



CLIMATE**FOCUS**

Acre, Brazil: Subnational Leader in REDD+

This brief describes the pioneering example of the state of Acre, Brazil in recent years in curbing its deforestation and forest degradation while simultaneously strengthening its sustainable economic development. It was developed in partnership with the Governor's Climate and Forest Task Force (GCF), a coalition of 19 states and provinces from Brazil, Indonesia, Mexico, Nigeria, Peru, Spain, and the U.S. working to develop institutional, legal and technical capacities and frameworks to reduce emissions from deforestation, degradation and other land uses in the context of climate and low-carbon development policies. The GCF occupies a unique niche and brings lessons from subnational actors into ongoing national and international climate and forest policy discussions.

May 2013

Why Acre's success story

The State of Acre is a modern pioneer in tropical forest protection, working rapidly to overturn a history of high rates of poverty and deforestation. Acre's success story in forest protection is an example of why it is worthwhile for subnational entities to engage in pro-active REDD+ policies, why an early engagement is being rewarded through support and partnerships by the international community, and the pay-off for the international community in supporting pioneering REDD+ states and provinces.

In recent years, Acre has put into place a comprehensive policy mix consisting of ecologic-economic zoning, rural land titling, sustainable rural production capacity-building, and taxes and credits to support rural livelihoods. In 2010, on top of this framework and following years of research and stakeholder consultation, Acre began implementing a system of forest conservation incentives based on a thoroughly-researched, conservative baseline. Acre's early action already has begun to pay off abundantly in the form of a wide range of foreign and domestic finance for its vision of sustainable, forest-compatible development. What is perhaps equally impressive as the speed and comprehensiveness of Acre's transformation is its ambitious inclusion of a wide range of both traditional rural and modern, infrastructure-based, economic sectors. Although it is still premature to assess the long-term results of Acre's work, its early experience provides a wealth of lessons for states and provinces on innovative, participatory approaches to sustainable forestry and low carbon emissions development in rural forest areas. Equally, Acre's case highlights the value and potential rewards for 'early action' subnational approaches to reducing emissions from deforestation and forest degradation (REDD+).

How and why Acre are engaged in REDD+

Following on the efforts of Acre rubber tapper and union leader Chico Mendes to curb deforestation in the state in the 1980s and his subsequent murder by cattle ranchers in 1988, the state underwent a radical social and political transformation. A decade after his death, the Workers' Party (PT, from the Portuguese) that Mendes and his union had brought to Acre took political power and began shifting its economy to a sustainable forest-conserving model known as "Florestania."¹ From 2003 to 2008, Acre real GDP increased by more than 44% and deforestation fell roughly 70%.² From 1998 to 2009, Acre enjoyed one of the best rates of forest protection among Amazon states, with 3.7% of the state's forests lost over that period, compared to 11.8% lost in nearby Rondônia state and roughly 4.75% forest loss in the Amazon region overall.³ From 2006 to 2010, Acre reduced emissions from deforestation by 85 Mt CO₂.⁴ Further reductions in forest loss however required

¹ This term came from combining the Portuguese *floresta* and *cidadania* - "forest" and "citizenship", respectively. *Florestania* represents the principle that poor, remote forest communities have a right and responsibility to participate in social, economic and political life in Acre.

² EDF. "Ready for REDD: Acre's State Programs for Sustainable Development and Deforestation Control" (hereafter "Ready for REDD"), p. 2. Available at: http://www.edf.org/sites/default/files/Acre_Ready_for_REDD_EDF.pdf

³ Environmental Defense Fund. (Nov 2009). "Acre: sustainable development and reducing emissions from deforestation and forest degradation in the Brazilian Amazon."

⁴ Nepstad, D. et al. (June 2012). "Re-Framing REDD+" Amazon Environmental Research Institute – IPAM. p. 10.

more systemic solutions in Acre, as pervasive, small scale deforestation defied routine monitoring and enforcement against illegal forest disturbances.⁵

Figure 1. Map of Acre State, in Southwestern Brazilian Amazon

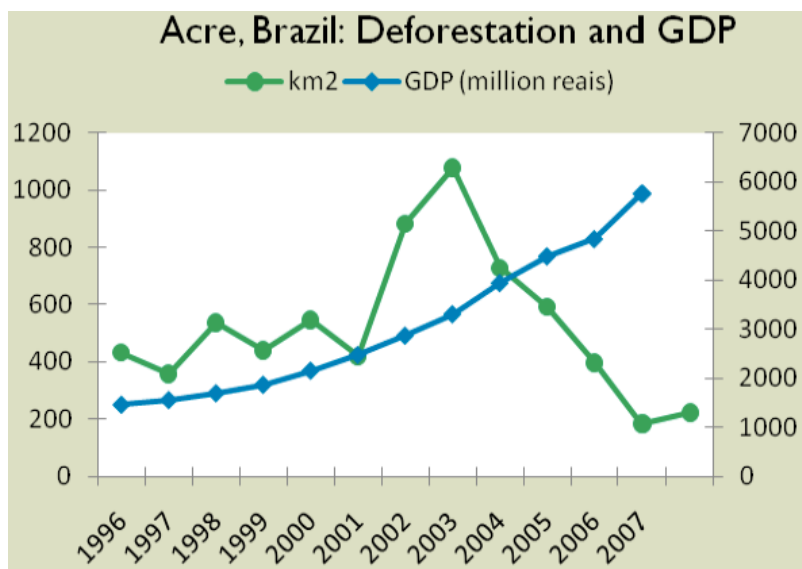


In recent years, Acre has developed several innovative processes in natural resource management and rural governance, including land use zoning, non-timber forest product incentives, sustainable logging certification and rural land dispute resolution, and tenure reform. Acre also took a major step forward by passing an extensive legal framework for providing incentives for environmental services, including carbon sequestration incentives. Additionally, the state of Acre has devised a novel institutional framework to separate regulatory, law enforcement, and carbon investment responsibilities across the jurisdiction, and to incorporate strong social and environmental safeguards.

This brief charts Acre's reversal from high deforestation and chronic poverty rates to sustainable economic improvement and forest protection (as demonstrated in Figure 2 below), with the aim of demonstrating the value of early engagement in REDD+ both in terms of sustainable development and ensuing partnerships and support. First, the paper highlights Acre's starting situation, including its deforestation drivers and political context. Second, Acre's recent forest policies are outlined, in particular its environmental services law and carbon incentives system. Next, the paper notes Acre's harmonization of state forest policies with the Brazilian national system and Acre's allocation of carbon incentives to relevant actors inside and outside forests. Finally, the brief summarizes the certification and financing of Acre's incentives system.

⁵ Exemplifying this challenge, a 2010 study estimated that 85% of the deforestation has occurred on areas smaller than five hectares. See Hawkins, S. Dec 2010. "Brazilian State Lays Foundation for Nature-Based Economy," Ecosystem Marketplace. Available at: http://www.ecosystemmarketplace.com/pages/dynamic/article.page.php?page_id=7887§ion=home

Figure 2: Deforestation and GDP in Acre, 1996-2007



Source: Environmental Defense Fund

Baseline situation and motives for *Florestania*

In assessing how the State of Acre's REDD+ system can deliver long-term, low-emissions rural development, it is necessary to consider the state's baseline situation and deforestation drivers, as well as its planned allocation of incentives for carbon emissions reductions. Rural development in Acre to date generally has centered on low-productivity cattle ranching and non-timber forest product extraction. In the 1970s and 1980s, the state was characterized by rampant deforestation and frontier lawlessness, but this subsided in the mid to late 1990s with improved governance reforms under the PT. The recent advent of paved roads connecting Acre to ports in Peru and the resulting dramatic drop in transport costs for goods to regional and global markets has fueled deforestation-related drivers in the region (cattle ranching in particular) but also new, forest-friendly export economies (e.g., a native rubber-based condom factory in Xapuri). At the time of writing, cattle ranching represents 92% of Acre's export revenues and by far the largest single deforestation driver, but Acre plans to allow for 'zero deforestation' growth in the beef sector through intensified production in areas already converted into pastureland.⁶

For Acre, the overall switch from a forest-depleting to forest-maintaining model of governance and its REDD+ incentive-based system was based predominantly on improving the sustainable livelihoods of communities both inside and outside forests. Inside forests, the chief means for achieving this goal includes increasing intact forests' economic value and enhancing forest protection. Outside forests, Acre's focus is on increasing yields from agricultural and livestock production systems in order to reduce their expansion into forests. In addition, Acre has supported the development of new green industrial sectors in urban areas, especially where those sectors can add value to sustainably harvested forest products.

⁶ See Alencar, A., et al. 2012. Acre State's Progress Towards Jurisdictional REDD: Research, Analysis, and Recommendations for the State Carbon Incentive Program (ISA-Carbono). Instituto de Pesquisa Ambiental da Amazônia, Brasília, DF, 53p. Available at: <http://tinyurl.com/ISA-Carbono>, pp. 41-43.

Setting up an advanced forest legislation framework

In 2001, Acre passed legislation instituting its State Forest Policy, which provides a general forest management legal framework and establishes relevant forest institutions.⁷ Acre followed this in 2007 by passing an Economic and Ecological Zoning Plan to guide sustainable forest management and use of non-timber forest products in forested regions and to regulate economic activities in the 12% of the state previously deforested.⁸ Additionally, Acre launched its Policy for Valuing Forest Environmental Assets in 2009, which provides a program for forest restoration, agroforestry and sustainable agriculture, and a program for certification and valuation of sustainable rural properties and forest management systems.⁹

In 2010, Acre passed its State Environmental Service Incentive System (SISA, from the Portuguese), providing a legal framework for state incentives to a wide range of environmental and ecosystem services.^{10,11} In the same year, Acre launched a carbon sequestration incentive program, known as ISA-C, as its first environmental service provision under the new SISA law.¹² In order to guarantee both accurate design and public support, work on SISA was preceded by over two years of research and consultation from national and international experts on REDD on the Acre context. Next, two rounds of stakeholder review were conducted on the proposed system; first, among indigenous, small households, forest dwellers and civil society organization representatives, and second, with NGOs, Environmental Councils, social movement organizations and various State and Federal ministries. Stakeholder feedback informed development of the draft SISA law and debate on the final state legislation.¹³

In addition to providing for environmental incentives in Acre, SISA establishes a number of technical, administrative and public-private partnership institutions to guide the policy's implementation.¹⁴

⁷ Lei Nº 1.426 de 27 de Dezembro 2001, Estado do Acre. Available at: <http://tinyurl.com/Lei-n-1-426> (establishing State Forest Council, State Forest Fund and State System for Natural Protected Areas).

⁸ Decree 503/99; Lei Nº 1904/07 - State Program of Ecologic and Economic Zoning

⁹ Ready for REDD, supra note 2, p. 8.

¹⁰ SISA stands for "Environmental Service Incentive System," from the Portuguese "Sistema de Incentivos para Serviços Ambientais".

¹¹ Lei Nº 2.308 de 22 de Outubro de 2010, Estado do Acre. (Cria o Sistema Estadual de Incentivos a Serviços Ambientais - SISA, o Programa de Incentivos por Serviços Ambientais - ISA Carbono e demais Programas de Serviços Ambientais e Produtos Ecológicos do Estado do Acre e dá outras providências), at Capítulo I, Art. 1. (Hereafter "SISA Law") Available at: <http://tinyurl.com/SISA-Law> (SISA's other environmental services include carbon sequestration, natural beauty, socio-biodiversity, water provision, climate regulation, valuing of cultural and traditional knowledge and soil conservation and improvement).

¹² ISA-C stands for "Environmental Service Incentives—Carbon," from the Portuguese "Incentivos para Serviços Ambientais—Carbono."

¹³ Julissa, M. 2011. "The State System of Incentives for Environmental Services - SISA Stakeholder Engagement Process." (Presentation). Available at:

http://www.gcftaskforce.org/meeting/documents/Monica_Julissa_Acre_Brazil_2011_2.pdf, pp. 4-5. See also, Ready for REDD, supra note 2, p. 11. ("While under consideration, the proposal was made public through the state government portal and was sent for review to hundreds of people, including representatives of more than 72 domestic and international organizations, and 174 individuals including 30 indigenous leaders, 50 farmers, and 85 technical organizations. The document was also discussed in person at five technical meetings with local NGOs, three workshops with potential beneficiaries (indigenous and rural producers), and a technical workshop with 10 national and international civil society organizations and seven government agencies.")

¹⁴ Lei Nº 2.308, supra note 11 Art. 6, et seq. (establishing 1) an Institute for Regulation, Control and Records, 2) a State Commission for Validation and Monitoring, 3) a Scientific Committee, 4) an Ombudsman for SISA, and 5) an Environmental Services Development Company).

The law defines environmental service ‘providers’ as those who directly furnish the environmental goods or products for human consumption or commercialization,¹⁵ and SISA ‘beneficiaries’ as those providers who are integrated into the program or projects approved by the SISA law and who fulfill its requirements.¹⁶ By allocating rights to emissions reductions and their corresponding benefits to those who provide services (either of reducing deforestation or enhancing carbon stocks), the law sidesteps complicated issues regarding land tenure or carbon rights.

Incentives for forest conservation may be understood as the additional financing needed to make the economic return from activities consonant with sustainable forestry as lucrative as those from unsustainable activities. Acre is finalizing its plans under the ISA-C program for allocating benefits across sectors, with benefits generally being reserved to “actors who contribute to the reduction of deforestation and forest degradation, and who conserve, preserve and restore forest assets.”¹⁷

However, implicit in both the SISA system and in the greater concept of *Florestania* is the notion that forest carbon emissions reductions are to be achieved while optimizing co-benefits beyond carbon emissions reductions. In a concrete sense for Acre, this translates to improved livelihoods, food production and land tenure of rural communities, conservation and enhanced health of watersheds, and biological diversity – all determining the long-term benefit-sharing program of Acre.

In the immediate term, Acre is determining an initial process for allocating carbon benefits based on either *ex ante* determinations of where carbon is located, program planning according to how much financing each rural sector group needs to transition to low-emissions rural development, or some mix of the two approaches.¹⁸ In the longer term, Acre also will need to balance finance required for: 1) a shift to a “zero deforestation” beef sector; 2) ensuring traditional subsistence and other forest-compatible communities continue (or return to) their forest-maintaining sustainable economies; and 3) strengthening rural land tenure, governance and infrastructure needed to provide smallholders with attractive alternatives to deforestation-intense activities.¹⁹

Leading REDD+ while aligning with the Brazilian national level

In addition to creating a state-wide plan for reducing deforestation and forest degradation, Acre has taken steps to align its planning and policies with those at the Brazilian national level.²⁰ In this regard, work is underway to ensure compatibility between the two systems’ reference levels, as well as to develop a national registry for emissions reductions and a regime for allocating corresponding revenues among supply states. At the time of writing, harmonization is still needed between the federal governments’ opposition to avoided deforestation carbon emissions being sold in offset markets and the need of Acre and various other Brazilian states for offset market access.

Acre decided to use the Brazilian federal government’s deforestation monitoring program (“PRODES”) data and reference level approach to quantifying its CO₂ emissions reductions from

¹⁵ Ibid., Art. 3.

¹⁶ Ibid., Art. 5.

¹⁷ SISA Law, *supra* note 11, Art. 23, IV.

¹⁸ See Calendar, A., et al. 2012 *supra* note 6, pp. 31–36.

¹⁹ See Alencar, A., et al. 2012 *supra* note 6, pp. 37–44.

²⁰ At the federal level, Brazil is guided by the National Climate Change Plan of 2008 and the National Policy on Climate Change of 2009.

2006 to 2020, which allows the state and federal systems to function cohesively. In keeping with the Brazilian national approach, Acre calculates its reductions not below a simple projected business-as-usual approach, but more conservatively below the historical average deforestation rate of 1996 to 2005.²¹ In addition to deforestation, Acre plans to establish reference levels for forest degradation and forest carbon enhancement. To meet this goal, Acre has invested in an airborne LIDAR system to expand its monitoring capacity and research to allow for estimation of impacts from selective logging on biomass reduction, and it has begun building a time series of forest areas disturbed by forest fire and mapping regrowth areas.

Pioneers in nesting approaches

Acre has made ISA-C a reality by providing for third-party certification of carbon emissions reductions, including related social and environmental co-benefits, and by tapping into a wide range of public and private finance. With regard to the first issue of certification, in June 2012 Acre became the first jurisdiction to pilot the Jurisdictional and Nested REDD+ (JNR) framework under the Verified Carbon Standard (VCS).²² The JNR approach will enable accounting and crediting for projects to be nested inside that of the Acre state program, which in turn may be referenced within the overall Brazilian national program. Additionally, in conjunction with CARE Brazil, Acre is applying the REDD+ Social and Environmental Standards to its SISA program to evaluate its design and early implementation phases.²³

How the international community has supported Acre

Funding for implementation of SISA and ISA-C has come from a wide range of performance-based financing from government donors, multilateral and and/or voluntary funds and private sector investors.²⁴ In November 2010, Acre was the first government to win a grant (for USD 35M) under the mixed private and public funding Amazon Fund. In the same month, Acre signed a Memorandum of Understanding with the states of California and Chiapas in order to begin connecting their respective carbon markets.²⁵ Acre has signed further MOUs with the states of Sao Paulo and Rio de Janeiro to provide forest carbon offset credits to their proposed carbon markets, has placed its historical emissions reductions on the Sao Paulo stock exchange BOVESPA,²⁶ and has

²¹ However, Acre's own monitoring shows deforestation levels roughly 20% higher deforestation than the federal estimates (due to the national levels' use of automatic downward adjustments every five years) and thus potentially higher emissions reduction and corresponding revenues. Acre may use the national reference levels but continue to conduct its own deforestation monitoring to identify any difference in calculations.

²² See <http://v-c-s.org/news-events/news/june-newsletter-jurisdictional-redd-advances-transportation-methodology-gains> ("VCS and the Brazilian state of Acre signed an MOU to collaborate on the application of the new VCS Jurisdictional and Nested REDD+ (JNR) framework to the Acre State REDD+ program. This collaboration will serve as a pilot for JNR...")

²³ REDD+ Social & Environmental Standards, "State of Acre, Brazil: Overview," Available at: http://www.redd-standards.org/index.php?option=com_content&view=article&id=17&Itemid=111.

²⁴ The MOU established a Sub-national REDD Working Group to advise the states on "developing a state to state sectoral REDD linkage recommendation that will provide the foundation for an eventual submittal to the California Air Resources Board, as defined in California's cap and trade program... and to other necessary state entities." See Alencar, A., et al. 2012 supra note 6, p. 14.

²⁵ Tropical Forest Group, "Text of CA, Chiapas, Acre MOU on REDD" (11/16/2010). Available at: <http://tropicalforestgroup.blogspot.com/2010/11/text-of-ca-chiapas-acre-mou-on-redd.html>

²⁶ See Alencar, A., et al. 2012 supra note 6, p. 10.

launched its own carbon credit registry on Markit.²⁷ Further performance-based funding in the amount of USD 22.6M has been agreed to for 2012-2015 with the German Development Bank (KfW)²⁸ and is under discussion with the GCF Fund²⁹ and various public-private partnerships.³⁰

²⁷ Markit, "Brazilian State of Acre and Markit Announce Alliance to Create Registry for REDD+ Environmental Credits." Press Release (20 June 2012). Available at: <http://www.markit.com/en/media-centre/press-releases/detail.page?dcr=/markit/PressRelease/data/2012/June/20>.

²⁸ WWF, "Brazil's Acre state and German development bank agree to performance-based payments linked to REDD+" (11 Jan 2013). Available at: <http://wwf.panda.org/?207235/Brazils-Acre-state-and-German-development-bank-agree-to-performance-based-payments-linked-to-REDD>

²⁹ See Alencar, A., et al. 2012 supra note 6, p. 14.

³⁰ International Tropical Timber Organization. "ITTO and Marubeni sign Agreement for REDD+ feasibility study in Brazil." Available at: <http://www.itto.int/partner/id=2697> (describing REDD+ Feasibility study conducted by Marubeni Corporation and ITTO with funding from the Japanese Ministry of Environment).

APPENDIX: Sources

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