

Climate Action Solutions:

opportunities through rights-based
forestry and territorial management

An analysis of the Nationally Determined
Contributions (NDCs) of Mesoamerican countries

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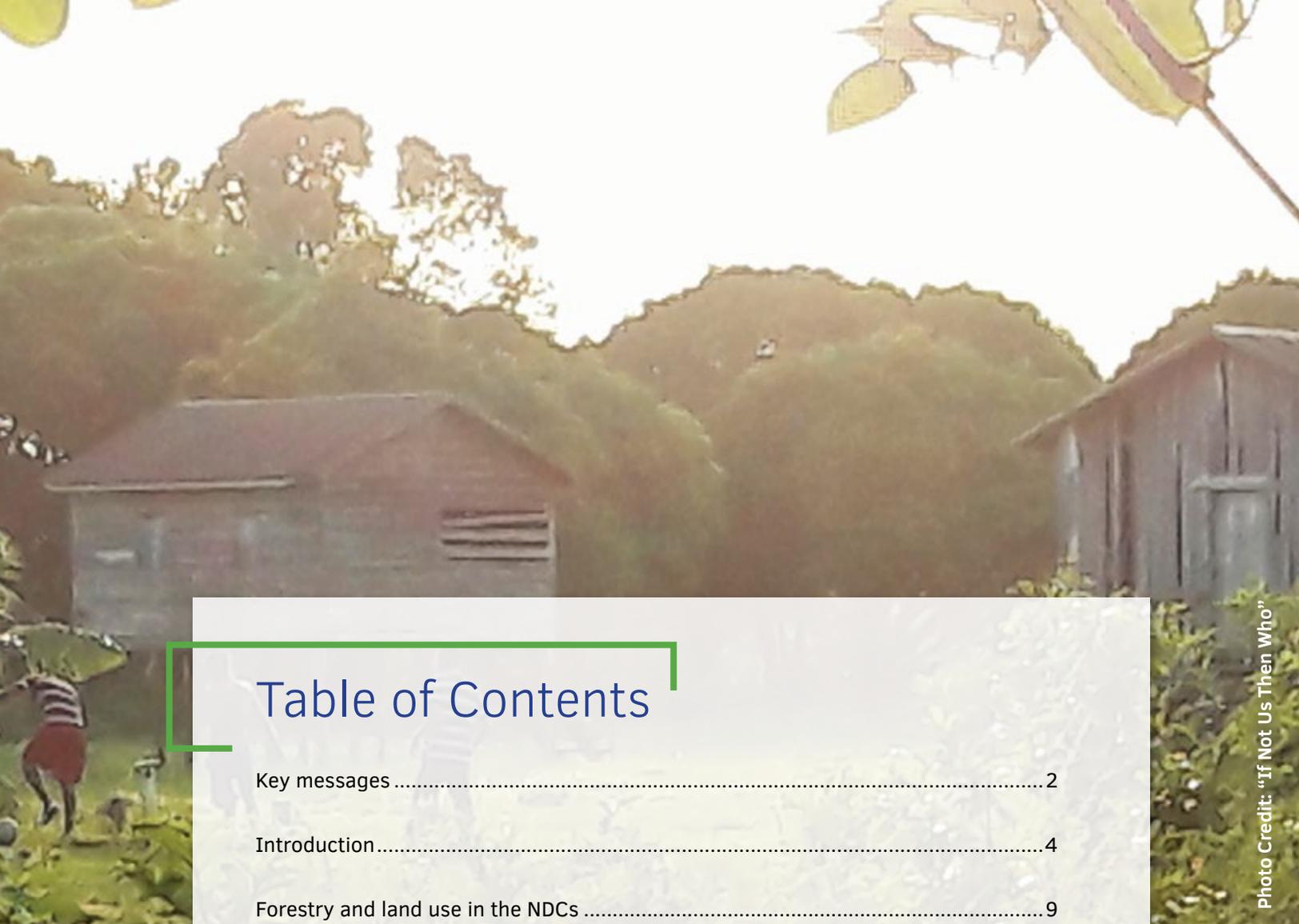


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Key messages

This report reviews the Nationally Determined Contributions (NDCs) of Mesoamerican countries with large forest areas. NDCs articulate the actions countries will take to implement the Paris climate agreement. Revised NDCs are due by 2020, making this an opportune moment to review commitments and make recommendations.





Although emissions from the Land Use, Land Use Change and Forestry (LULUCF) sector account for more than a third of emissions in the Mesoamerican region – and in some countries account for the majority of emissions – country NDCs disproportionately emphasize investments in the energy sector. ▼

NDCs do not propose significant new measures to conserve and manage existing natural forests. The main focus in the forest sector is on large-scale reforestation and restoration, but little to no detail is provided regarding how and where such investments might be channeled. ▼

The territories of indigenous peoples and local communities (IPLCs) receive limited attention in country NDCs, despite the fact that their lands contain the major remaining forests in the region, cover areas under heavy threat of deforestation and increased CO₂ emissions, and are home to peoples with high vulnerability to climate change. ▼

Insufficient attention to these territories and the threats they face is problematic: conservative calculations find that these territories contain over 20 times the CO₂ equivalent included in the most ambitious emissions reduction targets. Even a relatively low rate of deforestation (1.87% over the next decade, which is less than half the average rate during 2001-2018) would equal the most ambitious NDC actions in other sectors. ▶

Mesoamerica is important globally as an example of what IPLC rights over forests can achieve, when given sufficient support. Community forest landscapes across the region have received attention as global models, demonstrating how investment in rights-based IPLC natural resource management and enterprise can achieve low-emissions development. They are the solutions in plain sight to the climate crisis, yet they are almost completely invisible in country NDCs. ▼

Investment in IPLC rights and territorial management cost less than large-scale renewable energy projects (hydropower, solar and wind), and are less likely to cause new land and social conflicts. They are proven strategies that have worked for generations to conserve carbon, and provide crucial social, biodiversity and environmental benefits. ▼

NDCs currently provide little detail about how commitments will be met. Revised NDCs need to provide more detail and map actions to specific national programs and policies for greater transparency. Specifically, country NDCs need to better articulate the actions prioritized in their respective REDD+ strategies, which consistently emphasize the central role of IPLC rights and territories in the fight against climate change. The recent IPCC report on land underscores the urgent attention this issue must receive if climate actions are to succeed. ▼

NDCs generally do not mention safeguards, and in most cases little consultation was undertaken in their development. Development of revised NDCs need to specify the safeguards to be deployed in all major investments, and should include plans for consultation of NDC performance to date, as well as the definition of new targets and strategies.



Introduction

The National Determined Contributions (NDCs) are the strategies advanced by countries that are signatories to the Paris Agreement under the United Nations Framework Convention on Climate Change (UNFCCC), laying out the actions they will take to mitigate greenhouse gas (GHG) emissions and adapt to climate change. The agreement requires each Party to prepare, communicate and maintain successive NDCs, which outline their post-2020 climate actions.¹ Most signatories submitted NDCs in 2015 or 2016 – initially called “intended” NDCs or iNDCs, which later became the country’s NDC upon the ratification of the Paris Agreement by each respective country.

With 2020 fast approaching, countries will soon be expected to assess progress against their current NDCs and submit a second, more ambitious NDC. As such, it is an opportune time to take stock of country commitments and progress on NDC to date. Our analysis focused on the relative sectoral priorities presented in the NDCs, and was aided by expert interviews in each country. This report is a part of a nearly decade-long process to monitor forest and climate change initiatives in the region.²

This document pays special attention to the ways in which the NDCs address land and forest use, since a large bulk of emissions originate from this sector, and therefore must be addressed as a part of climate change. In Mesoamerica more than 35% of emissions come from the land sector.³ At a global level, the land sector (Agriculture, Forestry and Other Land Use, AFOLU) contributes 24% of global greenhouse gas emissions.⁴



Photo Credit: PRISMA

These solutions also offer an immediacy and high returns to investment that will be key to reaching near to medium term climate goals: a recent study found that 37% of CO₂ equivalent emissions reductions needed by 2030 to stay below a 2°C temperature rise could come from “natural climate solutions” in the land sector.⁵ This widely cited paper – co-authored by 32 academics and practitioners – points to reforestation, avoided deforestation and improved forest management (among 20 other conservation actions in the AFOLU sector) as the most cost-effective approach to reducing emissions and increasing carbon storage worldwide in the near term.

Such actions, however, must occur in specific geographies, and compete with other land use interests. A critical question, therefore, is on whose lands will such investments occur? The land rights of indigenous peoples and local communities (IPLC) thus becomes a central issue: indigenous peoples and local communities inhabit over half of the world’s land,⁶ and steward over 20% of the forest carbon found in tropical and subtropical countries, equivalent to nearly 218,000 million metric tons, or more than 30 times global energy emissions during 2017.⁷ Their role in managing forests has been documented in a growing body of research, and most recently highlighted by the Intergovernmental Panel on Climate Change (IPCC) in a new 2019 report on land.⁸

Mesoamerica is a unique region for understanding how such processes could take shape. Approximately 65% of the region’s forests are legally recognized to indigenous peoples or local communities, the highest

proportion in any region of the world. In all countries in Mesoamerica, the multi-year readiness processes focused on reducing emissions from deforestation and degradation (REDD+) recognized the importance of securing IPLC rights.⁹ The failure of major funding to materialize through such initiatives, however, has unfortunately made this recognition relatively empty for the indigenous peoples and forest communities in the region.¹⁰ Due to a host of technical and methodological challenges, it is still unclear how the NDCs may ultimately integrate with REDD+ initiatives. Regardless, it is important that the tremendous investments mobilized for REDD+ become better articulated with the land and resource use alternatives set forth in the NDCs, which are countries' top-line commitments under the Paris Agreement.

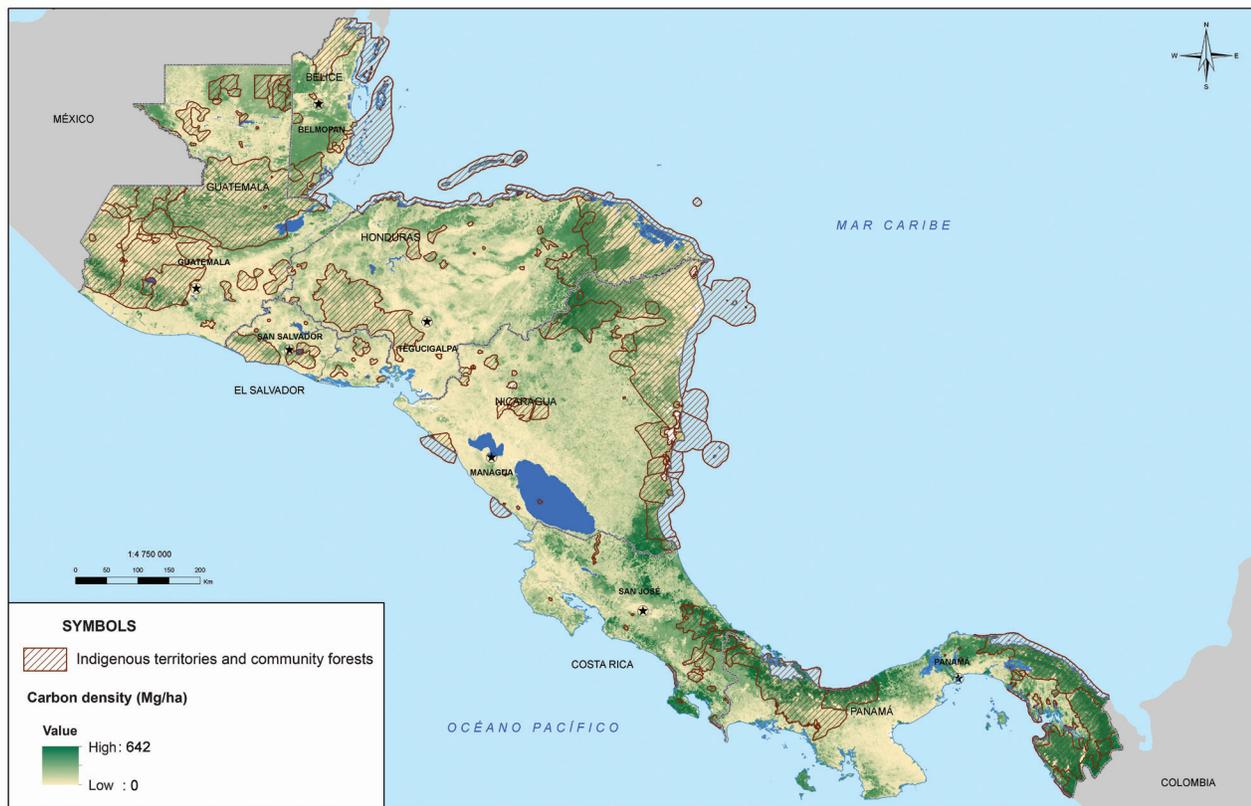
Increasing the emphasis on land sector investments in Mesoamerican NDCs is all the more significant considering the significant carbon stocks held in indigenous and community lands and forests. The above ground carbon held in these territories contains approximately 20 times the amount of carbon in the most ambitious of NDC objectives.¹¹ This is an extremely conservative figure, as it only includes above ground forest carbon; more complete accounting of soil carbon would significantly increase this proportion (See Maps 1 and 2).

Map 1: Carbon density and community lands in Mexico



Source: Prepared by PRISMA with data from Woodshole Research Center and the National Agrarian Registry of Mexico.

Map 2: Indigenous territories and community forests and carbon density in Central America



Prepared by PRISMA with data from Woodshole Research Center, ACOFOP and IUCN (2016).

A failure to address the root causes of deforestation in the region and invest in IPLC tenure and territorial management could far overshadow even the most ambitious NDC plans focused on renewable energy. Using Global Forest Watch (GFW) data as a baseline (for the period 2001–2018), countries would have to slow deforestation by over 2.5 times over the next ten years, just to equal the emissions reductions proposed in the most ambitious NDCs. Put in other terms, a loss of merely 1.87% of the region’s standing forests over the next decade, less than half the forest loss rate of recent years, would surpass all of the proposed gains made through other mitigation options.¹²

In Guatemala, the REDD+ project developed by the community concessions of the Maya Biosphere Reserve with the National Council on Protected Areas (CONAP), would avoid 37 million tons of CO₂ from being emitted, more than three times the most ambitious pledge in Guatemala’s NDC.

These examples underscore the critical threat posed by continued deforestation, and the opportunity to be gained by securing the rights of indigenous peoples and forest communities in the region. The massive investment necessary for the NDC proposals, and the call for international finance to reach conditional goals, further highlights the relatively high returns to investment in community and indigenous forests as compared with other sectors.

The following pages include analysis of the NDCs in the Mesoamerican countries with large forest areas (Belize and El Salvador are not included), assessing the extent to which forestry and the LULUCF sector were included in the NDC and how rights, and specifically IPLC tenure and management are addressed or not. It then advances recommendations, both broadly and for each country, in order to inform NDC review and revision.

A key finding is that – in spite of the fact that GHG emissions from the land sector account for more than a third of emissions from Mesoamerica, and in several countries account for a majority of emissions – NDCs in the region place a disproportionate emphasis on the energy sector. To the extent that the land use sector is included, actions focus mostly on reforestation, and do not adequately include support for IPLC land rights and capacity for territorial management. Given the high costs and high social and environmental risks of planned NDC commitments in the energy sector¹³, and given that IPLC territorial management is recognized globally as key to the climate crisis¹⁴, IPLC tenure issues, natural forest management and local enterprise should play a much more central role in regional NDCs.



Photo Credit: PRISMA



Photo Credit: PRISMA

Forestry and land use in the NDCs

One factor which confounds analysis of NDCs globally – and between Mesoamerican countries – is the lack of uniformity. NDC documents submitted by signatory parties are different for each country: they do not follow a single format. Some are long on context and detail, some are not. Some NDCs present concrete commitments and explain how such commitments will be met, others do not. The open format for NDCs was purposeful, since countries need flexibility in making their commitments, and because there remain multiple areas of inconsistency in terms of data availability. But this has also created issues around transparency, accounting and reporting on progress.¹⁵

This is particularly the case for the land use sector. There is considerable uncertainty globally both on the historical levels of GHG emissions from the LULUCF (land use, land use change and forestry) sector, as well as projections. Thus some countries have not included LULUCF emissions as part of their “business-as-usual” scenario – i.e. projected GHG emissions from all sectors through 2050. In the region, this is the case with Honduras, whose NDC points to “great uncertainty” and a “lack of solid data” for estimating LULUCF emissions. In such a scenario, even though deforestation accounts for the bulk of a country’s emissions, land use sector actions are considered only as adaptation measures, and are therefore at the moment not part of the country’s climate change mitigation plan.

Many other countries, meanwhile, do include the LULUCF sector – both in their historical emissions estimates, as well as in their proposed mitigation actions. Globally, in fact, assuming full implementation of NDCs, the LULUCF sector will move from being a net source of GHG emissions for the period 2000-2010 to a net carbon sink by 2030, accounting for nearly 25% of planned emissions reductions.¹⁶ But data and methodological inconsistencies, transparency in accounting and variability in area coverage continue to be major concerns. There is a need for further reviews and better guidance from COP for future NDCs to include the LULUCF sector in a more credible way. This is presently being worked on as part of the COP’s “transparency framework”.¹⁷

Moreover, as will be explored further in this brief, many of the actions called for in the LULUCF sector set unrealistic targets for the sector, and fail to adequately indicate how and where such actions will be achieved and measured. Large-scale reforestation and restoration efforts covering thousands or even millions of hectares of land lie at the heart of many NDCs, but given how similar efforts have fared in the past¹⁸ it is not realistic or desirable for the NDCs to focus so singularly on this approach.

These issues notwithstanding, it is clear the NDCs of Mesoamerican countries must include the LULUCF sector in both their mitigation and adaptation strategies. The sector accounts for a relatively high percentage of the region's GHG emissions, over 35%, and the investments required are cost-efficient for governments seeking to meet not only their commitments under the Paris agreement, but multiple other international accords as well (SDGs, Aichi targets, UNDRIP, among others).

The key question is about how countries will decide to invest. Will they attempt to impose plans from above with little chance of success, or will they follow a rights-based, in-situ approach, recognizing what is already succeeding and working with the people and systems that have conserved carbon for generations?

The remainder of this brief looks at Mesoamerican country NDCs in detail, assessing the relative importance of the LULUCF sector in general, and specifically the relative importance assigned to tenure, indigenous peoples and local communities, and territorial management.

The challenges to large scale energy and biomass projects in the current Mesoamerican context

Renewable energy sources such as hydroelectricity, wind parks, and different forms of biomass (agrofuels, reforestation, restoration) figure prominently in all Mesoamerican NDCs. While efforts to transition economies away from fossil fuel consumption must form a part of country strategies, such projects must be judged not merely by their potential energy output and emissions reduction potential, but also with due consideration of how communities and territorial resource use will be affected.

In Mesoamerica, access to productive land is highly unequal, while unsanctioned violence and impunity are high. Governments are often unable or unwilling to undertake effective consultation and ensure Free, Prior and Informed Consent. As such, many energy projects have come to place additional pressures on land, undermining both mitigation and adaptation objectives. Numerous hydroelectric projects in the region have facilitated significant levels of new deforestation and the dislocation of sustainable community forestry systems (Patuca in Honduras, Tumarín in Nicaragua, Bayano in Panama, for example).¹⁹ Wind power projects likewise have created significant social conflict, notably in Mexico.²⁰ Studies have also shown how mitigation projects have disrupted social organization, access to basic grains and to water, all critical for adaptation.²¹ Moreover, in many territories, illicit and armed groups are often involved in land grabbing and suppression of local populations affected by megaproject development, as witnessed in Petén, Guatemala,²² and tragically with the assassination of Bertha Caceres in Honduras in 2016.

All of these realities do not preclude the possibility of using these energy and biomass options for mitigation. But much work is still needed before they can make contributions that do not pose major risks for the territories in which they are implemented, driving conflict and ultimately undermining adaptation. Major institutional changes will be necessary before agrofuels and hydroelectricity can reduce emissions at large scales without driving counterproductive local outcomes. The rights and agency of indigenous peoples and local communities must be placed at the center of such investments for them to succeed.



Photo Credit: PRISMA

Country analyses

Mexico

Mexico’s NDC dedicates considerable space to documenting the country’s forward-looking actions to combat climate change, including early adoption of climate change legislation, such as the climate change law of 2012. Like the other Mesoamerican NDCs, Mexico’s strategy highlights its strong vulnerability to the effects of climate change, and the need for urgent action to secure its future.

Unlike the other Mesoamerican countries, Mexico accounts for a considerable amount of CO₂ emissions, around 1.37% of the global total in 2012, placing it 13th overall. Most of these emissions come from the transport, energy and industrial sectors. GHG emissions from the LULUCF sector, though considerable, account for less than 5% of the country total. The NDC states that, given the country’s considerable forest cover (52.6 million hectares of natural forest²³), Mexico’s LULUCF sector is ultimately a carbon sink, absorbing more than a quarter of the country’s GHG emissions (see figure 1).

Table 1: Emissions by sector in Mexico

Sector	GHG emissions (MtCO ₂ e)	Black carbon emissions (thousand tons)
Transport	174	47
Electricity generation	127	8
Residential and commercial	26	19
Oil and gas	80	2
Industry	115	35
Agriculture and livestock	80	9
Waste	31	<1
LULUCF	32	4
TOTAL EMISSIONS	665	125
LULUCF ¹ Absorptions	-173	0
TOTAL²	492	125

Notes:

- 1 LULUCF: Land use, land use change and forestry
- 2 Subtotals do not coincide with the total because of rounding

Table prepared by PRISMA based on Mexico NDC.

Mexico's NDC commits unconditionally to reducing its GHG emissions by 22% by 2030. Table 2 presents detail on these planned reductions.

Table 2: Planned emissions reductions in Mexico

-22% GHG					GHG emissions (MtCO ₂ e)
					2030 Goal
	Baseline				Unconditional
	2013	2020	2025	2030	2030
Transport	174	214	237	266	218
Electricity generation	127	143	181	202	139
Residential and commercial	26	27	27	28	23
Oil and gas	80	123	132	137	118
Industry	115	125	144	165	157
Agriculture and livestock	80	88	90	93	86
Waste	31	40	45	49	35
SUBTOTAL	633	760	856	941	776
LULUCF ¹	32	32	32	32	-14
TOTAL EMISSIONS²	665	792	888	973	762
				-22%	
Notes:					
1 LULUCF: Land use, land use change and forestry					
2 Subtotals do not coincide with the total because of rounding					

Table prepared by PRISMA based on Mexico NDC.

What is clear from the above table is that the LULUCF sector accounts for an outsized proportion of projected emissions reductions (ultimately reversing emissions from the sector and increasing its role as a net carbon sink). According to the NDC, the key actions in the forestry sector to meet these reduction targets are twofold: (1) achieve zero deforestation by 2030, and (2) improve forest management. Beyond forestry, the NDC highlights the need for better technologies in the agriculture and livestock sectors generally, while expanding the use of biodigesters in livestock operations and expanding restoration of grasslands.

The forestry sector is key to the country's NDC. Even though emissions account for a small amount of Mexico's overall GHG emissions, reductions from the LULUCF sector account for almost 22% of total projected reductions. But the NDC is light on detail regarding how these targets will be achieved. Specifically, it does not make clear what, exactly, is meant by zero deforestation, or where investments would be channeled to achieve this goal.

While Mexico's zero deforestation target is laudable (and makes its NDC stand out globally, in fact), detail is lacking about what kinds of strategies would be employed to achieve this ambitious target. Significantly, the NDC does not clarify if net-neutral forest cover – i.e. allowing for deforestation to continue or even increase in certain areas while reforesting in other areas to compensate – would count as meeting such a commitment. Likewise, very little detail regarding another key area for investment – “improved forest management” – is provided.

Mexico is recognized globally as a leader in community-based tenure and sustainable forest management. Every year, study tours from all over the world visit the country to learn about the advances made by communities with secure tenure to manage their own forests and build local enterprises. It is true that IPLC tenure is, by and large, better recognized in Mexico than in many other countries. Yet it is also true that deforestation continues, most notably in places where tenure remains unclear (e.g. Chiapas) and where there is strong pressure for conversion in parcelized landscapes (e.g. Jalisco).²⁴ Indeed, Mexico's deforestation rate has nearly doubled since 2001. Global Forest Watch data indicates that the country has lost almost 3.7 million hectares of forest over the last 17 years, emitting 891 Million Tons of CO₂ emissions, considerably more than projected emissions for 2020 for the whole country.

The key question the NDC does not answer is how the government plans to stem deforestation and improve forest management. Mexico has some of the best-known examples in the world of community forest enterprises generating multiple benefits, but the number of communities that have achieved this level of success is still a mere fraction of the total number of communities with recognized rights. Many less-developed community forests need increased support, especially those that face conversion pressure. Past Mexican administrations have recognized the need to innovate and expand community forestry to new areas in the country vulnerable to deforestation. The national REDD+ strategy, moreover, prioritizes channeling such investments to areas with land conflicts and deforestation pressures.²⁵



The NDC was written under the previous administration of Peña Nieto, and such investments were assumed to come from the same agencies and programs that have long supported the sector in Mexico, most importantly the environment ministry (SEMARNAT) and the forestry administration (CONAFOR). But the administration of Andrés Manuel López Obrador (AMLO) has put in place strong austerity measures affecting these public sector environmental agencies. Since taking office, SEMARNAT and CONAFOR budgets have been drastically cut²⁶, with CONAFOR being forced to let go up to 70% of its staff in 2019²⁷. This has severely reduced the extension and subsidy programs that have long undergirded the community forest sector, and which would be the assumed delivery mechanism for achieving the NDCs ambitious targets. Little of the finance needed could come from private sector. Even though there appears to be growth in voluntary market demand for carbon (especially with the California market), the national-scale REDD+ agenda has lost significant momentum.²⁸

More broadly, outside the forest sector, AMLO has cut funding (and political will) for alternative energy development.²⁹ His administration appears much more focused on reinvigorating the fossil fuel sector, through major investments in PEMEX, the state-owned oil firm. Indeed, both the messaging and policies of the AMLO administration oddly mirror its neighbor to the north, a vision that harkens back to a previous era of supposed widespread wealth and security. In other words, the AMLO administration's policies thus far do not appear to support the country's own NDC.

A significant government program that might be harnessed to meet some of the NDC's targets in the LU-LUCF sector is the "Sembrando Vida" initiative, administered by the Secretaría de Bienestar. The effort, which has a US \$757 million annual budget and aims to reforest 1 million hectares over AMLO's time in office, is promoted as a "reforestation" program. In practice, however, Sembrando Vida does not appear to be reforesting vast areas. Expert interviews have characterized it more as rural development project focused above all on agroforestry, whose key aim is ultimately to guarantee increased rural income through cash payments made to participants. Moreover, during its first year of operations, Sembrando Vida has been the focus of multiple media reports alleging that, instead of reforesting areas, the program has in fact incentivized deforestation³⁰. Notwithstanding such claims (which in fact have not been independently validated at a broad scale) given the program's size, orientation towards rural producers and focus on productive ecosystems, Sembrando Vida indeed has tremendous potential, but the program needs to improve its implementation and monitoring systems.³¹ At present, moreover, it is not linked explicitly with the country's NDC.

Based on this analysis, this report proposes the following recommendations for improving Mexico's next NDC submission:

- Given the importance of the LULUCF sector in the NDC targets, the country will need to invest in the strategies that have already made for zero deforestation landscapes – that means investing in community-based sustainable resource management and enterprise
- The Mexican government should make clear that zero deforestation means no new deforestation in natural forest areas. Losing high-biodiversity natural forest important to local livelihoods cannot be compensated by reforestation with a small range of species in temperate zones, for example.
- Given the cuts to the SEMARNAT and CONAFOR, AMLO's administration should articulate how, through which kinds of new mechanisms and approaches, it proposes to achieve NDC targets
- Sembrando Vida, being the focus of so much investment by AMLO's administration, should be articulated with the Mexican government's NDC agenda
- Development of Mexico's next submission should be a transparent process with adequate consultation of civil society and IPLC groups in particular



Photo Credit: ACOFOP

Guatemala

Guatemala's emissions account for about 0.12% of the global total.³² More than half of these emissions come from the land sector (52%) (LULUCF and agriculture). Energy accounts for about 38%. Currently, about 58% of Guatemala's power comes from renewables (36% hydro, 16% co-generation from sugar cane, 3% geothermal; 2% wind and 2% solar).³³

Guatemala's NDC establishes clear quantitative targets for mitigation by 2030, with an unconditional reduction of 11.2%, and a conditional reduction of 22.6% of its emissions in comparison with a BAU scenario. The document links its strategy to a number of specific instruments, institutions, policies, strategies, programs or projects. Nevertheless, it does not go into detail as to how these instruments would be linked to each other, nor what the level of effort of each sector would represent.

The energy sector is the priority for Guatemala's unconditional target. The NDC sets a target of reaching 80% renewable energy by 2030, from the current 58%. Actions related to the land sector are completely contingent upon international finance. This is despite the fact that, according to GFW data, emissions from forest loss alone released 436 million tons of CO₂ during the period 2001-2018, or more than ten times the country's total GHG emissions in 2015.

With respect to land use, the NDC does broadly recognize that forests are essential for the livelihoods of Guatemalans and that indigenous knowledge holds important potential for meeting NDC targets. Nevertheless, the rest of the document does not mention any concrete support for the organizations of indigenous peoples or local communities that protect and manage forest resources. This is despite the fact that the country is home to one of the best known examples of successful community-based forestry on the planet, in the Maya Biosphere Reserve, where community concessions have proven their ability to keep forests standing and produce multiple benefits, even in the face of strong conversion pressure³⁴. It is also despite the fact, although the MBR concessions constitute a global model, Guatemala's land and forestry sector as a whole is characterized by deep inequality and acute problems with access to land, especially among the country's indigenous peoples in the highlands.³⁵

Figure 1: Emissions trends and emissions reductions scenarios in Guatemala

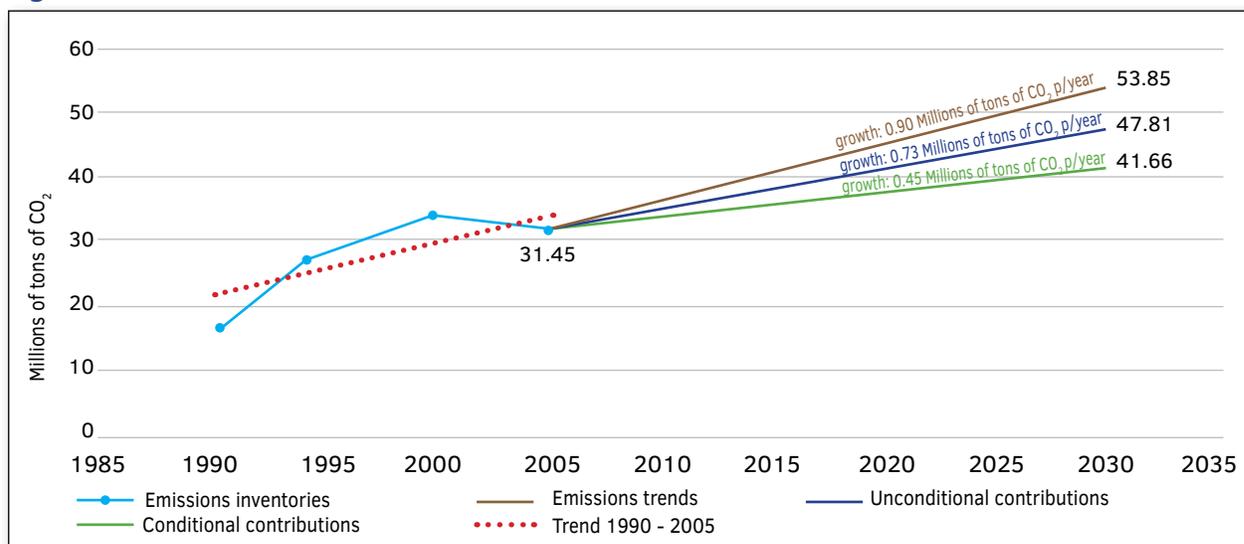


Image prepared by PRISMA based on Guatemala NDC.

The actions proposed for the LULUCF sector include the implementation of the national REDD+ strategy, and the National Strategy for Forest Landscape Restoration, which has a goal of 1.2 million hectares. The NDC does not provide any geographic detail about where such restoration will occur, although given the social history and population dynamics of the country, the most likely area for such initiatives is the Petén.³⁶

The NDC also does not provide any significant level of detail regarding how such programs would be implemented. This is a major pending challenge, as Peten's landscapes have succumbed to massive landscape transformation from narco-trafficking interests linked to oil palm, ranching and other non-traditional agricultural exports, and even to forest plantations.³⁷ The manipulation of public funds for private objectives is also a major problem. All of these trends are involved in the transformation of the Peten over the past 20 years from a recipient of displaced populations, to a territory with highly unequal access to land, which continues to uproot small scale farmers.³⁸

Avoided deforestation and forest management as part of the REDD+ strategy are also listed as priorities for the country, though the NDC does not provide additional details as to how it will resolve the major challenges the REDD+ program has faced. This includes accounting and benefit sharing issues, but most importantly, it does not address what is widely recognized as a central issue for the REDD+ program and for the sustainable management of Peten's remaining forests: tenure security for the community concessions within the MBR. These concessions conserve more than 350,000 hectares, and form a barrier for the northeastern portion of the reserve which contains some of the country's richest archeological sites. Yet the rights of local communities to continue managing these forests is in jeopardy as the first concessions are set to expire within three years. Neither the NDC nor the government have definitively addressed this issue for reaching the country's climate change goals.

The next NDC should therefore:

- Include concrete measures to support the rights of forest communities, especially in the Western Highlands and the community forest concessions of the Maya Biosphere Reserve;
- Include rigorous consideration of the implications of hydropower projects for social conflict and the adaptation needs of rural communities and indigenous peoples.
- Develop the next NDC submission through a transparent process with adequate consultation of civil society and IPLC groups in particular



Photo Credit: PRISMA

Honduras

Honduras' NDC is notable as the thinnest in the region, especially in terms of mitigation measures. At eight pages, the country's NDC provides very little detail on context, instead focusing on the country's extreme vulnerability to climate change, and its very low relative contribution to global GHG emissions. The priority is adaptation, which the NDC terms the "human face" of climate change. The document underscores the need to ensure that actions under its NDC will make life better for the poor, not worse, and it specifically mentions in the preamble the need for women, indigenous peoples and Afro-Hondurans to be part of decision making to ensure co-benefits from climate actions.

In spite of the country accounting for so little of global GHG emissions (0.1%, according the NDC), Honduras commits to undertaking actions to mitigate emissions, albeit conditional on international finance. Across all sectors, the commitment is to a 15% reduction in emissions against baseline by 2030. The energy sector is singled out as the sector that produces most of Honduras' emissions, but no quantitative data is advanced in the NDC to support this. In fact, the LULUCF sector is left out of the BAU scenario. The NDC cites the "great uncertainty" and the lack of adequate baseline information as the reason for not including this in the BAU, and commits to including it in their Third National Communication.³⁹ This Communication, while incomplete, has now fixed emissions from the LULUCF sector at 31% of the country's total GHG emissions.

In the LULUCF sector, the most important actions cited in the NDC are the "afforestation/reforestation" of 1 million hectares by 2030, as well as a 39% reduction in the use of fuelwood by households. The former is presented as a strategy to increase Honduras' role as a carbon sink; the latter as a strategy to help fight deforestation, citing the expansion of fuel-efficient stoves as part of the country's Nationally Appropriate Mitigation Actions (NAMAs).

Adaptation measures are given more attention in the Honduras NDC. The adaptation section presents a rather long list of actions necessary in the agricultural sector (e.g. development of agroforestry systems, reduction of fertilizer use, use of local seeds, erosion control), as well as with livestock operations and technical capacity building. There is also detail on the importance of investments to strengthen resilience in the coastal and marine sector. Finally, there is mention of the need to strengthen land tenure, but only in the context of agricultural policy and adaptation actions.

Figure 2: GHG emissions 2005 – 2015

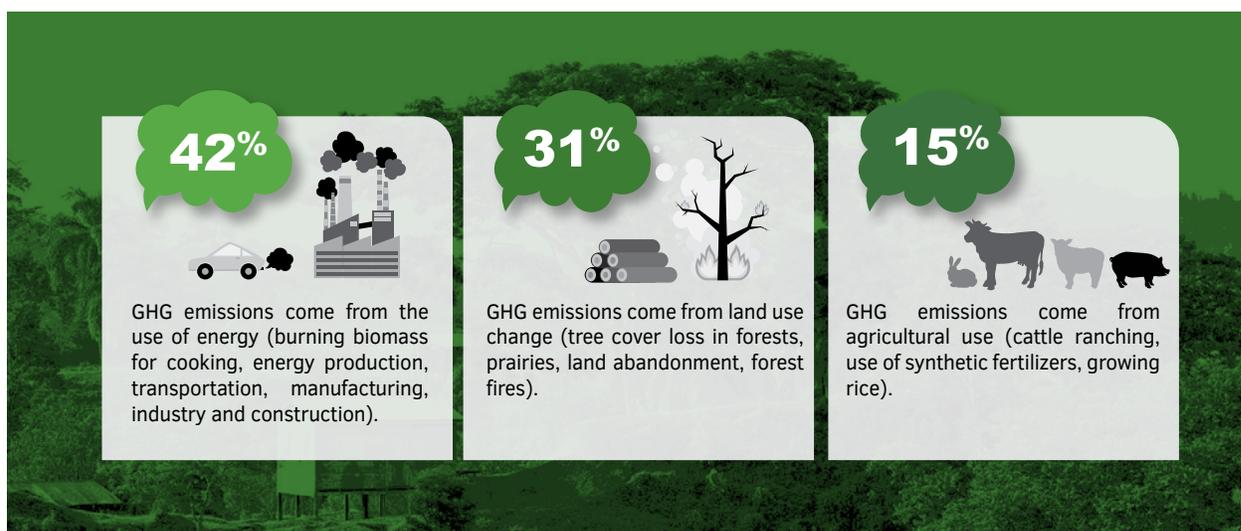


Image prepared by PRISMA based on Honduras NDC.

Beyond the very aggressive commitment to afforest/reforest 1 million ha, scant attention is given to the forestry sector broadly, and the deforestation crisis that is gripping the country⁴⁰ is not even mentioned. As GFW data makes clear, Honduras has lost more than 1 million ha of natural forest since 2001, with deforestation rates spiking to approximately 190,000 ha in 2016. Forest loss over this 17-year period has resulted in 334 million tons of CO₂ emissions. Given this crisis, it is particularly significant that there is no mention of the historic land reform process that has titled some 1.4 million hectares (approximately 12% of the country) to indigenous peoples in the Muskitia, where the bulk of the country's forest remains, and where several of the most important deforestation pressures are present.⁴¹

The omission of tenure and indigenous peoples' rights in the Honduras NDC is particularly troubling. While titling lays the basis for the kind of sustainable management that can conserve and enhance carbon stocks, it is also clear that formal title alone is not enough. Despite formal titles, weak access to law enforcement, judicial processes, especially where genuine government support is lacking, can lead to community dispossession, insecurity and resource degradation. This highlights the key distinction between the mere formal recognition of rights and the on-the-ground implementation, which has largely been lacking in Honduras.

Given that forests play such a minimal role in Honduras current NDC, the following recommendations for the country's next submission are advanced:

- A full accounting of LULUCF sector emissions in the NDC should be included; given that they make up nearly a third of the country's GHG emissions
- A strong focus on controlling deforestation of natural forest should guide actions in the LULUCF sector, since this is where the bulk of land sector emissions are likely originating
- Strategies to support governance in indigenous territories should form a central part of government action, addressing the gap between recognition and implementation of rights, the risks and potential rewards that greater autonomy has for climate solutions
- Prioritization of invests in IPLC-based natural resource management as the core strategy for conserving forest ecosystems



Photo Credit: Fundación PRISMA

Nicaragua

In similar fashion to Honduras' NDC, Nicaragua's NDC begins by stating that the country's emissions account for just .01% of the global total. It notes that the country was an early adopter of renewable energy, marking the beginning of such investments to 2007, when the FSLN came back into power. It commits to undertaking actions to mitigate emissions further, while maintaining its "right to sustainable development."

The document centers around two sectors: energy and LULUCF. In the energy sector, the NDC commits to achieving 60% of Nicaragua's energy needs from renewable sources by 2030. Within the LULUCF sector, the NDC underscores the need to expand agroecological practices, improve cattle ranching and undertake reforestation. The NDC's adaptation plan emphasizes Nicaragua's high vulnerability to climate change and points to the need for international finance to support investments in meteorological monitoring, drainage in cities prone to flooding, water capture and irrigation in dry zones, land use planning in PAs and reforestation.

In terms of concrete mitigation measures, the NDC commits to increasing renewable energy from a 2010 baseline of 51% to 60% by 2030; eliminating HCFCs by 2020 (100% of CFCs were eliminated as of 2010); reducing public transport sector emissions by 892,000 tons of CO₂ by 2040, and; conserving the full extent of Nicaragua's current carbon sink as of 2030.

As for historical emissions, the NDC presents data showing that GHG emissions from the LULUCF sector have dropped significantly. Specifically, it notes that emissions from the sector were close to 50 million tons of CO₂ in 2000, accounting for more than 90% of Nicaragua's emissions at that time, but that as of 2010, LULUCF emissions had decreased to just over 10 million tons of CO₂, accounting for less than 68% of emissions. The NDC goes on to cite a WRI website⁴² classifying Nicaragua's emissions as "moderate," at between 14-15 million tons of CO₂. This is cited as one of main reasons why Nicaragua's emissions were so low as of 2010, according to the NDC. However, the document then goes on to assert that, due to the major economic growth that FSLN policy is creating, the baseline scenario cannot be based on historical emissions.

The assertion about decreased emissions from the LULUCF sector during 2000-2010 is questionable. Global Forest Watch tells a different story⁴³. Looking solely at deforestation data, Nicaragua’s tree cover loss increased significantly during 2000-2010. More importantly, since that time, while dipping for a few years, 2017 saw a return to historically high levels. GFW calculates that during the period 2001-2018, Nicaragua lost 1.4 million hectares of forest, or about 18% of the country’s total forest cover, producing 541 million tons of CO₂ emissions, more than any other country in Central America.

Figure 3: GHG emissions by sector in Nicaragua

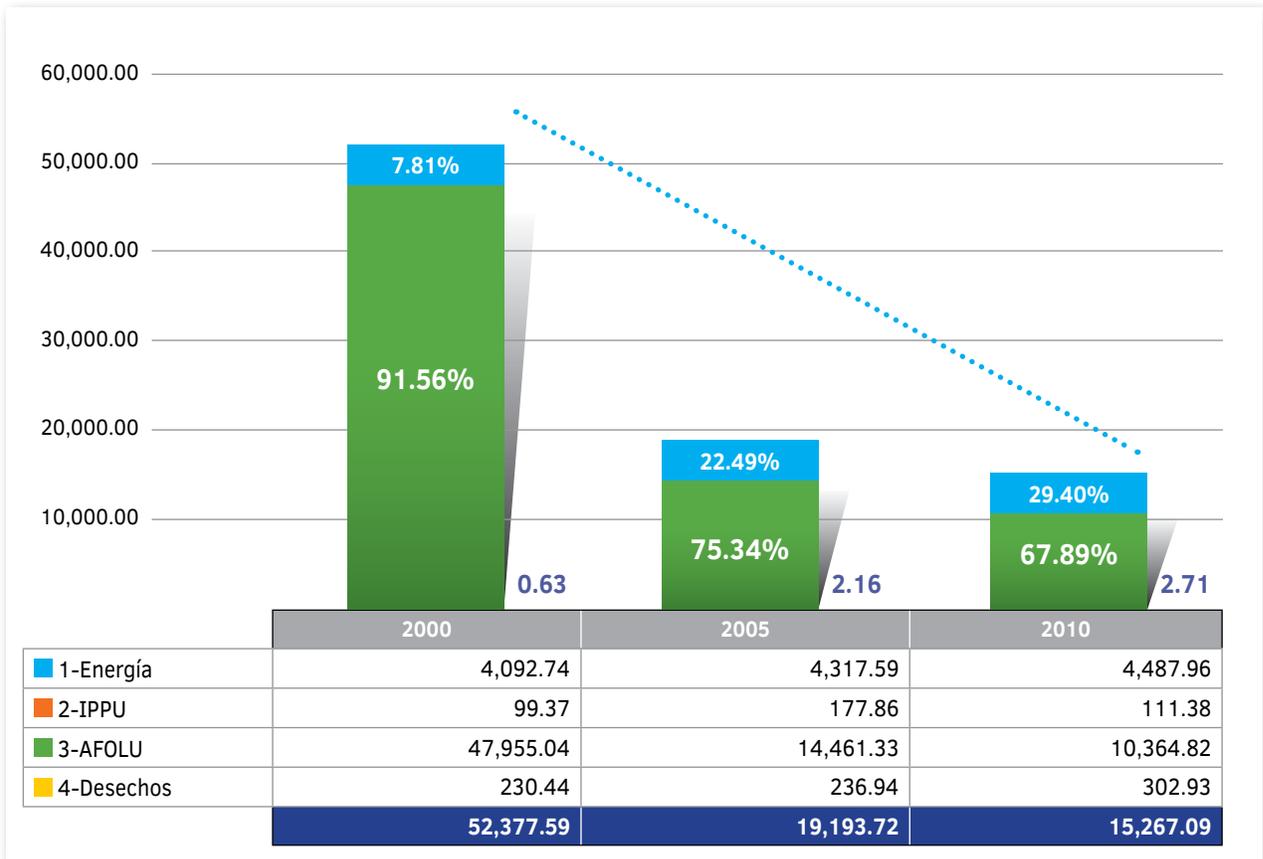


Image prepared by PRISMA based on Nicaragua NDC.

The NDC then presents a number of different scenarios for carbon emissions into the future, based on models developed by the University of Denver. There are four scenarios presented, from a baseline assuming current growth trends to a “sustainability scenario.” Even in the best of scenarios, the NDC projects a 33% increase in GHG emissions by 2030 (Mexico, by contrast, commits to a less than 15% increase unconditionally).

In terms of LULUCF actions, the one concrete measure that the NDC commits to unconditionally is “conservation of Nicaragua’s current carbon absorption capacity.” The NDC adds a conditional commitment of increasing absorption capacity by 20%, provided there is adequate international finance. The document goes on to present a long list of activities to be undertaken (including investments in agroecology, reduction of extensive cattle ranching, reforestation of “idle” land, development of forest plantations, expansion of silvopastoral systems, use of biodigesters, actions related to conservation and restoration, control of illegal logging) but no hard targets are advanced, nor detail on where or how such investments would be made. It is continually underlined that international finance will be required to embark on such an ambitious agenda.

Specific to natural forest conservation and avoided deforestation, the NDC notes Nicaragua's REDD+ program, and in particular its project with the World Bank Carbon Fund. The project – which focuses in the Caribbean Coast, where the vast bulk of land has been titled to indigenous communities (covering approximately 3.6 million hectares) – is touted by the NDC as working to avoid the emissions of 11 million tons of CO₂ equivalent. The document notes that, in return, the communities in the region will receive US \$55 million in positive incentives over the project period (2014-2019). It is not clear how this project fits (or not) in the BAU scenario and future projections for emissions reductions.

The NDC then presents a list of needs for adaptation to climate change, and includes budgetary estimates for needed finance for meteorological upgrades (US\$ 30 million); drainage and urban water infrastructure (US\$ 450 million); water capture and irrigation (US\$ 800 million), and; improved protected area management (US\$ 400 million).

As is the case with Honduras, in spite of the historic process of land titling that has unfolded along the Caribbean Coast and the promise of regional autonomy, there is no mention of tenure insecurity, the advancing agricultural frontier, illegal logging and land conversion, or the problems with governance in the autonomous regions.⁴⁴ There is no mention of the fractured institutional relations between the central government and most indigenous territories on the Atlantic Coast, and the role of the former in producing open access conditions in the region.⁴⁵ On the contrary, the document downplays the deforestation crisis and fails to discuss the governance issues with autonomy that undergird the problem.

Based on this analysis, the next NDC from Nicaragua should include:

- A more detailed discussion on deforestation in the country's Atlantic Coast, and a concrete plan for addressing the obstacles to securing the territorial rights that have been recognized in the country's Autonomy Law (87) and Regulation of indigenous territories (Law 445)
- An emphasis on investments in indigenous territorial management and support for natural resource management and enterprise among IPLCs, specifically in the Caribbean Coast facing land invasions and deforestation threats





Photo Credit: AMPB

Costa Rica

Costa Rica's overall land sector scenario and institutional conditions are unique in the region many ways; its NDC is also the most explicit among the Mesoamerican NDCs regarding specific targets, actions and strategies. The NDC reaffirms the country's commitment to achieve carbon neutrality by 2021. The actions laid out in the NDC, if implemented successfully, will reduce the country's GHG emissions by 41% compared to the BAU scenario, bringing 2030 emissions to a level that is 25% less than what they were in 2012. Concretely, this means reducing emissions by 170,500 tons of CO₂ per year every year up through 2030.

Figure 4: Proposed emissions trajectory of total GHG in Costa Rica 2012 - 2050

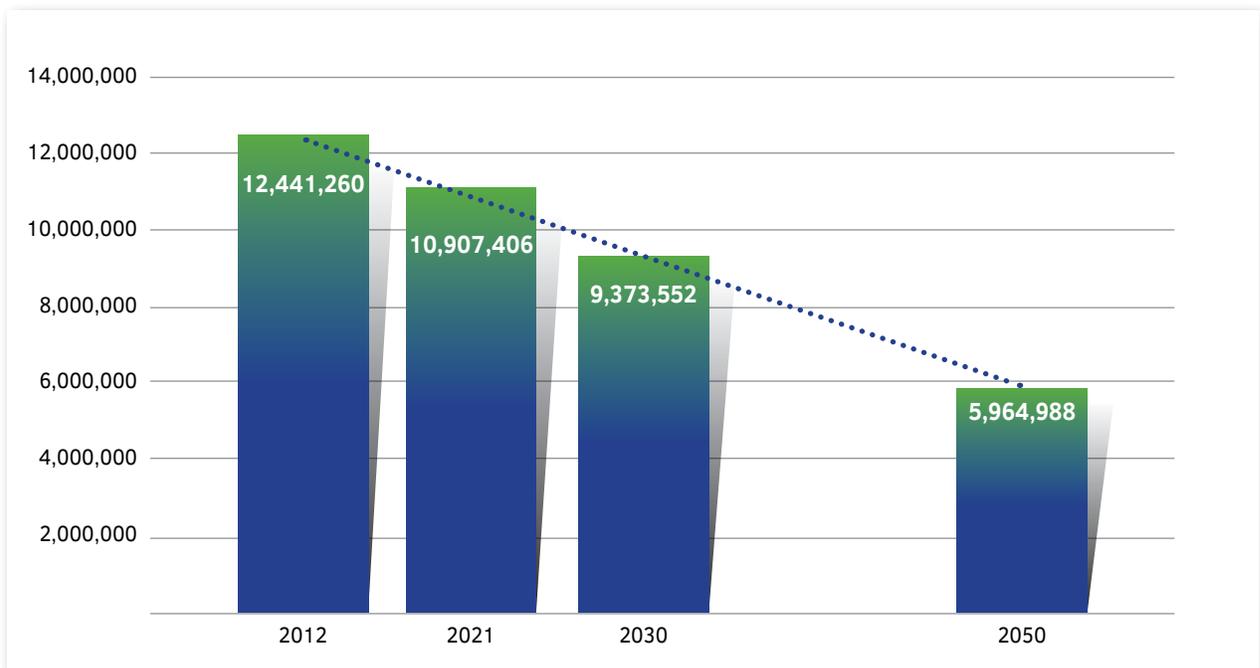


Image prepared by PRISMA based on Costa Rica NDC.

Costa Rica's mitigation plans are organized around the following 4 areas: 1) Reducing energy demand and GHG emissions from energy production; 2) Energy decarbonization; 3) Fuel waste use and recycling; and 4) Managing carbon sinks (including land use planning, reforestation, avoided deforestation).

The NDC makes clear that the most important emitter is fossil fuels, so that is the focus of the country's investments. The centerpiece for action in the fossil fuel sector is the stated aim to achieve 100% of Costa Rica's electricity production from renewable sources by 2030. At the same time, the plan aims to increase efficiencies in energy consumption among both industry and households, reducing demand. While an increase in demand is forecast for the transport sector, the NDC plans big investments in electric vehicles (both public and private) that will reduce emissions from the transport sector.

The land sector in Costa Rica is also unique in the region: in contrast to the other countries in this analysis, the vast bulk of emissions from this sector are not from deforestation, but rather from the agricultural and livestock sectors (nitrous oxide and methane). The core strategy for achieving reduced emissions in the agricultural sector is to attract international cooperation and pay-for-performance schemes to incentivize and fund on-farm activities. At the same time, the NDC points to the need for rural credit schemes tied to low emissions development plans.

The NDC does not delve into detail of its forest conservation strategy. Forests are considered mostly for their importance as sinks; the NDC cites the findings of a national forest carbon inventory, which found that almost 805 million tons of carbon is stored in the country's forests (more than half is in forest soils). Generally, deforestation is treated as a non-issue. The NDC touts Costa Rica's achievements in forest conservation, noting that at present 25% of the country is under protected status, and over the last 30 years, the country has increased forest cover from 26% to 52.4% (as of 2013). Yet ongoing deforestation in the country is not treated with any detail. GFW data, for example, show that Costa Rica has lost 6% of its forest cover since 2000, emitting 81.6 million tons of carbon, or about 10% of standing stock.

Although it is unclear how activities in the forest sector will be integrated into the country's broader climate change goals, the country's progress to date in forest conservation holds important lessons for other countries. Its exceptional institutional environment, relatively high levels of land tenure security, low levels of land conflict and violence, and innovative environmental programs and policies have produced notable experiences in forest conservation. These include payment for environmental services programs tailored for indigenous territories, whose management schemes have iteratively evolved through REDD+ to recognize traditional land and resource use. These experiences have produced substantial social and environmental benefits in Bribri and Cabecar territories on the Caribbean slope, where rights are clearly defined and high levels of territorial organization prevail.⁴⁶

Based on this analysis, the following recommendations for improving Costa Rica's next NDC submission are advanced:

- Include a discussion on ongoing deforestation and measures to respond to these processes;
- Clearly delineate a process for integrating indigenous peoples and forest initiatives in the country's broader climate change plans.



Photo Credit: PRISMA

Panama

Panama's emissions account for about 0.02% of the global total. The vast majority of these emissions comes from LULUCF (81%). Energy accounts for about 17%. Currently, about 60% of Panama's power comes from renewables (52% hydro, 7% wind and 1% solar).

Under the NDC, Panama commits to increase renewable production (solar, wind, biomass) by 30% over 2014 levels by 2050, taking advantage of the isthmus country's unique geographic characteristics. This is to account for a projected 600% increase in demand over the same period. The NDC points to the need for private sector investment in new technologies to achieve this; principally, the government's key action will be to put in place policy incentives to promote development of renewables.

As with other countries in the region, the NDC tends to downplay the deforestation problem, in spite of the fact that it makes up the bulk of the country's emissions. Indeed, the NDC emphasizes the point that, overall, the forest sector is a carbon sink for Panama (see Figure 5). Slowing of deforestation between 1994 and 2013 are attributed to the abandonment of rural areas for urban migration, resulting in decreased forest clearance for agriculture; improved control of forest clearance due to better laws, policy and enforcement, as well as expansion of protected areas, and; the creation of indigenous comarcas, improving forest conservation in indigenous territories.

In the LULUCF sector, the NDC presents a long list of actions⁴⁷, with a central emphasis on reforestation, including the target to reforest 13% of the country, which amounts to a 1 million hectare reforestation target. This amounts to the core, unconditional commitment in Panama's NDC related to LULUCF, an achievement that, if successful would increase the country's absorption capacity by 10% over the BAU scenario. The other key action presented in the NDC commits to establishing an international REDD+ "implementation center," which according to the document would promote a "sustainable forest management culture" as well as the international carbon market for emissions reductions.

Figure 5: Net emissions UTCUT sector 1994 – 2013 (Millions of tons CO₂)

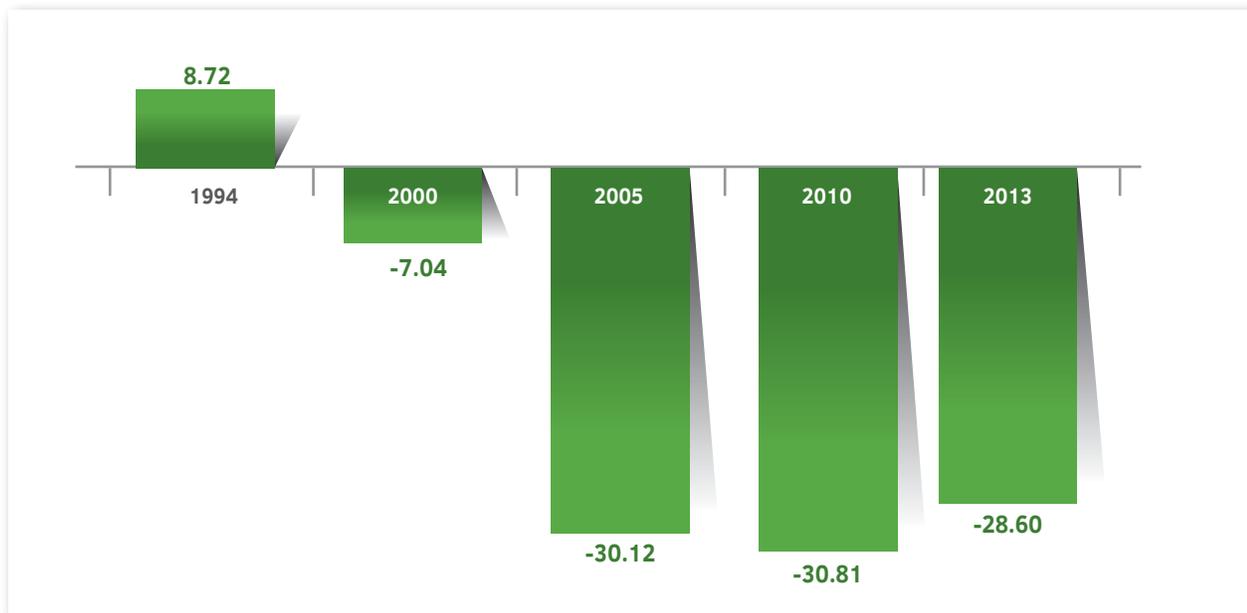


Image prepared by PRISMA based on Panama NDC.

Although sustainable forest management and forest conservation are mentioned, the NDC does not provide any new detail or concrete mechanisms for such initiatives beyond the REDD+ strategy. Recent analysis found that the REDD+ strategy was similarly vague on supporting forest conservation.⁴⁸ This is notable since deforestation is cited as occurring at a rate of more than 10,000 ha per year, according to the NDC. According to the GFW, however, Panama's deforestation rate has increased since the year the NDC reference year (2015), nearly tripling to more than 30,000 ha in the year 2017. These trends have led national authorities to sound an "alarm" to address these deforestation pressures, that have not been incorporated into the country's NDC.⁴⁹

The role of indigenous peoples and their forests are also conspicuously absent from the NDC's plans, despite being recognized for their contribution to past successes. This is a major shortcoming, since indigenous peoples have consistently represented a bulwark against deforestation⁵⁰, and hold 54% of the country's mature forests in their territories.

Based on this analysis, the next NDC from Panama will need to:

- Present more up-to-date and detailed information about deforestation in the country
- Consider the needs of IPLC communities broadly, and prioritize actions in comarcas and collective lands (tierras colectivas), which are recognized as a key pillar of successes to date
- Include greater focus on territorial management, and specifically strategies like improved forest management through community forest enterprises, to keep natural forests standing and avoid emissions from deforestation and degradation



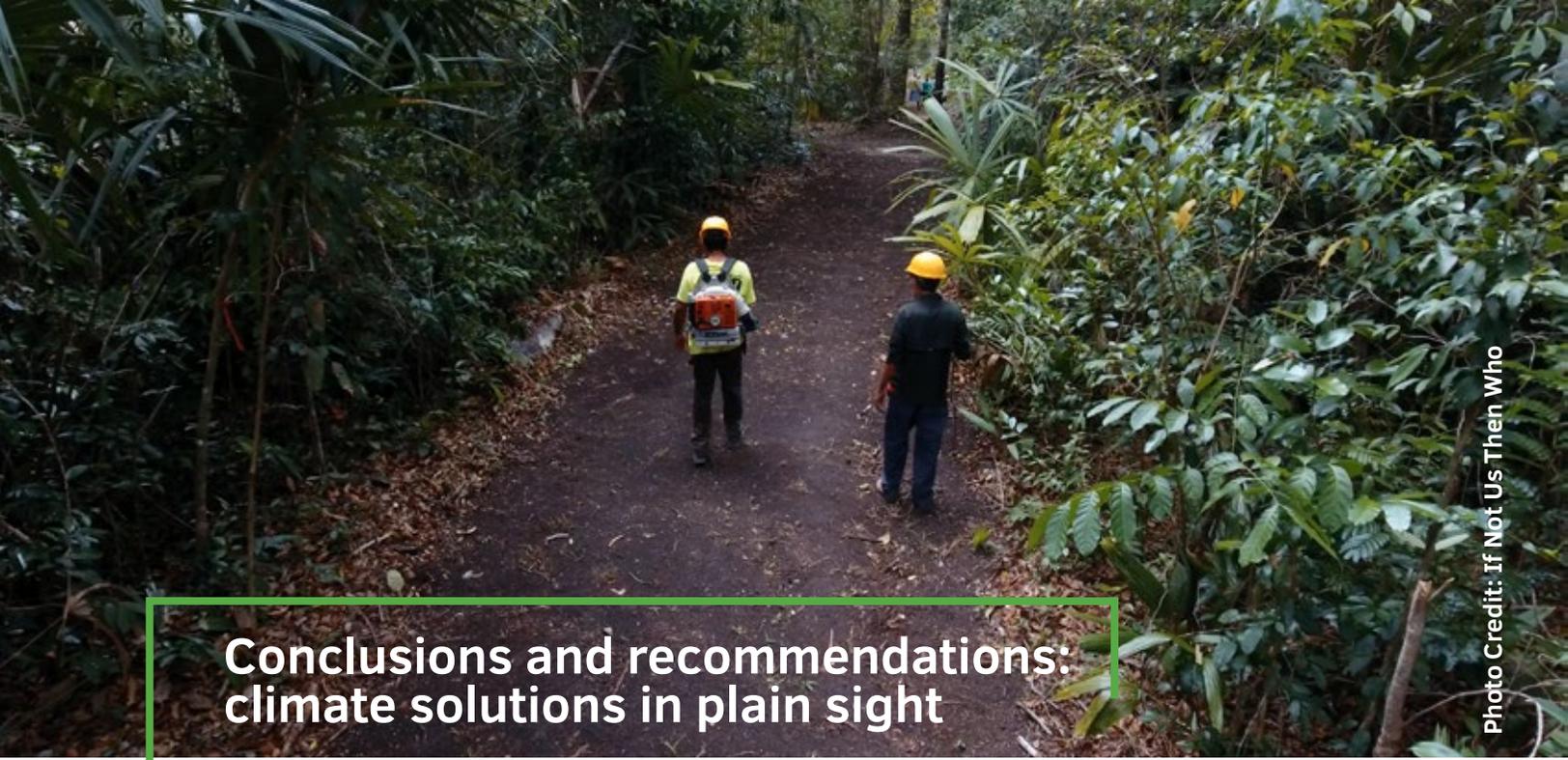


Photo Credit: If Not Us Then Who

Conclusions and recommendations: climate solutions in plain sight

The Nationally Determined Contributions (NDCs) submitted by the signatories to the Paris Agreement are important because they set forth the commitments that turn aspirations and generic promises into concrete action plans. At their core, NDCs must clearly articulate the specific actions the world’s governments will take in the face of the growing climate crisis. What they put forward must therefore be ambitious, changing the trajectory of development for the future. At the same time, the actions they propose must be achievable, and their implementation must not come at the cost of the rights of the most vulnerable.

Due to the potential for early, cost-effective returns, “natural climate solutions” in the land sector are receiving increased attention as a priority for investment. Experiences from the Mesoamerican region – where governments have recognized the rights of many indigenous peoples and local communities over their territories – hold valuable lessons for governments designing investments that will keep forests standing and conserve carbon, producing multiple benefits and increasing local resilience in the face of a changing climate. Multiple community forest landscapes in Mexico and the community concessions of the Maya Biosphere Reserve, Guatemala, as well as several indigenous territories in Costa Rica and Panama stand out as global models. In these sites, the recognized rights of IPLCs combined with continued investment in community-based natural resource and enterprise are demonstrating to the world what a rights-based, low-emissions future can look like. They are the solutions in plain sight to the climate crisis.

Unfortunately, these successes, far from being the centerpiece of the NDCs submitted by Mesoamerican governments, are largely invisible in their plans. As this report has shown, most countries in the Mesoamerica region place an outsized attention on the energy sector. While the need to transition away from fossil fuels unequivocally must be a focus for regional climate policy, the fact remains that more than a third of GHG emissions produced by Mesoamerican countries comes from the land and forest sector.

Current NDCs largely ignore the issues of IPLC tenure, territorial governance, community-based management and local enterprise. To the extent that forests are treated in Mesoamerican NDCs, the emphasis is on large-scale reforestation projects, with little mention of IPLC rights or participation. In many areas, landscapes likely to be designated as “degraded” and slated for reforestation are the same community and indigenous forests areas that have been subject to strong and sometimes violent conversion pressures. The lack of safeguards mentioned in the NDCs is indicative of a top-down approach, where reforestation projects are planned and implemented from above, without reference to local tenure, use or aspirations.

Natural forest management, moreover, is generally not a priority, and the deforestation crises present in many IPLC territories – are not prioritized. Where reducing deforestation and degradation in natural forests is a stated aim, the strategies to achieve this are not well articulated, beyond the expansion of protected areas, in spite of the multi-year investments in REDD+ readiness in all countries analyzed. The globally-recognized models of community-based territorial management in the region that have demonstrated how productive, sustainable management can keep forests standing and power local enterprise, are not considered.

The NDCs analyzed vary widely in their format and depth, but they all lack detail on how proposed climate change mitigation and adaptation measures will be implemented. Reviews of NDCs submitted by other countries globally reveal that this is a common shortcoming. Given that countries will soon be submitting their second NDCs, it is an opportune moment to advance suggestions for revisions. Based on the analysis in this report, the following recommendations are made for the Mesoamerican region:

- Actions proposed to mitigate emissions should focus more on the land sector, specifically on forest governance in IPLC territories and strategies for sustainable management, restoration and local enterprise
- Such strategies should seek to learn from and build off successes with IPLC territorial management and enterprise that have made the region a global leader in rights-based community forestry
- Second NDC submissions should be more specific about the ‘how’ and ‘where’ key investments will be made, explicitly linking actions to national and regional policies and plans, in order to increase transparency and clarify proposed implementation mechanisms
- A robust process for consultation and monitoring must be put in place, utilizing for example the array of social and environmental safeguards that have been developed and deployed under REDD+ readiness processes

A central conclusion of this analysis is that a focus on IPLC territorial governance and community-based natural resource management represents a relatively cheap option for governments to tackle emissions, compared to the major investments necessary for new hydropower or wind projects. At the same time, this brief does not seek to set up a false choice: focusing on IPLC territorial management does not preclude efforts by countries to move away from fossil fuel reliance. The point here is rather to underscore that the IPLC forestry issue should receive more attention in NDCs, because its proven success in the region, because it is an immediately available and cost-effective approach for government, and because of the considerable risks posed by the kind of megaprojects that have characterized hydropower, wind and biomass development in the region to date.

Finally, by investing in IPLC territorial management as a way to keep forests standing and power locally-driven economic development, governments can realize the “double benefit” of such approach being both a mitigation and adaptation strategy. Supporting such models, Mesoamerican governments would thus be investing in multiple positive benefits for communities, their countries, the region and the planet: reduction of social conflict, improved governance, biodiversity conservation, and locally-driven sustainable enterprise, to name a few. Such outcomes would be particularly welcome in the region’s IPLC-dominated forest “frontiers,” where organized crime is often linked to processes of deforestation and degradation, and where there is a dire need for sustainable, legal, productive models for land management and enterprise.



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