
• Rubber subsidy & other support for non-timber products
• Reduced emissions by 85MtCO$_2$ from 2006 to 2010

Aceh
• Moratorium on logging
• Created cross-sectoral institutions to implement the Province's REDD+ Plan

Amazonas
• "Bolsa Floresta" payments to forest families & communities benefiting over 35,000 people.
• Reduced emissions by 65 MtCO$_2$ from 2006 to 2010

Amapá
- Is engaged and consulting on how to develop a REDD+ program

Campeche
- Created a REDD+ working group to propose REDD+ policies to the state and is engaged with the federal government

Chiapas
- Established car tax and direct payments to 600 families living in the forest
- Approved a legislation and detailed plan of actions to mitigate climate change that includes REDD+

Cross River
- Moratorium on logging
- Hosting REDD+ demonstrations under the UN-REDD

Central Kalimantan
- Hosting REDD+ demonstrations under the Norway-Indonesia Letter of Intent and the Australian Indonesia Partnership Project
- Developed a "Green and Clean Province" plan

East Kalimantan
- Engaged in identifying drivers of deforestation and opportunities, developing readiness for REDD+ and launching a pilot project

Mato Grosso
- Decreased deforestation 85% (1,264 $MtCO_2$ from 2006 to 2010) as it increased production of crops and livestock
- Created a program to bring rural landowners into compliance with environmental laws
- The state REDD+ draft law is pending final approval by the legislative

Papua
- Moratorium on logging and deforestation for palm oil cultivation

Pará
- Decreased deforestation by 311 $MtCO_2$ from 2006 to 2010 as it increased production

West Kalimantan
- Implemented polices and institutions to reduce deforestation (eg. enforcement) and is hosting REDD+ pilot projects

2. Three pathways for jurisdictional REDD+

There are at least three general paths that governments can take to implement juris-dictional REDD+, as summarized in *Figure 2*. For states and provinces that make a formal commitment to the development of jurisdiction-wide reductions in emissions from deforestation and forest degradation, these paths reflect varying levels of in-volvement of governmental policies and institutions in the development of REDD+ programs and varying levels of attention to the balance between REDD+ projects (past, present, and future) and jurisdictional programs. At one end of the spectrum are states that may develop fully integrated REDD+ programs within which proj-ects can be developed, referred to here as *"fully-integrated REDD+."* This approach involves designing and building a comprehensive jurisdictional REDD+ program from the outset rather than starting with a collection of projects and pilot activi-ties. This is the approach being implemented today by the Brazilian state of Acre. Making this work, of course, requires a significant level of institutional capacity and political commitment. Moreover, it is important to recognize that this approach can include projects that are "nested" into the jurisdictional program. These nested projects, however, need to be identified and implemented *ex ante* as part of the state or provincial REDD+ program, and potentially could be eligible for crediting and/

or revenue allocation under the terms of such a program, rather than being directly credited by third-party offset standards or external GHG compliance systems. This fully-integrated REDD+ program can, in turn, be nested within a federal REDD+ program.

An intermediate pathway for managing the transition from project-level activities to jurisdiction-wide programs is through "nesting," in which grandfathered projects are linked to local or state jurisdictional REDD+ programs with the total amount of emissions reductions that can be assigned to all projects constrained by the juris-diction-wide reference level[23,24]. In a nested approach, offset credits could be issued directly from the GHG compliance system (or approved third-party offset standard) to the eligible project-level activity after reconciling project-level performance with state or province-level performance. The involvement of the state or provincial government could be limited initially to the provision of state-level accounting and MRV, but could grow to be more robust over time as the elements of a fully functioning REDD+ program are developed.

Lastly, some subnational governments may decide to pursue emissions reductions below the jurisdictional reference level with a very low level of involvement from state government policies and institutions. This minimalist approach would involve a state or province implementing the minimum conditions for REDD+, but than relying entirely on project activities to achieve emissions reductions. These "project-based" programs rely upon interventions of funding and innovation through projects in a REDD+ system marked by an overarching state framework that is quite "thin" compared to fully formed jurisdictional REDD+ programs. This "thin" system likely would be limited mainly to accounting and MRV policies. However, this minimal approach is likely to be less viable over time as expectations for state and provincial government policies in this area increase. Also, if REDD+ markets do materialize at large scale, the potentially lower transaction costs associated with jurisdictional REDD+ may lead to competitive advantage being enjoyed by more robust jurisdictional REDD+ programs.

FIGURE 3. Pathways to Jurisdiction-Wide REDD+
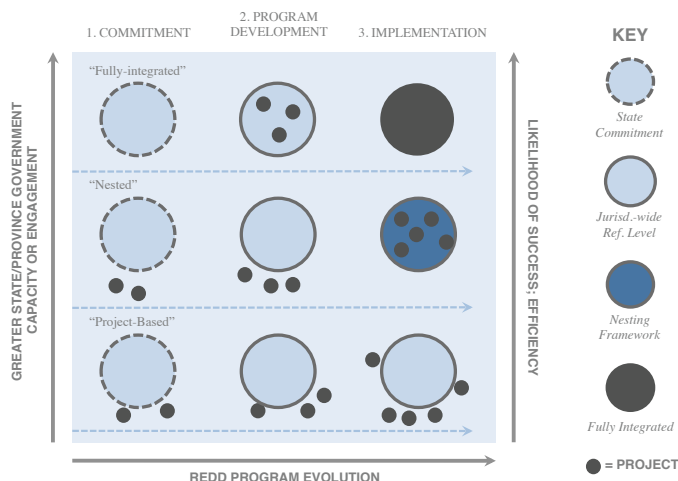
23 *Brazil's Emerging Sectoral Framework for Reducing Emissions from Deforestation and Degradation (REDD) and the Potential to Deliver Greenhouse Gas Emissions Offsets from Avoided Deforestation in the Amazon's Xingu River Basin,* Electric Power Research Institute (EPRI), Palo Alto, CA: 2010 1021606, [www.epri.com]—http://www.ipam.org.br/biblioteca/livro/Brazil-s-Emerging-Sectoral-Framework-for-Reducing-Emissions-from-Deforestation/550

24 Moutinho, P., O. Stella, A. Lima, M. Christovam, A. Alencar, I. Castro, and D. C. Nepstad. 2011. REDD no Brasil: um enfoque amazônico - fundamentos, critérios e estruturas institucionais para um regime nacional de Redução de Emissões por Des-matamento e Degradação Florestal – REDD. 156 pp. Centro de Gestão e Estudos Estratégicos, Brasília, DF.

5 | Recommendations for Governments that are Developing Jurisdictional REDD+:

BOX 3.

Re-framing REDD+
as Low-Emission Rural Development

REDD+ has had difficulty finding traction in public policy processes and in many governments has not moved beyond a tiny group of people with little power to permeate other ministries/departments. The central challenge in "re-framing" REDD+ is to position it as the pay-for-performance framework for a new rural development paradigm, that here we call LED *(see Box 2)*.

+ RECOMMENDATION 1

Keep it simple

Focus on achieving the three goals of REDD+ in a way that is compatible with the laws, culture, economic conditions, and capacity of the national or state government, and that prioritizes clarity, transparency, simplicity, and consultation with stakeholders.

+ RECOMMENDATION 2

Take ownership early; process is key

The government should establish engagement and/or leadership of the REDD+ program early on, cognizant of its limitations in institutional capacity and expertise. It should seek cross-sector consultation on the broad framework of the program and reach out to civil society and private sector partners to address shortfalls in institutional capacity and expertise. **The government should establish a database of REDD+ pilot projects under development within its jurisdiction and rapidly establish guidelines for screening these projects, then apply these guidelines to decide which projects are part of the REDD+ program.** Pilot projects are important laboratories for innovation and, sometimes, for efficient delivery of benefits to target communities, but their isolation from government reduces their long-term contribution to the transition to LED. It is precisely the policy innovation and government institutional capacity-building at the jurisdictional level that is necessary for REDD+ to achieve its potential of generating emissions reductions at scale, some of which could provide a basis for significant volumes of emissions reductions.

The government should establish a robust multi-departmental and multi-stakeholder process early and embed this within appropriate legislation or regulations that will allow it to live beyond any particular administration. Maintaining a process that includes key civil servants across the relevant ministries and key civil society actors is critical to the success of jurisdictional REDD+.

Re-frame REDD+ as rural development beyond "payments for ecosystem services"

REDD+ programs must be designed, communicated and implemented in a way that maximizes perceived and delivered benefits on the ground to a range of rural stakeholders. Some of the reputational damage that REDD+ has incurred can be traced to unmet expectations of large flows of revenue to forest holders. Performance-based revenues will eventually flow to REDD+ programs, but probably not at the scale or time period originally envisaged. REDD+ can be re-framed to focus on rural development that is providing improvements in livelihoods and the quality of life, jobs, better air and water quality, more reliable rains, fewer floods, improved market access, and more favorable terms of finance for farmers and communities. Some of the benefits that can be highlighted as the focus of REDD+ are summarized in *Table 3*.

TABLE 3. Benefits of the Transition to Low-Emission Rural Development

BENEFITS	HOW?
Better market access	Several processes are restricting market access for those agricultural or forest products that are associated with deforestation or illegal activity. These include the zero deforestation supply chain commitment of the Consumer Goods Forum, the agricultural commodity roundtables (RSPO, RTRS, Bonsucro), moratoria on soy and beef grown on recently cleared soils[25]
Greater access to private and public investment and finance	Several lines of agricultural credit (both governmental and private) are developing differentiated interest rates to favor sustainable producers. Agricultural investors consider tropical deforestation a source of investment risk.
Lower costs of rural services and infra-structure	Deforestation expands the agricultural frontier, creating new costs for governments as they seek to provide services (education, court justice, health) and infra-structure (roads, energy) across an expanding zone of rural occupation.
Lower risks of droughts (Amazon), fire, flooding	Reduced deforestation can reduce the risk of climate disruption, drought, fire, soil loss, biodiversity loss, and watershed disruption.

+ RECOMMENDATION **4**

## *Prioritize definition of nation- or state-wide reference level*

Nations and states should prioritize the definition of REDD+ performance across the entire jurisdiction. In its simplest form, the performance "reference level" can be established as the average emissions from deforestation (or degradation) for a period of several years prior to the initiation of the REDD+ program *(Figure 4)*. If emissions estimates are not available every year, use the best data that are available. If estimates of above-ground forest carbon

25 Nepstad, D. C., D. G. McGrath, and B. Soares-Filho. 2011. Systemic Conservation, REDD, and the Future of the Amazon Basin. Conservation Biology 25:1113-1116.

stocks are not available, use published, freely-available maps.[26,27] Once established, the reference level allows the program to (a) demonstrate emissions reductions to potential investors and (b) to determine the total amount of emissions reductions that can be achieved in the state or nation (and, therefore, the total amount of emissions reductions that can be claimed by projects or sector-wide programs). Jurisdiction-wide definition of performance has several potential advantages over project-based REDD+, including lower transaction costs, simpler carbon accounting, and the opportunity for policy integration and innovation within governmental institutions. Most jurisdictional REDD+ programs have not realized these advantages, however.

FIGURE 4. Hypothetical Illustration of Jurisdiction-Wide Reference Level. The difference between the reference level and emissions is the single most important measure of the REDD+ program's performance.
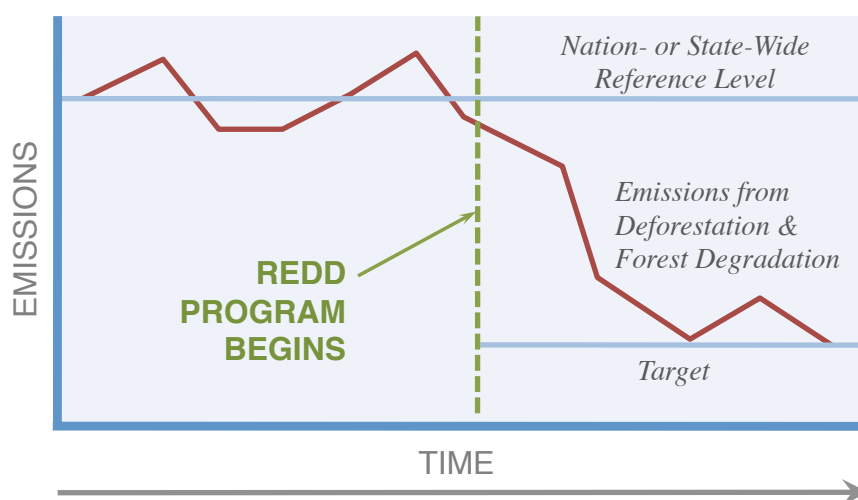
+ RECOMMENDATION **5**

Develop and implement a fast-track plan to lower emissions from the main driver(s) of deforestation or degradation
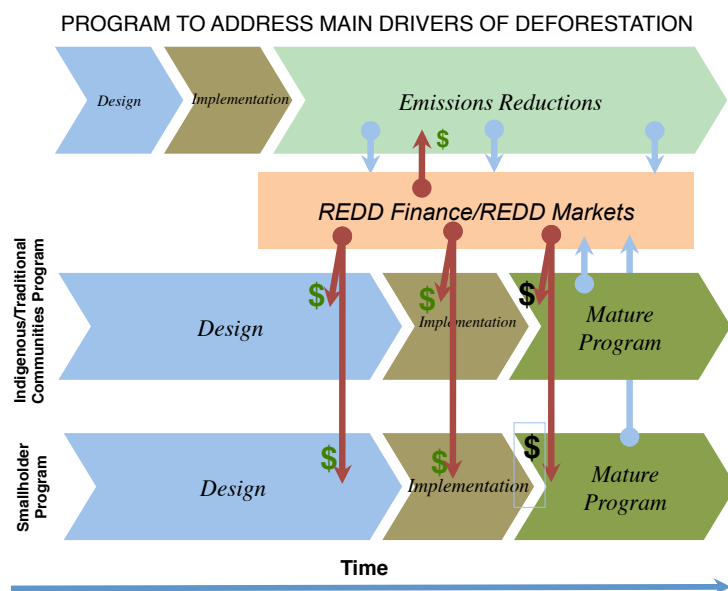
Once performance is defined through the establishment of a reference level, the best way to improve the credibility of a REDD+ program and attract investments is to demonstrate reductions in emissions from the major sources, be they deforestation or forest degradation. Command-and-control measures can be declared rapidly (e.g. moratoria on deforestation or logging), but are difficult to implement in the long-term and, alone, are insufficient. Long-term, sustainable reductions in emissions from forest conversion to agriculture and livestock or logging will depend upon: (1) clearly defined and implemented land-use regulations that are complemented by (2) systemic programs of fiscal policy reform, (3) technical assistance, and (4) education that favor forest-maintaining behavior while discouraging forest-replacing and –degrading activities.

A fast-track program to address the drivers of deforestation and forest degradation could potentially provide an early source of "pay-for-performance" revenues that provide flows of benefits to indigenous and traditional peoples *(Figure 5)* as they participate in the design and implementation of programs to improve their forest-maintaining livelihoods.

26 Baccini, A. et al. 2012. Estimated carbon dioxide emissions from tropical deforestation improved by carbon-density maps. Nature Clim. Change 2:182-185.

27 www.whrc.org/pantropical

FIGURE 5. Possible sequencing of programs to address the main drivers of deforestation, indigenous/traditional peoples, and smallholders. Emissions reductions achieved rapidly could attract investors and performance-based finance that can provide benefits to forest guardians and smallholders.

PROGRAM TO ADDRESS MAIN DRIVERS OF DEFORESTATION

Design | Implementation | Emissions Reductions

$ REDD Finance/REDD Markets

Indigenous/Traditional Communities Program: Design | Implementation | Mature Program

Smallholder Program: Design | Implementation | Mature Program

Time

+ RECOMMENDATION 6

Develop and implement a fast-track plan to deliver tangible benefits to indigenous / traditional peoples and local communities as programs for systemically improving their livelihoods are developed

Rapid demonstration of benefits to the most vulnerable (and, often, the most economically-marginalized) rural population are urgently needed. States and nations have demonstrated that this is possible (e.g. Chiapas' Lacandon Forest program, that provides monthly benefits to indigenous families derived from an automobile licensing tax.) Rapid emissions reductions achieved through the fast-track plan to address the major drivers of deforestation *(Recommendation 5, Figure 5)* could also provide emissions reductions that could attract early investors to inject revenues into the system.

+ RECOMMENDATION 7

Develop a low-emission rural development "business model" for driving the transition from forest-replacing / forest-degrading to forest-maintaining / forest-restoring rural economies that features policy alignment and institutional integration across sectors

In many nations and states, the conversion of forests to agriculture or livestock and the predatory logging of timber could be eliminated at relatively low cost. Forest-based enterprises run by rural communities can thrive and provide long-lasting new sources of revenue when critical obstacles are removed. Similarly, increases in production can be achieved "vertically" on lands that have already been converted to agriculture or livestock instead of "horizontally" through expansion into forests. A "business model" that aligns policies (regulations, agricultural loan programs, rural infra-structure and services), rural extension, and programs across rural sectors and constituencies can potentially unlock the potential of land uses, forest management systems, and enterprises that are aligned with the goals of LED.

+ RECOMMENDATION 8

Actively seek and facilitate investments from public and private sectors in pay-for-performance arrangements, in forest peoples programs, and in the business opportunities framed by the low-emission rural development business model.

Agile institutions are needed to put the business model into practice. Public-private partnerships today are helping GCF states attract investments to their REDD+ programs. The Sustainable Amazonas Foundation (Fundação Amazonas Sustentavel—FAS) has already attracted investments into the State of Amazonas' REDD+ program, and the Company for the Environmental Service Development (Companhia para Desenvolvimento de Serviços Ambientais), a public-private partnership in the State of Acre, will soon be launched with a similar function.

There is also need for policies and mechanisms that lower the risks to potential investors in forest and low-emission enterprises. This can be achieved by allocating some of the early emissions reductions as co-lateral on investments, through bond instruments that are linked to emissions reductions, or other approaches.[28]

+ RECOMMENDATION 9

Facilitate the transition of agricultural, livestock, and timber sectors to "sustainable" supply chain standards

Agricultural commodity markets are demanding higher social and environmental performance from their supply chains and this could be linked synergistically with REDD+. This trend is manifested in the Consumer Goods Forum's "zero deforestation" supply chain target for 2020 and in the agricultural commodity "roundtables" that have established international standards for social and environmental performance. REDD+ programs can be strengthened if they facilitate compliance of their agricultural and livestock sectors with these new international standards. Nations and states/provinces that are moving their supply chains into compliance with the law (environmental, labor), reducing deforestation, demonstrating improvements in the management of soil and water resources, and resolving land conflicts (all of which are reflected in roundtable standards[29,30]) will have better market access than those who don't.

28 EPRI. 2010. Brazil's Emerging Sectoral Framework for Reducing Emissions from Deforestation and Degradation (REDD) and the Potential to Deliver Greenhouse Gas Emissions Offsets from Avoided Deforestation in the Amazon's Xingu River Basin. EPRI,, Palo Alto, CA.

29 Stickler, C., D. C. Nepstad, M. C. C. Stabile, A. Azevedo, and T. Johns. 2012. Slowing Climate Change through Better Farming. 10 pages. Instituto de Pesquisa da Amazonia, Brasilia.

30 Stickler, D., T. Bezerra, D. Nepstad. Global Rules for Sustainable Farming. IPAM and the RT-REDD Consortium.

Develop jurisdiction-wide solutions to core issues of rural governance: land tenure clarity, recognition of legitimate claims on land and resources, and land-use zoning

Is the clear definition of land rights and the resolution of land conflicts a pre-requisite of REDD+ or a measure of REDD+ success? We believe that it is the latter. Questions of land tenure, ownership, and access are essential elements of LED, and should be resolved within the context of the REDD+ program.

SUPPORTED WITH GRANTS FROM

Photos courtesy of Toby McGrath