

Sink or swim:

How Indigenous and community lands can make or break nationally determined contributions

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This paper examines the role of Indigenous peoples and local communities' (IPLC) lands as carbon sinks and how they may impact national climate commitments in four countries – Brazil, Colombia, Mexico, and Peru. These countries are responsible for 5.1 percent of global greenhouse gas emissions and store about 28 percent of the carbon located in IPLC lands. Together, they are home to over 300 Indigenous groups whose lands are currently threatened by over-development, mining, and agri-business. For each of the four countries, we examined past and existing nationally determined contributions and related documents, conducted a geospatial analysis to examine carbon sequestration and emissions on IPLC lands, and assessed the extent to which IPLCs lands are protected by national laws and policies. This analysis was used to develop a set of actionable recommendations for governments in the four countries, many of which are also relevant to governments in other forest countries with significant IPLC populations.

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Main findings

Achieving 2030 global mitigation targets set out in nationally determined contributions (NDCs) adopted under the Paris Agreement will not be achieved without acknowledging and supporting the crucial role of Indigenous peoples and other local communities' (IPLCs) restored and protected lands. The analysis presented in this paper focuses on the mitigation potential of IPLC lands in four countries (Brazil, Colombia, Mexico, and Peru) and whether this potential is reflected on their NDCs and other climate-related policy documents. We find that in our focus countries:

- **NDCs and other related policy documents fall short in establishing actions, targets, and policies relating to IPLCs and their lands.** The four countries' NDCs only include limited references to IPLCs and fail to acknowledge the crucial role of their lands in meeting national targets.
- **Ninety-two percent of forested IPLC lands in the four countries are net carbon sinks, with each hectare sequestering an average of 30 metric tons of carbon per hectare every year.** On average, these lands sequestered more than twice as much carbon per hectare as non-IPLC lands.
- **IPLC lands in Brazil, Colombia, Mexico, and Peru annually sequester carbon equivalent to, on average, 30 percent of the four countries' unconditional 2030 targets.** Without these contributions, other key economic sectors would have to pick up the slack to achieve the emission reduction targets promised. For instance, Peru would have to retire its entire vehicle fleet to compensate for even a 50 percent drop in the sequestration services provided by IPLC forests. Brazil and Colombia would have to retire 80 percent of their vehicle fleet and Mexico would need to retire 35 percent of its vehicle fleet to account for the loss of the sequestration services their IPLC forests provide.
- **Existing governance frameworks in the four countries fall far short of what is needed to realize the mitigation potential offered by IPLC lands.** In all four countries, these lands are under constant threat from ranching, mining, and logging, much of which is illegal and linked to corruption and collusion between governments and illegal actors. Governments need to ensure IPLCs have full legal rights to the land they own; recognize and respect their right to free, prior, and informed consent; take measures to ensure rights are respected in practice; and actively empower IPLCs to manage their forest through adequate finance and support.
- **All four countries have signed on to the 2021 Glasgow Leaders' Declaration on Forests and Land Use, which committed to ending forest loss and land degradation by 2030.** Our findings indicate that placing the protection and empowerment of IPLCs at the heart of forest and land policy will be crucial to putting this target within reach.

1. Introduction

As countries continue to recover from system shocks caused by the global pandemic, the quest continues to limit global heating to 1.5 degrees above pre-industrial levels. Despite a number of governments submitting more ambitious nationally determined contributions (NDCs) during COP 26 in Glasgow, collective contributions continue to fall far short of what is needed to achieve this goal. According to a recent analysis, current NDCs, if fully implemented, would put the world on track for a disastrous 2.4 degrees of heating.¹

In Glasgow, world leaders recognized the need to step up ambition and committed to strengthen their NDCs in 2022 in order to meet the Paris temperature goals.² The coming year will therefore require governments to dig deep, exploring all available options to increase their ambition. There is a major opportunity for governments to make fuller use of a strategy that is often undervalued – protecting the rights of Indigenous peoples and other local communities (IPLCs), particularly those pertaining to their lands and resources.

The relevance of IPLC lands in our global system cannot be overstated. Accounting for at least 50 percent of the world's land³ and a significant share of global forest carbon,^a these lands provide ecosystem services worth at least USD 1.16 trillion per year.⁴ In the Amazon, existing research shows that Indigenous lands are net carbon sinks, sequestering on average significantly more carbon per hectare than non-Indigenous lands and enjoying far lower deforestation rates.⁵ In the Bolivian, Brazilian, and Colombian portions of the Amazon alone, between 42.8 million and 59.7 million metric tons of CO₂ emissions are sequestered every year in titled Indigenous territories.⁶

Research consistently shows that IPLCs are effective forest stewards that manage ecosystems sustainably, act as agents of restoration, and protect against illegal and unsustainable deforestation.^{7,8} Conversely, displacing Indigenous communities from their land interferes with and degrades the biocultural and natural systems on which Indigenous communities and lands thrived, with disastrous effects on the ecosystems left behind.⁹ In Colombia and Brazil, research shows a strong link between the colonization of Indigenous lands by outsiders and subsequent deforestation.^{10,11} Empowering IPLCs to better protect their land is therefore a powerful strategy at governments' disposal to scale up their climate ambition, while failing to do so presents a major risk to the achievement of existing commitments.

This paper examines the role of IPLC lands as carbon sinks and how they may impact national climate commitments in four countries – Brazil, Colombia, Mexico, and Peru. These countries are responsible for 5.1 percent of global GHG emissions and store about 28 percent of the carbon located in IPLC lands. Together, they are home to over 300 Indigenous groups whose lands are currently threatened by over-development, mining, and agri-business.¹² For each of the four countries, we examined past and existing NDCs and related documents, conducted a geospatial analysis to examine carbon sequestration and emissions on IPLC lands, and assessed the extent to which IPLCs lands are protected by national laws and policies. This analysis was used to develop a set of actionable recommendations for governments in the four countries, many of which are also relevant to governments in other forest countries with significant IPLC populations.

^a Analysis from 64 countries representing about 70 percent of global forest cover shows that IPLC lands manage at least 17 percent of the total carbon stored in those countries' forestlands, with the figure rising to 30 percent in the Amazon. This is a conservative estimate; the real figures are likely to be higher. See RRI. (2018). [A global baseline of carbon storage in collective lands: Indigenous and local community contributions to climate change mitigation.](#)

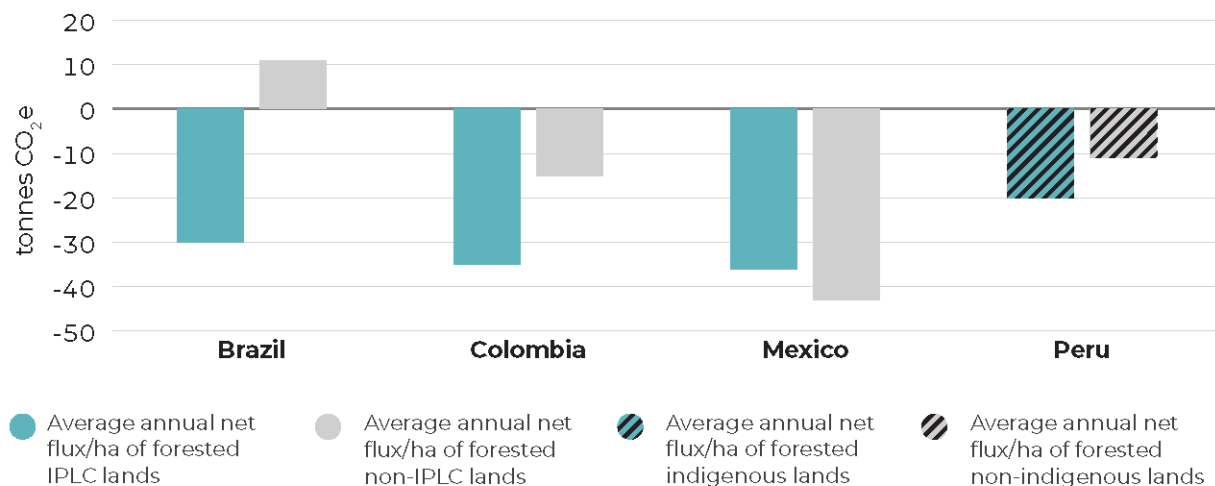
2. Contribution of IPLC lands to reducing climate change

There is, by now, abundant evidence that IPLCs are among the most effective stewards and protectors of forest lands. However, we are only beginning to understand the full potential of IPLC lands in reducing carbon emissions. More and better data on this can support policymakers and IPLC leaders in collectively defining the role IPLC lands can play in national mitigation and adaptation strategies.

To help address this data gap, we analyzed forest carbon fluxes – the balance of carbon emitted from and absorbed by forests^b – between 2001 and 2020 in IPLC lands and in other lands. This data can help policymakers understand the role that IPLC lands are already playing in mitigation climate change and the risks to countries’ mitigation efforts if these lands are not protected.

Our analysis is based on data from [Global Forest Watch](#) and [Landmark](#) data portals.¹³ The baseline for the estimations is tree cover in 2000 plus any tree cover gained between 2001 and 2021 using data on tree cover change from Global Forest Watch.¹⁴ We only included Indigenous and community lands that had boundary and area information. This means that, for Mexico, Brazil, and Colombia, both Indigenous and non-Indigenous local community lands are included in the analysis, while for Peru, only Indigenous lands, since boundary data for local communities was not available.^c

Figure 1. Average annual net flux per hectare of forested IPLC lands vs. forested non-IPLC lands



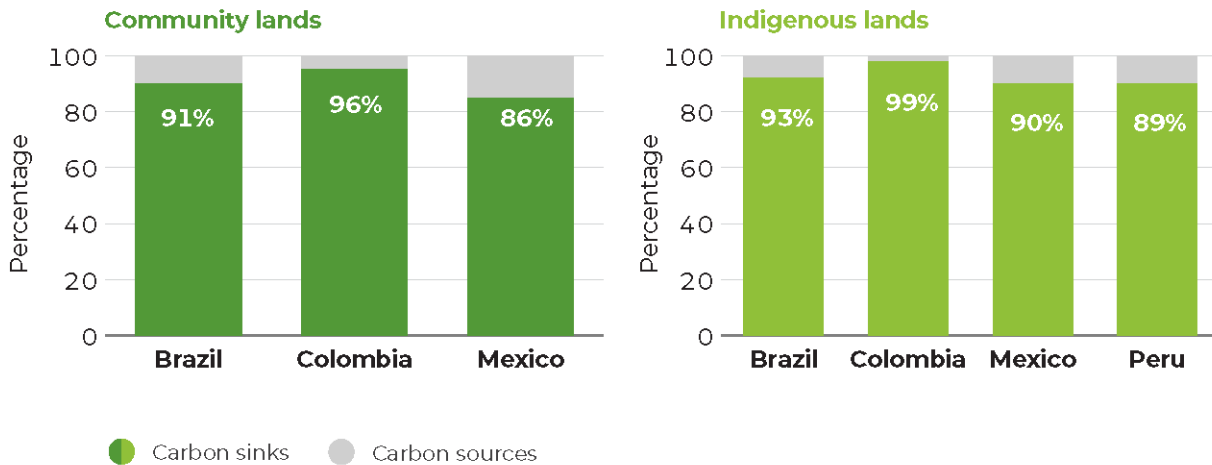
Note: Brazil, Colombia, and Mexico data is for Indigenous and community lands; Peru data includes only Indigenous lands.
Source: Global Forest Watch and Landmark

^b Carbon flux is calculated as the difference between carbon emitted by forests and removed by forests during the period and reported as metric tons (or megagrams) CO₂ equivalent per hectare. A positive carbon flux value means that the forest studied is a net source of carbon emissions, while negative value represents a forest net sink. The data only looks at carbon flux from forested areas, hence only those IPLC lands, and portions thereof, that were forested in base year 2000 are included in the net flux analysis.

^c For further details on the net flux methodology see Harris et al. (2021).

Figure 1 presents the carbon flux per hectare in the four focus countries. We find that in all four countries, forested IPLC lands are major net carbon sinks. Across the four countries, 92 percent of these lands act as net sinks, while in Colombia, as much as 99 percent of Indigenous lands absorb more carbon than they emit (Figure 2). On average, IPLC lands across the four countries annually absorb 30 metric tons carbon dioxide equivalent (CO₂e) per hectare. And while non-IPLC lands were also net sinks of CO₂e in Colombia, Mexico, and Peru, across the four countries, IPLC lands sequester more than twice as much carbon as these other lands.

Figure 2. Proportion of the area (ha) forested community and Indigenous lands that are carbon sinks or sources in Brazil, Colombia, Peru, and Mexico



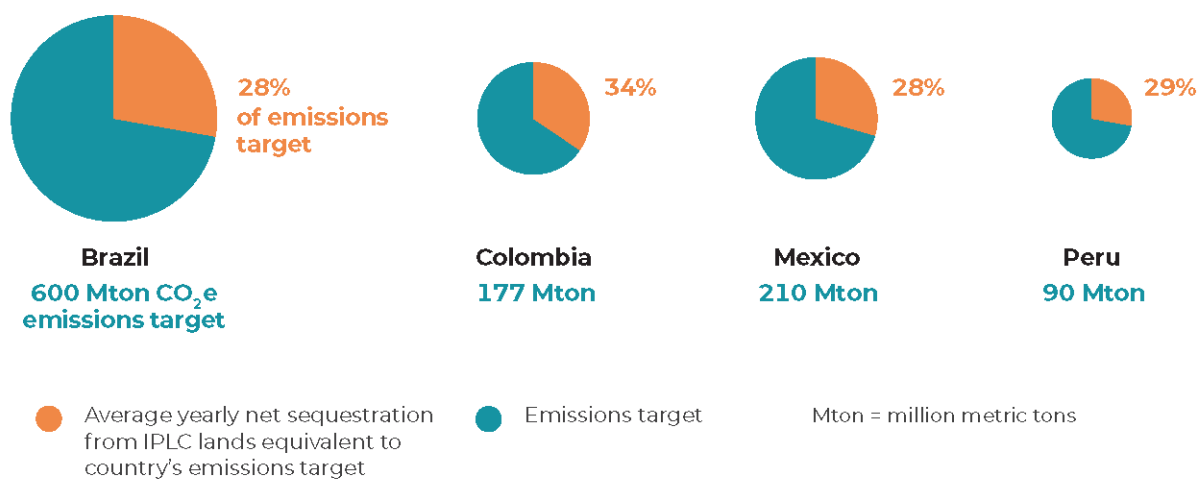
Source: Global Forest Watch data for the years 2001-2020. "Forest greenhouse gas net flux – per pixel". <https://data.globalforestwatch.org/datasets/gfw:forest-greenhouse-gas-net-flux/>.

The emissions sequestered in IPLC lands each year have the potential to play a major role in helping countries meet their NDCs. Each year, these lands sequester emissions equivalent to an average of 30 percent of our focus countries' unconditional NDC targets for 2030 (Figure 3 and Table 1), despite constantly being invaded by ranchers, loggers, and miners (see Section 4). By supporting IPLCs to better protect these lands, governments have a major opportunity to support enhanced sequestration and facilitate achievement of their NDCs.

Conversely, failing to protect these lands will require countries to compensate by reducing emissions in other sectors, making NDC targets exceedingly difficult to achieve. For instance, Brazil and Colombia would have to retire about 80 percent of their passenger vehicle fleets to compensate for the increase in net emissions if the sequestration services provided by IPLC forests were lost, whereas Mexico would need to retire 35 percent of its fleet.^d In Peru, based on our own estimations, just losing half of the sequestration services provided by IPLC forests would require the country to retire the entire passenger vehicle fleet to compensate the increase in net emissions.¹⁵ In the longer term, losing IPLC forests would make fulfilling net zero goals by the target year almost impossible.

^d These calculations assume that IPLC forests in each country would, on average, become net neutral from an emissions perspective, only sequestering as much carbon as they emit.

Figure 3 and Table 1. NDC reduction targets for 2030 for Brazil, Colombia, Peru, and Mexico, and net emissions from IPLC lands



| Country | Emission reduction target in 2030 (million metric tons CO ₂ e) | Average yearly net sequestration from IPLCs lands (million metric tons CO ₂ e) | Emissions sequestered by IPLCs lands compared to NDC objectives (%) |
|-------------------------------|---|---|---|
| Brazil | 600 | 167 | 28 |
| Colombia | 177 | 61 | 34 |
| Peru (unconditional) | 90 | 25 | 28 |
| Mexico (unconditional) | 210 | 62 | 29 |

Source: Authors' own estimations based on information from focus countries' NDCs. Mton = million metric tons.

3. The role of IPLC lands in countries' current NDCs and related plans

NDCs are the key documents that encapsulate countries' national mitigation and adaptation contributions. They typically set out both overall targets for reducing or avoiding emissions as well as specific actions for achieving these targets. Some countries also include targets for specific sectors, such as LULUCF. To assess the extent to which the four focus countries' NDCs already embrace the potential of IPLC lands, we assessed each one according to the following criteria:

1. **Distinguishing the contribution and role of IPLC lands in national inventories.** Providing proper data disaggregation and subcategories (which include contributions of IPLCs) to a country's LULUCFs emissions is an important first step because it both affirms their existence and sets the foundation for their recognition as carbon sinks (or sources). Hence, collecting this baseline data during sectoral estimations would not only help create more specified emission metrics but it can also be used to facilitate governments to better support their protection and sustainable management.
2. **Adoption of forest-related targets.** Including specific targets for forests in NDCs is important because it locks in commitment to their protection and restoration and creates a framework through which progress can be monitored and measured.
3. **Adoption of targets related to IPLC lands.** As with specific forest targets, adopting specific targets for protecting IPLC lands recognizes their unique value beyond emissions reductions and creates a framework through which progress toward better protecting them can be monitored and measured.
4. **Active participation of IPLCs in NDC processes.** Providing IPLCs with meaningful opportunities to participate in NDC planning and to consent to actions affecting them is crucial for realizing the full mitigation potential offered by their lands. This engagement should be continuous, two-way, and supported by adequate capacity building for both communities and governments.¹⁶
5. **Incorporation of youth and gender considerations.** Women and younger people often face additional discrimination and exclusion from policy processes. This makes the inclusion and empowerment of Indigenous women and youth groups in NDC processes and policymaking particularly important.

NDC priorities and actions for IPLC lands and land use, land use change and forestry (LULUCF)

Table 2 shows the extent to which each country's NDCs meet the five criteria outlined above, determining if an NDC is ambitious or falls short in implementing LULUCF and IPLC actions and targets.

Table 2. Summary of most recent NDCs of the focus countries

| | IPLCs included in national inventories | Separate targets for forests | IPLC-related targets or actions | Active participation of IPLCs in NDC processes | Youth and Gender considerations included |
|-----------------|---|--|---|--|--|
| Brazil | Yes | Brazil's 2015 NDC included targets e.g.: reach zero deforestation by 2030, restore and reforest 12 million hectares of forests by 2030, strengthen and enforce the implementation of the Forest Code at federal, state, and municipal levels. However, these targets were removed from its 2020 update | None | IPLCs were included in the planning processes for Brazil's updated NDC. Reference is also made to Indigenous peoples' inclusion in the Brazilian Constitution and other legal frameworks. | During the planning processes, there was engagement with IPLCs in a gender-responsive manner. |
| Colombia | Yes | Forest fire risk management strategies and targets associated with the following high-level forest fire reduction target: By 2030, Colombia will inter-institutionalize the processes of forest fire risk management, risk awareness, risk reduction, and disaster management, defining guidelines and results with climate change management, through seven strategies. | IPLCs and their knowledge will be relied on to help sustainably manage mangroves. Financial support for Indigenous, Afro-descendent, and peasant communities intended to strengthen their tools and information systems. | IPLCs are mentioned in the NDC in the context of fairness and rights considerations and integration of the IPLC actors into the NDC planning processes. Indigenous, Afro-Colombian, and peasant communities are recognized for their capacity to protect forests and achieve climate goals. | The NDC takes gender equity and the empowerment of women into account in the NDC updating and planning processes. Colombia underscores the importance of women in climate resilience, outlining enhancement plans for the National Public Policy on Gender Equity. The NDC also aims to incorporate gender into an updated National Policy on Environmental Education include gender considerations into education and climate change policies. Furthermore, women and youth are included in the planning processes for the updated NDC. |
| Peru | No | None | Platform of Indigenous Peoples to face Climate Change was created. | IPLCs are included in the planning processes for the NDC. Peru's NDC takes IPLC recommendations into account for the sake of raising the ambition of their updated NDC. | The NDC planning approaches integrate a variety of stakeholders, including women and youth. |
| Mexico | Yes | Mexico aims to reach a net-zero deforestation rate by 2030 (as stated in its latest NDC) and to include more forestry related mitigation and adaptation objectives. | None | IPLCs are considered in the design and implementation of the updated NDC. The updated NDC also recognizes Indigenous scientific and traditional knowledge. | The updated NDC is built on gender-responsive approaches, aiming to meet the needs of vulnerable communities including, but not limited to, women and youth. Women and youth are also included in the design and implementation of the updated NDC. |

As seen in Table 2, the empowerment of IPLCs and the protection of their lands plays a relatively minor role in all four countries' NDCs. Despite their actions, in practice, playing a major role in helping countries meet their targets, references to IPLCs in NDCs are mostly relegated to sections describing fairness, rights, and participation consideration. None of the four countries includes specific targets for protecting IPLC lands, though Colombia and Peru have identified some limited actions to support IPLCs' role in climate change mitigation. Colombia and Mexico do have forest-specific targets in their updated NDCs, while Peru and Brazil do not. In fact, Brazil removed forest-specific targets included in its 2015 submission from the updated version, raising major questions about the country's ability to protect its forests, reach its 2030 targets, and recognize IPLCs as key actors in climate mitigation.

All four countries point to at least some form of consultation with or involvement of IPLCs in their NDC processes, though the extent and effectiveness of this participation is unclear. All four also integrate gender considerations into the planning processes of their updated NDCs, while two countries go further by including specific mentions of women's increased vulnerability to climate change (Mexico and Colombia). Colombia also commits to creating gender-responsive policies that recognize women's role in climate resilience. Every country except Brazil includes considerations for youth in their NDCs. Colombia and Peru involve youth in the NDC planning processes, while Mexico goes one step further and recognizes youth as a vulnerable population.

Considering the key role IPLC lands will play in determining whether countries meet their NDCs, future iterations of these documents should place significantly greater emphasis on protecting these lands and empowering communities. Countries should aim to distinguish the carbon sequestration of these lands in their national inventories and work closely with IPLCs to develop specific actions and targets aimed at further enhancing their sequestration role.

4. Identifying the five policy and governance gaps to achieving greater IPLC mitigation potential

Incorporating IPLCs and their lands in NDCs and NDC processes is an important step toward realizing their potential in helping Brazil, Colombia, Mexico, and Peru meet their NDCs. But governments also need to adopt and implement domestic legal and policy frameworks that enable and empower IPLCs to continue to protect and sustainably manage their land. Research points to the following five elements as particularly essential:

- **Legal recognition of IPLC lands.** Evidence shows that legally secured Indigenous lands are less likely to be deforested than lands outside of Indigenous territory¹⁷ and are less likely to suffer from forest fires,¹⁸ thereby enabling them to play a greater role in carbon sequestration.
- **Broad land rights.** IPLCs with broad land rights, essentially equating to full ownership, are in a far better position to protect and manage their forests than those with more limited rights.^e
- **The right to free, prior, and informed consent (FPIC).** The right to FPIC entitles Indigenous people – and, less frequently, other local communities^f – to freely decide whether to give their consent to projects and policies that affect them or their territories before they occur. At its best, FPIC protects Indigenous people regardless of whether they hold land titles, and it applies even to projects that take precedence over registered land rights, such as those that exploit minerals and other natural resources.
- **Respect for and protection of IPLC rights in practice.** For IPLC rights to be effective, governments must both respect these rights themselves and protect IPLCs against those who seek to illegally encroach on their lands.
- **Active empowerment of IPLCs.** Actively empowering communities to protect and manage forests through financial and institutional support and involvement in decision-making processes can have a major positive impact on forest protection.

The following sections assess the extent to which law and policy frameworks in Brazil, Colombia, Mexico, and Peru live up to these five criteria.

Legal recognition of IPLC lands

Brazil, Colombia, and Mexico are among the few countries in the world that have provided formal recognition of IPLC rights on most of their customary lands (Figure 4). This has served as a crucial brake on deforestation over the past decades. In the Brazilian Amazon, titling of Indigenous lands between 1982 and 2016 led to a 66 percent reduction in deforestation,¹⁹ while in Colombia, titling Afro-descendant communities' lands reduced deforestation by an average of 30 percent from 1990 to 2010.

In Peru, despite 11 million hectares of Indigenous lands being titled since the mid-1970s, over a third of IPLC lands have not yet been recognized. Progress in closing this gap is impeded by a

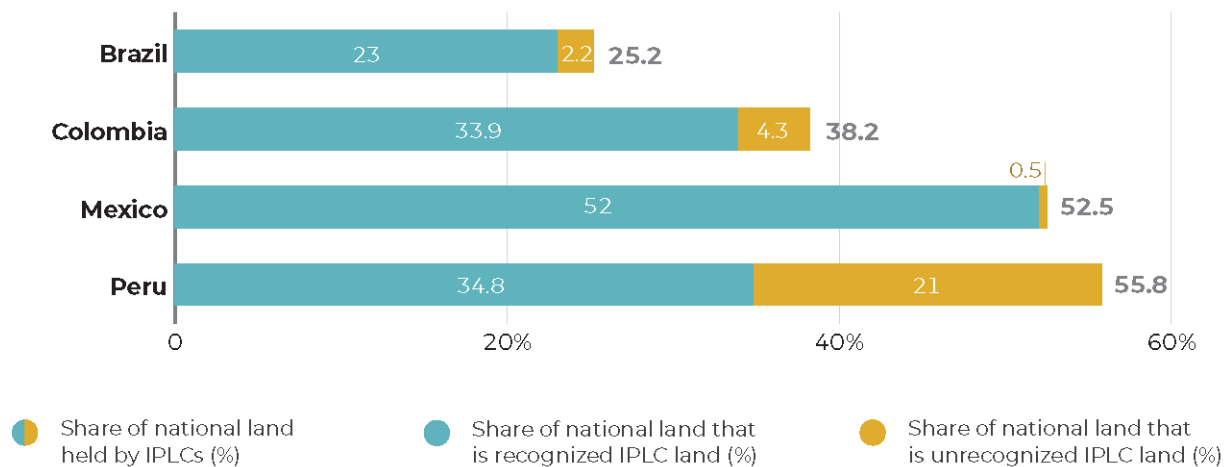
^e Land rights are often likened to a bundle of rights, including the rights of access, use, transfer, and exclusion of outsiders. The size of these bundles varies depending on tenure type (e.g., the bundle of rights under ownership or freehold tenure is commonly larger than the bundle under leasehold tenure or land designed by government for IPLCs).

^f The right to FPIC for Indigenous people is enshrined in multiple international legal documents, including the United Nations Declaration on the Rights of Indigenous Peoples and the International Labor Organization's Indigenous and Tribal Peoples Convention (no.169), as well as in the national constitutions and laws of many countries. The right of other local communities to FPIC is less well founded in international law, though some countries do recognize the right for specific communities; for instance, Afro-descendent communities in Colombia and Quilombolas in Brazil.

complex and costly titling process that can take up to 20 years to complete.²⁰ Similar challenges exist in other countries: some demarcation processes in Brazil, begun as far back as 1982 are not yet completed, while in Colombia, the absence of cadastral information in much of the country is among the barriers impeding progress.

Territories without formal rights recognition remain highly vulnerable to land grabbing and the issuance of licenses for commercial activities. In Brazil, recent normative instruction enables FUNAI, the government agency responsible for Indigenous lands, to certify companies' claims to land held by Indigenous people but not yet formally recognized, even where they are in advanced stages of demarcation. And in Peru, laws requiring mining companies to obtain permission from landowners do not apply to lands held by Indigenous people under customary law, but without formal title.²¹

Figure 4. Share of national land that is held by IPLCs and shares of recognized and unrecognized land in Brazil, Colombia, Mexico, and Peru



Note: Calculating the share of national land that is unrecognized Indigenous land is fraught with challenges, and numbers often represent an underestimation of actual figures.
 Source: RRI (2020). Estimate of the area of land and territories of Indigenous Peoples, local communities, and Afro-descendants where their rights have not been recognized.

Broad land rights

Even where IPLCs secure legal title to their lands, there may be limits placed on the scope of their rights. For instance, companies are often able to obtain licenses for certain commercial activities even in registered Indigenous territories.

In both Mexico and Colombia, the state can grant licenses for activities such as exploiting natural resources in titled IPLC lands without requiring communities' permission.²²

In Brazil, the Congress is currently considering the adoption of a bill that would open Indigenous lands to companies seeking to exploit natural resources, including extractive activities such as mining and commercial agriculture.²³ In Peru, however, the Superior Courts of Justice have upheld the right of Indigenous people to exclude third parties from entering their lands, including those bearing mineral licenses.

Women's rights are often especially insecure. In Mexico, for example, the National Network on Indigenous Women (RENAMITT) has pointed to a lack of government policies protecting

Indigenous women's ownership of land, which it argues are needed due to the inequality, violence, and bureaucracy that often prevents them from doing so. RENAMITT has called for laws that apply gender perspective to land rights and better representation of women in decision-making processes regarding land rights.²⁴

The right to free, prior, and informed consent

The right to FPIC is firmly grounded in international law, including through the United Nations Declaration on the Rights of Indigenous People and ILO Convention 169. Brazil, Colombia, Mexico, and Peru are among the few countries to have ratified Convention 169, and in all four countries the right to FPIC is anchored in national law. However, each country also limits the scope of this right in important ways and compliance with FPIC rules by companies and government authorities is often poor and inconsistent.

All four of the countries assessed in this brief only recognize the right of communities to be consulted rather than to give their consent.⁹ In many cases, consultations are regarded as a box-ticking exercise and do not provide a meaningful opportunity for communities' concerns to be considered and fail to respect communities' own institutions and norms. In Colombia, some Indigenous and Afro-descendant communities have developed their own autonomous protocols for undertaking FPIC, but the government has so far refused to recognize them.

While Colombia and Peru require FPIC for all projects and programs that directly impact Indigenous people, Brazil and Mexico place exceptions on the right. In Brazil, the right does not apply to projects considered "strategic to national defense", including strategic expansion of the road network and the exploration of "alternative energy sources" – project types frequently linked to deforestation.²⁵ In Mexico, most federal entities require FPIC only for state or municipal development plans or educational programs in Indigenous matters, or not at all.

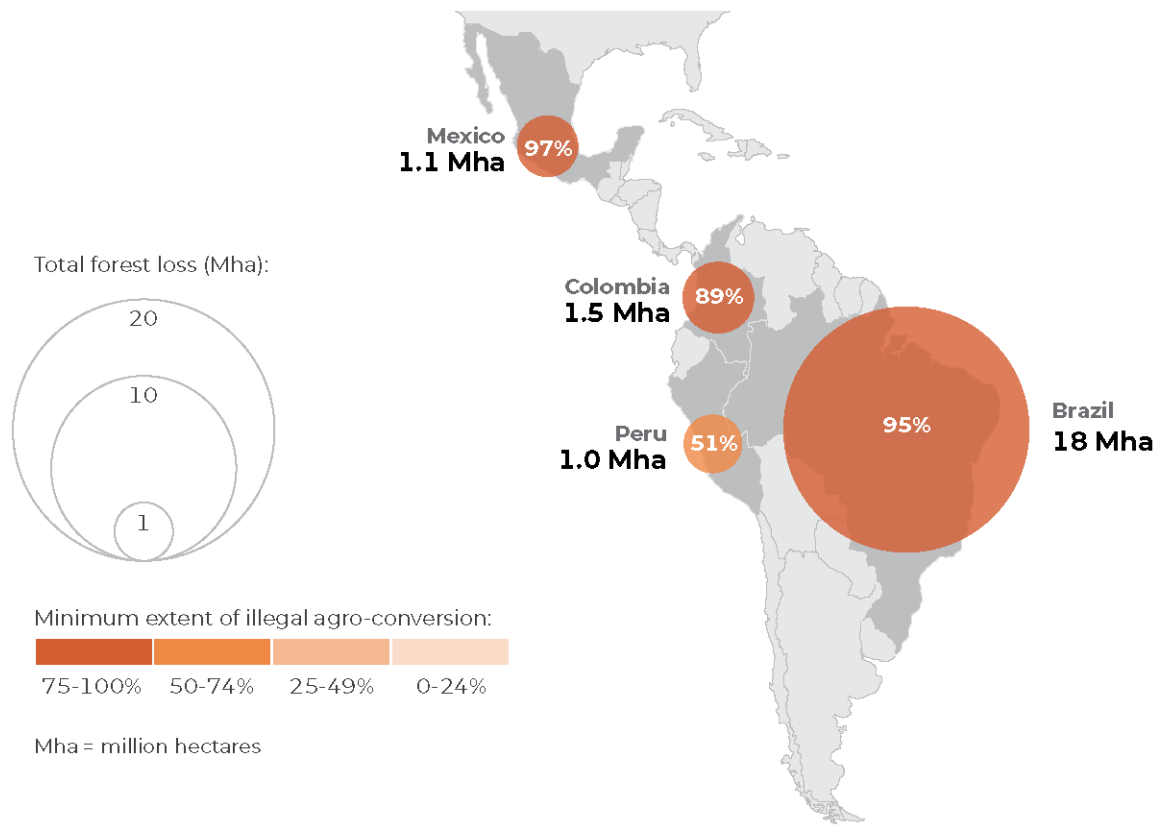
In all four countries, FPIC requirements are often disregarded or inadequately implemented. In Mexico, it is common for mining concessions to be allocated without FPIC processes being followed, for construction to begin before consultations have taken place,²⁶ or for communities to be intimidated during the consultation process, including through criminalization and imprisonment or violent attacks.^{27,28,29}

Respect for and protection of IPLC rights in practice

Even where the legal rights of Indigenous people and other local communities are secure, they are frequently disregarded or undermined by both government and private actors. In all four of our study countries, IPLCs face regular threats to their land from illegal cattle ranchers, loggers, or miners operating entirely outside the law. A recent study indicates that most of the deforestation driven by commercial agriculture in all four countries is illegal (Figure 5).³⁰ In Brazil, almost all deforestation (99 percent) in 2020 is reported to have been illegal.³¹ While it is not known how much of this illegal deforestation took place on IPLC lands, there are numerous documented cases of illegal activity encroaching on these lands.³²

⁹ For convenience, the remainder of this section continues to use the acronym 'FPIC' to refer to processes that only require consultation as well as those that require consent, while recognizing the full FPIC affords communities the right to consent.

Figure 5. The minimum extent of forest conversion driven by commercial agriculture that is illegal across Latin American countries

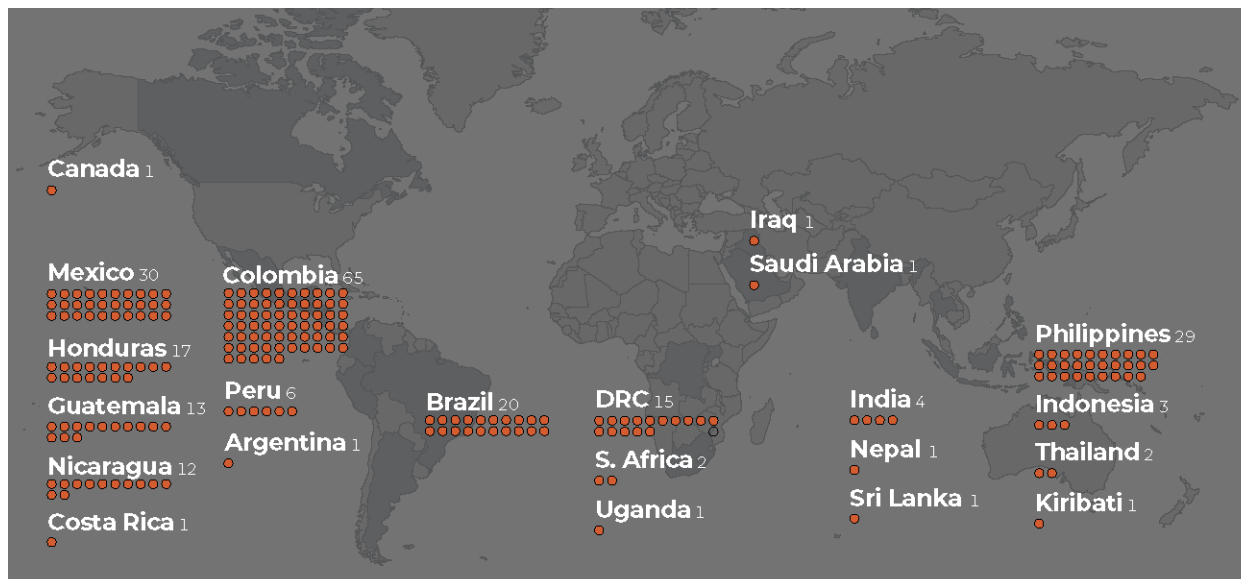


Source: Adapted from Dummett et al. (2021). Illicit harvest, complicit goods: The state of illegal deforestation for agriculture.

Illegal actors are often linked to organized crime groups and frequently act in collusion with local officials and security forces to displace, intimidate, and criminalize local communities. All four countries are among the most dangerous countries in the world for environmental defenders, many of them from IPLCs (Figure 6).³³ Women leaders are often at particular risk of attack. In Colombia, women face significantly higher levels of threats, murders, and sexual violence than men.³⁴ In Mexico, the Government has been implicated in 39 percent of attacks on environmental defenders, many of them members of IPLCs,³⁵ while in Peru, police agents contracted by mining companies and oil companies have threatened defenders with violence and murder.

Governments also frequently prosecute IPLCs for participating in protests or refusing to leave their lands: as of 2021, there are 77 active cases against environmental defenders in Peru, 32 in Colombia, and 22 in Mexico.³⁶ Meanwhile, in Brazil, Indigenous leaders have been accused of slander against the government of President Jair Bolsonaro, in a move deemed a “flagrant abuse of power” by human rights organizations.³⁷ Government rhetoric is also sometimes responsible for creating an insecure environment for communities. In Brazil, anti-Indigenous rhetoric by the current president has reportedly encouraged illegal activities on Indigenous lands and threats against Indigenous leaders, with invasions of Indigenous territories increased by 135 percent in 2019.³⁸

Figure 6. Documented killings by country in 2020



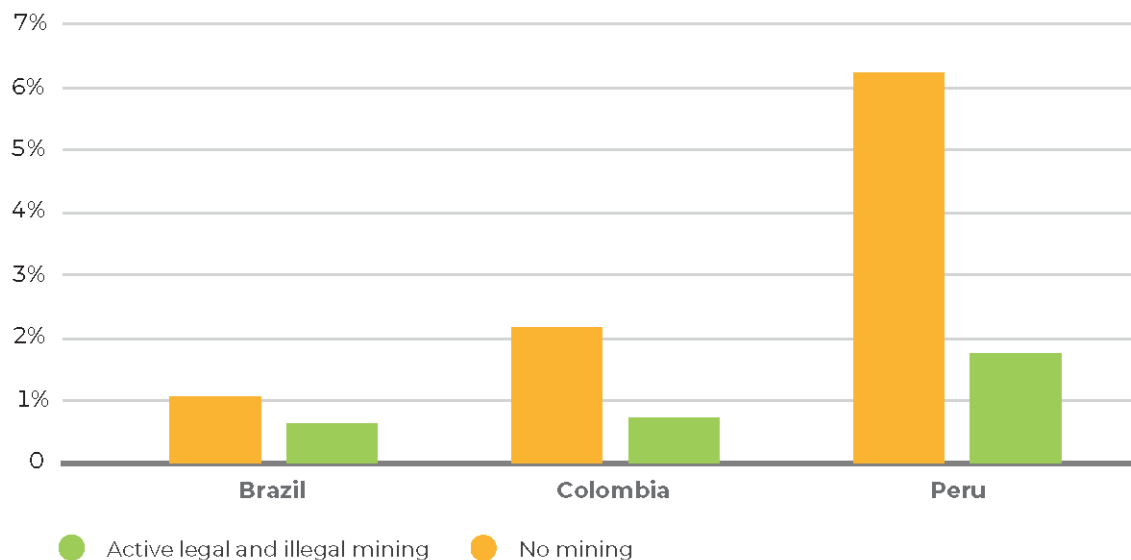
Source: Adapted from Global Witness. (2021). Last line of defence: The industries causing the climate crisis and attacks against land and environmental defenders.

Encroachment on IPLC land is also facilitated by limited state presence in forest areas and the limited capabilities of law enforcement agencies. For instance, the failure to fill a power vacuum created by the demobilization of the Revolutionary Armed Forces of Colombia (FARC) resulted in other armed groups moving in, leading to a spike in land grabbing, deforestation, and murders of Indigenous and other environmental defenders.³⁹ Both Mexico and Brazil have made drastic cuts to the budgets of environmental and forest agencies in recent years, despite rising (mostly illegal) deforestation.^{40,41}

Violence against IPLCs also typically goes unpunished, with widespread corruption, together with limited training and resources, leading to only 8 percent of murders of environmental defenders in Colombia being successfully prosecuted.⁴² Similarly, in Peru, murder investigations concerning environmental defenders are usually archived by the Prosecutor's Office without determining those responsible.⁴³

Threats to IPLCs' land also arise out of governments issuing concessions that overlap with Indigenous territories. In Mexico, for instance, there is significant overlap between mining concessions and territories belonging to ejidos and Indigenous communities. In Peru, a court found that the regional government of Madre de Díos issued 140 mining concessions in violation of Indigenous rights, while the UN Special Rapporteur on Human Rights Defenders later found the government failed to promptly implement the court's decision.⁴⁴ And in Brazil, there was a 31 percent increase in overlap between Indigenous lands in the Amazon and private lands between 2018 and 2020. Areas subject to overlaps tend to have far higher deforestation, as Figure 7 shows for the case of mining.

Figure 7. Deforestation rates in Indigenous lands subject to mining operations vs. those without mining



Source: Adapted from Quijano Vallejos et al. (2020). Undermining rights: Indigenous lands and mining in the Amazon.

There have been some limited efforts to better protect communities and other environmental defenders. In 2021, Peru established the Intersectoral Mechanism for the Protection of Human Rights Defenders, which seeks to guarantee the prevention, protection, and access to justice for human rights defenders. In addition, all four countries have signed the Escazu Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean, which includes provisions to protect the rights of environmental defenders. However, so far, only Mexico has ratified it. In Colombia, legislation proposed to ratify the convention failed to pass in June 2021 after being actively opposed, sabotaged, and blocked by conservative politicians.⁴⁵

Empowerment of communities to protect and restore forests

Across all four countries studied, governments, and international donors have a range of programs in place that provide funding to Indigenous people and other local communities to sustainably manage forests. In some cases, these programs have achieved tangible results, helping communities secure their rights and empowering them to effectively manage and protect the forests. However, many are also underfunded or fail to address the issues that are most important to the communities themselves.

All four countries have payment for environmental services (PES) programs in place that pay communities and other forest owners for conserving and sustainably managing their forests. The largest of these are in Mexico and Peru, each of which supports communities and other forest owners to protect over 2 million hectares of forests developing sustainable livelihoods.⁴⁶ However, Mexico has made drastic cuts to funding for its PES program: from USD 63 million in 2016 to only USD 8 million in 2020. In Brazil, lawmakers recently cleared the way for the creation of a national PES system that specifically identified Indigenous communities and other traditional communities as priority beneficiaries of the payments.⁴⁷ In contrast to the other three countries, Colombia does not have a national PES program, instead relying on voluntary PES schemes.

All four countries have made some efforts to integrate IPLCs in their national REDD+ programs and ensure that those programs benefit communities, though all have had major shortcomings in this regard:

1. In Colombia, while a significant share of REDD+ finance was dedicated to IPs, national REDD+ programs have been criticized for failing to address the real causes of deforestation, in particular, land grabbing by powerful actors.⁴⁸
2. In Brazil, there is a law⁴⁹ that provides for REDD+ benefits to be shared with Indigenous communities, but it is lacking mechanisms to monitor how well it is implemented and is reported to be relatively ineffective.⁵⁰ In addition, uncertainty regarding the ownership of carbon rights and limited implementation of FPIC (see above) may lead REDD+ to be seen as a threat to IPLCs.
3. In Mexico, a centralized approach to policymaking has dominated the development of REDD+ in Mexico. While participatory governance systems have been established, they have had limited impact on decision-making.⁵¹
4. In Peru, analysis of REDD+ implementation has found that it has helped to promote Indigenous rights but, more broadly, has not stopped deforestation or improved the well-being of Indigenous people.

Programs funded by international donors have played an important role in empowering IPLCs to secure and protect their rights. For instance, the Amazonia 2.0 program has trained members of Indigenous, campesino, and Afro communities as technical monitors and rangers in Brazil, Colombia, Ecuador, Guyana, Peru, and Suriname. Using technologies like GPS, drones, and cellphones, communities can have updated information to sell products from their forests and rapidly alert government authorities of deforestation and illegal trade in wild resources. Similarly, the All Eyes on the Amazon project works with forest communities in Brazil, Peru, and Ecuador to detect instances of illegal deforestation using radar satellite technology, report them to law enforcement and, where necessary, take legal action against encroachers.⁵²

At the same time, donor-funded programs have been criticized by some Indigenous leaders. For example, the Organization of Indigenous People of the Colombian Amazon criticized international NGOs for carrying out inappropriate programs that do not address Indigenous priorities, for leaving programs unfinished, and for placing too much emphasis on studies rather than implementation.⁵³

5. Summary of recommendations for governments and international donors

Our analysis shows that IPLC lands are carbon sinks with legitimate climatic benefits in Brazil, Colombia, Mexico, and Peru. We have also found that countries have yet to fully embrace the ecological potential of IPLC lands. This potential is not properly reflected in NDCs and other supporting national policy documents. We propose the following actions to address these shortcomings:

Recommendations for NDCs

- **Strengthening partnerships between governments and IPLC communities for NDC enhancement.** Governments should ensure that existing climate policy and national development planning frameworks provide opportunities for meaningful participation of IPLCs at each stage of the decision-making and engagement process. This engagement should include governments integrating IPLC practice and technologies into their NDCs, especially given the emission reduction capacity of IPLC lands and IPLCs' rich knowledge of sustainable land management techniques.
- **Review long-term objectives and targets.** When strengthening their NDC targets ahead of COP27, countries should work with IPLCs to define the contribution that IPLC lands can make to enhancing national ambition and to develop the national initiatives needed to realize that contribution. For this purpose, countries can seek to leverage finance committed through the Global Forest Finance Pledge at COP 26, which includes clarifying land tenure and forest rights for IPLCs among its priority funding areas.
- **Communication of contributions of IPLC lands in national inventories.** The specific inclusion and mention of IPLC contributions to country's forest sector targets are important data points for the MRV components under national inventories. Hence, governments should ensure that IPLC lands are accounted for so that they can be recognized as potential carbon sources or sinks.

Recommendations for national law and policy frameworks

- **Ensure legal recognition of all IPLC lands.** Governments can speed up titling processes by dedicating sufficient resources to agencies responsible for land titling, providing funding to communities to cover their costs, and simplifying titling procedures. Governments should also ensure no land rights are granted to third parties over land claimed by IPLCs. In Brazil, the government should amend or revoke FUNAI normative instruction No.9 of 2020 so that companies cannot obtain land claimed by IPLCs without those claims being resolved.
- **Ensure IPLC rights are broad and that any limitations are narrowly defined.** IPLC rights should include the full bundle of rights: Access, Duration, Exclusion, Management, Alienation, Withdrawal, Due Process, and Compensation.⁵⁴ Any laws allowing governments to use lands in public interest, national security, etc., should be narrowly defined, so that they only apply in exceptional circumstances.
- **Ensure the right to free, prior, and informed consent (FPIC) for all communities.** Governments should recognize the full right to FPIC in national laws, including the right to consent, for Indigenous people, Afro-descendant people, and other traditional

communities. They should also ensure that FPIC processes are in line with IPLCs' own traditions and are properly implemented, imposing stiff penalties on projects that begin without obtaining FPIC.

- **Respect and protect IPLC rights in practice.** All four governments should strengthen law enforcement capacities to protect IPLCs from violence and illegal incursions, while pursuing efforts to root out corruption and collusion between government and private actors and ensuring all violations against IPLCs are fully investigated and prosecuted. Brazil, Colombia, and Peru should ratify the Escazu Convention and all four countries should adopt legislation to ensure its commitments are implemented. Colombia should ensure the full and rapid implementation of the Peace Agreement, while both Peru and Colombia should fully implement the recommendations made by the UN Special Rapporteur for human rights defenders.
- **Actively empower IPLCs.** Governments should recognize IPLC plans for their lands. For example, the Indigenous Plans for the Amazon in Colombia is to provide funding, equipment, and training to enable them to effectively monitor and patrol their lands, and fully fund PES programs. They should provide spaces for meaningful dialogue between the government, private sector actors, and IPLCs, and ensure IPLCs are closely involved in development and implementation of REDD+, PES, and other forest conservation programs.
- **Assess benefits and costs of policy measures using data.** Existing research shows that securing community forest tenure is a low-cost, high-benefit investment that profits communities, countries, and the global community.^{55,56} There is limited research on the cost and benefits of securing IPLCs land rights as a low-cost mitigation option that is not sufficiently recognized in the focus countries' NDCs or related policy documents. However, such estimates are necessary to fully understand the climate mitigation potential and acquire future climate financing needed to expand IPLC-related mitigation strategies.

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