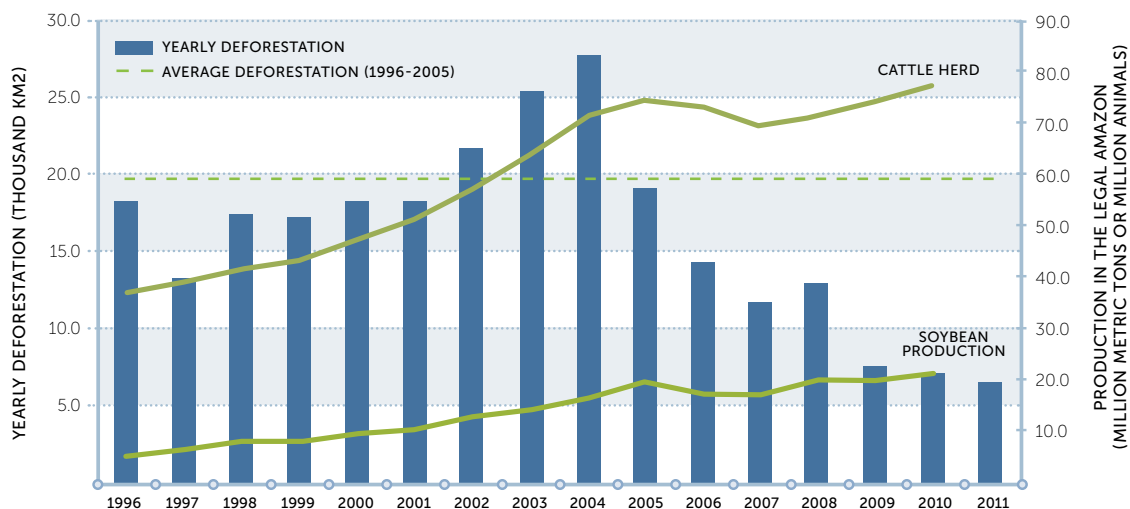# RE-FRAMING REDD+

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

IPAM Amazon Environmental Research Institute

From 2006 to 2011, $CO_2$ emissions to the atmosphere from deforestation in the Brazilian Amazon region declined by a total of 2.2 billion tons. If this historical achievement is to be secured and deepened, REDD+ must be rapidly reframed to focus on low-emission rural development, broadly defined.

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# Summary

REDD+ was conceived as a unified global mechanism for achieving significant reductions in carbon emissions to the atmosphere while conserving tropical forests and improving the lives of the people that depend upon them.  Some tropical nations have achieved remarkable results; deforestation has declined, reducing global carbon emissions by 1.5% or more in the Amazon alone.  Some developed nations have also done their part, making generous commitments of finance for REDD+ programs. This important progress towards climate change mitigation and tropical forest conservation is now at risk, however.  REDD+ is increasingly viewed in developing nations as a complicated funding mechanism for forest conservation that has failed to deliver the scale of finance that was expected.

To secure and build upon these early successes, REDD+ must be rapidly re-framed. The grand global finance mechanism is postponed.  Attention must be re-directed to the substantial local and regional benefits of a "low-emission" rural development (LED) model and the potential for the alignment and reform of domestic policies and finance to support the transition to this development model. LED must be defined broadly if it is to garner deep, durable political support.  It should include the steep reductions in deforestation and forest degradation that are the focus of REDD+.  But it also should improve rural livelihoods, create jobs, improve services, increase market access and investment, and protect and restore natural capital. All of these aspects of rural development are within reach in many tropical nations.

With LED—broadly defined—as the goal, "pay-for-performance" public finance mechanisms that are being designed and implemented could complement and reinforce the domestic public policy alignment, institutional innovation, and the growing role for private sector innovation and investment that will be needed to achieve LED.  These "pay-for-performance" systems include the relatively simple agreements to compensate reductions in deforestation pioneered by Norway and the more elaborate regulated REDD+ offset mechanisms such as that under development in California within REDD+.  Re-framed in this way, the multiple benefits of LED could increase the likelihood of eventually achieving a unified global mechanism for compensating emissions reductions.

This report examines progress towards this emerging view of a "re-framed" REDD+ agenda in the context of 13 states and provinces that are developing jurisdiction-wide REDD+ programs within the Governors' Climate and Forests Task Force (GCF).  We examine progress made towards the essential elements of jurisdictional REDD+ programs for both the relatively simple "pay-for-performance" mechanisms pioneered by Norway and for the more demanding requirements of cap-and-trade offset systems, such as that under development in California. We conclude with recommendations for governments for re-framing REDD+ for success.

## Summary of Recommendations to Governments:

1. Approach REDD+ as an integral component of LED
2. Keep the REDD+ program as simple as possible
3. Take ownership early; create criteria and a database for pilot projects
4. Establish the nation- or state-wide reference level
5. Create a fast-track plan for lowering emissions from the main drivers of deforestation and forest degradation to attract performance-based finance
6. Create a fast-track plan for delivering benefits to indigenous/traditional peoples and other economically-marginalized rural communities as programs for achieving systemic changes for improving livelihoods are developed
7. Create a LED "business model"
8. Develop innovative, simple mechanisms for attracting and utilizing public and private pay-for-performance investments
9. Support/facilitate the transition of agricultural, livestock, and timber sectors to "sustainable" supply chains standards
10. Solve problems of governance, land rights, and land conflict in the context of REDD+, not as a pre-condition of REDD+



# 1 | REDD+
## at the Crossroads

REDD+ is at an important crossroads. The early vision that REDD+ would deliver large-scale 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 forgo deforestation and reduce their emissions.

The states of the Brazilian Amazon are particularly frustrated. Together with the federal government they have reduced Amazon deforestation 67% below the ten-year average *(see page 1)*, equivalent to a ~1.5% reduction in global greenhouse gas emissions. This remarkable

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1   M. Santilli, 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

accomplishment was achieved through a combination of better law enforcement and policy measures (including a 50% increase in protected areas), and was helped by a temporary down-turn in the profitability of forest conversion to soy and cattle pasture.[2,3,4] Few financial benefits have reached the states in recognition of this remarkable accomplishment.[5,6] Norway's commitment of up to $1B of "pay-for-performance" funding to Brazil if it maintains and further deepens the decline in deforestation is an important exception. The funds are disbursed as Brazil continues to reduce deforestation in one of the first large-scale "pay-for-performance" REDD+ arrangements.[7] Much more recognition and support of Brazil's efforts is needed.

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

The 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 mitigation instrument within the United Nations Framework Convention on Climate Change (UNFCCC) will not generate any sort of binding agreement to further reduce their emissions until 2020.[8] The largest opportunity to create a compensation mechanism at scale for emissions reductions achieved through REDD+ — the proposed US cap-and-trade legislation that included a provision for international offsets[9]—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 *(see map on page 5)* and in some cases they have achieved globally-significant results. 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. The lack of progress in developing the global framework for recognizing and compensating these successes at scale (with important exceptions, such as Norway's commitments) has discouraged developing nations and states. These governments have made little progress in engaging key rural sectors and their respective ministries in the process of designing and implementing a low-deforestation, low

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

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

5    Id.

6    P. Moutinho, 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.

7    Id.

8    U.N. FCCC, Durban Platform, item 4. Available at http://unfccc.int/files/meetings/durban_nov_2011/decisions/application/pdf/cop17_durbanplatform.pdf.

9    D. C. Nepstad et al. *See* supra note 4.

emission rural development model capable of improving rural livelihoods, increasing market access, attracting investment, and maintaining/restoring natural capital.

In addition to this lack of funding, the REDD+ dialogue that has taken place through UN-FCCC negotiations and related processes 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.[10]

## Global map of tropical nations that are participating in the development of REDD+ mechanisms.



**LEDS** = Low-Emission Development Strategies
**GCF** = Governors' Climate and Forests Task Force
**FCPF** = Forest Carbon Partnership Facility
**UN-REDD** = United Nations Collaborative Program on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries
**FIP** = Forest Investment Program

# 3 | Reasons for optimism

Despite the delays in achieving a robust global funding mechanism for REDD+, important progress has been made in building viable frameworks and forms of governance for slowing deforestation and forest degradation. For example, Brazil,[11] 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 grand global framework. Progress towards REDD+ can be seen in nations and states of the tropics and of the industrialized world; politically-risky decisions have been made to slow deforestation and forest degradation and to finance REDD+ programs at scale.

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10  W. Boyd. 2010. *Climate Change, Fragmentation, and the Challenges of Global Environmental Law: Elements of a Post-Copenhagen Assemblage*, 32 University of Pennsylvania Journal of International Law 457.

11  P. Moutinho, et al. *See* supra note 6.

BOX 1.

# Highlights of Large-Scale REDD+
## Progress on the Ground

### Tropical Nations and States/Provinces

**Brazil** | Brazil has achieved a 67% decline in Amazon deforestation (below the average rate for 1996-2005), representing a 1.5% decline in global greenhouse gas emissions and 2.2 billion tons less CO2 in the atmosphere (*see page 1*). In 2009, Brazil officially committed itself to what may be the most ambitious goals in the world for reducing greenhouse gas emissions (36 to 39% by 2020). The most important component of this target is a reduction of defor-estation in the Amazon region to 20% of its 1996-2005 average and in the Cerrado savanna-woodland to 60%. In 2010, Brazil implemented a large-scale loan program to finance the development of agriculture with low carbon emissions (ABC Program).[1]

**Indonesia** | Indonesia has made a commitment to reduce deforestation 26% below its histori-cal average and 41% if other nations help to foot the bill. When Norway offered to provide up to $1 B in pay-for-performance funding, President Yudhoyono issued a logging moratorium.

**Aceh Province, Indonesia** | In 2007, Governor Yusuf Irwandi implemented a logging morato-rium, increased forest monitoring, and strengthened the ranger law enforcement force on the ground.

**Acre State, Brazil** | This southwestern Amazon state has been building a forest-maintaining economy for 13 years. Home of martyred grass-roots leader and conservationist Chico Mendes, Acre established comprehensive legislation for creating incentives for the mainte-nance of environmental services, including carbon storage by tropical forest trees. Acre has achieved an 85 $MtCO_2$ decline in deforestation.

**Chiapas State, Mexico** | Home of the Zapatista movement, in 2010 the Chiapas Government created a system of payments to families in the Maya Lacandon forest for their efforts to con-serve forests, funded by a new tax on automobile registration.

**Cross River River, Nigeria** | Home to 60% of Nigeria's remaining native forests, Cross River launched a moratorium on logging in 2008, enforced by armed policemen and the army.

**Mato Grosso, Brazil** | This giant Amazon state is the nation's largest agricultural producer and achieved the steepest decline in deforestation—85% below the 1996-2005 average, and more than half of the reductions achieved in the Amazon region. Crop and livestock production increased while clearing declined.

### Developed Nations and States

**Norway** | Norway has led the drive among industrialized nations to provide early-action funding for REDD+. It has made two $1 B performance-based commitments to Brazil and Indonesia, a $250 M commitment to Guyana, and a fourth is under development with Ethio-pia. (Norway is the only contributor at scale to the Brazilian Amazon Fund, which has become a crucial source of funding for Acre and other REDD+ programs). Norway's committed more than $3 B to REDD+.

**California, United States** | This large state (the ninth largest economy in the world) has creat-ed a far-reaching climate policy, the California Global Warming Solutions Act, which includes an international offset provision that could create demand for 50 $MtCO_2$ emissions reductions from REDD+ partner states. A linkage agreement is under development with two "Governors Climate and Forests Task Force" (GCF) states: Acre and Chiapas.

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1  *M. C. C. Stabile, A. Azevedo, and D. C. Nepstad. 2012. Brazil's "Low Carbon Agriculture" Program: Barriers to Implementation. Instituto de Pesquisa da Amazônia (IPAM).*

One important beacon of progress in this respect is the "Governors' Climate and Forests Task Force" (GCF), a consortium of states and provinces that are aligning their REDD+ systems with California's climate policy and, eventually, other sources of funding *(see Box 2, map page 8)*. California's "cap-and-trade" policy includes a provision for GHG emissions offsets that could include linkages with jurisdictional REDD+ programs. Through this provision, a small percentage (4%) of the emissions reductions that must be achieved by companies operating in California could be "offset" through financial investments in state-wide REDD+ programs under development within GCF states and provinces (potentially starting in 2015). GCF achievements go far beyond this linkage with California's climate policy. 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 that could link with a variety of public and private funding mechanisms, helping to overcome the current fragmentation in climate change policy (see our new analysis of the status of GCF jurisdictional REDD+ programs).[12]

The international offset mechanism is just one of the "pay-for-performance" approaches under development or testing for financing REDD+ programs. In an approach that is much simpler than the "cap-and-trade" offset mechanism, a financial commitment of public funding is made to a REDD+ nation or state, with fund disbursement taking place as deforestation and associated emissions decline, or as compensation for historical emissions reductions. In addition to Norway's commitments to Brazil, Indonesia, and Guyana, the German Government has developed a "REDD Early Mover" program that has made a commitment to pay for emissions reductions already achieved by the State of Acre.



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[13] (whose member companies transact ~$3 trillion in annual revenues and have taken a commitment to "zero deforestation commodity supply chains for several commodities by 2020), and other initiatives. This market-driven rejection of deforesters is operating parallel to REDD+ program development, despite the substantial synergies that it has with REDD+, but steps are being taken to link the two.[14,15]

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

13  The Consumer Goods Forum (CGF) is a global, parity-based industry network, driven by its members. It brings together the CEOs and senior management of over 650 retailers, manufacturers, service providers and other stakeholders across 70 countries and reflects the diversity of the industry in geography, size, product category and format. Forum member companies have combined sales of EUR 2.5 trillion. Their retailer and manufacturer members directly employ nearly 10 million people with a further 90 million related jobs estimated along the value chain. More information available at: http://www.theconsumergoodsforum.com

14  C. Stickler, D. C. Nepstad, M. C. C. Stabile, A. Azevedo, and T. Johns. 2012. Slowing Climate Change through Better Farming. Ten pages. Instituto de Pesquisa da Amazonia (IPAM), Brasilia.

15  C. Stickler, T. Bezerra, and D. C. Nepstad. 2012. Global Rules for Sustainable Farming. IPAM and the Roundtable for REDD (RT-REDD) Consortium.

**BOX 2.**

## **The GCF** at a glance

- 14 states and provinces in five tropical nations; two states in the US
- One fifth of the world's tropical forests
- Reduced global GHG emissions by more than 1%
- Aligning with California's cap-and-trade policy and other climate policies
- Shared, on-line GCF Database[1]
- The "GCF Fund" established as a flexible mechanism that will soon deliver 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 http://gcf.wsodqa.com

# **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, multi-layered processes that mark efforts to mitigate climate change through decreases in deforestation and forest degradation. Here, we summarize some of the main conclusions of an analysis of 13 states and provinces that are developing jurisdiction-wide REDD+ programs within the GCF.

## MAP of States and Provinces of the GCF



MEXICO
CHIAPAS
CAMPECHE

PERU
MADRE DE
DIOS

NIGERIA
CROSS
RIVER

BRAZIL
ACRE
AMAPA
AMAZONAS
MATO GROSSO
PARA

INDONESIA
ACEH
CENTRAL
KALIMANTAN
EAST
KALIMANTAN
PAPUA
WEST
KALIMANTAN

The GCF is, by design, focused on jurisdictional REDD+ programs that unlike project-based REDD+ focus on reducing emissions and improving the social and environmental performance of rural development across entire states and provinces. We begin with a definition of success in jurisdictional REDD+ programs, then summarize progress made within the GCF, and conclude with a set of recommendations for re-framing REDD+. We summarize the differences between REDD+ "projects" and jurisdictional REDD+ programs as follows:

**BOX 3.**

## Differences between REDD+ pilot projects
### and jurisdictional REDD+ programs

| | REDD+ Projects | Jurisdictional REDD+ Programs |
|---|---|---|
| Borders | Communities, reserves, concessions, multiple-use landscapes | National, state (or equivalent), or county/municipality boundaries |
| Role of Government/Policy | None, Small | Intermediate, Large |
| Risks to investors | Lack of performance of jurisdiction | Dealing with government agencies/bureaucracies |
| Potential to support transition to LED | Low | High |

### 4.1 Defining Jurisdictional REDD+ Success

Success in developing REDD+ programs and institutions must be measured against clear criteria. 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. Some "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, such as the California climate policy. Here, we describe 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 *(see page 17, Box 5)*, and must be complemented by domestic programs, public policies, domestic and foreign investments, and development assistance.

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

In its simplest form, jurisdictional REDD+ success can be defined as nation- and state/province-wide reductions in GHG emissions from deforestation and forest degradation,[16] 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 policy 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.  A common 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 reference level and measured emissions.  In most nations and states/provinces, deforestation emission 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.  Several technological advances have been made that should greatly facilitate emissions monitoring.  For example, maps of above ground biomass are now available that provide estimates of carbon stocks for the world's tropical forests for every 500x500 meter parcel.[17] The monitoring system and emissions reduction estimates should be reviewed and reported on by technical experts.

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

17  A. Baccini, 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 and positive incentives for forest maintenance); 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+ systems 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. To prevent "double payments" for emissions reductions, total emissions reductions transacted must be less than emissions reductions achieved across the entire jurisdiction. Similarly, state-level REDD+ programs should be compatible with national REDD+ approaches.[18,19]

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, poor education programs, lack of 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.[20] Additionally, the system to allocate benefits should be compatible with policies and institutional arrangements.

18  P. Moutinho, O. Stella, A. Lima, M. Christovam, A. Alencar, I. Castro, and D.C. 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.

19  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. Palo Alto, CA.

20  A. Alencar, 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. IPAM, Brasília, DF.

### 3. *Demonstrate Environmental Benefits*

- *Slowing deforestation and forest degradation across a jurisdiction is a major environmental benefit.* The first requirement of REDD+ — reductions in emissions from deforestation—provides a range of important environmental benefits including biodiversity conservation, watershed conservation, and soil conservation.[21]

- *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 and is extremely helpful in attracting simpler pay-for-performance commitments.

### 2. *Institutions and Policies for Attracting Investments*

- The major determinant of the interest in jurisdictional REDD+ programs on the part of governmental investors is performance—or potential performance—in achieving the minimum requirements described above and the institutional capacity to receive and manage funds. The major determinants of private investment in REDD+ programs are the prospect of returns on the investment and the management of risk. Institutional innovation in the ability to develop the business case for emissions reductions, and broker and manage performance-based revenues is an important feature of successful REDD+ programs. Risk can be managed by offering collateral on investments against the event of non-performance of the programs. REDD+ programs can

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21  C. Stickler, 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.

attract investments by providing options on future REDD+ credits, or attracting investment into REDD+ bond structures.[22]

*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+ programs within the context of the GCF *(Table 1)*. This evaluation was conducted through the: (1) GCF Database;[23] (2) interviews with government officials and staff; (3) staff of non-governmental institutions working closely with the REDD+ jurisdictional programs; and (4) and from publicly available online sources.

**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 specifically for REDD+.
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 tax 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.

22 EPRI 2010. *See* supra note 19.
23 GCF Database. *See* footnote 1 in Box 2.

**TABLE 2.**

| HIGHLIGHTS OF PROGRESS TOWARDS REDD+ |
| --- |
| Acre - *See box 1* |
| Aceh - *See box 1* |
| Amazonas<br>• "Bolsa Floresta" payments to forest families & communities benefiting over 35,000 people.<br>• Reduced emissions by 65 $MtCO_2$ since 2006 |
| Amapá<br>• Is engaged and consulting on how to develop a REDD+ program |
| Campeche<br>• Created a REDD+ working group to propose REDD+ policies to the state and is engaged with the federal government |
| Chiapas  - *See box 1* |
| Cross River  - *See box 1* |
| Central Kalimantan<br>• Hosting REDD+ demonstrations under the Norway-Indonesia Letter of Intent and the Australian Indonesia Partnership Project<br>• Developed a "Green and Clean Province" plan |
| East Kalimantan<br>• Engaged in identifying drivers of deforestation and opportunities, developing readiness for REDD+ and launching a pilot project |
| Mato Grosso  - *See box 1* |
| Papua<br>• Moratorium on logging and deforestation for palm oil cultivation |
| Pará<br>• Decreased deforestation by 311 $MtCO_2$ from 2006 to 2010 |
| West Kalimantan<br>• Implemented polices and institutions to reduce deforestation (eg. enforcement) and is hosting REDD+ pilot projects |

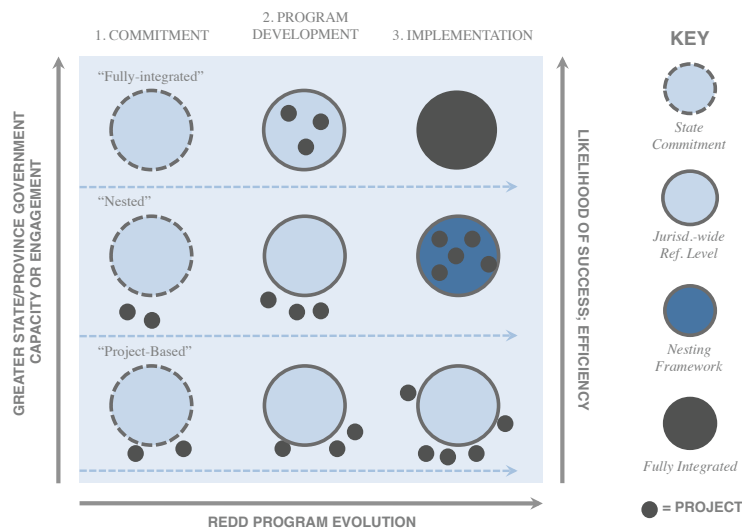### 2. *Three pathways for jurisdictional REDD+*

The REDD+ programs of the states and provinces of the GCF can be divided into three main categories, as summarized in the Figure below.  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 involvement 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 projects 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 activities.  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 credit-

ing 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 jurisdiction-wide reference level.[24,25] 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,[26] 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 then 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.

24  EPRI 2010. *See* supra note 19.
25  P. Moutinho, et al. *See* supra note 6.
26  Measurement, Reporting and Verification (MRV)

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

**BOX 4.**

## 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 influence 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 5)*.

Despite the large number of nations that are participating in REDD+ initiatives and dialogues *(see map on page 5)*, REDD+ has penetrated only superficially into the institutions and policies that shape rural development and, hence, the fate of forests. Most REDD+ programs consist of a small group of people with little power to influence other ministries/departments. The central challenge in "re-framing" REDD+ is for its proponents to see it as a jurisdiction-wide policy framework that is not being imposed from outside but, rather, must be developed and shaped to meet the needs of each particular nation and state, and their unique array of forest stakeholders.

**+ RECOMMENDATION 1**

*Approach REDD+ as an integral component of a "low-emission" rural development strategy that provides many local and regional benefits*

The most important recommendation to emerge from our analysis of 13 GCF states and provinces is to re-frame REDD+ as an integral component of rural development strategies. REDD+ provides a system for measuring performance, for channeling financial resources, and for engaging forest stakeholders that can be incorporated into rural development strategies to increase their likelihood of success. An essential conceptual shift is for governments and forest stakeholders to understand and focus on the numerous local and regional benefits of REDD+, as summarized in *Table 2*. In other words, even if international financial compensation for reductions in deforestation or forest degradation, or for expansion of new forests, is smaller, later, or never materializes at all, there are a number of reasons that REDD+ makes sense. For governments, it provides an opportunity to lower the budgetary costs of rural development, of increasing market access for farm and forestry sectors, and for conserving the ecosystems and environmental services that are the long-term basis of healthy rural landscapes. For forest stakeholders, it provides a forum for improving the policies, institutions, and rural services that are essential for sustainable improvements in rural livelihoods.

**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), and moratoria on soy and beef grown on recently cleared soils.[27] |
| 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 infrastructure | Deforestation expands the agricultural frontier, creating new costs for governments as they seek to provide services (education, police, health) and infrastructure (roads, energy) across an expanding zone of rural occupation. |
| Lower risks of droughts (Amazon), fire, and flooding | Reduced deforestation can reduce the risk of climate disruption, drought, fire, soil loss, biodiversity loss, and watershed disruption. |

REDD+ presents an important opportunity to revisit the goals of rural development. We propose a broad definition focused on sustainability and the long-term prosperity of rural communities and societies, as summarized below:

**BOX 5.**

## Defining
## Low-Emission Rural Development

"Low-emission rural development" (LED) must be defined broadly if it is to garner deep, durable political support. It should include the steep reductions in deforestation and forest degradation that are the focus of REDD+. But it also should improve rural livelihoods, create jobs, improve services, increase market access and investment, and protect and restore natural capital. All of these aspects of rural development are within reach in many tropical nations.

**+ RECOMMENDATION 2**

*Keep it as simple as possible*

Focus on achieving the three goals of REDD+ in a way that is compatible with the laws, culture, economic conditions, and capacity of the region and that prioritizes clarity, transparency, simplicity, and meaningful (but not excessive) consultation with stakeholders.

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

## *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.

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+.
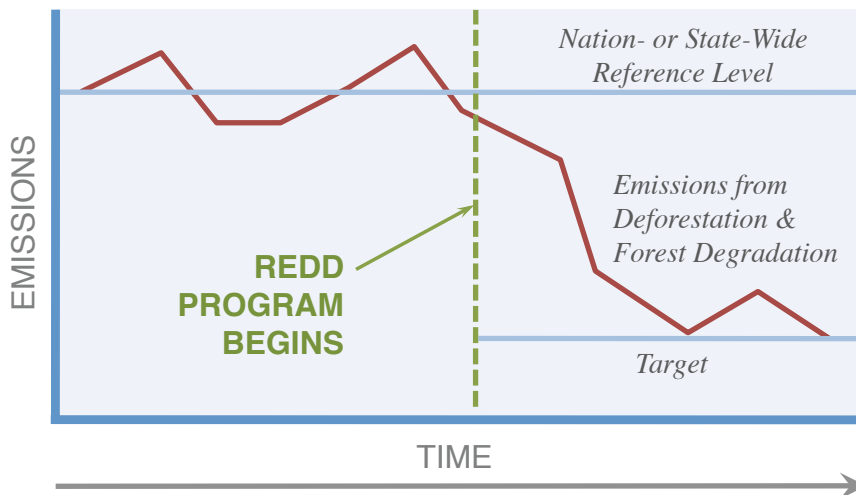
+ RECOMMENDATION **4**

## *Prioritize establishment 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 below)*.  If emissions estimates are not available every year, use the best data that are available.  If estimates of above-ground forest carbon stocks are not available, use published, freely-available maps.[28,29]  Once established, the reference level allows the program to (1) demonstrate emissions reductions to potential investors and (2) 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.

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28  Baccini et al. *See* supra note 17.

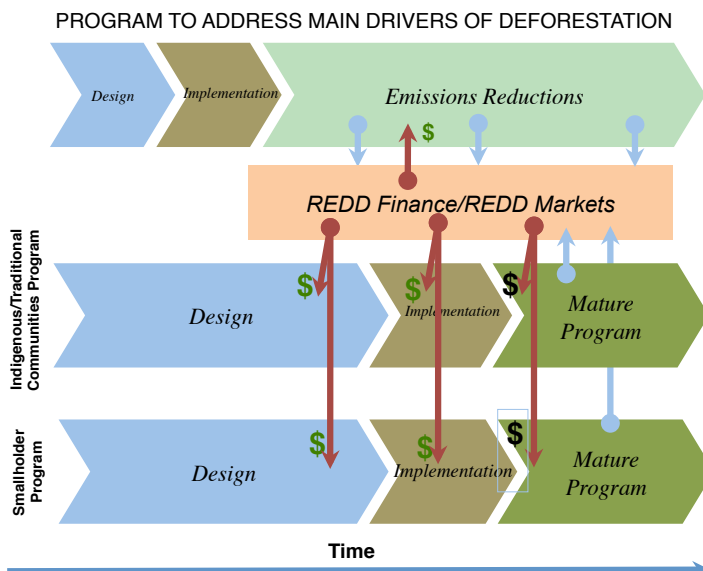29  www.whrc.org/pantropical

## + 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 maintain 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 below)* as they participate in the design and implementation of programs to improve their forest-maintaining livelihoods.



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 smallholder

RE–FRAMING **REDD+**

**+ RECOMMENDATION 6**

*Develop and implement a fast-track plan to deliver benefits to indigenous / traditional peoples and local communities as programs for creating systemic changes for 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 forest communities derived from an automobile licensing tax). Rapid emissions reductions achieved through the fast-track plan to address the major drivers of deforestation *(Recommendation 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 feature 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 infrastructure and services), rural extension, and programs across rural sectors and constituencies can 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 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.[30]

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30  EPRI 2010. *See* supra note 19

*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.[31] 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) will have better market access than those who don't.

+ RECOMMENDATION **10**

*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.

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31  C. Stickler et al. *See* supra note 14.

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