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AFOLU Working Group

REGIONAL PLATFORM
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RESILIENT AND LOW EMISSION DEVELOPMENT STRATEGIES

The Relationship between LEDS and REDD+: Case studies from Peru and Guatemala

March 2017

Case study developed by the AFOLU Working Group.

WINROCK INTERNATIONAL

This report has been prepared by LEDS GP's AFOLU Working Group led by Winrock International, with the contribution of LEDS LAC Secretariat.

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Glossary

ACR – American Carbon Registry

AFOLU - Agriculture, Forestry, and Other Land Use

BUR – Biennial Update Report

CO_2e – Carbon dioxide equivalent

CONAP – National Council on Protected Areas

COP – Conference of the Parties

ENBCC – National Strategy on Forests and Climate Change (Peru)

GCI - Interinstitutional Coordination Group (Guatemala)

INAB – National Forest Institute (Guatemala)

IPCC – Intergovernmental Panel on Climate Change

LEDS – Low Emission and Climate Resilient Development Strategies

LULUCF – Land Use, Land Use Change, and Forestry

FCPF – Forest Carbon Partnership Facility

FREL/FRL – Forest Reference Emission Level/Forest Reference Level

MARN – Ministry of the Environment and Natural Resources

MAGA – Ministry of Agriculture, Livestock, and Food (Guatemala)

MRV – Measurement, Reporting, and Verification

NAMA – Nationally Appropriate Mitigation Action

PlanCC – Project Planning for Climate Change (Peru)

REDD+ - Reducing emissions from deforestation and forest degradation, and fostering conservation, sustainable management of forests, and enhancement of forest carbon stocks.

RL – Reference Level

UNFCCC – United Nations Framework Convention on Climate Change

VCS – Verified Carbon Standard

Goal and Scope of this paper

This paper evaluates the relationships between Low Emission and Climate Resilient Development Strategies (**LEDS**) and strategies to reduce emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries (**REDD+**). Based on a preliminary assessment of two case study countries in Latin America - Peru and Guatemala - it also provides some guidance and opportunities to better integrate LEDS and REDD+.

These case studies are preliminary findings and should not be considered exhaustive nor constitute critiques of the countries. While certain stakeholders were consulted during the development of these case studies, the outcomes presented in this report were not thoroughly reviewed by country stakeholder to ensure they accurately reflect the current situation. Nevertheless, they do provide an initial assessment of the issues the countries are facing in integrating LEDS and REDD+, and are intended to serve as inputs for further discussions on this topic. They are not intended to make specific policy recommendations.

1. Introduction

1.1. Brief History of LEDS and REDD+

The concept of Low Emission and Climate Resilient Development Strategies (LEDS) was first formally introduced at the 2010 UNFCCC Conference of the Parties (COP) in Cancun. One of the outcomes of the Cancun agreements was that industrialized countries should develop these strategies or plans[1] while developing countries are encouraged to develop them[2]. While there is no official internationally accepted definition, it is generally accepted that LEDS aim to promote economic and social development and protect natural resources while keeping greenhouse gas emissions at a minimum and increasing resilience to the impacts of climate change. A key feature of the landmark 2015 Paris Agreement at COP 21 was the agreement by all countries to develop Nationally Determined Contributions (NDCs) to limit temperature rise to well below 2 degrees C (with the more ambitious goal of limiting increases to 1.5 degrees C). In the Article dealing with NDCs, the Paris Agreement further stresses that all Parties should "formulate and communicate long-term low greenhouse gas emission development strategies"[3] and communicate these to the UNFCCC by 2020. This elevates and anchors LEDS as a tool that countries should use to help achieve overarching mitigation objectives.

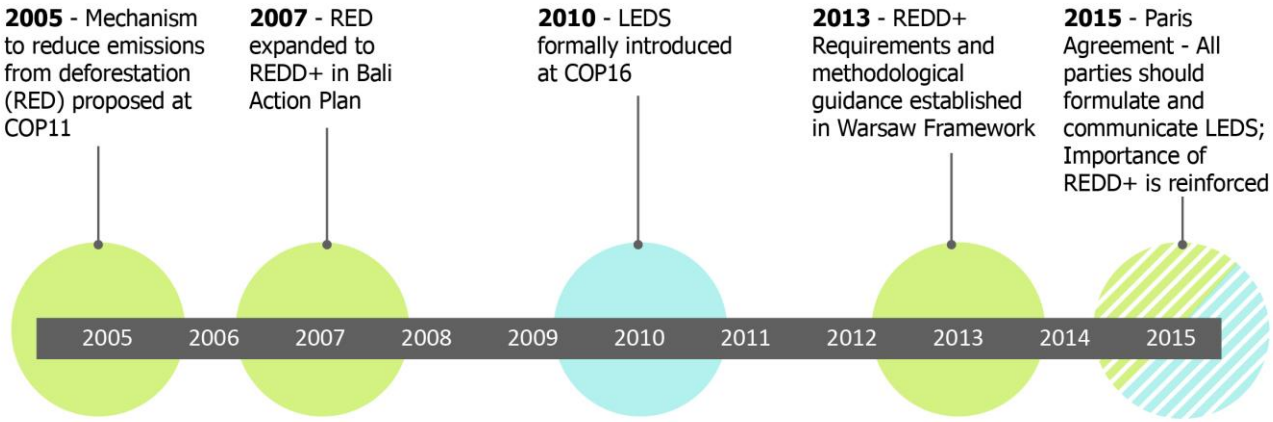
[1] *Decision 1/CP.16, paragraph 45*
[2] *Decision 1/CP.16, paragraph 65*
[3] *United Nations / Framework Convention on Climate Change. 2015. Adoption of the Paris Agreement, 21st Conference of the Parties, Paris: United Nations.*

Global discussions related to REDD+ began at the 2005 UNFCCC Conference of the Parties (COP) 11 where Papua New Guinea and Costa Rica, with support from eight other countries, proposed a mechanism for reducing emissions from deforestation (RED). Discussions were broadened in the 2007 Bali Action Plan to become REDD+. Since then, significant progress has been made in the realization of an international REDD+ mechanism. The 2013 Warsaw Framework for REDD+ sets out the requirements and methodological guidance countries must fulfill to access REDD+ results-based finance.[4]

The importance of REDD+ was reinforced in the 2015 Paris Agreement that encourages Parties to "conserve and enhance, as appropriate, sinks and reservoirs of greenhouse gases…, including forests"[5] and to "take action to implement and support… policy approaches and positive incentives for activities relating to reducing emissions" from the different REDD+ activities.[6]

Figure 1. Timeline of major international LEDs and REDD+ milestones

Green circles indicate pivotal years for the development of REDD+. Light blue circles indicate pivotal years for the development of LEDS. Striped circles indicate years pivotal to both LEDS and REDD+.

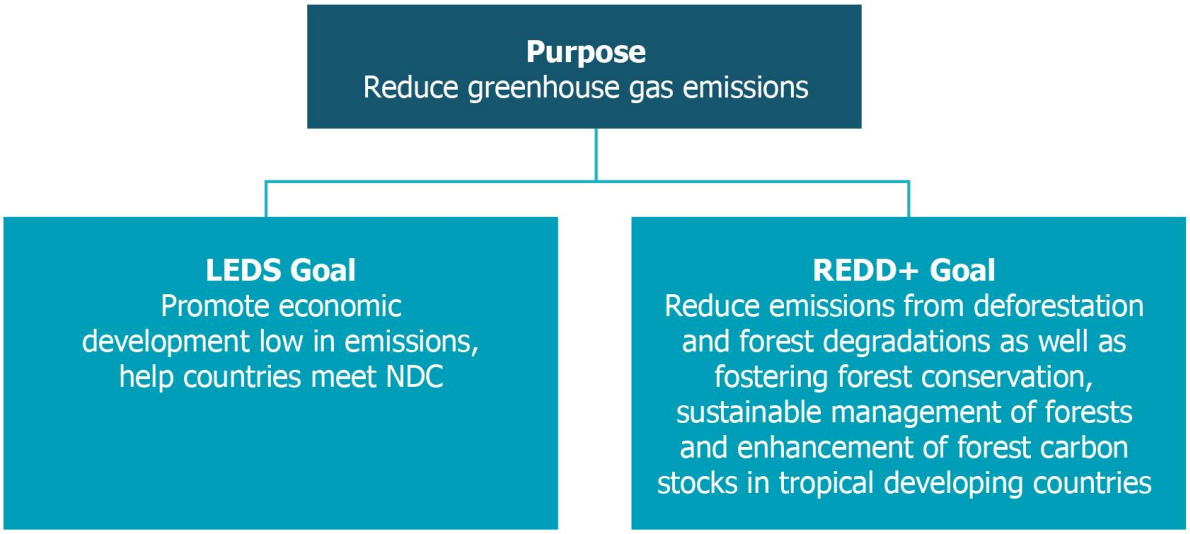


1.2. Similarities and Differences Between LEDS and REDD+

The ultimate purpose of both LEDS and REDD+ is to reduce global greenhouse gas emissions. The scope of their goals, however, is somewhat different as shown in Figure 2.

[4] *UNFCCC Decision 9/CP.19 paragraphs 5 and 6*
[5] *Article 5, paragraph 1, Paris Agreement.*
[6] *Article 5, paragraph 2, Paris Agreement.*

Figure 2. LEDS and REDD+ goals



When evaluating LEDS and REDD+, there are key differences as well as some similarities. These are discussed in the list below and summarized in Table 1.

1. **Sector.** LEDS includes all sectors of the economy that produce greenhouse gas emissions. In contrast, REDD+ focuses almost entirely on the forestry sector with effects on other related sectors, such as agriculture and energy.

2. **Scale of implementation.** Scale refers to the geographic level at which the program is implemented. It can be broken down into three primary levels: national, subnational/jurisdictional, and project. Both LEDS and REDD+ can be implemented at the national and subnational level (i.e., state, province, district), whereas there can also be project-level REDD+ projects.

3. **Benefits.** Both LEDS and REDD+ are mechanisms to help countries achieve their climate mitigation goals, such as commitments to international accords (i.e., the UNFCCC), or commitments to bilateral or multilateral development agreements. Furthermore, emission reductions and/or removals from implementation of REDD+, are eligible to be traded. There is no similar trading system specifically for LEDS, although emission reductions generated by initiatives or projects in other sectors under LEDS may be eligible to participate in other existing emissions trading schemes.

4. **International guidelines and/or standards.** Whereas there are several internationally recognized standards established to help develop, implement, and report on REDD+ programs, such as the UNFCCC Warsaw Framework, the Forest Carbon Partnership Facility (FCPF) Carbon Fund Methodological Framework, and several voluntary market standards (i.e., VCS, ACR, etc.); there are no analogous UN or third party standards for LEDS strategies per se. However, various guidance documents on formulating LEDS and COP decisions exist regarding accounting for

emission reductions from countries' NDCs. The Paris Accord requires that in their accounting "Parties shall promote environmental integrity, transparency, accuracy, completeness, comparability and consistency, and ensure the avoidance of double counting".[7] This, however, is linked to NDCs rather than the low emission strategy to help achieve the NDC.

For REDD+, the UNFCCC has defined modalities for establishing Forest Reference Emission Levels/Forest Reference Levels (FREL/FRLs) [8] and measuring, reporting, and verification (MRV) systems[9]. In addition to these UNFCCC guidelines, other involved international organizations including the FCPF Carbon Fund, the VCS, and REDD Early Movers have requirements for developing REDD+ RLs and MRV systems.

While there are no similar requirements specific to LEDS, a country's LEDS may include market mechanisms applicable to other sectors that have more detailed standards than REDD+. For example, if a country includes the Kyoto Protocol's Clean Development Mechanism as a tool to promote renewable energy, there are very detailed and complex standards that accompany it.

The UNFCCC also has RL and MRV requirements for reporting country progress on adhering to the Convention's goals. Since LEDS can be considered one of the primary tools to meet the goals, it becomes implicit that these requirements would be applied to LEDS. For developing countries, these requirements include presenting national communications every 4 years[10] and biennial update reports (BURs) every 2 years[11], which both require reporting of national greenhouse gas inventories beyond other topics. These GHG inventories are required to apply the Revised 1996 Intergovernmental Panel on Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories[12]. Furthermore, the UNFCCC, in Decision 21/CP.19, provides general guidelines for domestic MRV systems for nationally appropriate mitigation actions (NAMAs), although it provides no details on emission accounting requirements.

5. **International institutions and financial sources involved.** UNFCCC decisions currently only specify a pay-per-performance approach towards reducing emissions for REDD+. There are also several institutions and large financial mechanisms specifically dedicated to ensuring the success of REDD+, including Forest Carbon Partnership Facility (US$1.120 billion[13]), Initiative for Sustainable Forest Landscapes (US$360 million[14]), Forest Investment Program (US$787 million[15]), and UN-REDD (US$256.8 million[16]). Other multilateral funds such as the Green Climate Fund make provisions for financing REDD+. In contrast COP decisions on LEDS do not establish

[7] *Paris Accord, Article 4, paragraph 13.*
[8] *Decision 12/CP.17*
[9] *Decision 14/CP.19*
[10] *Decision 8/CP.11*
[11] *Decision 2/CP.17*
[12] *UNFCCC. 2014. Handbook on Measurement, Reporting and Verification for Developing Country Parties. https://unfccc.int/files/national_reports/annex_i_natcom_/application/pdf/non-annex_i_mrv_handbook.pdf.*
[13] *Total capital at the end of Fiscal Year 2016 (just under US$370 for the Readiness Fund and US$750 million for the Carbon Fund). Based on the 2016 Annual Report: https://www.forestcarbonpartnership.org/sites/fcp/files/2016/Sep/FCFP%20Annual%20Report%20FY16.pdf.*
[14] *http://www.biocarbonfund-isfl.org/about-us .*
[15] *Overview of the Forest Investment Program can be found at http://www-cif.climateinvestmentfunds.org/sites/default/files/knowledge-documents/fip_factsheet_nov2015_web.pdf.*
[16] *As of October 2015, a total of US$ 256.8 million had been pledged to UN-REDD. http://www.climatefundsupdate.org/listing/un-redd-programme. Accessed on March 21, 2016.*

financing mechanisms specifically for LEDS. However, the Paris Accord does contain the overarching objective of "Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development".[17] While there are no institutions with the specific goal of financing LEDS per se, there are bilateral and multilateral projects and programs focused on LEDS[18] and a number of institutions and funds such as the Green Climate Fund, other parts of the Climate Investment Funds, and the NAMA Facility that are applicable to LEDS as they aim to fast-track financing for climate change mitigation and adaptation initiatives.

6. **Year of formal recognition by the UNFCCC.** International discussions regarding REDD+ as a mechanism to reduce emissions took off in 2005, whereas LEDS were not officially recognized by the UNFCCC in 2010. Therefore, there have been 5 more years for rules, guidelines, and frameworks to be established for REDD+ in comparison with LEDS. This could help explain some of the differences noted above.

Table 1. Comparison of LEDS and REDD+

Factor	LEDS	REDD+
Sector	All economic sectors	Forest sector with impacts on other sectors, such as agricultura and others.
Scale of implementation (Project, subnational, national)	Subnational (i.e. state, province, district) and national	Project, subnational and national
Benefits to country	- Meet international and national climate change mitigation commitments - While there are no payments for emission reductions specifically for LEDS, low emission and climate resilient development projects can receive payments through compliance as well as voluntary markets.	- Meet international and national climate change mitigation commitments - Payments for emission reductions
International guidelines and third party standards for developing strategies/programs	- No specific UNFCCC decisions or third party standards on developing and implementing LEDS. - Significant body of guidance documents, grey literature and other	- UN and third party guidance for developing and implementing REDD+ programs including UNFCCC Warsaw Framework, Carbon Fund Methodological

[17] *Paris Accord, Article 2, paragraph 1 (c).*

[18] *For example USAID's EC-LEDS program (http://www.usaid.gov) and UNDP's Low Emission Capacity Building Programme (http://www.undp.org)*

	resources and tool kits.	Framework, - Voluntary market standards and methodologies (VCS, ACR, etc.). - Significant body of guidance documents, grey literature and other resources and tool kits.
International institutions and financial sources involved	- Green Climate Fund - NAMA Facility - Bilateral and multilateral programs / projects (e.g. UNDP, USAID) - Private sector - NGOs	- Forest Carbon Partnership Facility - UN-REDD - Forest Investment Program - Initiative for Sustainable Forest Landscapes - Bilateral programs (e.g. Norway's Climate and Forest Initiative, Germany's REDD Early Movers, USAID) - Private sector - NGOs
Year of formal recognition by the UNFCCC	2005	2010

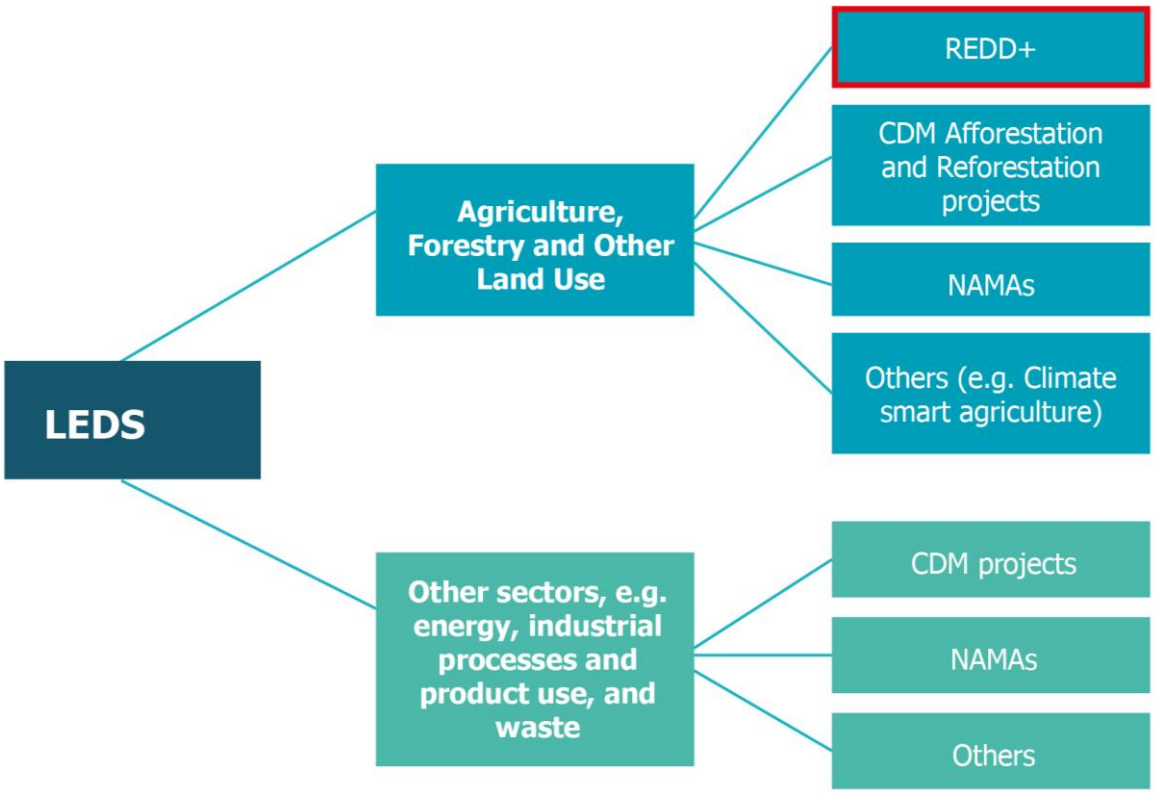
1.3. Vision of Relationship between LEDS and REDD+

Both LEDS and REDD+ aim to reduce emissions, and REDD+'s scope is embedded within LEDS (given it encompasses only one sector of the economy) (see Table 1 and Figure 2). Thus, REDD+ should be considered an important component of LEDS in the agriculture, forestry, and land use (AFOLU) sector, particularly in countries where this sector contributes significantly to the national GHG emissions (Figure 3). Given the fact that almost 40% of greenhouse gas emissions in Latin America are from the Agriculture, Forestry, and Other Land Use (AFOLU) sector[19], it is imperative that regional efforts to mitigate climate change include this sector.

[19] *Calvin, K. V., Beach, R., Gurgel, A., Labriet, M., & Rodriguez, A. M. L. 2016. Agriculture, forestry, and other land-use emissions in Latin America. Energy Economics, 56, 615-624.*

Figure 3. REDD+ and other low emissions and climate resilient programs in AFOLU and other sectors that contribute to a country's LEDS.

Highlighted in red is the REDD+



A 2015 brief published by CIFOR[20] argued that REDD+ could contribute to LEDS, not only by serving as a key source of emission reductions, but also effective REDD+ programs that provide benefits to local communities can help meet rural development goals. Additionally, the MRV (measuring, reporting, and verification) systems created for REDD+ can be applied to other land use sectors, such as agriculture. Beyond agriculture REDD+ MRV can also form part of broader reporting a country adopts for NDCs.

2. Country Case Studies

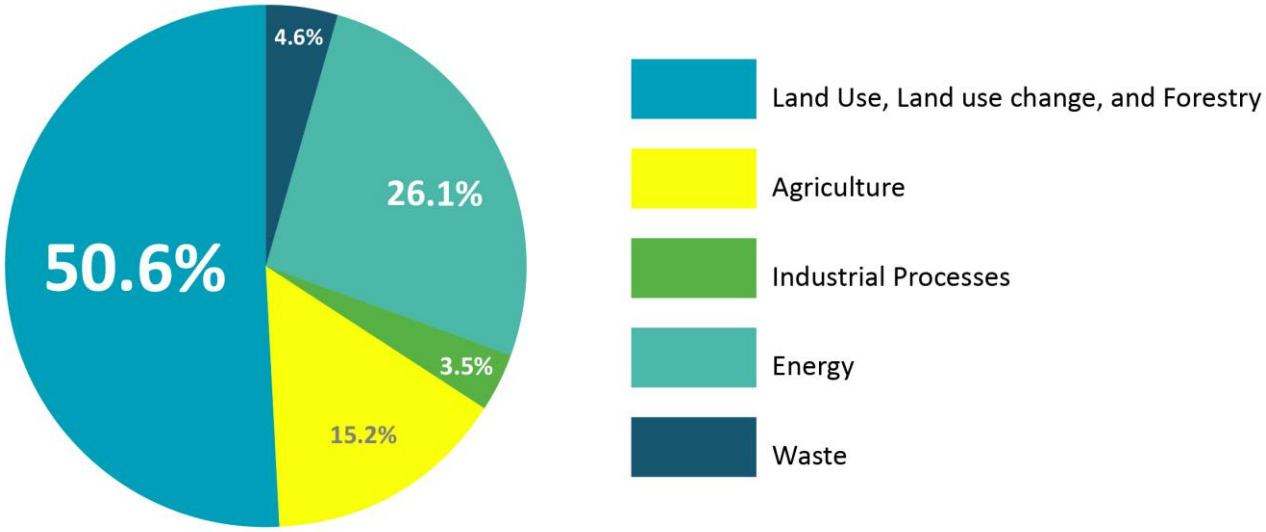
Preliminary assessments of two case study countries -- Peru and Guatemala -- were conducted to explore similarities and differences to date between the LEDS and REDD+ experiences. These assessments were done through desk research and discussions with a selection of country stakeholders through phone conversations and discussions during the V LEDS LAC Regional Workshop in Panama in September 2016. It is important to emphasize, however, that these assessments are a preliminary review and may require further refinement with input from additional stakeholders.

[20] *Martius, C., Sunderlin, W., Brockhaus, M., Duchelle, A., Larson, A., Thuy, P. T., Wong, G, and Verchot, L. 2015. Low-emission development strategies (LEDS): How can REDD+ contribute? (Vol. 131). CIFOR.*

2.1. Perú

According to its Third National Communication to the UNFCCC[21], Peru emitted a total of 171.31 million tonnes of carbon dioxide equivalent (CO_2e) in 2012, 51% (86,742 Gg CO_2e) of which was the result of Land Use, Land Use Change, and Forestry (LULUCF) activities (Figure 4). The entire AFOLU sector, including both LULUCF and agriculture, contributes 65.8% of the country's emissions. Therefore, mitigation strategies in this sector are key to any national effort to reduce emissions.

Figure 4. 2012 sources of greenhouse gas emissions by sector in Peru[22]



Peru submitted its Intended Nationally Determined Contribution (INDC) to the UNFCCC in September, 2015[23]. In this INDC, it states that the country will reduce emissions by 20% (59.0 $MtCO_2e$) by 2030 compared to the business as usual (BAU) scenario without international financial contributions, and by 30% (89.4 $MtCO_2e$) with international contributions. The sector contributing the most to these reductions is projected to be the LULUCF sector. Without international contributions, reductions from the sector will make up 79% (46.62 $MtCO_2e$) of total country reductions. With international contributions, it will make up over 70% (62.88 $MtCO_2e$) of country reductions[24].

Given the fact that the country ratified the Paris Agreement in 2016, this INDC becomes a Nationally Determined Contribution (NDC), and the country is required to submit updated NDCs every 5 years.

[21] *Ministerio de Ambiente. 2016. Tercera Comunicación Nacional del Perú a la Convención Marco de las Naciones Unidas sobre el Cambio Climático.*
[22] *Taken from Peru's Third National Communication.*
[23] *Republic of Peru. Intended Nationally Determined Contribution (INDC) from the Republic of Peru. Submitted to the UNFCCC. http://www4.unfccc.int/submissions/INDC/Published%20Documents/Peru/1/iNDC%20Per%C3%BA%20english.pdf,*
[24] *Gobierno de Perú. 2015. INFORME FINAL COMISIÓN MULTISECTORIAL. Resolución Suprema N° 129-2015-PCM. http://www.minam.gob.pe/wp-content/uploads/2015/12/Informe-T%C3%A9cnico-Final-CM-_-R-S-129-2015-PCM_Secretar%C3%ADa-T%C3%A9cnica-18-09-2015-vf.pdf.*

2.1.1. Evaluation of relevant policies, plans, and initiatives in Peru

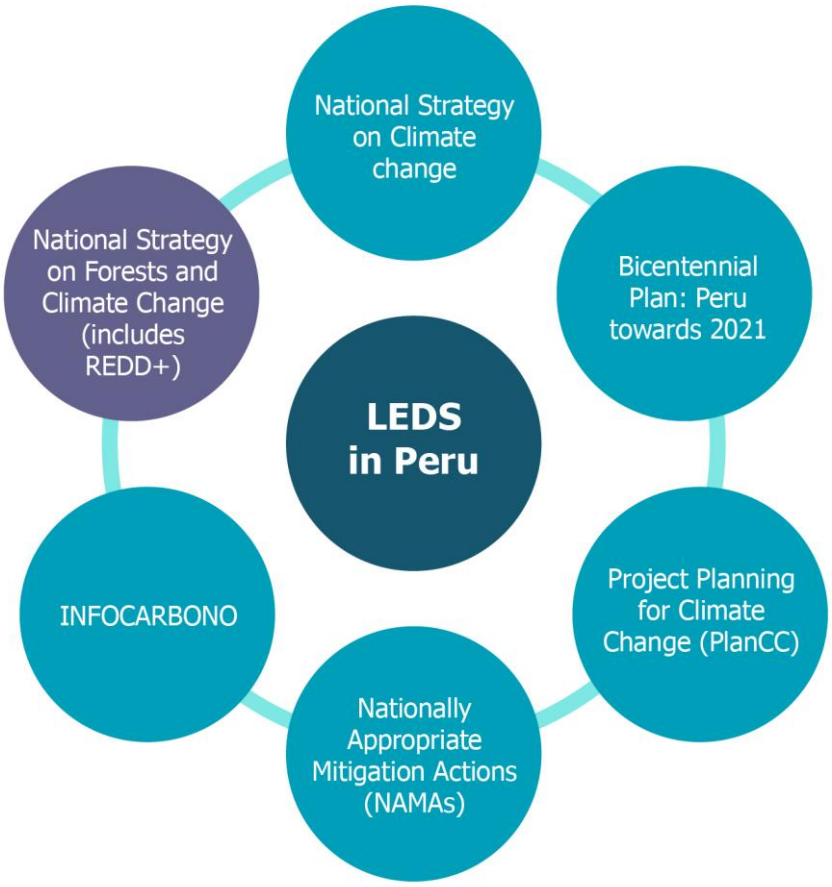
This section outlines the progress made on LEDS and REDD+ in Peru. It is important to note that, while these different efforts are identified separately for LEDS and REDD+, there are overlaps. For example, many of the LEDS efforts specifically discuss mitigation from reducing deforestation.

LEDS

Peru currently has no official national LEDS strategy. However, there are many relevant policies, plans, and projects as shown in Figure 5 below. As this figure shows, the National Strategy on Forests and Climate Change, which encompasses REDD+, is listed.

Figure 5. Different LEDS-related national efforts in Peru.

Highlighted in purple is the National Strategy on Forests and Climate Change, in which REDD+ is incorporated.



I. The **Bicentennial Plan: Peru towards 2021**, which was approved in 2011 through Decreto Supremo 054-2011-PCM, lays out the national development policies for the country in the following 10 years (until 2021). This Plan focuses on the following 6 strategic areas: 1) Fundamental rights and dignity of persons, 2) Opportunities and access to services, 3) State and governability, 4) Economy, competition, and employment, 5) Regional development and infrastructure, and 6) Natural resources and environment[25]. While there is very little discussion

[25] *CEPLAN. 2011. Plan Bicentenario: El Perú hacia el 2021. Lima. http://www.mef.gob.pe/contenidos/acerc_mins/doc_gestion/PlanBicentenarioversionfinal.pdf*

of low emission and resilient development, there is a section recognizing the negative impacts of climate change.

An updated version of this Bicentennial Plan was published in 2016 and places more of an emphasis on green growth than the original version[26]. One of the 6 strategic areas, which was renamed "Environment, biological diversity, and risk management of disasters", is to "Decrease the vulnerability due to climate change and promote a low carbon economy, driving the conservation of forests". There are 6 strategic actions listed under this objective:

1. Promote eco-efficiency in the public and private sectors, and in particular, incentivize energy efficiency.
2. Promote the use of instruments that promote green growth and eliminate subsidies, in particular for fossil fuels, that lead to negative environmental impacts.
3. Strengthen capacity to adapt to climate change through the efficient management of ecosystems.
4. Strengthen units of monitoring, researching, and climate forecasting and continuously inventory greenhouse gas emissions,
5. Seize the opportunities created by climate change to attract funding towards sustainable development activities.
6. Implement with priority actions that represent intersections between adaptation and mitigation agendas, such as the conservation and sustainable use of forests.

II. The 2015 **National Strategy on Climate Change**, which was approved through Decreto Supremo 011-2015-MINAM, has two objectives: 1) to create awareness and increase adaptive capacity to take action against adverse effects and opportunities due to climate change, and 2) to conserve carbon reserves and contribute to the reduction of greenhouse gas emissions[27].

With respect to the second objective, there are 4 indicators: a) growth rate of GHG emissions below the GDP growth rate, b) carbon intensity in the economy, c) reduction of GHG emissions in all sectors, particularly those that emit the most, and d) *Increase in carbon capture and net reduction of emissions in the forest sector.*

III. **Project Planning for Climate Change** (PlanCC for its Spanish name Proyecto Planificación ante el Cambio Climático)[28] is an initiative led by the Peruvian Government with the goal of helping to contribute to national low emissions development. While four government ministries (the Ministry of the Environment, the Ministry of Economy and Finances, the Ministry of External Relations, and the National Center on Strategic Planning) signed an Inter-ministerial Mandate to carry out this initiative, there is no legal backing to implement it as a National LEDS.

PlanCC has a time frame of 2012-2020 and includes three phases: 1) the pre-investment phase, 2) the planning phase, and 3) the implementation phase. The pre-investment phase, which has already been completed, involved the identification of emission scenarios and the identification

[26] *CEPLAN. 2016. Plan Estratégico de Desarrollo Nacional Actualizado: Perú hacia el 2021. Lima. http://www.ceplan.gob.pe/sinaplan-2/plan-bicentenario-2/plan-actualizado/.*
[27] *Ministerio de Ambiente. 2015. Estrategia Nacional ante el Cambio Climático. http://www.minam.gob.pe/wp-content/uploads/2015/09/ENCC-FINAL-250915-web.pdf.*
[28] *http://planccperu.org/*

of mitigation options in the 6 different economic sector. Phase 2, the planning phase, concluded in February 2017. The result of this phase was a proposal on a model for implementing its NDC[29].

In Phase 2 of the project, 4 mitigation projects or options in the forest sector were selected including[30]:

- Commercial reforestation
- Sustainable forest management in concessions
- Agroforestry systems
- Avoiding deforestation

IV. According to the NAMA database31, there is one **Nationally Appropriate Mitigation Action (NAMA)** currently being implemented in the country in the transportation sector and five others under development in the energy, building, waste, and industry sector. Furthermore, two in the waste and building sector are being studied to identify their feasibility. None are in the Agriculture, Forestry, and Other Land Use (AFOLU) sector.

V. **INFOCARBONO[32]**, officially launched in July 2016, is a national web-based platform permitting different institutions to transparently report greenhouse gas emissions and removals. It is a central repository where annual emissions and removals from the six relevant economic sectors will be compiled, presented, and systemized. The development of INFOCARBONO was approved by the Peruvian government in 2014 through the Decreto Supremo N° 013-2014-MINAM-CMNUCC.

VI. **The National Strategy on Forests and Climate Change** will be discussed in the section below.

REDD+

Peru has been working on setting up the national policies and regulations and capacity building necessary for REDD+ since 2009 with support from various international donors and partners. It is also a pilot country of the Forest Investment Program (FIP). Its Investment Plan was endorsed in 2013. The primary government ministries in charge of REDD+ readiness and implementation activities are the Ministry of Environment (MINAM), through its National Program on Forest Conservation for the Mitigation of Climate Change (PNCBMCC), and the Ministry of Agriculture (MINAGRI). According to Peru's Third National Communication[33], in 2016, there have been a total of 21 REDD+ projects in the country, six of which have been registered under voluntary standards. Furthermore, in January 2016, it submitted its Forest Reference Emission Level (FREL) for the Peruvian Amazon region to the UNFCCC.

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[29] *PlanCC (2017), Bitácora Climática. Propuesta de un Modelo para Implementar la Contribución Nacional en Mitigación. Resultados de la Fase 2. http://planccperu.org/wp-content/uploads/2016/05/BIT%C3%81CORA-CLIM%C3%81TICA.-Propuesta-de-un-modelo-para-implementar-NDC.pdf*

[30] *PlanCC (2017), Bitácora Climática. Propuesta de un Modelo para Implementar la Contribución Nacional en Mitigación. Resultados de la Fase 2. http://planccperu.org/wp-content/uploads/2016/05/BIT%C3%81CORA-CLIM%C3%81TICA.-Propuesta-de-un-modelo-para-implementar-NDC.pdf.*

[31] http://www.nama-database.org/index.php/Peru

[32] http://infocarbono.minam.gob.pe/

[33] *Ministerio del Ambiente. 2016. Tercera Comunicación Nacional del Perú a la Convención Marco de las Naciones Unidas sobre el Cambio Climático. http://unfccc.int/resource/docs/natc/pernc3.pdf.*

In August 2016, Peru's National Strategy on Forests and Climate Change (ENBCC for its Spanish initials)[34] was approved through Decreto Supremo 007-2016-MINAM. The overall goal of the ENBCC is to promote sustainable forest landscapes and rural development low in emissions, and REDD+ is identified as important effort to help achieve this goal and therefore it will be implemented through the ENBCC.

The ENBCC includes the following strategic activities related to mitigation:

1. Promote sustainable and climate-resilient agriculture and livestock ranching to reduce pressure on forests;
2. Enhance the value of forests, through sustainable forest management, including community management and other activities, that make them more competitive to activities that generate deforestation and degradation;
3. Reduce illegal/informal activities that generate deforestation and forest degradation, strengthening monitoring, control, surveillance, and penalty systems;
4. Reduce the negative impacts on forests of economic development projects;
5. Complete zoning, forest planning, and the granting of legal rights of forest resources, wildlife, lands located on the margins of forests.

The actions specific to REDD+ identified in the ENBCC include:

1. Promote access to markets that adequately value and compensate for the sustainable origin of the forest products and contribute to the development of, and coordination with, green markets for agricultural products not resulting from deforestation.
2. Promote agroforestry systems, with small, medium, and large-scale producers.
3. Develop technological packets considering technical, financial, and per hectare productivity aspects for commercial crops not resulting from deforestation and with low carbon footprints.
4. Promote the identification, dissemination, and application of sustainable forestry techniques, including low-impact logging in concessions, communities, and properties.
5. Promote community forest management, with development visions captured in the life plans of each community.
6. Develop specialized programs that promote sustainable forest management associated with timber and non-timber products, wildlife, eco-business, and ecotourism.
7. Promote specific programs to strengthen conservation systems and sustainable use of Amazonian forests, seasonally dry forests, and Andean forests.
8. Promote the development of incentives of forest conservation, such as direct conditional transfers and other mechanisms, in particular those associated with payments for ecosystem services.
9. Consolidate the National System of Protected Natural Areas by the State and the regional conservation systems.

According to the ENBCC, each region in the country will eventually have a REDD+ road map.

[34] http://www.bosques.gob.pe/estrategia-nacional.

2.1.2. Opportunities identified for Peru

As discussed previously, Peru has many different public policies, plans, and projects that address the importance of low emissions and resilient development. The country is also a signatory of the Paris Agreement and, therefore, is expected to submit an updated Nationally Determined Contribution (NDC) every five years.

While many of the different LEDS-related national effort do not specifically mention REDD+, they all recognize the important role that forests play in promoting a sustainable economy low in carbon emissions. Given the fact that there has been so much progress on developing REDD+ in the country, it is a logical way to operationalize the role of forests in promoting LEDS.

Potential opportunities to integrate REDD+ into LEDS strategies in Peru include the following activities:

Make the National Strategy on Forests and Climate Change (ENBCC) the mechanism through which REDD+ is incorporated into LEDS. First, the ENBCC has been officially approved through a Decreto Supremo by the Peruvian government, and therefore, is a legally recognized strategy. Also, as previously discussed, its overall goal is to promote sustainable forest landscapes, and REDD+ is considered a key element (but not the only element) within the strategy to achieve this goal. The ENBCC can serve as the cornerstone in developing the AFOLU aspect of the country national LEDS strategy. The strategy specifically mentions that it should serve to meet the country's goals identified in its NDC for the land use, land use change, and forestry sector.

Adjust greenhouse gas accounting in REDD+ activities to be consistent with national greenhouse gas accounting, in order to adequately assess how much REDD+ is contributing. Currently, based on requirements by the UNFCCC and REDD+ financial mechanisms, namely the Forest Carbon Partnership, reference levels for REDD+ are generally presented as average annual emissions over reference period. In Peru, this reference period is 2001-2014[35]. In contrast, Peru's most recent National Greenhouse Gas Inventory in its Third National Communication only covered one year, 2012. The national platform INFOCARBONO which encourages transparent annual reporting of emissions can help facilitate this harmonization of accounting methods. This will also assist reporting of progress towards Peru's NDC.

Map out all the financial actors and mechanism for REDD+ and LEDS in terms of its NDC. It is important to assess the flows of finance and potential future financial opportunities into different LEDS opportunities, and in particular, REDD+ finance. Finance to different LEDS activities and general LEDS strategies should be based on the NDC targets for the different economic sectors.

The REDDX initiative has already mapped out all of the financial flows to REDD+ efforts in Peru[36], but it is important to understand this across the entire LEDS and NDC context. According to REDDX, over US$147.5 million has been committed to REDD+ finance in Peru, US$67.9 of which has been disbursed. It is possible that the country may need more funds for its AFOLU sector or more resources should be used in other sectors. As the country continues to develops its LEDS plans, this mapping exercise will serve an important role as it seeks funding sources from

[35] *Peru's submission of a Forest Reference Emission Level (FREL) for reducing emissions from deforestation in the Peruvian Amazon.* http://redd.unfccc.int/files/2015_submission_frel_peru_en.pdf.
[36] http://reddx.forest-trends.org/country/peru/overview

entities, namely the Green Climate Fund. The amount of funding received for different sectors will also allow more accurate estimation of emission reductions under future updates to the NDC.

Furthermore, it is important to note that the successful implementation of REDD+ could lead to results-based payments, which in turn, could also help sponsor other LEDS activities.

Map out the institutional actors for REDD+ and LEDS. Given the sheer number of different projects, plans, and initiatives in Peru, it is important to evaluate which institutions and people are involved in which efforts. By understanding who are major players, it will be easier to promote interinstitutional dialogue in order to adequately incorporate REDD+ in LEDS dialogues.

2.2 Guatemala

Based on data provided in Guatemala's Second National Communication[37], Guatemala was a net sink of greenhouse gas emissions in 1994 and 2000 largely due to absorption by forests and biomass in other land uses. Increasing emissions and lower removals, however, pushed the country to be a net emitter in 2005 (Table 2).

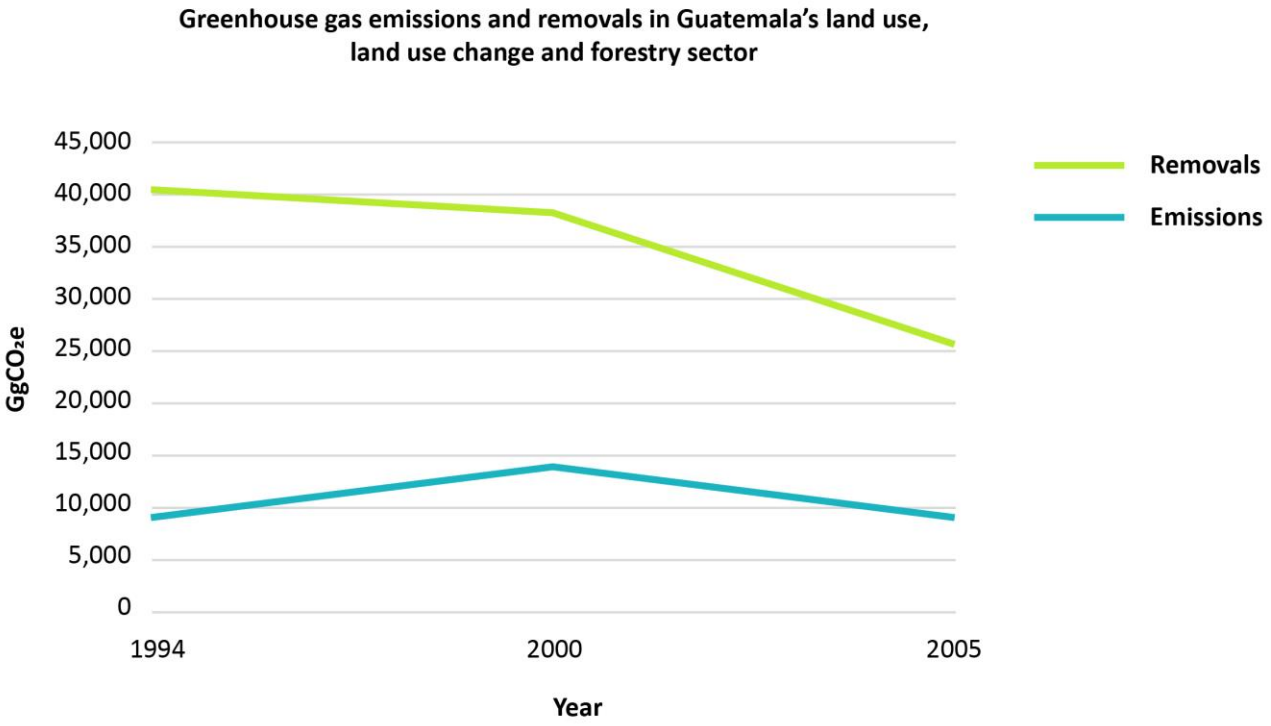
Table 2. Total greenhouse gas emission and removals in Guatemala

Year	Emissions ($Gg\ Co_2e$)	Removals ($Gg\ Co_2e$)	Net Emissions ($Gg\ Co_2e$)
1994	26,156	-39,584	-13,428
2000	32,587.2	-37,457	-4,870
2005	31,445.9	-24,492	6,954

Between 1994 and 2005, the LULUCF sector was always a net sink of emissions due to the biomass absorption. However, as indicated in Figure 6, total removals fell during this time period, whereas emissions remained relatively stable.

[37] *Gobierno de Guatemala. 2015. Segunda Comunicación Nacional sobre Cambio Climático Guatemala. http://www.marn.gob.gt/Multimedios/2562.pdf*

Figure 6. National trends in GHG emissions and removals in LULUCF



These trends specific to LULUCF indicate that this sector does have an important impact on total national emissions. Therefore, mitigation actions such as REDD+ that aim to reduce emissions and enhance removals in the sector play an important role in Guatemala's LEDS strategy.

In its INDC, Guatemala pledged unconditionally to reduce emissions by 11.2% by 2030, and to reduce emissions by 22.6% by 2030 if there is sufficient international support.

While it does not specify the amount of emissions coming from LULUCF, it discusses general approaches including mentioning REDD+ specifically:

a. Implementation of REDD+
b. Implementation of the Climate Change Agendas of public institutions, as stipulated in Article 20 of the country's Climate Change Framework Law[38], principally with the Implementation of the Biodiversity and Climate Change Strategy
c. Strengthening of the National System to Prevent and Control Forest Fires (SIPECIF)
d. Continuation of the implementation and fulfillment of the forest management political instruments including:
e. The new Law to Promote the Establishment, Recovery, Restoration, Management, Production, and Protection of Forests in Guatemala (PROBOSQUE, Decreto 02-2015),
f. The Forest Incentive Program (PINFOR),
g. The Incentive Program for Small Forestry and Agroforestry Landholders (PINPEP)

[38] *This Article stipulates that The National Forest Institute (INAB), the National Protected Area Council (CONAP), the Ministry of Agriculture, Livestock, and Food (MAGA), in coordination with the Ministry of the Environment and Natural Resources (MARN) will modify their policies, strategies, etc. to conform with the objectives and principles of the Climate Change Framework Law.*

h. The National Strategy to Restore the Forest Landscape with a goal of 1.2 million hectares
i. The Strategy linking Industrial Forests and Markets
j. The National Strategy to Combat Illegal Logging

Guatemala is a signatory of the Paris Agreement, and therefore, this INDC has been converted to an NDC.

2.2.1 Evaluation of relevant policies, plans, and initiatives in Guatemala

LEDS

In July 2016, the process to develop Guatemala's **National LEDS Strategy** was formally initiated between the USAID-funded LEDS project, the Ministry of the Environment, and the Ministry of the Economy. This strategy will help the country meet its planned emission reductions as outlined in its Intended Nationally Determined Contributions (INDC) that it submitted to the UNFCCC in September 2015. According to the press release on the formal initiation of the process, six working groups have been set up for each economic sector to "prioritize mitigation actions that promote investment, reduce operation costs, and above all establish an economy more resilient to the effects of climate change."[39]

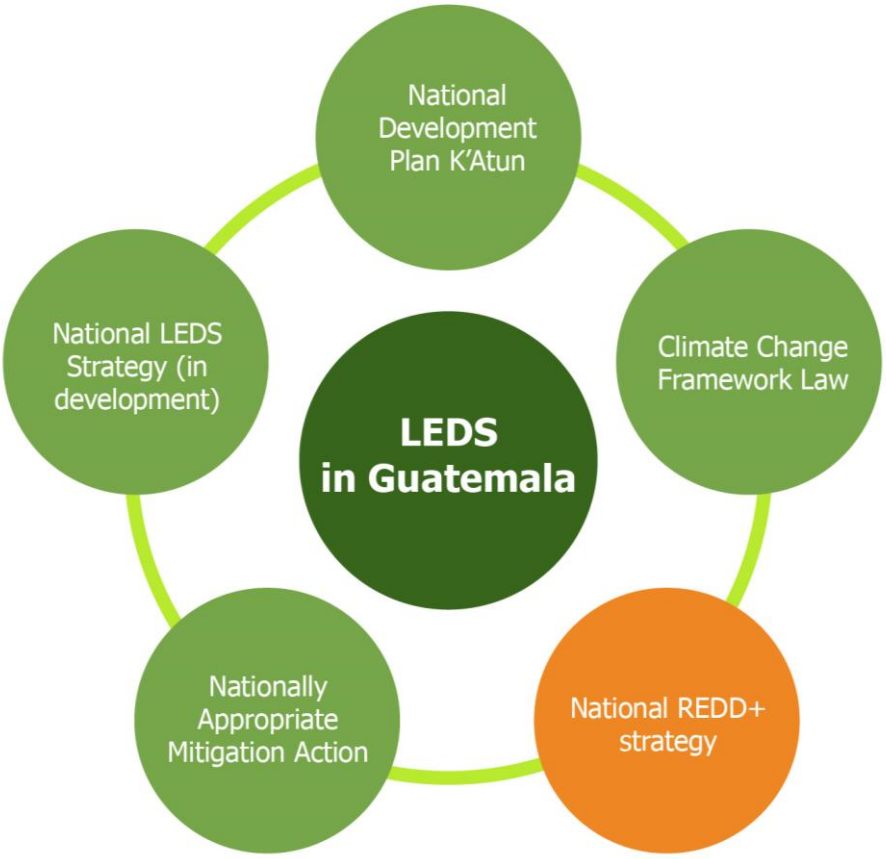
To help the country prepare itself for developing the LEDS strategy, a 5-year USAID project is currently underway to strengthen national capacity in the science of climate change, support national institutions develop greenhouse gas inventories, and support initiatives the reduce GHG emissions and have positive economic impacts[40].

[39] *MARN. July 2016. Arranca Proceso de Formulación de la Estrategia de Desarrollo con Bajas Emisiones para Guatemala. http://www.marn.gob.gt/noticias/actualidad/Arranca_Proceso_de_Formulacin_de_la_Estrategia_de_Desarrollo_con_Bajas_Emisiones_para_Guatemala.*

[40] *USAID. Desarrollo con Bajas Emisiones en Guatemala (LEDS). http://www.catie.ac.cr/prcc/wp-content/uploads/2015/04/6-desarrollo-en-bajas-emisiones-leds.pdf.*

Figure 7. Different LEDS-related national efforts in Guatemala.

Highlighted in orange is the REDD+ strategy.



In addition to this current effort, there have been other plans, initiatives, and policies promoting the incorporation of climate change into national planning and policy.

I. The **National Development Plan K'Atun Our Guatemala 2032**, published in 2014, is the instrument that guides and organizes the work of the public sector by defining priorities, goals, results, and guidelines[41]. One of the goals identified as part of this plan is to stabilize per capita greenhouse gas emissions to 2.5 tonnes CO_2e. It includes several general guidelines on how to do this such as designing mechanisms to operationalize the mitigation plans identified in the Climate Change Framework law, improving institutional capacity, developing MRV systems, and reducing emissions from the different economic sectors, including forestry and land use change.

II. The Framework Law to Regulate Vulnerability Reduction, Obligatory Adaptation to the Effects of Climate Change, and the Mitigation of Greenhouse Gas Emissions (Decreto 7-2013), commonly referred to as the **Climate Change Framework Law**, was passed by the National Congress in 2013 to establish the national legal framework to address climate change adaptation and mitigation and meet international obligations.

[41] *Consejo Nacional de Desarrollo Urbano y Rural. 2014. Plan Nacional de Desarrollo K'atun: nuestra Guatemala 2032. Guatemala: Conadur/Segeplán.*

Articles 18-21 of this Law promotes LEDS, including

- The development of a National Energy Plan based on the use of sustainable natural resource, the promotion of energy-efficient technologies, and the reduction of greenhouse gas emissions (Article 18),
- The development of a mechanism to compensate for GHG emissions resulting from the burning of fossil fuels when these emissions are greater than they would have been without fossil fuels, through the development of projects and activities that reduce or absorb these emission (Article 19),
- The policies, strategies, programs, plans, and projects relevant to the sustainable development, use, and management of forest resources should be modified to reduce GHG emissions and conserve forest ecosystems (Article 20),
- Regulations will be issued to reduce GHG emissions in the transportation sector (Article 21).

III. Guatemala has one **Nationally Appropriate Mitigation Action** currently being implemented on the Efficient Use of Fuel and Alternative Fuels in Indigenous and Rural Communities[42]. The objective of this NAMA is to promote supply and demand of energy efficient cookstoves that use firewood.

REDD+

Guatemala is currently in the process of developing its national REDD+ strategy. It is a Participant Country of both the FCPF Readiness Fund and Carbon Fund as well as of the Forest Investment Program. National progress on REDD+ is coordinated about the Interinstitutional Coordination Group (GCI), composed of representatives of 4 national institutions: the Ministry of the Environment and Natural Resources (MARN), the Ministry of Agriculture, Livestock, and Food (MAGA), the National Forest Institute (INAB), and the National Council on Protected Areas (CONAP). It also receives support from various other government institutions, NGOs, academic, and international entities. The Executing Unit (Unidad Ejecutora) of the Climate Change Unit of MARN oversees the REDD+ process within the Guatemala government. The GCI oversees both policy-related and technical-related aspects of REDD+ development. There are currently 2 REDD+ projects that have been validated and registered in the voluntary market in the country[43,44] and one that is currently in the process of being validated[45].

The **National Strategy for Forest Landscape Restoration: Mechanism for Sustainable Rural Development in Guatemala 2015-2045 (ERPF)** [46], published in 2014, was developed in response to the Bonne Challenge to restore, on a global scale, 150 million hectares of forests by 2020 and 350 million hectares by 2030. This national strategy has the goal of restoring 1.2 million hectares of the country's degraded lands by 2045. Among its implementation activities is the promotion of REDD+ activities through "financial incentives and mechanisms for the enhancement of carbon resources, through reforestation, the promotion of agroforestry systems and forest restoration." This Strategy was the

[42] *http://www.nama-database.org/index.php/Guatemala.*
[43] *GuateCarbon: Reduced Emissions from Avoided Deforestation in the Multiple Use Zone of the Maya Biosphere Reserve in Guatemala (GuateCarbon), Guatemala. ACOFOP-CONAP. http://www.vcsprojectdatabase.org/#/project_details/1384.*
[44] *Lacandón – Forest for life REDD+ Project, Guatemala. FUNDACION DEFENSORES DE LA NATURALEZA http://www.vcsprojectdatabase.org/#/project_details/1541.*
[45] *Áreas Protegidas del Caribe. Personal communication. November, 2016.*
[46] *Mesa de Restauración del Paisaje Forestal de Guatemala 2015. Estrategia de Restauración del Paisaje Forestal: Mecanismo para el Desarrollo Rural Sostenible de Guatemala, 58 pp.*

effort of the Forest Restoration Round Table composed of representatives of different communities, government institutions, the National Association of Municipalities, private companies, academia, and NGOs. It has not, however, been approved by the Guatemalan government, and therefore, has minimal legal status or influence.

2.2.2 Opportunities identified for Guatemala

Given the fact that Guatemala is just beginning the process of developing its formal national LEDS strategy and in the middle of developing its REDD+ strategy, the current situation offers a prime opportunity for the country to properly incorporate the progress it has made on REDD+ into LEDS.

Potential opportunities to integrate REDD+ into LEDS strategies in Guatemala include the following activities:

- **Include the Interinstitutional Coordination Group (GCI) of REDD+ and the Executing Unit of MARN in the development process of the LEDS strategy**, to ensure that progress made with regards to REDD+ are adequately incorporated into LEDS.

- **Integrate REDD+ into a larger landscape-wide strategy**. As REDD+ is incorporated into the national LEDS strategy, emphasis should be placed on its relationship with other land use strategies, such as climate-smart agriculture. While these strategies may complement one another, there exists the risk that these climate-smart practices in agriculture could drive further deforestation or degradation. As a result, it is recommended that REDD+ be integrated into a larger landscape-wide climate strategy, similar to what Peru proposes with its National Strategy on Forests and Climate Change. The National Strategy for Forest Landscape Restoration is a start, but it does not directly address actions to avoid deforestation and degradation. It is also not an official strategy of the government.

- **Develop REDD+ and the NAMA "Efficient Use of Fuel and Alternative Fuels in Indigenous and Rural Communities" in conjunction with one another rather than in parallel**. According to Guatemala's Readiness Preparation Proposal (R-PP)[47], one of the drivers of deforestation and forest degradation is firewood removal. Promoting more efficient cook stoves that potentially reduce the quantity of firewood needed could potentially reduce overall rates of deforestation and degradation. By working together, REDD+ and NAMA could strengthen each other and the overall effectiveness of the LEDS strategy in the land use sector.

- **Adjust greenhouse gas accounting in REDD+ activities to be consistent with national greenhouse gas accounting**. Guatemala has not submitted its Forest Reference Emission Level/Forest Reference Level (FREL/FRL) to the UNFCCC, and it is still in the process of developing its measurement, reporting, and verification (MRV) system for REDD+. Discussions have already been occurring between REDD+ and LEDS actors on how to adequately better integrate REDD+ greenhouse gas accounting with the National Greenhouse Gas Inventories, the tool through which progress on the LEDS strategy will be reported.

[47] *Guatemala. 2013. Readiness Preparation Proposal.* *https://www.forestcarbonpartnership.org/sites/fcp/files/FCPF%20UNREDD%20R-PP_April%202%202013.pdf*.

- **Map and analyze financial flows to REDD+ and other LEDs strategies** with a focus on country's NDC goals and how these different funding sources are helping to meeting the goals.

3. Summary Guidance and Opportunities

Both Peru and Guatemala have several LEDS-related plans, projects, and initiatives, including REDD+ (see Figure 5 and Figure 7 above). Further, in both countries, the role of forests is highlighted in the different LEDS efforts. Only Guatemala is currently developing an official National LEDS strategy.

Based on this preliminary evaluation of the two countries and conversations with a selection of country stakeholders, key issues and opportunities on how to resolve these issues are provided. These opportunities and guidance could be relevant to other countries. The different issues and opportunities are discussed in detail below. Figure 8 and Figure 9 below provide a summary of the issues and the different opportunities for overcoming these issues.

Figure 8. Key issues regarding the relationship between LEDS and REDD+

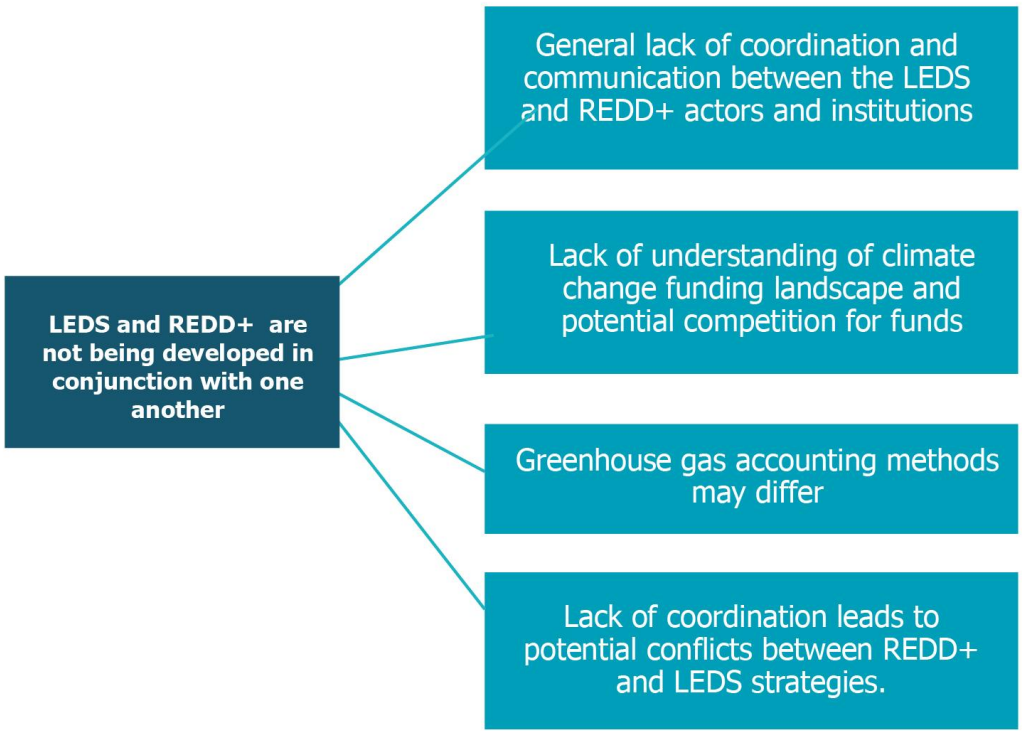
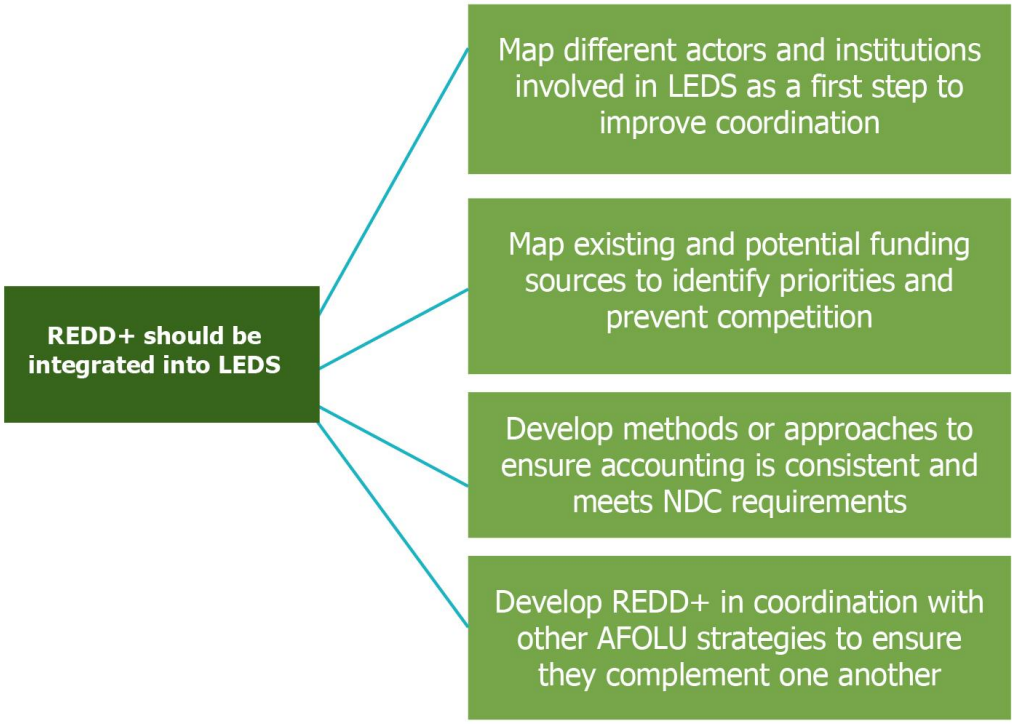


Figure 9. Key issues regarding the relationship between LEDS and REDD+



3.1 Overarching issue and opportunities

The fundamental issue concerning the relationship between LEDS and REDD+ is that their respective development processes are occurring separately. This report focused on REDD+ and did not look at other sectors. However, some of the issues and opportunities outlined below could also be applicable beyond REDD+ and AFOLU. This can lead to incongruent and possibly conflicting visions, methodologies, and policies and strategies, which in turn detract from the overall purpose of both to reduce greenhouse gas emissions.

Opportunity: Where forest emissions or removals are significant, REDD+ should be considered a key element of a country's NDC and, therefore, be integrated within the LEDS framework. The entities involved in developing LEDS should take into account and, where appropriate, accommodate REDD+ advancements in methodology, data, and institutional arrangements. REDD+ advancements, such as the development of MRV systems, can be applied to other aspects of LEDS strategies and help meet NDC accounting requirements. At the same time, entities involved in advancing REDD+ should not look at forests and REDD+ in isolation. They should take into account how REDD+ should be incorporated into broader LEDS' objectives.

3.2 Specific issues and opportunities

There are a number of specific issues related to the problem that REDD+ and LEDS are being developed separately. This section presents the key issues identified along with suggestions a country can consider to resolve these issues.

Issue 1: **Lack of coordination and communication**: There may be a general lack of coordination and communication between the actors and institutions involved in the development and implementation of LEDS and REDD+. This has the potential to lead to conflicts in the different proposed strategies and in the methodologies to measure and monitor impacts. For example, as part of Peru's PlanCC initiative, list of mitigation options is provided in the forestry sector, while the National Strategy on Forestry includes a series of mitigation strategic actions. These mitigation options and strategic actions from the two efforts differ from one another, leading to the assumption that there was not sufficient collaboration between the two efforts. It could also lead to greater costs incurred overall, since the strategies will be implemented separately rather than in conjunction.

> **Opportunity 1a:** As a first step, the different actors and institutions involved should be mapped. Based on this mapping exercise, one can identify where the connections can be made and how coordination can be improved in order to effectively incorporate REDD+ into LEDS.
>
> **Opportunity 1b**: LEDS and REDD+ should be formally aligned in the appropriate interagency management forum, e.g., the President's Office, or existing coordination bodies.

Issue 3: Lack of understanding of climate change funding landscape and potential competition for funds: While a variety of different international and domestic funding sources exist that are or can be dedicated to LEDS and/or REDD+, there is not a clear understanding of the entire funding landscape in terms of LEDS and REDD+ priorities. This lack of understanding could, in turn, prevent the adequate distribution of funds to these different priorities and makes it challenging to estimate the volume of reductions that can be realistically expected to contribute to a country's NDC.

> **Opportunity 3a**: Map the different funding sources in terms of the country's LEDS and REDD+ priorities, and use this information to guide LEDS and NDC development.
>
> **Opportunity 3b**: Train land use agencies and land owners and work with private sector project developers, to: a) match project types with appropriate sources of potential investment; b) introduce methods for producing high-quality, investable business plans for proposed projects; and c) present these results to interagency coordination bodies.

Issue 4: Greenhouse gas accounting methods may differ: The methods for accounting for greenhouse house gases may differ between LEDS and REDD+ and, therefore, lead to inaccurate estimations of total emission reductions or increased removals.

> **Opportunity 4:** Transparent and robust methods for making LEDS and REDD+ emissions accounting consistent need to be developed. Since REDD+ should be incorporated into the larger LEDS, these methods should focus on making REDD+ consistent with LEDS, without sacrificing the quality of the REDD+ accounting.

Issue 5: Potential conflicts between REDD+ and other AFOLU LEDS strategies: REDD+ may not be developed in coordination with other low emission and climate resilient strategies in the AFOLU sector, such as climate-smart agriculture. This could lead to conflicts between the different strategies. In terms

of geographic scope, there could be overlap between the lands identified for implementation between REDD+ strategies and different LEDS initiatives, or ambiguity in which lands are involved. For example, if the role of different classes of agricultural lands is not clarified, they could be assumed to be available for afforestation in a REDD+ program, while also being targeted for more intensive production or commercial agriculture by an agricultural program. Furthermore, the existence of unreconciled independent REDD+ and LEDS initiatives could exacerbate the challenges of integrating and reconciling the carbon accounting of project-level, subnational, and national efforts (i.e., nesting). Finally, the actions of one independent initiative could create perverse incentives that negatively impact the overall results of another initiative. For example, if an agricultural program includes better access to water for irrigation, it could potentially allow farmers to cultivate more land, thereby leading to increased deforestation.

Opportunity 5a: AFOLU low emissions and climate resilient strategies, including REDD+, should be developed in coordination with one another. This coordination should include a land use mapping exercise across initiatives, the development of regulations on how nesting of the various initiatives will be implemented, and an assessment of the potential risks that the different initiatives could have on one another. Developing a landscape-scale LEDS strategy which incorporates REDD+, such as Peru's National Strategy on Forests and Climate Change, could help ensure that LEDS reduce emissions from the entire sector.

Opportunity 5b: An additional financial assessment of funding that is either available, planned or possible for the two initiatives, and any opportunities for alignment or issues with competition could be helpful to promote greater coordination. This could, for example, lead to a larger coordinated proposal for integrated LEDS and REDD+ land use funding in the context of the NDC process or otherwise.

Opportunity 5c: If one program was developed prior to another, then a formal process needs to be created to encourage resolution of issues emerging between the two sets of institutions and incentives.

4. Concluding thoughts

Much of the guidance and opportunities provided in this paper, such as mapping institutional stakeholders and funding sources, are not only applicable to REDD+, but also to other sector-specific low emission and climate resilient programs that should be incorporated into a country's LEDS.

Furthermore, as discussed in the introduction of this paper, there are currently no funding mechanisms specific to LEDS and no internationally-recognized standards for developing and implementing LEDS. These different mechanisms and guidelines should be developed with special consideration to how the various sector-specific programs would be properly integrated into LEDS, which will ultimately help countries achieve their NDCs.