GCF task force

WINROCK INTERNATIONAL

Report on status and needs for REDD+ in GCF jurisdictions in Brazil, Peru, Mexico and Indonesia

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CIAM Consejo Interregional Amazónico

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IDESAM Institute for Conservation and Sustainable Development of Amazonas

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ACRONYMS

GENERAL

AD	Activity Data
AFOLU	Agriculture, Forestry, and Other Land Use
AGB	Aboveground Biomass
BGB	Belowground Biomass
CCBA	Climate, Communities, & Biodiversity Alliance
COP	Conference of Parties
CSR	Corporate Social Responsibility
EF	Emission Factor
FCPF CF	World Bank Forest Carbon Partnership Facility Carbon Fund
GCF	Governors' Climate and Forests Task Force
IADB	Inter-American Development Bank
IPCC	Intergovernmental Panel on Climate Change
JPD	Jurisdictional Program Document
KfW	German Development Bank
MoU	Memorandum of Understanding
MRV	Measurement, Reporting, and Verification System
NAMAS	Nationally Appropriate Mitigation Actions
NGOs	Non-Governmental Organizations
RL / REL / FREL	Reference Level / Reference Emissions Level / Forest Reference Level
R/S	Remote Sensing
UNDP	United Nations Development Program
UNFCCC	United Nations Framework Convention on Climate Change
USAID	United States Agency for International Development
VCS	Verified Carbon Standard

BRAZIL

CCM	Amazonas Scientific and Technological Committee
CECLIMA	Climate Change Center
CEVA	State Committee for Validation and Monitoring
CIM	Interministerial Committee on Climate Change
ENREDD	National REDD Strategy
ICC	Climate and Conservation Unit
IMC	Acre State System of Incentives for Environmental Services
GEX	Executive Group on Climate Change
MMA	Ministry of Environment
PPCAD	Plan for Prevention, Control and Alternatives to Deforestation of Pará
PPCDAM	Plan for the Prevention and Control of Deforestation in the Legal Amazon
SEMA/AP	Secretariat of the Environment for the state of Amapá

SEMA/MT	Secretariat of the Environment for the state of Mato Grosso
SEMA/PA	Secretariat of the Environment for the state of Pará
SisREDD+	National REDD+ System
UGMUC	State Center for Conservation Units

PERU

ARAs	Regional Environmental Authorities
COFOPRI	Agency for the Formalization of Private Property
MINAM	Ministry of the Environment

MEXICO

CONAFOR	National Forestry Commission
COPLADECAM	Planning Committee for the Development of the State of Campeche
SMAAS	Secretariat of Environment and Sustainable Use
SAGARPA	National Agriculture and Development Agency
SDR	State Agriculture and Development Agency
CONAGUA	National Water Commission
CTC	Technical Advisory Council
COPLADECAM	Planning Committee for the Development of the State of Campeche
PEPY	CONAFOR's Special Program for the Conservation, Restoration, and Sustainable Management of Forest Resources of the Yucatan Peninsula

INDONESIA

BP REDD+	National REDD+ Agency Indonesia
IJ-REDD+	Indonesia-Japan Project for the Development of a REDD+ Implementation Mechanism
FREDDI	Funding for REDD+ Indonesia program
MOEF	Ministry of Environment and Forestry
PERISAI	National Safeguard Network
SIS	Safeguard Information System
SRAP	Provincial REDD+ Strategic Plan
STRANAS	National Program Strategy
USAID-IFACS	United States Agency for International Development – Indonesia Forest and Climate Support

SUMMARY

This gap assessment was performed to reveal the status of and key obstacles encountered in the development of the national and subnational REDD+ programs in member states of the Governors' Climate and Forests Task Force (GCF) in Brazil, Peru, Mexico, and Indonesia. Standardized surveys were completed by key REDD+ actors in these countries and this document summarizes the results[1].

While this study should not be interpreted as a complete and thoroughly accurate assessment of the national and subnational programs assessed, it does provide valuable insights into the evolution and status of the REDD+ programs featured. REDD+ development is a highly dynamic process and is subject to quick changes resulting from political influences, funding arrangements, capacity building efforts, and regional trends. Thus, this study broadly assesses the general status of key elements in the REDD+ programs within the national and subnational programs assessed at a given period in time[2] based upon an interpretation of the surveys. An attempt is also made to identify where the greatest opportunities may lie for affecting the greatest impacts in terms of furthering REDD+ development and implementation.

Key Findings

Overall, there has been notable progress in REDD+ development among GCF member states assessed, but critical gaps remain in structuring and implementing the REDD+ programs as well as in building technical capacity before performance-based payments can be issued.   The most important gap identified through this assessment is the need for resources and capacity building for legal and institutional support of subnational REDD+ development, as well as in building measurement, reporting, and verification (MRV). While substantial progress has been made in developing estimates of historical emissions, there remains great need to build robust institutions to support REDD+ progress and coordination as well as technical training in carbon accounting to meet existing REDD+ frameworks and standards.

While there has been considerable progress in many jurisdictions on developing systems for monitoring and measuring emissions from deforestation activities, there has been minimal attention paid to forest degradation and enhancements.   As REDD+ programs advance within these countries and

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[1] The surveys represent a single point in time and so can be outdated. The surveys were completed by the country-coordinator teams (not Winrock International) and this assessment depends entirely on the survey outputs.
[2] End of 2014 and beginning of 2015

jurisdictions, it will be necessary to develop cost effective and practical ways to include major sources of degradation in order to realize more complete accounting under REDD+.

Among the greatest gaps revealed through this assessment is the need to develop a coherent nesting framework[3] that accommodates progress made by more advanced jurisdictions while offering low barriers to entry for projects or jurisdictions just beginning to design REDD+ initiatives. Almost none of REDD+ programs included in this assessment had a robust nesting plan or framework in place and this was cited by several national and jurisdictional proponents as an important and fundamental issue that must be worked out in order to have robust and appropriately aligned REDD+ programs.

This lack of nesting framework could be due in part to a lack of coordination and communication among some national and subnational actors. All countries included in this assessment would benefit from an enhanced system for sharing plans and progress, best practices, and providing technical support. The uneven nature of REDD+ progress among REDD+ actors means that some programs may be able to provide meaningful guidance and technical support to less advanced programs, thus strengthening the overall national program and potentially leading to a more efficient use of resources and skills. This strengthening of coordination would likely also support the advancement of other practical elements of REDD+ development including strategies to avoid leakage, developing MRV systems, and effectively addressing drivers of deforestation and degradation.

Nearly all jurisdictions also cited the lack of substantial, sustainable, and predictable funding as a critical problem. While funding and other forms of support have been made available to the countries included in this gap assessment through international bilateral agreements, development banks, and international non-government actors, it is not seen as sufficient for implementing the advanced institutional and technical requirements REDD+ programs necessitate. The lack of success in the advancing sustainable and predictable financing, as well as the high costs associated with REDD+ program establishment and monitoring, have led to the failure of many REDD+ projects to generate marketable credits, which could potentially undermine progress made at national or subnational levels. Thus, it is imperative that predictable sources of funding become available for jurisdictions that have dedicated substantial efforts and made genuine progress so that existing momentum is captured. Furthermore, finding opportunities where coordination among national and subnational actors could contribute to enhancing efficiency and share technical capacity and lessons learned is paramount.

Performance-Based Payments

There are a handful of jurisdictions that appear to have advanced REDD+ programs capable of measuring and monitoring reductions of emissions based on their actions to reduce deforestation. Nevertheless,

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[3] No jurisdiction had made meaningful progress in any aspect of nesting included but not limited to: accounting (MRV/RL), policy alignment, safeguards, financing, benefits distribution.

responses in the surveys submitted through this gap assessment indicate that even in the most advanced REDD+ programs, substantial shortfalls exist in benefit sharing mechanisms, nesting frameworks, and/or fiscal sustainability. Moreover, these jurisdictions still have a long way to go in terms of creating robust systems for tracking and measuring emissions from forest degradation activities or enhancements, as well as including all significant pools and GHGs that contribute to emissions.

The most advanced jurisdiction and the first to received performance-based payments is Acre, Brazil. It has a robust institutional and legal structure and appears to have built technical capacity and a MRV system for tracking deforestation activities that can support a fully operational jurisdictional REDD+ program. Through an agreement with KfW, Acre has also secured financing for performance-based payments that will be issued through an established state REDD+ financial structure.

Madre de Dios in Peru has also demonstrated substantial progress in building its institutional structures and technical capacity for full REDD+ implementation and performance-based payments. However, given the national program's recent progress, it is unclear whether Madre de Dios' progress will slow in order to wait for the appropriate nesting structure to be proposed.

Chiapas in Mexico has also advanced its REDD+ program substantially and appears to have all the appropriate structures in place for implementation. Coordination with the national government is evident through both institutional and technical structures, and financial resources are available through international funders' mechanisms for performance-based payments.

Finally, East Kalimantan has what appears to be among the most advanced jurisdictional REDD+ programs in Indonesia in terms of technical aspects, capacity, and as well as coordination with the national government on safeguard monitoring, funding, and aligning REDD+ objectives with its State Development Plan.

Assessment of Current Status

We summarized the current status across 5 categories of current readiness from no or minor gaps (dark green) to major gaps (red) across 7 categories for the 19 GCF jurisdictions (4 countries):

Category					
Institutional and legal framework	Institution and legal framework for REDD+ fully operational.	Institution and legal framework for REDD+ defined, but not yet operational.	Institution and legal framework for REDD+ at initial stages of development.	No institution for REDD+ or legal framework established.	**No information provided / Not applicable**

Drivers Analysis	Complete	Under development.	Planned.	No drivers analysis conducted.
MRV system & FREL/REL/RL development	MRV system established and fully operational.	MRV system under development, but there is considerable capacity and progress.	MRV system under development, but there is low capacity and progress.	No MRV system.
Safeguards and safeguard monitoring	A system for safeguards and safeguard monitoring has been established and implemented.	A system for safeguards and safeguard monitoring is at advanced stages of development, but not yet implemented.	A system for safeguards and safeguard monitoring is at initial stages of development.	No system for safeguards or safeguard monitoring
Benefit distribution	A system for benefit distribution has been developed and implemented.	A system for benefit distribution has been developed, but not yet implemented.	A system for benefit distribution is under development.	A system for benefit distribution is not developed.
Project approval and nesting	A system for project approval and nesting has been established and implemented.	A system for project approval and nesting has been developed but not yet implemented.	A system for project approval and nesting is under development.	No system for project approval and nesting has been developed.
REDD+ Financing (both capacity building and payment for performance)	Stable, long-term source of funding for performance.	Substantial funding for capacity building, insufficient long-term source of funding for performance payment.	Some funding for capacity building, but seen as insufficient.	No sources of funding acquired. No or very insufficient capacity building financial support.

The summarized results presented in Table 1 below indicate the greatest current capacity and capabilities in institutional and legal frameworks and the greatest gaps in financing. Other areas with consistent gaps are benefit distribution and project approval/project nesting, and with the exception of Mexico MRV.

Table 1 Summary of REDD+ development in GCF member states in Brazil, Peru, Mexico, and Indonesia

	Brazil							Peru						Mexico			Indonesia						
	National	Acre	Amapá	Amazonas	Mato Grosso	Para	Tocantins	National	Amazonas	Loreto	San Martin	Ucayali	Madre de Dios	National	Chiapas	Campeche	National	Aceh	Central Kalimantan	East Kalimantan	West Kalimantan	Papua	West Papua
Institutional and Legal Framework																							
Drivers analysis																							
MRV system & FREL/REL/RL development for deforestation																							
Safeguards and safeguard data collection																							
Managing benefit distribution																							
Project approval and nesting																							
Financing																							

See Annex II for a more detailed summary of results.

Accounting status

An effort was also made to assess in more detail the status with regards to accounting for emissions and removals in each country. Overall, MRV systems do appear to have benefitted substantially from recent international efforts to make spatial data on land use change publicly available, such as the University of Maryland data set on forest change[4]. This has facilitated the development of activity data (AD), as well as of reference emissions levels (RELs) for deforestation, although there is still substantial need for capacity building and refinement, in particular technical training in developing emission factors (EFs), uncertainty, and other technical elements related to emissions accounting as defined by the various REDD+ frameworks.

As the UNFCCC proposes a stepwise approach for REDD+ implementation and REL/REL/RL development, the GCF member states assessed in this report have almost exclusively focused on developing systems for accounting for deforestation. Little to no progress has been made on establishing accounting systems

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[4] http://earthenginepartners.appspot.com/science-2013-global-forest

that include degradation activities and enhancements and there is extremely low capacity for accounting for degradation activities.   There is a clear need for capacity building on this subject and an elaboration of methodologies, procedures, and standards for incorporating degradation activities into REDD+ programs. As such, while this assessment does mention the status of accounting for degradation activities and enhancements if it is being considered within the GCF member states assessed, it focuses mainly on gaps within accounting systems for deforestation activities.

This analysis looked at 7 categories:

- Overall status in accounting
- Historical reference period for deforestation decisions
- Decisions and progress on decisions on activities included
- Decisions and progress on developing emission factors for deforestation
- Decisions and progress on processes, equipment and capacity for activity data for deforestation
- Status of completion of RL/REL for deforestation
- Status and decisions on methodology/methodologies to be applied in accounting

Category					
Overall	Fully operational accounting system established including all significant activities and carbon pools.	Accounting system established or in advanced stages to account for emissions from deforestation.	Accounting system under development.	Little to no progress has been made on building an accounting system.	No information provided / Not applicable
Historical Reference Period for deforestation	Historical reference period determined .	Historical reference period determined, but not adopted or in conflict with other jurisdictions within nested program	Historical reference period under consideration.	No historical reference period determined.	
REDD+ Activities	Deforestation and degradation/ enhancements.	Deforestation and degradation/ enhancements activities are being considered.	Only deforestation.	Undetermined.	

Deforestation EFs: Carbon pools/GHGs	EFs have been established and include all significant carbon pools and GHGs.	EFs have been established that include AGB. Other carbon pools are being considered.	EFs are under development.	No EFs have been established.
Deforestation Activity data (AD)	A system for collecting and processing activity data has been established and is fully operational.	A system for collecting and processing activity data has been established but is not yet fully operational.	A system for collecting and processing activity is under development.	No system for collecting and processing activity data.
Deforestation RL/REL/FREL status	A RL/REL/FREL for deforestation has been established and validated.	A RL/REL/FREL for deforestation has been established but not validated.	A RL/REL/FREL for deforestation is under development.	No development on a RL/REL/FREL for deforestation.
REDD+ Methodology	A REDD+ methodology has been identified and is being followed.	A REDD+ methodology has been identified, but not fully followed yet.	Methodologies are being explored.	There has been no progress on identifiying a methodology.

Table 2 Summary of MRV system development in GCF member states in Brazil, Peru, Mexico, and Indonesia

	Brazil							Peru						Mexico			Indonesia						
	National	Acre	Amapá	Amazonas	Mato Grosso	Para	Tocantins	National	Amazonas	Loreto	San Martin	Ucayali	Madre de Dios	National	Chiapas	Campeche	National	Aceh	Central Kalimantan	East Kalimantan	West Kalimantan	Papua	West Papua
Overall																							
Historical Reference Period for deforestation																							
REDD+ Activities																							
Deforestation EFs: Carbon Pools / GHGs																							
Deforestation AD																							
Deforestation RL/REL/FREL status																							
Methodology																							

See respective national sections for a more detailed summary of results.

1.   INTRODUCTION

Launched in 2009, the Governors' Climate and Forests Task Force (GCF) is a unique alliance of 26 states and provinces from Brazil, Indonesia, Mexico, Nigeria, Peru, Spain, and the United States whose members collaborate to protect tropical forests, reduce emissions from deforestation and forest degradation, and enhance rural livelihoods. In 2013 the GCF Task Force established the GCF Fund, an independent finance mechanism which supports the capacity for multi-stakeholder programs and processes in GCF member states to reduce emissions from deforestation and forest degradation, improve and increase the resilience of rural livelihoods, and demonstrate realistic pathways to achieving low emission rural development.

Through its first Request for Proposals, the GCF Fund financed the study presented in this report: a gap assessment of all 22 GCF jurisdictions (membership has since grown to 26 members) to identify the key needs of each GCF member in establishing robust jurisdictional programs to reduce deforestation. In the midst of this gap assessment, GCF Members signed the Rio Branco Declaration at the 2014 GCF Annual Meeting in Acre, Brazil. The declaration includes ambitious pledges by GCF Members to (1) reduce deforestation 80% by 2020 if sufficient, long-term support is made available; (2) develop key partnerships with private sector efforts aimed at achieving deforestation-free supply chains; and (3) channel a significant share of performance-based funds to Indigenous Peoples, smallholders, and forest-dependent communities.

This analysis examined many of the elements needed to achieve the ambitious deforestation reduction targets made in each country. Coordinated by Winrock International and implemented by Idesam, Kemitraan, CIAM and Pronatura Sur, the review was carried out by administering a standard questionnaire to a variety of stakeholders at the national and subnational level (provincial, state and regional governments) in Brazil, Mexico, Peru, and Indonesia. While the results of the surveys and subsequent analyses are not intended to represent official positions of government agencies, they provide in-depth insight into the progress of GCF members.

The analysis presented in this report not only assesses progress in GCF member states, it also identifies key barriers in the development of jurisdictional programs. Subnational jurisdictions are a key governance level for addressing deforestation, and this study is meant to help jurisdictions develop roadmaps to advance their efforts and continue to act as laboratories for innovation. A particular focus has been paid to forest measurement, reporting and verification (MRV) as well as alignment between GCF members and national level efforts in Brazil, Mexico, Indonesia and Peru. The costs estimated in the roadmaps presented

in this report primarily focus on creating enabling conditions, and represent a small fraction of the resources needed to fully design and implement jurisdictional REDD+.

The analysis was completed at a specific moment in time for each country and it must be recalled that this is a fast moving field and changes have already happened since the time of the questionnaires.

2. BRAZIL

2.1 Overview of current national status

Brazil has made substantial and meaningful advancements in establishing frameworks for reducing deforestation and developing national and subnational REDD+ programs. In 2009, Brazil initiated its National Climate Change Policy (PNMC) which aimed to achieve ambitious reductions in GHG emissions through economy-wide reforms. While there is no national legislation specific to REDD+ in Brazil as of yet, there are legislative proposals awaiting approval and important plans and policies related to climate change and reducing deforestation have been implemented. Among these are the Action Plan to Prevent and Control Deforestation in the Amazon (PPCDAm) (which began in 2004 prior to the PNMC) and the Action Plan to Prevent and Control Deforestation and Fire in the Cerrado (PPCerrado), which laid the groundwork for the development of systems for monitoring land use and land cover changes in Brazil.

Overall, Brazil has high institutional and technical capacity and has developed a financing structure for REDD+ through the Amazon Fund. Brazil was also the first country to submit a REDD+ FREL to the UNFCCC, based on the historical average of gross emissions from deforestation over a ten-year period for the Amazon Biome[5] and has some of the most advanced jurisdictional REDD+ programs globally.

While all six GCF jurisdictions within Brazil have made notable advancements in developing their jurisdictional REDD+ programs, progress does vary significantly among the jurisdictions. Acre and Mato Grosso have approved state-specific legislation for REDD+, and Acre may have one of the first jurisdiction-wide programs globally to generate compliance-grade REDD+ credits. Amazonas and Amapá have developed legal frameworks and REDD+ policies that are currently waiting for state government approval. Pará and Tocantins are less advanced in terms of preparation for REDD+, but these states are starting to take meaningful steps toward establishing legal frameworks and institutions for REDD+. Pará has also achieved important results of deforestation reduction through its Green Municipalities Program.

While the Brazilian national government supports the development of jurisdictional REDD+ activities and programs, it is unclear how advanced jurisdictional programs will be considered within the National REDD+ program or within the FREL submitted to the UNFCCC. The responses from the surveys administered as part of this gap assessment indicated the Federal Government does not foresee the development of a

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[5] http://www.unredd.net/index.php?option=com_docman&task=doc_download&gid=13469&Itemid=53

nested REDD+ approach and there are currently no formal procedures for national oversight of jurisdictional REDD+ design, RL setting, MRV alignment, and leakage. As such, the actors implementing REDD+ in Brazil would benefit from a more robust system of coordination and communication to allow for better alignment, better leakage management, and sharing of best practices, resources, and capacity from the more advanced jurisdictions. This may be realized through a legislative proposal currently awaiting approval that will formalize national REDD+ coordination bodies and systems.

2.2 Summary of REDD+ Progress and Gaps

Institutional and Legal Frameworks

There are two executive and legislative proposals awaiting approval that would establish a National REDD+ Strategy (ENREDD) and a National REDD+ System (SisREDD+). ENREDD was developed by the Interministerial Committee on Climate Change (CIM), with participation and inputs from some states. ENREDD intends to structure and improve and coordinate actions for preventing and controlling deforestation and degradation between 2014 and 2020.

Although the federal government broadly centralizes REDD+ management, the legislation in Brazil allows States to proceed with the development of their own Jurisdictional REDD+ programs. Thus, some states have established specific institutional structures and legal frameworks for REDD+ and have leveraged a variety of funding sources for REDD+ advancement. However these REDD+ programs, and especially those jurisdictions which are just beginning to develop REDD+ programs, may benefit from more robust coordination and guidance by federal actors to avoid potential complications down the road with aligning subnational programs with the national program.

MRV System and RL Setting

The national MRV system in Brazil is led by the National Institute for Spatial Research (INPE) and the Ministry of Environment (MMA). INPE has developed the Project for Monitoring Deforestation in the Legal Amazon (PRODES), an advanced system for collecting activity data (AD). The national emission factors (EFs) are based on an average carbon stock for the entire Amazon and include aboveground biomass (AGB) and belowground biomass (BGB) carbon pools. [6]

As REDD+ development in Brazil has progressed at different speeds among national and subnational actors, the federal government and some states have already settled on technical aspects of REDD+. For the federal government and states that have already made significant advancements in setting up their REDD+ programs, there could be conflicts with regard to RL setting and REDD+ program design if the

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[6] http://www.unredd.net/index.php?option=com_docman&task=doc_download&gid=13469&Itemid=53

programs were to become nested. Despite no current plan to align subnational programs with the federal program, States want to remain aligned with the national RL and are clear that they will adapt if necessary.

For example, the proposed FREL for the Amazon Biome is based on a 10-year historical average of gross emissions from deforestation over a 10-year period. The baseline is recalculated every 5 years, creating a "rolling average" whereby the emissions for the 2006 -2010 period are based on the gross historical average from 1996 – 2005; emissions for 2011-2015 are based on the gross historical average from 1996 – 2010; and for 2016 - 2020, the historical average from 1996 to 2015 is applied[7]. Nevertheless, the reference levels presented under the PNMC and the one considered under the Amazon Fund are slightly different. Acre has taken a similar approach, using slightly different years. Amapá, Amazonas, Mato Grosso, and Para are also basing their FRELs on a 10-year period, following the PNMS, but the survey responses as part of this study indicated that the historical period they intend to use differs from the time periods used for the Amazon Biome FREL[8]. Furthermore, while all states and the federal government are only including deforestation among the potential REDD+ activities, there is an intention to also include degradation and states vary in the degree to which this has been considered.

Another discrepancy may pertain to the carbon pools being included for emission factor development. All States use the same data as the Federal government on aboveground biomass with a proposal in the future to also include dead biomass. However, some regionalized data are used by the States and it is unclear the extent and rate at which pools will be added aboveground tree biomass.

Table 3 summarizes developments in the MRV systems and RL setting in the GCF member states in Brazil at the national and subnational level.

Table 3 Summary of status of MRV systems and RL setting in GCF member states in Brazil

	National	**Acre**	**Amapá**	**Amazonas**	**Mato Grosso**	**Para**	**Tocantins**
Overall	National REDD+ System (SiSREDD+) awaiting legislative approval. ENREDD+ awaiting	Advanced but lack capacity in key technical areas. VCS JPD completed	Awaiting approval of legislation to formalize MRV system. State baseline	Awaiting approval of legislation to formalize MRV system.	Need capacity building. VCS JPD under development	MRV dev't not a current priority.	

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[7] Brazil, 2014. Brazil's submission of a forest reference emission level for deforestation in the Amazonia biome for results-based payments for REDD+ under the UNFCCC. Available at: http://www.mma.gov.br/redd/images/Publicacoes/submission_frel_brazil.pdf
[8] It is important to highlight that the questionnaires were applied before the FREL submission to the UNFCCC so they might consider adapting their baselines.

	executive approval. Submitted FREL for Amazon Biome to UNFCCC.	, but not verified and approved	being developed but lack capacity in key technical areas.				
Historical Reference Period for deforestation	Rolling historical average, recalculated every five years. For 2006 - 2010, historical average from 1996 - 2005 For 2011-2015, historical average from 1996 - 2010; For 2016 - 2020, historical average from 1996 to 2015[9].	Rolling historical average, based on 10 years. 1996-2010 For 2006 - 2010, historical average from 1996 - 2005; For 2011-2020, historical average from 2001 -2010.	1996-2005	1996-2005	1996-2005		
REDD+ Activities	Defores-tation. Intend to add	Defores-tation. Will add degradati	Defores-tation. Plan to include degradation	Defores-tation. Plan to include degradation	Defores-tation. Plan to include degradation		

[9] Brazil, 2014. Brazil's submission of a forest reference emission level for deforestation in the Amazonia biome for results-based payments for REDD+ under the UNFCCC. Available at: http://www.mma.gov.br/redd/images/Publicacoes/submission_frel_brazil.pdf

	degradation after more studies are conducted.	on over the next two years.	from forest management and enhancement, but need more studies.	and enhancement, but need more studies.	from and enhancements, but need more studies.		
Deforestation EFs: Carbon Pools / GHGs	EFs Amazon developed based on average carbon stocks of AGB and dead biomass.	AGB. Lack resources for data collection to create EFs for other pools. May use data from national inventory.	Not yet defined, but studies and inventories being undertaken.	AGB.	AGB. Need capacity building, equipment, and support in field data collection.		
Deforestation AD	PRODES system for AD collection implemented	Equipment for mapping and analysis, but lack capacity	Need capacity building			Some R/S capacity and other technical components of MRV system.	
Deforestation RL/REL/FREL status	Submitted deforestation RL to UNFCCC for Amazon Biome using historical average.	Established RL based historical average.	Will likely adopt a portion of the Amazon Biome baseline.	Will likely adopt a portion of the Amazon Biome baseline.	Developing RL for deforestation using historical average.	Plans to establish a RL for deforestation using historical average.	
Methodology	UNFCCC	VCS JNR			VCS JNR		

Financing and support for REDD+ development in Brazil at the national and subnational level have been issued through bilateral agreements, international development banks such as the German Development Bank (KfW), and through other international sources such as the Forest Investment Program (FIP), ONF-I, and the GCF.

The Amazon Fund, which has received substantial donations from the government of Norway, KfW, and Petrobras, has also been a key source of financing for REDD+ preparation and implementation for several states. It provides financial resources to improve the detection and monitoring of deforestation, identify drivers, train technicians in GIS, as well as to support institutional and legal arrangements.   Several states also have or intend to establish public-private agencies for fundraising and managing relationships between investors and donors. These agencies will solicit funding from public and private entities and will also oversee state transactions related to environmental services within that state.

While Brazil has made substantial progress in securing sources of funding as well as in setting structures and arrangements for managing REDD+ funds, the gap assessment surveys revealed that jurisdictions deem existing sources of support and funding insufficient to meet both short-term needs as well as long-term needs of supporting the development of low-carbon economies.   Key areas identified where additional financial resources are needed include of developing state GHG inventories and registry systems, as well as the cost and maintenance of REDD+ institutions and legal frameworks.

In the coming years, as REDD+ implementation in Brazil advances, there is an expectation at the Federal Government level and among states that further financing will become available through funding streams such as the Green Climate Fund and through partnerships with the Inter-American Development Bank (IADB) and the United Nations Development Program (UNDP).

Safeguards and Leakage

As REDD+ development in Brazil is uneven, some jurisdictions have made sustainable progress in establishing institutions and systems in place to monitor social and environmental safeguards, while others are still just beginning to explore costs and implications. Little progress has been made, however, on leakage. The survey responses also indicated that only Mato Grosso and Para indicated that defining and addressing leakage is a current priority.

2.3   Subnational REDD+ Development

Acre

Acre has one of the most advanced jurisdictional REDD+ programs in the world and may become the first jurisdiction-wide program to deliver compliance-grade REDD+ credits. Acre has a robust institutional and

legal framework for REDD+, strong technical capacity, and has established multiple, diverse funding streams.

The State System of Incentives for Environmental Services (SISA) was established and is supported by several implementation bodies and instruments. The IMC, the acronym for the Institute on Climate Change and Regulation of Environmental Services, is the main body that manages REDD+ and oversees the REDD+ registry, develops rules and guidance, performs the accounting and monitoring of deforestation and associated emissions, and monitors safeguards. The State Committee for Validation and Monitoring (CEVA) monitors REDD+ implementation and engages stakeholders though state councils.

Advancements have also been made on technical aspects of REDD+ including the preparation of a RL for deforestation, based on a 10-year historical average. Additional degradation activities will be included over time, although the survey for this gap assessment revealed there are concerns over a lack of qualified human resources within the state system for measuring emissions and monitoring them over time.

IMC entered into an agreement with VCS in June 2012 to outline JNR pilot activities. IMC has established a working group where VCS is partnering with the Amazon Environmental Research Institute (IPAM) and other organizations to provide technical guidance to the development of Acre's jurisdictional REDD+ program, in line with the JNR Requirements.

Acre has established several sources of funding for its REDD+ program which it manages through the Acre Company Agency for Environmental Services Development (CDSA). The CDSA is a public-private company that engages potential funding sources and oversees state Forest Fund, the managing body carbon credits[10] and revenues. Among other funding sources, the German Development Bank (KfW) has recently agreed to performance-based payments of up to US$25 million, which Acre plans to deliver via use of the JNR Framework. Acre also has a memorandum of understanding (MoU) with the State of California to provide a pathway for early participation in California's cap-and-trade system[11].

Notable challenges and gaps the state of Acre faces in furthering REDD+ development are:

- Developing technical capacity for carbon accounting and monitoring
- Lack of equipment and resources for ground-truthing and collecting biomass data

Amapá

Amapá has no formal REDD+ law as of yet, but is making progress on REDD+ development while the draft "Law of the State Policy on Climate Change, Conservation and Incentives for Environmental Services" awaits final discussions and ultimate approval. According to the draft legislation, the Secretariat of the

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[10] Law Decree Nº 6306/2013
[11] [18]VCS, 2014. Jurisdictional and Nested REDD+ Pilot Programs. Verified Carbon Standards (VCS). Available at: http://www.v-c-s.org/jnr-pilot-programs

Environment for the state of Amapá (SEMA/AP) will manage and regulate the State System for Climate Change and Environmental Services (SSCCES). The State Forum on Global Climate Change and Environmental Services (FAMCSA), with participation from other institutions, will help ensure transparency and appropriate stakeholder engagement in REDD+ development and implementation in Amapá. In addition, there will be a scientific committee comprised of universities, institutes, and government agencies established to provide technical, scientific, legal, and methodological inputs.

Amapá's MRV system is still not well defined and there is considerable need for capacity building in EF development and generating AD.   In the near term, it is planning to adopt a subset of the RL for deforestation developed through PNMC efforts.

Similar to Acre, a public-private company will be established to manage REDD+ funds, according to the draft law. The Amapá State Company for Climate Change and Environmental Services would raise funds and serve as a point of contact for civil society to provide feedback about the SSCCES. To date, The Amazon Fund is providing financial support to the Amapá government, as well as ONF-I and the GCF, although often as capacity building rather than funding. Additional support will be solicited from the Inter-American Development Bank (IADB) and the UN Development Program (UNDP).

Notable challenges and gaps the state of Amapá faces in furthering REDD+ development are:

- Lack of technical capacity within the government institutions managing REDD+ for carbon accounting and monitoring
- No assessment of drivers of deforestation yet
- Lack of capacity in remote sensing -- can perform simple spatial analysis and generate maps, but need more technology and training

Amazonas

As for all the States the questionnaires were completed in Amazonas in the first months of 2014, Amazonas is going through many changes so many of the indicated results will unfortunately already be not current.

Although there is no established legal framework for REDD+ in Amazonas as of yet, there have been considerable advancements with regard to envisioning and anticipating the institutional set-up for a REDD+ program and in developing a methodological framework for a REDD+ system in Amazonas. The Amazonas State Law on Climate Change, Environmental Conservation and Sustainable Development has been implemented and a draft Law on Environmental Services is awaiting approval which would establish a number of institutions and appoint agents to support REDD+ management and implementation.

There are a few private REDD+ initiatives in Amazonas registered with the State Center for Conservation Units (CEUC) and the Climate Change Center (CECLIMA), but an approval or registration process has yet to be defined.

As in Amapá, although the Law on Environmental Services has yet to be approved, actors in the state have been proactive in developing components of the REDD+ program so that implementation can proceed quickly when the law is passed. There has been some progress on developing an RL and the Amazonas REDD+ methodological framework for a nested state system[12] has been developed.

As far as REDD+ financing, the Bolsa Floresta Program is an existing PES system that has been providing support for forest communities to reduce deforestation. In addition, the draft Law provides a variety of options including support through corporate social responsibility (CSR) initiatives, soliciting funds from the Environmental Services Fund, Fundo Clima, the Amazon Fund, and signing bilateral agreements with countries, states, international organizations and foundations.

Notable challenges and gaps the state of Amazonas faces in furthering REDD+ development are:

- Need for more qualified staff to implement and manage components of the Law on Environmental Services (if passed)

Mato Grosso

Mato Grosso is the second Brazilian State to approve specific legislation for REDD+. The Law establishes a State System of Reducing Emissions from Deforestation and Forest Degradation, Conservation, Sustainable Forest Management and Enhancement of Forest Carbon stocks (SisREDD+-MT)[13]. The State of Mato Grosso also prepared the Executive Commission's Plan for the Prevention and Control of Deforestation and Forest Fires in Mato Grosso (PPCDQ-MT), which included a study of the drivers of deforestation and assumed full management of forestry activities. Several technical aspects of REDD+ are still under discussion, however, including the state baseline, mitigating non-permanence risk, establishing buffers, aspects of the accounting framework and registry, benefit sharing agreements, and the development of a State Fund for REDD+.

REDD+ implementation and development in Mato Grosso is managed by the Secretariat of the Environment for the state of Mato Grosso (SEMA/MT), through the Climate Change and Biodiversity Department. In addition, SisREDD+ MT includes a Management Council, a Scientific Panel, a State Secretariat for the Environment, and a State Forum on Climate Change. It is expected that REDD+ in Mato Grosso will be financed through donations, fundraising, bilateral agreements, and market-based mechanisms for REDD+ credits, among others.

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[12] Idesam, 2013. Sistema Estadual de REDD+ no Amazonas: desafios, oportunidades e recomendações. Available at: http://idesam.org.br/sistema-estadual-de-redd-no-amazonas-desafios-oportunidades-e-recomendacoes/#.U-DUB_ldV64

[13] State Law N° 9.878/2013

A VCS Jurisdictional Program Description (JPD) is in preparation and there are several REDD+ projects in the state that have been validated and receive international funding.

Notable challenges and gaps the state of Mato Grosso faces in furthering REDD+ development are:

- Lack of technical capacity for developing emission factors and for carbon accounting and monitoring
- Need for more staff for data collection

Pará

There is no specific law concerning environmental services or REDD+ in Pará, but there are several policies, initiatives, and programs already under way that may set the groundwork for REDD+ implementation. There is a Pará Forum on Climate Change[14], and a Plan for Prevention, Control and Alternatives to Deforestation of Pará (PPCAD), currently under revision. There is anticipation that the revised PAACD will lay the legal groundwork for REDD+.

There are several public and private initiatives that relate to REDD+ and Low Emission Development (LED) in Pará, including the State Program for Low Carbon Agriculture and a Green Municipalities Program[15], which aims to reduce deforestation at the municipal level and runs a rural environmental registry. There is also a Green Tax that grants municipalities extra revenue from conservation efforts. In addition, there are academic councils on REDD+, independent/private REDD+ projects, and several NGOs involved with moving the REDD+ agenda forward in Pará.

Notable challenges and gaps the state of Pará faces in furthering REDD+ development are:

- Need for more qualified staff to implement and manage components of the Law on Environmental Services (if passed)

Tocantins

The Tocantins State Policy on Climate Change (launched in 2009) is currently under revision and the development of an Environmental Services Policy is planned, although there is no set schedule for approval. REDD+ will be managed by the State Secretary for Environment and Sustainable Development, but a structure for coordination and responsibilities with other agencies and institutions has not been determined. A State Plan for the Prevention and Control of Deforestation has been developed, but it needs further inputs from key state institutions and projects.

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[14] State Law Decree N°513/2012
[15] Referred here as PMV (Programa Municípios Verdes)

Major REDD+ actors in the state include the Federal University of Tocantins and an NGO, the Ecological Institute, which developed two of Tocantins' most notable private REDD+ projects.

Notable challenges and gaps the state of Tocantins faces in furthering REDD+ development are:

- Need for more qualified staff to implement and manage components of the Law on Environmental Services (if passed)

2.4 Summary

(See Annex II for a more detailed summary)

	Brazil						
	National	Acre	Amapá	Amazonas	Mato Grosso	Para	Tocantins
Institutional and Legal Framework	yellow	green	yellow	yellow	green	orange	orange
Drivers analysis	green	green	orange	green	green	green	red
MRV system & FREL/REL/RL development for deforestation	green	yellow	orange	orange	orange	orange	red
Safeguards and safeguard data collection	orange	yellow	yellow	yellow	orange	red	red
Managing benefit distribution	yellow	cream	cream	yellow	cream	orange	orange
Project approval and nesting	red	green	cream	yellow	orange	red	red
Financing	yellow	green	orange	yellow	yellow	orange	red

3.   PERU

3.1 Overview of current national status

Peru has made some notable progress in the development of a REDD+ program at the national level, as well as at the subnational level. REDD+ development was initially pursued by individual regions within Peru, but a national program is advancing, including the development of a comprehensive national REDD+ strategy that will offer a framework to establish REDD+ at all scales in Peru. The Peruvian government is now applying a top-down approach to REDD+ implementation in an effort to introduce consistent methods, standards, and accounting methods, but REDD+ programs continue to be promoted at the sub-national level.

To date, REDD+ development has largely focused on the Peruvian Amazon, which includes five regions all of which are members of the GCF: Amazonas, Loreto, San Martin, Ucayali, and Madre de Dios. Some of these regional governments have been very proactive in developing their subnational REDD+ programs through stakeholder engagement, capacity building, and assessments of drivers of deforestation and forest degradation. However, REDD+ development has been uneven and important design and technical aspects of REDD+ development have yet to be addressed in the majority of these regions.

3.2   Summary of REDD+ Progress and Gaps

Institutional and Legal Frameworks

Peru's National Forest Conservation Program, part of the Ministry of the Environment (MINAM), has been coordinating and supporting the development of a national REDD+ strategy, the creation of a MRV system, and capacity building for REDD+ program development and implementation at the national level. Regional Environmental Authorities (ARAs) serve as key coordinating and guiding actors on the subnational level, and they convene REDD+ task forces comprised of regional government representatives and civil society actors to advance dialogue on REDD+.

Almost all Amazonian Regions have established ARAs that coordinate efforts with MINAM, but a couple of the Amazonian regions were advancing REDD+ independently well before national REDD+ development. Thus, progress is uneven and the regions that have made the most advancement are San Martin and Madre de Dios. These regions have developed technical capacity for measuring and monitoring emissions from land use change and have taken important steps in designing their REDD+ programs, and in developing strategies to address deforestation that are sensitive to regional circumstances.

MRV System and RL Setting

As part of the National REDD+ Strategy, a central MRV system is being designed to track all activity data on forested lands in the Peruvian Amazon. To date, activity data has been collected and processed for the 2000-2011 historical period following IPCC AFOLU 2006 Guidelines approach 3 approaches (30m as well as 5m resolution images). These activity data shall be paired with national emission factors that have already been defined using data from the National Forest Inventory.

The national government is developing a single RL for the entire Peruvian Amazon region which is under development using a historical average and will be divided amongst these five Amazonian regions to reduce transaction costs and increase efficiency. Although this is a top-down approach, the development of the Amazon RL is being done through coordination between regional REDD+ authorities and national authorities. RLs for other parts of Peru including the Sierra and Coastal areas of Peru may be developed in the future.

The top-down approach to the MRV system the national government is adopting offers several advantages for developing consistent methodologies and frameworks for REDD+ implementation across Peru, but has led to complications for regions that preceded the development of the national REDD+ program. Most significantly, while a RL for the entire Peruvian Amazon is being developed that will be divided up regionally, the Madre de Dios region has already been developing a RL using data and methods that are not consistent with what are being proposed by the national government. This lack of coordination may ultimately mean a less efficient use of resources and, and potentially be a disincentive for subnational regions to proactively pursue REDD+ development.

At both the national and subnational levels, there are no clear arrangements for establishing carbon rights and benefit sharing mechanisms. In addition, the surveys administered in this gap assessment revealed that some REDD+ actors perceive a need for a framework for nesting existing projects.

Table 4 summarizes developments in the MRV systems and RL setting in the GCF member states in Peru at the national and subnational level.

Table 4 Summary of status of MRV systems and RL setting in GCF member states in Peru

	National	Amazonas	Loreto	San Martin	Ucayali	Madre de Dios
Overall	National MRV system has been designed and much progress has been made on developing a RL for the Amazon region.	Still at initial stages of development.	Still at initial stages of development.	Some capacity building and strategy development.	Little progress and no defined accounting methods yet.	High capacity and baseline deforestation map developed.
Historical Reference Period for Deforestation	2000-2011	2000-2011	2000-2011	2000-2011	2000-2011	2000, 2004, 2008, and 2011. Does not match with national historical reference period.
REDD+ Activities	Deforestation	Deforestation	Deforestation	Deforestation	Deforestation	Deforestation
Deforestation EFs: Carbon Pools / GHGs	National EFs developed.			Some capacity building and strategy development.	Carbon stock assessment being conducted with support from MINAM	Field measurements and data analysis conducted.
Deforestation AD	Being collected			Capacity building for deforestation monitoring and mapping conducted.		Landsat 5TM remote sensing imagery
Deforestation RL/REL/FREL status	RL for Amazon Region under development.	Plan to use historical average. Historical	Plan to use historical average. Historical	Plan to use historical average. Historical	Plan to use historical average. Historical	Historical baseline for deforestation established.

	Other regions will follow after.	period consistent with national stipulations (2000-2011).	period consistent with national stipulations (2000-2011).	period consistent with national stipulations (2000-2011).	period consistent with national stipulations (2000-2011).	
REDD+ Methodology	FCPF CF Methodological Framework					

Financing

Responses to the surveys conducted for this gap assessment indicate REDD+ actors in Peru perceive substantial gaps in funding for REDD+. Responses reflect a lack of sufficient and consistent financing as well as a lack of clarity on where future financing will come from and how it will be delivered. Major financial commitments to REDD preparedness and REDD implementation have been made for Peru by funders including Norway, The World Bank, UN-REDD, and Germany (KfW)[16].

Safeguards and Leakage

At the national level, safeguards in Peru will be developed to reflect UNFCCC Guidance on REDD+ [17] but there has been little overall progress on this topic. Most jurisdictions have yet to develop approaches to incorporate and monitor social and environmental safeguards at all, except for San Martin and Madre de Dios. These two regions have Safeguard Committees within their REDD+ task forces and have developed methodologies for incorporating Cancun Safeguards. San Martin has made the most progress on safeguards with a Regional REDD+ strategy under development that will also incorporate VCS safeguard standards and establish indicators for monitoring them.

3.3 Subnational REDD+ Development

Amazonas

While there has been little progress on REDD+ development in this region, there are some existing project-level REDD+ initiatives and an ARA has been created which holds forest management responsibilities, allowing it to assume key coordination and design responsibilities for the regional REDD+ program. In addition, major drivers of deforestation have been defined.

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[16] Several of these sources were being finalized at the time the survey was being completed.
[17] otherwise known as the Cancun Safeguards

Notable challenges and gaps the Regional Government of Amazonas faces in developing REDD+ are:

- developing technical capacity for carbon accounting and monitoring
- establishing accounting methods and reference levels in coordination with arrangements at the national level

Loreto

While Loreto does not yet have a formally established jurisdictional REDD+ program, it has made substantial progress in defining roles, coordinating work with stakeholders, and has decided to match the historic time period of its RL with the national RL. Loreto has also made some progress in the development of conditions to implement REDD+ including transferring functions of the Agency for the Formalization of Private Property (Organismo de Formalización de la Propiedad Privada, COFOPRI) to the Regional Government, facilitating the recognition of indigenous and rural communities' property rights.

In Loreto, The Regional Office of Natural Resources and Environmental Management leads REDD+ implementation through a REDD+ task force (Mesa REDD+), made up of several public sector actors, academic institutions, and organizations of indigenous peoples. Mesa REDD+'s members are further divided into three specialized groups: (1) the technical/environmental group, (2) the social group, and (3) the legal group.

Notable challenges and gaps the Regional Government of Loreto faces in developing REDD+ are:

- conducting an assessment of drivers of deforestation and forest degradation
- developing technical capacity for carbon accounting and monitoring
- elaboration of safeguards and safeguard monitoring
- finding sustainable funding streams

San Martin

Like in Loreto, San Martin's REDD+ development is also led by the Mesa REDD+, a REDD+ task force under the auspices of the Regional Environmental Authority. Mesa REDD+ is comprised of groups including the Technical Secretariat headed by MINAM and a Guidance Group made up of civil society and academic actors. Mesa REDD+ interfaces and coordinates efforts with regional government offices, relevant agricultural cooperatives, and park authorities.

Efforts undertaken by these REDD+ actors in San Martin have helped implement projects and initiatives that have furthered REDD+ development considerably. These include the implementation of a regional forestry plan, capacity building for mapping and monitoring deforestation, and an analysis of drivers of deforestation and degradation. Rather than developing its own RL, San Martin anticipates adopting part of the Amazon Region RL developed by the national authority.

In addition, there has been progress on safeguard development. The Regional REDD+ Strategy will propose a methodology for meeting safeguard requirements through identifying, mapping, and training stakeholders, the creation of a safeguards committee, and the REDD+ implementation plan that has defined indicators and monitors safeguards at the regional level.

Notable challenges and gaps the Regional Government of San Martin faces in developing REDD+ are:

- nesting the several existing REDD+ projects
- inadequate equipment and infrastructure
- developing technical capacity for carbon accounting and monitoring
- identifying cross-sector strategies for reducing deforestation based on the drivers analysis

Ucayali

REDD+ matters in Ucayali are managed by the Office of Natural Resources and Environmental Management, which oversees a task force called the Ecosystem Services & REDD+ Board. This board is comprised of a set of public and private sector stakeholders, including indigenous groups. While little progress has been made on many aspects of REDD+ in Ucayali, more progress is anticipated as a drivers of deforestation and degradation analysis is under way and MINAM providing support to quantify carbon stocks in this region.

Notable challenges and gaps the Regional Government of Ucayali faces in developing REDD+ are:

- developing technical capacity for carbon stock measurement and monitoring
- developing social and environmental safeguards
- finding sustainable funding streams

Madre de Dios

Madre de Dios has the most advanced subnational REDD+ initiative in Peru. Jurisdictional REDD+ is currently being designed, although the start date of the program is not yet established. This region has a well-articulated governance structure for developing REDD+, and has already completed several of the key steps in developing a REDD+ program.

Coordination of the development of REDD+ in Madre de Dios is carried out by the REDD task force called the Environmental Services Roundtable, under the authority of the Regional Office of Natural Resources and Environmental Management. This task force is organized into committees and subcommittees comprised of relevant stakeholders representing government and civil society sectors. There is a committee for assessing historical deforestation, a committee for calculating biomass and carbon stocks, a safeguards committee, and a communications secretariat. The Environmental Services Roundtable has also developed an Operational Plan which articulates activities and responsibilities.

An assessment of the drivers for deforestation and forest degradation has been conducted, which will be used to help develop strategies for combatting them. There have also been notable advancements in technical capacity, data collection, and data processing for establishing historical emissions and the MRV system. A deforestation map was developed along with a historical baseline for deforestation. Activity data were derived from Landsat 5TM remote sensing imagery for 2000, 2004, 2008 and 2011 and field measurements and data analysis were carried out to establish a baseline for carbon stocks.

Madre de Dios has proposed a historical implementation period spanning from 2015-2019 projecting an upward trend in emissions, due to an anticipated acceleration of deforestation. Furthermore, Madre de Dios may propose to apply a projection of historical emissions (trend) rather than an average to best reflect anticipated emissions. These approaches and methodologies are very different from those that are being used at the national level, and this is a critical concern.

The proactive approach that Madre de Dios has taken in developing its subnational REDD+ program has allowed it to build substantial technical capacity and make considerable progress. However, Madre de Dios' independent pursuit of jurisdictional REDD+ components have resulted in conflicts with how the national government is defining and developing REDD+. Given that the national government is pursuing a top-down approach, and they will develop a national RL that regions will have to adopt, Madre de Dios and the national government will have to demonstrate flexibility and improve coordination.

The most notable challenges and gaps the Regional Government of Madre de Dios faces in developing REDD+ are:

- establishing accounting methods and reference levels in coordination with arrangements at the national level
- developing social and environmental safeguards
- finding funding streams

3.4 Summary

(See Annex II for a more detailed summary)

	Peru					
	National	Amazonas	Loreto	San Martin	Ucayali	Madre de Dios
Institutional and Legal Framework	yellow	yellow	yellow	yellow	yellow	yellow
Drivers analysis	grey	green	red	green	orange	orange
MRV system & FREL/REL/RL development for deforestation	yellow	orange	orange	orange	orange	yellow
Safeguards and safeguard data collection	yellow	red	red	orange	red	yellow
Managing benefit distribution	red	red	red	red	red	red
Project approval and nesting	red	red	red	red	red	red
Financing	yellow	yellow	red	red	red	red

MEXICO

4.1 Overview of current national status

Mexico has made meaningful steps toward REDD+ development at the national and subnational levels. While the national government has been leading REDD+ development and endeavours to establish a centralized REDD+ system, there has been substantial consultation with subnational governments, and active subnational REDD+ development in the pilot "Early REDD+ Action Areas" (Chiapas, Jalisco, Yucatan, Campeche and Quintana Roo[18]). These subnational areas were also included in Mexico's R-PIN for the FCPF.

The national government has been developing an overall National Strategy for REDD+ in Mexico, with participation from state technical advisory committees. It will provide a framework for REDD+ implementation at the national and state levels with clearly articulated policies, methodologies, and procedures to promote consistency in eventual subnational implementation. The National REDD+ Strategy will include details about the National Safeguards system, the National MRV system, and the framework for social and environmental management. State governments have been advised to wait until the National REDD+ Strategy is in place before designing their state REDD+ programs, except for the Early REDD+ Action Areas. The National REDD+ Strategy, as well as the Preparation Package for the Carbon Fund, are expected to be ready by 2015 in order to allow for implementation by 2016.

While subnational actors have made considerable progress in advancing jurisdictional REDD+ programs in Mexico, one notable issue is whether states will participate in the national REDD+ program or pursue their own stand-alone REDD+ programs that issue and sell forest carbon credits to private or public buyers. However, it is recognized although there are no substantial legal barriers to states pursuing independent REDD+ program development, there is a still a need for coordination with the national process. It may be most practical and cost efficient to work in coordination with the national government to create a transparent, practical, compatible system that effectively addresses the relevant drivers of deforestation.

4.2 Summary of REDD+ Progress and Gaps

Institutional and Legal Frameworks

The National Forestry Commission (CONAFOR), under the Ministry of Environment and Natural Resources, is the agency at the center of REDD+ preparation in Mexico. CONAFOR coordinates efforts with relevant national and subnational agencies and stakeholders and leads the Intersecretarial Commission of Climate

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[18] All except Yucatan are GCF members)

Change, which has a REDD+ working group. While national REDD+ development is being approached in a top-down manner, subnational jurisdictions are engaged in the development of Mexico's national REDD+ strategy through National Technical Advisory Committees, as well as though their State Technical Advisory Committees. CONAFOR has also been holding meetings since 2013 with representatives from Early REDD+ Action Areas to share information and coordinate efforts.

To date, there is no explicit definition or recognition of carbon rights or ownership in Mexico. Article 27 of the national Constitution, as well as the General Law for Sustainable Forest Development and Land Law, state that private owners, ejidos, or communally-owned lands and forests are the owners of forest products and profits as well as the environmental services generated from those lands, and carbon is understood to be one such a forest resource. Yet in practice, there is no specific regulation on carbon. However, there is an incipient federal initiative to design a Mexican Carbon Norm (NOM) which would set the standards for voluntary markets. This initiative could trigger the design of State laws to regulate carbon projects.

MRV System and RL Setting

The National MRV system is currently under development and is expected to be completed by mid-2015. Mexico is applying a centralized approach to RL and MRV establishment, but technical groups for each state are being developed to contribute to the development of emission factors based on local studies. The role of local studies is especially important as the ambition is to achieve an IPCC AFOLU tier 3 level of accuracy in estimating Mexico's of greenhouse gas emissions.

Mexico's MRV system is being developed through the "Capacity strengthening and South-South Cooperation for REDD+" initiative which receives technical and financial support from the government of Norway, in collaboration with the Woods Hole Research Centre, the United Nations Program for Development, Food and Agricultural Organization, and the National Autonomous University of Mexico (UNAM). The project is expected to be completed around June of 2015.

The MRV system is being designed as a centralized system managed by the national government, but it will measure, report and verify emission reductions by sources and absorption by pools at both the national and subnational levels.   The MRV System will managed through a collaboration between the National Commission for the Knowledge and Use of Biodiversity (CONABIO) which largely oversees AD development and CONAFOR, which, among others duties, oversees EF development.

The MRV system will be comprised of:

(1) A remote sensing system for activity data collection called Monitoring Activity Data for Mexican REDD+ Program (MAD-MEX). Managed by CONABIO.
(2) A National Forest and Soils Inventory and State Forest Inventories for estimating carbon stocks and fluxes. Managed by CONAFOR.
(3) A national greenhouse gas Inventory to estimate and report on anthropogenic emissions

by sources and absorptions by pools.   Managed by the National Institute of Climate Change and Ecology (INECC)

While emission factors will be mostly derived from the National Forest and Soils Inventory, it will be supplemented in cases where there are a lack of data by a national biomass map was developed by Woods Hole Research Center.[19]

It is expected that the national reference emissions level will be defined, and then disaggregated at the subnational level. Subnational governments will then be given the opportunity to comment on and potentially improve the regional RLs using local data. Once this vetting process is complete, the national reference level will then be adjusted accordingly.

National RLs will be set by CONAFOR and divided and adopted subnationally. There has been substantial collaboration by subnational actors thus far on the development and application of methods and data for generating Mexico's RL, and it is expected that state representatives will convene in 2015 to define the state reference levels. It is expected that the historical period for the RL will be from 1990-2010, and projections of emissions will be made from 2012-2020.

Table 5 summarizes developments in the MRV systems and RL setting in the GCF member states in Mexico at the national and subnational level.

Table 5 Summary of status of MRV systems and RL setting in GCF member states in Mexico

	National	Chiapas	Campeche
Overall	National MRV system being developed with participation from state MRV technical groups. State MRV systems will be integrated and linked to national MRV.	MRV mechanism and inventory of emissions system being designed.	MRV system being developed to contribute to national system.
Historical Reference Period for deforestation	1990-2010	1990-2010	At least 1995 to 2010.
REDD+ Activities	Considering deforestation, degradation, sustainable forest management, conservation, and enhancements	Considering deforestation, degradation, sustainable forest management, conservation, and enhancements	Considering deforestation, degradation, sustainable forest management,

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[19] Part of the MREDD+ program

			conservation, and enhancements
Deforestation EFs: Carbon Pools / GHGs	National Forest and Soils Inventory to produce EFs. Biomass map of Mexico will likely be used to fill gaps. All carbon pools included.	Considering AGB, BGB, Litter, dead biomass, soil, and wood products	Considering AGB, BGB, Litter, dead biomass, soil, and wood products
Deforestation AD	R/S system for AD collection ('MAD-MEX') being developed		
Deforestation RL/REL/FREL status	Anticipated completion in 2015, to be submitted to UNFCCC.	Likely will adopt a portion of the national RL. Will also conduct a study of historical deforestation using remote images as optical and (LiDAR and radar) active sensors (Landsat, Spot and RapidEye).	Will adopt a portion of the national RL.
Methodology	FCPF CF Methodological Framework	FCPF CF Methodological Framework	

Financing

The General Climate Change Law (2012) mandated the establishment of a Climate Change Fund to capture and issue funding to support the implementation of actions relating to climate change. This fund manages private, national, and international monies and allows for the purchase of reductions and removals of certified emissions. Additional funding sources exist, but were not created explicitly for financing actions relating to climate change, including the Mexican Forestry Fund which using public monies to support the conservation, enhancement, sustainable use, and restoration of forest resources.

Mexico is currently receiving REDD+ Readiness funding from the World Bank, although only a small fraction has been used thus far. This funding will be applied to the consultation and writing process of the final version of the National REDD+ strategy, establishing a framework for environmental and social management, and creating a mechanism for stakeholder feedback. In addition, as mentioned above, the "Capacity strengthening and South-South Cooperation for REDD+" has received substantial support from the government of Norway for financing the design and implementation of the National MRV system , in collaboration with the Woods Hole Research Centre, the United Nations Program for Development, Food and Agricultural Organization, and the National Autonomous University of Mexico (UNAM).

Furthermore, the US Agency for International Development (USAID) MREDD+ Program funds efforts led by a number of International NGOs to help develop Mexico's MRV system, build institutional and technical capacity, promote information sharing and coordination, strengthen laws, and create a financial architecture to support REDD+ policies and projects.

Safeguards and Leakage

The national MRV system will attempt to account for leakage, but the national government does not expect leakage to be a problem as it has been determined that it is unlikely that there is a displacement of emissions among states[20].

The National REDD+ strategy (2014) stipulates that a National System for Information on Safeguards must be established based on UNFCCC Guidance on REDD+. It is anticipated that the MRV system will coordinate and monitor social and environmental safeguard requirements, as defined by the UNFCCC.

4.3   Subnational REDD+ Development

Chiapas

Chiapas has one of Mexico's most advanced incipient REDD+ programs. It is among Mexico's Early REDD+ Action Areas, is included in CONAFOR's REDD+ program, and was part of the Mexico's ER-PIN document that was accepted by the FCPF in 2014. Chiapas has ongoing pilot projects generating valuable technical inputs, training and capacity building efforts, public consultation processes, and has made progress on establishing key components of its MRV system. Public policy and legislation to support REDD+ has been advanced and a number of studies have been conducted to identify the drivers of deforestation and degradation in different regions within the state.

REDD+ development in Chiapas is led by The Ministry of Environment and Natural History of the State of Chiapas (SEMAHN) through the Undersecretary of Forestry Development. SEMAHN coordinates the Committee on Climate Change for Inter-secretarial Coordination of Chiapas (CCICCCH), a REDD+ working group who coordinate the design, implementation, evaluation and approval of all climate change policy related to REDD+. SEMAHN is also responsible for ensuring information including state and municipal inventories are made public through the State Information Subsystem of Environmental Information and the State Committee of Statistic Information and Geography of Chiapas and the Research Center for Risk Management and Climate.

In addition, there are two participatory groups that contribute to REDD+ development in Chiapas. The Advisory State Technical Council for Reducing Emissions from Deforestation and Forest Degradation in the State of Chiapas (CTC REDD+ Chiapas) convenes civil society groups, academic institutions, and

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[20] ERPIN, 2013

government agencies to providing guidance and advice to the CICCCH (PACCCH, 2011). The Advisory Council on Climate Change (CCCC) functions as a permanent advisory body that helps coordinates stakeholder engagement in the REDD+ system. The Adaptation and Mitigation of Climate Change Act of the State of Chiapas (LAMCCCH), it is currently being reformed to align with the federal law and will consider a Climate Change State System, a State REDD+ Strategy, a MRV mechanism, a safeguards and benefits distribution system, as well as state registry and inventory of emissions system (GHG). Chiapas' is in the pipeline for participation in FCPF Carbon Fund, and thus it is expected that much of its REDD+ design should follow the guidelines stipulated in the FCPF Carbon Fund Methodological Framework, including safeguards.

The Chiapas technical MRV group is comprised of the state CONAFOR branch, SEMAHN, as well as various other government and academic institutions. This group works closely with CONAFOR to improve national AD and EFs though field data collection and allometric equation development. While it is expected that Chiapas will adopt part of the national RL, the state MRV technical group has been developing local data to improve accuracy and reduce uncertainty.

In additional to the FCPF, Chiapas has taken part in a number of international agreements and receives associated funding. As a member of the GCF taskforce, Chiapas receives support for technical elements in its MRV system, and signed a Memorandum of Understanding (MoU) in 2010 with the States of Acre in Brazil and the State of California of the United States to advance environmental cooperation for REDD+. This was strengthened by a new MoU between SEMARNAT, CONAFOR and the State of California signed in 2014.

The most notable challenges and gaps Chiapas faces in developing REDD+ are:

- Need for capacity building amongst officials at relevant ministries to understand REDD+ and how their roles and functions can support its advancement
- Need to re-engage key government actors and pick up lost momentum in REDD+ advancement in Chiapas. Recent staffing changes within the Undersecretary of Climate Change have resulted in the suspension of meetings and trainings among several key bodies, including the CCICCCH, that coordinate REDD+ development. This has also affected progress in updating the Adaptation and Mitigation of Climate Change Act of the State of Chiapas (LAMCCCH).
- Lack of technical capacity and human resources to validate and manage the information generated through pilot programs receiving international support (e.g. MREDD+ project technical data).

Campeche

Campeche is another Early REDD+ Action Area in Mexico. Campeche is developing REDD+ strategies, is engaged with national REDD+ development, and has established partnerships with other states engaged in REDD+. There are several pilot programs are underway exploring technical and organizational aspects of REDD+ implementation and Campeche is reforming its legal framework to accommodate REDD+.

REDD+ efforts in Campeche are led by the Secretariat of Environment and Sustainable (SMAAS) in agreement with CONAFOR. SMAAS coordinates with other state and national ministries and serves as technical secretary of the Technical Advisory Council (CTC) which convenes government and non-Government stakeholders. The non-government sector is actively involved in the REDD+ activities in Campeche with participation from local and international NGOs through the Maya Forest Observatory.

The legal framework for REDD+ in Campeche is being adjusted to accommodate COP16 agreements through a number of ongoing processes including the modification of the State Forestry Law, the State Law of Ecological Balance, and a proposal for creating a specific Climate Change State Law. These proposals were submitted to the state congress in 2013, and are currently awaiting approval. SMAAS is also updating the Campeche REDD+ Strategy and the State Program on Climate Change, which considers REDD+ as well as other aspects of green economy and green development.

Campeche is part of an initiative to develop a REDD+ vision for the Yucatán Peninsula that also includes the states of Yucatan and Quintana Roo. This initiative promotes regional partnerships, explores schemes of governance through pilot projects, defines institutional arrangements for the implementation of REDD+, and facilitates the design of REDD+ safeguards. These REDD+ pilot projects are informing the Campeche REDD+ strategy and the State Program of Climate Change as well as the national MRV system under development.

Campeche has not yet defined many of the financial aspects of REDD+ implementation. It is anticipated that the Campeche REDD+ strategy and the State Program of Climate Change will include an estimation of the costs for implementing the REDD+ program, and have identified the Mexican readiness fund for REDD+ as a potential source of payment for emission reductions. To date, two programs have supported early actions for REDD+ in Campeche, including MREDD+ and CONAFOR's Special Program for the conservation, restoration and sustainable management of forest resources of the Yucatan Peninsula (PEPY).

The most notable challenges and gaps Campeche faces in developing REDD+ are:

- Insufficient participation from the agriculture and development sectors
- Need for capacity building and technical guidance for communities and local authorities.
- Need for technical assistance in developing EFs and AD.
- Need for assistance in designing, implementing, and monitoring a safeguards system
- Definition of Campeche REDD+ financial structure

4.4 Summary

(See Annex II for a more detailed summary)

	Mexico		
	National	Chiapas	Campeche
Institutional and Legal Framework			
Drivers analysis			
MRV system & FREL/REL/RL development for deforestation			
Safeguards and safeguard data collection			
Managing benefit distribution			
Project approval and nesting			
Financing			

5. INDONESIA

5.1 Overview of current national status

Indonesia has made considerable advancements in its REDD+ program in recent years and submitted its national FREL to the UNFCCC in December 2014. The REDD+ program is initially being developed in eleven pilot provinces under a jurisdictional approach, six of which are GCF states. Under this jurisdictional approach, REDD+ is being implemented and administered through provincial and district government units, with performance disaggregated at the national level.[21] These eleven provinces cover almost 90% of the natural forests of Indonesia, although the existing National REL covers the entirety of Indonesia. Full implementation of the National REDD+ Program is anticipated to be in place by 2017, but some programs will commence in 2015.

5.2 Summary of REDD+ progress and gaps

Institutional and Legal Frameworks

The Indonesian government has passed several laws and regulations (at least 19) related to REDD+ and peat land conservation. Although there had been important advancements in REDD+ development and implementation in Indonesia, its REDD+ program underwent a major institutional shift at the beginning of 2015 as part of a wider government restructuring initiative in Indonesia. As this change has been so recent, it is unclear what this means for the existing REDD+ arrangements in Indonesia and how it will be institutionally organized.

Before being disbanded and merged with the Ministry of Environment and Forestry (MOEF), the National REDD+ Agency (BP REDD+) was at the center of REDD+ advancement in Indonesia. BP REDD+ and collaborated with other key government ministries including the Ministry of Environment and Forestry (MOEF), the National Planning Agency (Bappenas), the Ministry of Environment, and the National Council on Climate Change (DNPI).

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https://www.conservationgateway.org/ConservationPractices/ClimateChange/ForestCarbon/Documents/Presentation%20Discussion%20Paper%202_REDD+%20in%20JGD%2010%2011%202014%20IW%20%28Iwan%20Wibisono%29.pdf

While the new structure is being developed now under the MOEF, under the former structure under BP REDD+, Indonesia's jurisdictional programs and the national program cooperated through Memorandums of Understanding. Through this process, the BP REDD+ granted jurisdictions potential access to technical, institutional, and financial support. Voluntary projects were required to register with the national government through the MOEF. This structure allowed the government to keep track of existing REDD+ initiatives and facilitate efforts through technical support and possible financing. However, a scheme to account for and nest subnational programs was not fully implemented. It is unclear how double counting will be avoided and how projects and subnational programs will be aggregated and accounted for.

MRV System and Reference Levels

Indonesia's national REDD+ program is was designed to account for emissions from in deforestation and peat decomposition activities. Preliminary estimates of historical emissions were determined based on a historical time period of 2006 - 2011 and the potential for emissions reductions are projected to 2020. For AD, the MOF developed land/forest cover data for all of Indonesia using Landsat imagery. Forests were stratified into 23 classes of land including 6 classes of natural forests. Forest plantations were classified separately, but shifting cultivation and unmanaged forests are not identified.

Using national inventory data and scientific literature, the National program developed a set of simplified default EFs, but allowed jurisdictions or projects to use different EFs, so long as they followed appropriate standards and methodologies. If other EFs were developed, subnational jurisdictions or projects were encouraged to submit them to the national research institution so that they may be incorporated in the national system. Subnational jurisdictions are also permitted to determine which activities and pools to include as long as they follow all national and global guidelines (SNI, IPCC).

Table 6 summarizes developments in the MRV systems and RL setting in the GCF member states in Indonesia at the national and subnational level.

Table 6 Summary of status of MRV systems and RL setting in GCF member states in Indonesia

	National	Aceh	Central Kalimantan	East Kalimantan	West Kalimantan	Papua	East Papua
Overall		MRV system aligned with national system and FREL.	MRV system aligned with national system and FREL.	MRV system aligned with national system and FREL.	MRV system aligned with national system and FREL.	MRV system aligned with national system and FREL.	MRV system aligned with national system and FREL\n\nNeed capacity building and technical support.

			Need capacity building and technical support.	May exclude unmanaged lands and include natural disturbance like fire where significant.	Updating provincial RL with technical support. Need capacity building and technical support.	Still need capacity building and technical support.	
Historical Reference Period for Deforestation	2006 - 2011	2006 - 2011	2006 - 2011	2006 - 2011	2006 - 2011	2006 - 2011	2006 - 2011
REDD+ Activities	Deforestation and peat decomposition	Deforestation and peat decomposition	Deforestation and peat decomposition	Deforestation and peat decomposition	Deforestation and peat decomposition	Deforestation and peat decomposition	Deforestation and peat decomposition. Intend to add degradation and develop RL using a trend.
Deforestation EFs: Carbon Pools / GHGs	Default EFs developed, but subnational or projects may use other	Need capacity building and technical support.	Need capacity building and technical support.	Considering application of locally derived data for EF revision and expanding C pools. Need capacity building and technical support.	Need capacity building and technical support.	Need capacity building and technical support	Plans to refine EFs using local data in future revisions of the RL.

Deforestation AD	Land/forest cover data for whole country using Landsat imagery	Aceh Geospatial Data Center can collect AD	Need capacity building and technical support.	Need capacity building and technical support.	Need capacity building and technical support.	Need capacity building and technical support.	AD developed with support from national gov't.
Deforestation RL/REL/FREL status	Complete	Complete. Compatible with the national system, but will propose a revision.	Complete. Compatible with the national system.	Complete. Compatible with the national system.	Developed FREL for four districts, but updating now. Will maintain congruency with national MRV.	Complete. Compatible with the national system.	Complete. Compatible with the national system.
REDD+ Methodology	FCPF, VCS JNR	VCS JNR	VCS JNR				

Financing

The national REDD+ program receives funding from multiple sources including the national treasury, international bodies, and bilateral/multilateral collaboration initiatives. Ongoing and expected sources of financial assistance include LOI Norway, the Japan Credit Mechanism, the FCPF, and the Bio-Carbon Fund. In addition, there are a handful of approved carbon projects that participate in the voluntary market. Much of this funding is expected to be channelled through the Fund for REDD+ Indonesia program (FREDDI), which has experienced challenges in becoming operationalized. The Government of Indonesia also intends to develop a National Carbon Market and is a member of the World Bank's Partnership for Market Readiness.

Safeguards, nesting, and Leakage

BP REDD+ and the MOF developed a set of methods for ensuring safeguards are met called PRISAI along with a Safeguard Information System (SIS).

Through the former BP+ REDD+ structure, by regjurisdictional programs register their REDD+ programs with the national program through agreements made with MoUs. Similarly, voluntary projects are also required to register with the national government through the MOF. However, a scheme to account for and nest subnational programs has yet to be fully implemented.

The National Strategy on REDD+ was designed to reduce potential leakage by implementing REDD+ in provinces with the largest forest areas currently experiencing high rates of deforestation or areas that can be expected to experience high future deforestation rates. Although there should also be a buffer established to cover leakage and permanence risks, it is unclear how this will be approached. However, sub-national jurisdictions in the pilot FCPF programs will be setting a buffer between 40%-50%.

5.3 Subnational REDD+ Development

Aceh

Aceh started developing its REDD+ program in 2013 through the release of its REDD+ Program Strategic Plan (SRAP). Aceh is creating a provincial REDD+ agency and will establish an Aceh REDD+ Task Force to interface with stakeholders and develop strategies for REDD+ implementation. The SRAP also identified drivers of deforestation and appropriate related mitigation activities have been integrated into various short term and long term land use planning and development plans for Aceh.

While local government budgets currently finance Aceh's REDD+ program, there are little additional sources of funding and voluntary projects in Aceh were not successful in producing marketable credits. Furthermore, at time of the survey was conducted for this report in 2014, Aceh had yet to establish a MoU with BP REDD+ to access additional support and funding.

Aceh's current RL was developed to be fully compatible and congruent with the national system and thus the activities included in Aceh's REDD+ program are deforestation and peat decomposition. However, Aceh has developed the capability to improve some of the technical components of its MRV system including the ability to generate its own AD through the Aceh Geospatial Data Center. As such, technical REDD+ actors in the government of Aceh have been preparing an analysis to support their proposal for a revision of the RL. Similarly, while Aceh's original RL uses default national EFs (IPCC Tier 2), there are plans to improve the EFs through local data collection. Aceh's revised RL will be based on a historical average with an upward adjustment (5.13 %) justified by the fact that Aceh is still recovering from a long period of internal conflict and a natural disaster.

The SRAP plan does include a strategy to include and monitor social and environmental safeguards, but there is no legal basis for it yet. A mechanism for benefit sharing has yet to be planned but ideally an

independent funding institution will be established to ensure transparency in managing and distributing benefits.

The most notable challenges and gaps Aceh faces in developing REDD+ are:

- Need for capacity building to improve systems and methods in MRV
- Need to prepare a VCS jurisdictional program document
- Lack of adequate funding

Central Kalimantan

Central Kalimantan has a REDD+ Regional Strategy (STRADA) and a Regional Commission for Central Kalimantan REDD+, comprised of the Central Kalimantan Department of Forestry, the Environment Agency, local and a number of international NGOs. Underneath the commission, the Joint Secretariat on REDD+ (SEKBER) manages and coordinates the practical aspects of REDD+ implementation. These bodies began implementing elements of Central Kalimantan's REDD+ Program in 2014, and in agreement with the national plan, the full REDD+ program is anticipated to begin in 2017 with an emission reduction target of 41% by 2020.

Central Kalimantan's REDD+ program has national support though a MoU with BP REDD+ and is pursuing VCS Jurisdictional Nested REDD+ program development. There are several voluntary projects in Central Kalimantan as well as activities at the block area/landscape level such as that the Kalimantan Forest Carbon Partnership (KFCP), but none have resulted in marketable carbon credits. REDD+ programs in this province have received financial, institutional, and technical support from various sources, including the government of Norway, FREDDI, USAID-IFACS, and provincial government agencies using local funds.

A MRV system and an initial RL are aligned with activities, methods and data uses for the national RL, and major drivers of deforestation and degradation in Central Kalimantan have been identified.

Rights to carbon benefits are still unclear and this is seen as a priority to address as more progress is made in REDD+ implementation in Central Kalimantan. To address leakage, there is a moratorium on issuing permits for forest and peat conversion in Central Kalimantan. This subnational area has also been observing safeguards through the use of the national PERISAI safeguards framework.

The most notable challenges and gaps Central Kalimantan faces in developing REDD+ are:

- Capacity building and technical assistance in performing field measurement, remote sensing, and modeling.
- Definition and regulation of the funding mechanism for REDD+
- Stakeholder engagement to increase public awareness of REDD+ and associated initiatives
- Capacity building to support an understanding of reporting and benefit sharing schemes

East Kalimantan

East Kalimantan began implementing its REDD+ program in 2012 through the release of a Provincial Strategy and Action Plan (SRAP) on REDD+, which was in addition to its Regional Action Plan for Greenhouse Gas Emission Reduction. The Climate Change Provincial Council (DPPI) is the focal point for REDD+ coordination and interface with local government bodies including the Department of Forestry and regional and local stakeholders. National support for the implementation of East Kalimantan's REDD+ program has been obtained with the MoU signed with BP REDD+.

There have been several smaller REDD+ programs in East Kalimantan and these activities will be incorporated into the provincial program through a nested approach. The main causes of degradation and deforestation in East Kalimantan have been identified and there are mitigation plans in place to address them.

The main activities included in the REDD+ program reflect the activities being accounted for nationally and a preliminary RL based on 2005-2011 data has been developed using nationally derived AD and EFs. An estimation of potential future emissions reductions through to 2020 has also been developed based on the East Kalimantan Provincial Development Plan, and although there are no concrete plans yet, future improvements to East Kalimantan's MRV system may include the inclusion of all pools in EFs, the improvement of EFs for deforestation and forest regrowth through application of locally derived data, and the potential exclusion of unmanaged lands. Natural disturbances like fire may also be considered where significant.

Funding for REDD + is primarily sourced externally with some contributions from jurisdictional actors. No budget for the program has been developed yet but preliminary needs have been identified for key technical and institutional elements.

There is no current approach to identifying and addressing potential leakage, but safeguards based on national PRISAI methods were incorporated into the REDD + program. Monitoring is undertaken in a participatory manner, involving the community and there is a general plan for benefit sharing for the long term, but there is no detailed plan for the short term.

The most notable challenges and gaps East Kalimantan faces in developing REDD+ are:

- Increased capacity is needed for remote sensing, spatial modeling, analysis and mapping.
- Capacity building is needed at government, district and community levels for the implementation of the REDD+ program (i.e. developing registries and a financial architecture)
- Shortage of resources, especially financial support is a critical barrier.
- Increased coordination and building a solid REDD+ framework in East Kalimantan

West Kalimantan started its REDD+ program in 2012 through the release of its SRAP and the establishment of a REDD+ Working Group. The working group consists of representatives from local government agencies, academic institutions, and NGOs that engage with local communities. It is the main body responsible for planning, organizing and implementing the REDD+ program in West Kalimantan. West Kalimantan has yet to sign a MoU with BP REDD+.

There are several REDD+ projects going on within the province, but none have produced marketable credits. However, with support from the Indonesia-Japan Project for the Development of a REDD+ Implementation Mechanism (IJ-REDD+), four districts have accessed support through the Joint Crediting Mechanism. However, there is no clear nesting plan as of yet.

The MRV and RL system in West Kalimantan was developed based on national definitions, methods and data. However, with support from the Indonesia-Japan Project for the Development of a REDD+ Implementation Mechanism (IJ-REDD+), a more comprehensive RL for four districts was developed using AD from 2000 – 2013. The robust technical approach applied a will contribute to the updating of West Kalimantan's provincial RL while still being congruent with the National MRV. West Kalimantan's RL will not include emissions from natural disturbances.

The drivers of deforestation have been identified, and measures to mitigate them are included in West Kalimantan's SRAP. The SRAP indicates that close collaboration with other provinces, and especially neighbouring provinces in Kalimantan, will be needed to avoid and address leakage.

The SRAP proposed the establishment of a REDD+ Managing Agency to facilitate the development of a Safeguards instrument, information systems to implement safeguards for REDD+ (SIS REDD+), a Safeguard committee, as well as the enactment and coordination of a system to monitor financial, social and environmental integrity of the REDD+ program and projects. Although it has yet to be implemented, the BP REDD+ SIS will be used.

West Kalimantan has also articulated important aspects of benefit sharing within the province. It will follow a set of principles including: ensuring that the local community receives incentives; sustainable livelihood sources should be developed; and an incentive structure and framework should be built involving the private sector.

In terms of financing its REDD+ program, government funds have been committed, but international funding through government to government collaboration and/or the voluntary market are expected to fulfil long-term funding needs. It is anticipated that REDD+ finances will be managed by provincial institution, but this has not yet been realized.

The most notable challenges and gaps West Kalimantan faces in developing REDD+ are:

- Financing, especially to implement the mitigation actions such as dam construction to restore peat land.
- Capacity building for technical staff, decision makers, and community actors
- Lack of technical equipment for the MRV system and RL development
- Cooperation and collaboration among different provincial actors
- Developing institutions for safeguard monitoring and financial management

Papua

Papua started its REDD+ program in 2013 with the release of its SRAP, although there were low emissions development policies before the program started. As with the other states in Indonesia pursuing REDD+, Papua's REDD+ program commenced in 2011 and is expected to end in 2020, with full implementation of activities beginning in 2017. However, Papua has yet to sign a MoU with BP REDD+ yet.

Institutions involved with REDD+ development in Papua are the Working Group for Low Carbon Economic Development in Papua and the Papua Regional Commission on Climate Change (Papua Low Carbon Development/PLCD), which leads the coordination of efforts among local government agencies, academic institutions, international development bodies, and NGOs. Additional stakeholders can engage in the process through NGOs or directly as customary leader representatives.

There are several REDD+ projects under way, with support from local and international actors that are generating valuable experience and capacity among implementers and stakeholders. However, there are no nesting plans yet.

Papua developed a RL in collaboration with the national government and thus, activities, AD, and EFs are congruent with the national system. Preliminary estimates of historical emissions for 2006 to 2011 have been developed along with projected potential for emissions reductions through to 2020. Unmanaged forest is not identified and although Papua does have some local biomass data, they are not adequate to use for EF improvement.

Drivers of deforestation have been identified along with ways to address them. There is, however, currently no estimate of the costs associated with implementing the mitigation measures. There are no current plans to address potential leakage in Papua and the incorporation of safeguards and benefit sharing mechanism is also not well articulated yet.

Funding the design and implementation of REDD+ in Papua is expected to be provided by various public and private sources inside and outside the country. The Papua provincial government plans to provide funds to support furthering carbon market mechanisms, but instruments or mechanisms for doing so have yet to be developed.

The most notable challenges and gaps Papua faces in developing REDD+ are:

- Need for technical support to determine historical emissions and potential reductions in emissions
- Capacity building in remote sensing methods and the development of emission factors, and

determining uncertainty

- Identifying potential leakage and its management
- Detecting natural disturbance and determining whether or not to include it
- Non-technical support in strengthening institutions and improving coordination
- Funding

West Papua

West Papua began its REDD + program in 2012 with the release of its SRAP. The West Papua REDD+ Task Force coordinates the implementation of REDD+ in West Papua and support the preparation and implementation of REDD+ in the District Model. In addition to regional government bodies, several NGOs, academic institutions and technical experts participate through the Task Force. However, although NGOs were intended to serve as representatives of community interests, indigenous peoples have not been involved in the preparation and implementation of the program.

Although a number of REDD+ projects have been implemented, none have succeeded in generating marketable credits and several projects have stalled. A nesting plan has yet to be developed and there is no clear legal framework for carbon rights and ownership.

West Papua's MRV system and RL is being developed in accordance with the activities, methods, and data, used in the national program. Although the RL is a subset of the national RL, AD were developed through collaboration between the national government and local technical representatives. In addition, there are plans to refine the EF using local data in future revisions of the RL. Furthermore, West Papua intends to include additional degradation activities in its REDD+ program and develop its RL using a trend as forest cover in the province is high but they anticipate substantial development in the coming years.

Drivers of deforestation and forest degradation have been identified for West Papua and associated mitigation actions have been defined. West Papua believes leakage should be addressed nationally, and therefore has not included leakage management in its REDD+ design as of yet.   A system for safeguards was outlined in the SRAP, but little has been done to implement it. Similarly, benefit-sharing mechanisms have also not been defined. There has been no discussion of how compensation plans for emission reductions will be obtained and how the jurisdiction will manage revenue from carbon revenues.

Currently West Papua province is in the process of developing a MOU with BP REDD+, which may open new sources of funding for its REDD+ program, but sources of funding to date have been minimal.

The most notable challenges and gaps West Papua faces in developing REDD+ are:

- Broad capacity building to address technical and institutional gaps
- Lack of coordination and information sharing among universities make assessment of existing field data difficult
- Lack of equipment and capacity for remote sensing
- Uncertainty about sources of funding and support

- A lack of political support
- Land tenure issues and conflicting land claims
- Transparent benefit sharing mechanisms and safeguard systems

5.4 Summary

(See Annex II for a more detailed summary)

	Indonesia						
	National	Aceh	Central Kalimantan	East Kalimantan	West Kalimantan	Papua	West Papua
Institutional and Legal Framework							
Drivers analysis							
MRV system & FREL/REL/RL development for deforestation							
Safeguards and safeguard data collection							
Managing benefit distribution							
Project approval and nesting							
Financing							

There are several important gaps that the GCF member states appear to have in common. These include the need for legal and institutional support, resources and capacity building, a coherent nesting framework, and improved coordination and communication structures. In addition, as might be predicted, the gap assessment revealed that REDD+ actors in the GCF member states see the lack of substantial, sustainable, and predictable funding as a critical problem.

ONE: Perhaps the greatest opportunity for affecting real advancement within these GCF member states, as well as other REDD+ actors globally, is **improved access to information and better communication frameworks**. There appears to be a genuine lack of consistent, reliable, and updated frameworks for information sharing within and among countries and subnational actors who are engaged in REDD+ development. This shortcoming invariably leads to inefficiencies, duplicated efforts, inconsistencies and flaws in implementation, as well as lost opportunities for potentially improving REDD+ frameworks through disseminating lessons learned on the ground.

There will invariably be challenges associated with political and institutional gridlock, financing, and lack of resources, as demonstrated in this assessment. However, many of the GCF members have made real progress in REDD+ development, whether through relatively isolated and ambitious efforts or through national REDD+ facilitation. These accomplishments and momentum could provide others with important insights and facilitate and inspire more sustained growth on a larger scale if effectively captured and communicated.

TWO: Consideration of **forest degradation and carbon stock enhancement** and, in particular, methods to account for associated emissions and sequestration. Almost without exception focus to date has been on deforestation but exclusion of forest degradation represents a risk with regard to significant omitted emissions and a missed opportunity both for forest degradation and carbon stock enhancement for jurisdictions to account and gain benefits for actions undertaken. Methods should be linked to the degree of significance of emission sources both for inclusion of activities and for determining the relative costs of measurement approaches.

THREE: **Methods to assure smooth and problem free nesting** of subnational jurisdictions in national accounting, and projects within subnational jurisdictions. For programs such as those of GCF implemented at the subnational level, nesting is essential. Nesting assures double counting is avoided and emission reductions are not foregone. Nesting also protects both higher and lower levels against risks from incompatible accounting, leakage and reversals.

FOUR: **Analyses and consideration of uncertainty and sensitivity**. Emissions without estimates of uncertainty lack true meaning. Highly uncertain results do not allow an identification of reductions with

respect to reference levels. Sensitivity analyses will allow targeted investments to get maximal gains in terms of reducing uncertainty.

FIVE: **Planning for implementation**. Perfect reference levels and MRV systems alone achieve nothing. A spatial analysis which balances the opportunity costs and implementation costs will allow jurisdictions to determine where to intervene to get the biggest impacts.

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