ALIGNING SHORT-TERM LAND SECTOR ACTIONS WITH LONG-TERM CLIMATE GOALS

Guidance for governments to implement NDCs in line with sustainable climate pathways
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Abbreviation

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Meaning</th>
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<tbody>
<tr>
<td>ABC</td>
<td>Mitigation and Adaptation to Climate Change for the Consolidation of a Low Carbon Economy in Agriculture (Brazil’s 2010-2020 low-carbon agriculture plan)</td>
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<td>ABC+</td>
<td>Adaptation and Low Carbon Emissions in Agriculture and Livestock (Brazil’s updated ABC Plan until 2030, with new objectives)</td>
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<tr>
<td>AFC/C</td>
<td>Agriculture, Forestry, and Other Land Use</td>
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<td>AFOLU</td>
<td>Agriculture, Forestry, and Other Land Use</td>
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<tr>
<td>AGEDS</td>
<td>Gabonese Agency for Space Studies and Observations</td>
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<td>BIU</td>
<td>Biennial Update Report</td>
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<td>CBIT</td>
<td>Capacity Building Initiative for Transparency</td>
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<td>CO2</td>
<td>Carbon dioxide</td>
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<td>CO2e</td>
<td>Carbon dioxide equivalent</td>
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<tr>
<td>CCS</td>
<td>Carbon Capture and Storage</td>
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<td>COMFAC</td>
<td>Commission for Central Africa Forests</td>
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<tr>
<td>COP</td>
<td>Conference of the Parties</td>
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<td>CTP</td>
<td>Enhanced Transparency Framework</td>
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<tr>
<td>C4F4</td>
<td>Food and Agriculture Organization of the United Nations</td>
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<td>FREL</td>
<td>Forest Reference Emission Levels</td>
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<td>GEF</td>
<td>Greenhouse Gas</td>
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<tr>
<td>GTM-NDC</td>
<td>NDC Multisectoral Working Group (Peru)</td>
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<td>IPCC</td>
<td>Intergovernmental Panel on Climate Change</td>
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<td>IPBES</td>
<td>Indigenous Peoples</td>
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<td>LULUCF</td>
<td>Local Communities</td>
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<td>MRV</td>
<td>Long-term Low Greenhouse Gas Emission Development Strategies</td>
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<td>NBBCC</td>
<td>Land Use, Land-Use Change, and Forestry</td>
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<td>NDCs</td>
<td>Monitoring, Reporting and Verification</td>
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<td>NGOa</td>
<td>National Biodiversity Coordination Committee (Kenya)</td>
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<td>REDD+</td>
<td>Nationally Determined Contributions</td>
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<tr>
<td>RECs</td>
<td>Non-Governmental Organizations</td>
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<td>ROPS</td>
<td>Reducing Emissions from Deforestation and Forest Degradation</td>
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<tr>
<td>SBC</td>
<td>Subsidiary Body for Scientific and Technological Advice</td>
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<td>SBTI</td>
<td>Science Based Targets initiative</td>
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<td>SDGs</td>
<td>Sustainable Development Goals</td>
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<td>SMAPs</td>
<td>National United Nations Development Programme</td>
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<td>UNFCCC</td>
<td>United Nations Environment Programme</td>
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<td>OFAC</td>
<td>United Nations Framework on Climate Change</td>
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<td>LULUCF</td>
<td>Central Africa Forest Observatory</td>
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Executive Summary

The Synthesis Report of the Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report is clear: the choices we make today will determine the extent to which current and future generations experience a hotter and different world.¹

In the context of this guidance, “short-term” refers to actions that policymakers could implement within a two-year period (or less). The world faces no shortage of crises and challenges beyond climate change, such as biodiversity loss, a mounting waste emergency, and the multiple threats affecting the oceans. Yet, the decisions made to respond to immediate crises — like a global pandemic, hunger, war, and human displacement — do not always align with the actions needed to address slow-moving, long-term challenges like climate change. Often, policymakers are not empowered to collaborate across sectors to pursue strategic objectives that both improve social and economic indicators in the short-term, and lead to the long-term results needed to transition toward sustainable, low-emissions societies.

Decisions made today can either accelerate the transition to a sustainable society or lock-in future emissions. Therefore, aligning short-term policy decisions with both short- and long-term objectives is essential for countries to contribute to both the Paris Agreement and the Sustainable Development Goals.

The land sector is at the heart of social inclusion and sustainable development — meeting today’s needs without compromising the needs of the future. Land is central to human livelihoods and wellbeing, supplying a range of important ecosystem services harboring biodiversity, regulating freshwater, and sustaining the food supply.² Land is also an essential player in keeping average global warming below 1.5°C by the end of the century. A wide range of land use activities can act both as a significant source of greenhouse gas emissions and an important sink of carbon dioxide.

Identifying and implementing viable opportunities to modify land-use change dynamics to reduce greenhouse gas emissions and enhance carbon sinks, while ensuring sustainable, equitable, and inclusive development, is therefore one of the greatest challenges of our time.

Policymakers can take short-term, tangible steps to ensure that their country is on the right path to meeting climate goals in the land sector. The highest priority must be to ensure that land sector governance is strong, inclusive, and participatory. Governments are set up for success when they collaborate across sectors; enable inclusive participation; build their institutional, technical, and knowledge capacities; develop monitoring and reporting infrastructure; and facilitate effective financial flows to climate action.

This guidance aims to support governments in identifying and implementing feasible, short-term³ actions in the land sector that simultaneously contribute to short-term and long-term climate mitigation goals.

Specifically, this guidance aims to help governments establish the enabling conditions needed to identify and take advantage of synergistic opportunities in the land sector. It highlights a series of governance, technical, financial, and institutional actions that can be taken by governments in the short-term to enable effective implementation of Nationally Determined Contributions.

The recommendations in this guidance are organized in a series of five “building blocks.” The key elements of each building block are presented in the Checklist below. The guidance helps policymakers identify which common roadblocks or challenges to effective implementation apply, and then provides a number of short-term recommendations to address each roadblock.

¹ In the context of this guidance, “short-term” refers to actions that policymakers could implement within a two-year period (or less).

² Land is also an essential player in keeping average global warming below 1.5°C by the end of the century. A wide range of land use activities can act both as a significant source of greenhouse gas emissions and an important sink of carbon dioxide.
Checklist to enable effective NDC implementation in the land sector in line with long-term climate goals

Building Block 1: Cross-sector collaboration
☐ National-level actors plan and implement policies in coordination.
☐ Sectoral strategies integrate national climate targets and goals for the land sector.
☐ Climate and land sector databases are accessible and interoperable across ministries and available to the public.

Building Block 2: Socially inclusive and gender-responsive stakeholder engagement
☐ Policymaking and high-level planning incorporates equitable participation, and respects safeguards, human rights, and the rights of Indigenous Peoples.
☐ Opportunities for engagement are accessible to all relevant stakeholders and rightsholders.
☐ The input of stakeholders and rightsholders is equitably and transparently integrated into relevant decision-making.

Building Block 3: Institutional, technical, and knowledge capacity-building measures
☐ Technical, human, and institutional capacity gaps are identified and filled.
☐ Institutional knowledge and memory is well-documented and effectively transferred to new staff.
☐ Funding is appropriately allocated to prioritize and enable capacity building.
☐ Indigenous Peoples’ knowledge systems are recognized, transferred, and broadly applied in the implementation of climate and land sector.

Building Block 4: Monitoring, data, and target-setting improvements
☐ National forest monitoring and reporting systems are strong and transparent.
☐ Regional, national, and community-level forest monitoring capacities are strong and institutionalized.
☐ Monitoring, Reporting and Verification (MRV) activities are subject to detailed quality assurance procedures.
☐ Existing MRV systems are improved upon before new systems are implemented.
☐ NDC implementation is tracked with high-quality indicators.
☐ Policies are designed and implemented under risk-assessment and monitoring & evaluation frameworks.

Building Block 5: Sufficient and appropriately distributed finance
☐ International climate finance for the land sector meets finance needs.
☐ Domestic budgets are aligned with mitigation targets in the land sector.
☐ The regulatory environment supports private sector investment in the land sector that is aligned with long-term mitigation goals.
The world faces no shortage of global challenges: climate change, biodiversity loss, ocean acidification, and a mounting waste emergency. Unfortunately, at the same time, acute crises such as pandemics, hunger, war, and human displacement demand rapid attention and action from governments and the international community.

The decisions made to respond to short-term crises do not always align with the actions needed to address long-term challenges. For instance, governments may provide short-term infusions of support to activities that lead to long-term harm, perhaps as a response to an economic crisis, despite the long-term need to phase out or decarbonize these industries.

Even outside of the context of crises, prioritization of short-term economic gains impedes progress on long-term environmental, social, and economic goals. Often, policymakers are trapped within their sectoral siloes and priorities. Decision-makers working on agricultural policies, for example, may not consider the upstream or downstream impacts on, or contributions to, climate change.

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The need for immediate climate action in the land sector

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The need for immediate climate action in the land sector

The Synthesis Report of the Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Cycle (IPCC-6) stresses the urgent need to address long-term challenges as well as short-term ones. Indeed, both are essential for countries’ progress toward the Paris Agreement and the Sustainable Development Goals (SDGs).

The importance of the land sector for climate action

Land is central to human livelihoods and wellbeing, providing vital ecosystem services, harboring biodiversity, regulating freshwater, and sustaining the food supply. Land is also an essential player in keeping average global warming below 1.5°C by the end of the century. Achieving this long-term goal requires not only emission reductions in all sectors, but also the preservation and enhancement of carbon sinks.

The land sector, also known as the Agriculture, Forestry and Other Land Use (AFOUL) sector, includes a wide range of land use activities and acts both as a significant source of GHG emissions and an important sink of carbon dioxide (CO2). The AFOUL sector can be divided into:

1) Agriculture, concerned primarily with food, biomass, and fiber production;
2) Land Use, Land-Use Change, and Forestry (LULUCF), which includes activities related to the management of forests, grasslands, wetlands, and other types of land use, as well as changes in land use. LULUCF includes the portion of agricultural emissions that are related to its “use of land” (e.g., croplands, pastures), but does not include other agricultural activities that produce emissions like crop residue burning or livestock production.

While there are many links between Agriculture and LULUCF activities, this document places particular emphasis on LULUCF. These activities, as well as their potential to support decision-making, such as whether to maintain a given area as forest or convert it to agricultural uses, rather than decision-making on agricultural practices and approaches. For simplicity’s sake, the term “land sector” is also used throughout this document to refer to AFOUL.

The AFOUL sector is responsible for 22 percent of global net GHG emissions 1, reaching one-third of global net emissions if emissions from food systems are included.2 Agricultural emissions, including CO2, methane, and ammonia, come primarily from livestock production, managed soils and pasture, rice cultivation, manure management, and biomass burning.3 Emissions from land conversion to agricultural uses are not counted as agricultural emissions. Instead, these are counted under LULUCF where emission sources include deforestation, forest degradation, and land conversion.4 Half of the emissions from the AFOUL sector come from deforestation alone, driven by mining, urbanization, and – primarily – the expansion of agriculture for production of commodities for food, fiber, feed, and fuel.5

While the AFOUL sector is a significant source of emissions, it also offers immense sequestration potential. Between 2010 and 2019, the IPCC estimates that land provided a net sink of −6.6 (±4.6) billion tons of CO2 per year.6 This is equivalent to the sequestration of roughly one sixth of the annual emissions generated from the energy sector (which was 36.8 billion tons of CO2 in 2022 globally).

Further, it is estimated that the 20 countries with the highest land carbon sink have the potential to sequester 62 billion tons of carbon between 2005 and 2050, with Russia, Canada, USA, China, and Brazil accounting for three quarters of that figure.7 However, these sinks are also vulnerable to climate change – for example, drier seasons increases the likelihood and intensity of wildfires. Also, as atmospheric CO2 concentrations increase, these existing sinks absorb a decreasing proportion of emissions.8

NDCs and LTGs: a framework for climate action that requires coherence

The United Nations Framework Convention on Climate Change (UNFCCC) serves as a central framework for fostering international cooperation and facilitating access to climate finance, thereby supporting global efforts to address climate change. The Paris Agreement provides a framework for planning climate action both in the medium- and long-term (by 2030 and 2050, respectively). Parties submit Nationally Determined Contributions (NDCs) every five years and are invited to prepare Long-term Low Greenhouse Gas Emission Development Strategies (LTGs). In these key strategic pledges, Parties outline their emission reduction commitments and pathways to achieve these. Parties are required to increase their ambition and targets with each submission.

NDCs contain countries’ medium-term, high-level climate goals, including which sectors will contribute to the overall emissions reduction objective and an indication of what policies are planned...
or in place to achieve this. LTSs outline mid-century objectives – in many cases related to achieving net-zero emissions – and often detail scenarios and potential mitigation and development pathways. Parties to the Paris Agreement have clearly communicated in both NDCs and LTSs\(^1\) that mitigation in the land use sector is high priority. Over 80 percent of NDCs and 90 percent of LTSs refer to mitigation measures or targets in the land sector.

Both NDCs and LTSs can serve as a roadmap for economy-wide and sectoral policy development. However, these documents are not always developed in parallel, which can lead to inconsistencies in data, targets, or planned policies. Only 41 percent of countries who have submitted both NDCs\(^2\) and LTSs\(^3\) currently demonstrate a degree of alignment in the inclusion of AFOLU targets and pathways.

Improving the coherence between these documents can help governments implement better land use planning, allocate resources more effectively, and prioritize actions that would enable the achievement of their short- and long-term climate goals in their respective socio-economic contexts.

Marginalized groups such as women, Indigenous Peoples (IPs), local communities (LCs), and youth deserve a say in land sector decision-making. These groups disproportionately affected by the repercussions of disappearing forests and climate change.\(^4\) Additionally, they have a clear stake in – and, often, a traditional or legal right to control or influence – decision-making for the territories they own, occupy, or rely on for their livelihoods and cultural traditions. When land sector policies do not integrate socially inclusive and gender-based approaches, existing inequalities risk being further exacerbated.

Aligning short-term needs with long-term goals requires effective participation across stakeholder groups. This includes policymakers, farmers, consumers, landowners, investors, academia, non-governmental organizations (NGOs), and private companies. This alignment also requires sufficient institutional, knowledge, and technical capacities, and must be underpinned by sufficient domestic and international financing.

Finally, mitigation actions in the AFOLU sector can simultaneously help countries address multiple SDGs – notably those related to food security (SDG 2), water (SDG 6), energy (SDG 7), and climate (SDG 13). The world is experiencing growing demands for food, water, and energy among others, all of which compete for limited land resources. Yet many AFOLU mitigation options can also provide significant benefits for system resilience, ecosystem services, biodiversity, and livelihoods.

### Recommendations for governments to support short-term actions in the land sector aligned with long-term objectives

This guidance aims to support national and subnational governments in identifying and implementing feasible, short-term\(^4\) actions for the land sector that simultaneously contribute to short-term and long-term climate goals.

The guidance particularly focuses on implementing and strengthening coherent, inclusive, and effective governance and institutional processes. Recommendations are specifically made to facilitate implementation and alignment of NDCs and LTSs.

Specifically, this guidance aims to help governments establish the enabling conditions needed to identify and take advantage of synergistic opportunities in the land sector. It highlights a series of governance, technical, financial, and institutional actions that can be taken by governments in the short-term to:

1. Eliminate potential institutional and regulatory barriers to successful policy implementation,
2. Identify appropriate mitigation options and pathways, and
3. Develop strategies and resources for the long-term implementation of land sector mitigation policies.

\(^1\) In the context of this guidance, “short-term” refers to actions that policymakers could implement within a two-year period (or less).

\(^2\) By August 2023, 195 Parties to the Paris Agreement had submitted NDCs, and 66 submitted LTSs.

\(^3\) Based on an original analysis by Climate Focus of 66 LTSs submitted to the UNFCCC by August 2023. See Annex 2 for more information

\(^4\) Over 80 percent of NDCs and 90 percent of LTSs refer to mitigation measures or targets in the land sector.
Box 1. Coherence between forest targets and pathways in NDCs and LTSs

Parties to the Paris Agreement have clearly communicated in both NDCs and LTSs that mitigation in the land sector is a high-priority climate action. Over 80 percent of NDCs refer to mitigation measures in the AFOLU sector, including over 40 percent of NDCs which specify quantitative LULUCF mitigation targets. The most common mitigation measures include afforestation, reforestation and restoration, conservation, sustainable forest management, and reducing emissions from deforestation and forest degradation. Similarly, over 90 percent of LTSs include a quantitative or qualitative AFOLU mitigation target, whether related to agriculture, LULUCF or both. Of those, 60 percent include both agriculture and LULUCF targets and 2 percent include agriculture-related targets exclusively. Emissions reductions targets are the most common, appearing in 63 percent of the LTSs that have targets related to AFOLU.

However, a side-by-side review of the NDCs and LTSs from countries (or groups of countries) that have submitted both documents to the UNFCCC demonstrates generally low levels of alignment on forest sector targets and pathways (See Annex 2 for the full assessment). Overall, a minority (41 percent) of the assessed LTSs provide a sufficient degree of alignment with NDCs that would allow the documents to be used together as a foundation for short-term policy planning and action prioritization. Nearly 40 percent of assessed countries present a forest-related target in only one of the two documents or do not mention forests at all in their NDCs.

Only eleven countries are either “aligned” on their forest targets (meaning that both documents present the same 2030 target) or “fully aligned” (which, in addition, means that the LTS builds on the NDC to indicate further ambition or increased targets for 2050). As an example of “fully aligned” targets, Chile’s NDC and LTS both state a target of reducing emissions due to degradation and deforestation of native forests by 25 percent by 2030, from a 2001-2013 baseline. Both also aim to recover and sustainably manage 200,000 hectares of native forests. The LTS further states that by 2050, they will sustainably manage and recover the necessary areas of native forests to achieve the carbon neutrality committed in the NDC.

In contrast, twenty-five countries’ NDCs and LTSs are “poorly aligned.” This means that only one document has a numerical target, both documents have numerical targets, but they are not comparable, or the documents lack a forest-related target completely. For example, the Gambia’s NDC states that GHG emissions in the LULUCF sector will be 589,000 tons CO2e in 2030 – a 58.4 percent decrease from 2020 and a 45.6 percent decrease from the business-as-usual expectation for 2030. However, the LTS states that emissions reductions in the LULUCF sector will total 330,000 tons CO2e in 2030, without specifying a baseline or explaining discrepancies with the NDC.

Based on an original analysis by Climate Focus of 66 LTSs submitted to the UNFCCC by August 2023. See Annex 2 for more information.
These recommendations are organized in a series of five “building blocks” for effective NDC implementation through the AFOLU sector.

Each building block contains a table that guides policymakers through the following steps:

1) Consider if all key elements of the building block are effectively functioning.
2) If not, identify which common roadblocks or challenges to effective implementation apply.
3) Consider applying the short-term recommendations to address each roadblock.

The building blocks were developed through a desk review, interviews with experts, and consultations with country stakeholders (see more on methodology in Annex 1). Each building block includes one or more case studies showcasing countries or regions that have successfully strengthened their enabling conditions for reaching climate and land sector objectives. While each of the five building blocks are distinct, there are key overlaps and interlinkages between them. As just one illustration, strengthened monitoring and reporting processes rely on institutional and technical capacity improvements.

Given the diversity of country contexts, the recommendations described here will need to be tailored to the policy, economic, and technical conditions of each country and region. Thus, this guidance serves as a menu of ideas for...
Building Block 1: Cross-sector collaboration

Why cross-sector collaboration?

Climate goals can only be reached when they are successfully integrated throughout policy domains, connecting national and sub-national policymaking levels, and reducing trade-offs amongst diverse policy objectives. Cohesive governance on climate issues derives from effective cross-sector collaboration, both vertically (between local, national, and international domains) and horizontally (between peer ministries, such as agriculture, health, and finance sectors).

Effective collaboration also depends on sufficient prioritization of climate goals compared to other competing priorities across the land sector. Shared responsibility for NDC implementation in the land sector can increase buy-in and accountability across sector stakeholders.

Synergies between environmental goals – whether SDGs, biodiversity plans, or mitigation and adaptation targets outlined in strategic policy documents such as LTSs – are also essential to successful NDC implementation. Given that the AFOLU sector intersects with a wide range of government domains and domestic policy goals, the sector’s mitigation potential must be approached with cohesive, coordinated action and objectives.
Is effective cross-sector collaboration in place? Are national-level actors planning and implementing policies in coordination, resulting in synergies between sectoral policies and goals, including those between agriculture, forestry, health, energy, and mining, environment, and other relevant ministries? Are climate and land sector databases adequately integrated across ministries and is information shared among government institutions and widely available to the public?

Potential roadblocks to effective monitoring, data, and target-setting

Is policymaking happening in siloes? Is there a lack of institutional communication? Is nobody tracking inter-institutional collaboration? Is there a lack of guidance for aligning planning with climate targets?

Short-term actions to enable effective monitoring, data, and target-setting

Set up a formal coordination body or build upon existing platforms to ensure government ministries consider the mitigation and adaptation needs of the land sector where appropriate. It can happen when there is no legal or operational framework in place for intersectoral planning, implementation, and monitoring. Ensure that interministerial cooperation and coordination has a basis in legal and institutional arrangements. Set up formal working groups, establishing protocols to guide the implementation process, and ultimately achieved. Communication and coordination needs, setting up formal working groups, establishing protocols to guide the coordination process and securing high-level support for the NDC implementation process. Establish or strengthen an inter-ministerial technical working group that seeks to synergize sectoral and national level Monitoring, Reporting and Verification (MRV) systems and databases. This working group should conduct a review of the types and formats of data already collected by different institutions, and then identify opportunities for harmonization. Establish and fund mandates on data sharing and promote the publication and public accessibility of databases. Collaborate to develop data sharing protocols involving key government institutions.

And then consider these short-term actions

- Set up a formal working group.
- Establish standardized guidelines for the development of sectoral strategies.
- Establish or strengthen an inter-ministerial technical working group.
- Establish and fund mandates on data sharing and promote the publication and public accessibility of databases.
- Collaborate to develop data sharing protocols involving key government institutions.

Clarify roles of ministries whose mandates intersect with the land sector and define how respective activities will be used together to form a set of joint performance indicators.

- Create or combine existing inter-institutional communication into a single, unified channel, and establish or strengthen processes to encourage ministries to keep each other informed on climate change- and land sector-related activities throughout their sectors.

- Establish an inter-institutional, cross-sectoral collaboration tracking system or build upon existing schemes to integrate AFOLU considerations.

- Periodically review sectoral strategies against national guiding climate documents to the standard procedures for updating sectoral strategies.

- Conduct a full review of national and sectoral-level strategies and development plans ensuring cohesion and alignment with AFOLU and other climate goals and targets.

- Communicate NDC and LTS goals clearly to policymakers and other stakeholders. Using simple language and formatting (e.g., bullet points, graphics, or tables), assemble and distribute a short overview of NDC, and LTS goals for the land sector to ensure that every decision-maker is aware of them.

- Periodically review sectoral strategies against national guiding climate documents to the standard procedures for updating sectoral strategies.

- Conduct a full review of national and sectoral-level strategies and development plans ensuring cohesion and alignment with AFOLU and other climate goals and targets.

- Establish or strengthen an inter-ministerial technical working group that seeks to synergize sectoral and national level Monitoring, Reporting and Verification (MRV) systems and databases. This working group should conduct a review of the types and formats of data already collected by different institutions, and then identify opportunities for harmonization.
The establishment of cross-sectoral bodies to achieve climate and land sector objectives

Peru has instituted a cross-sectoral coordination body for NDC implementation to break out of siloed decision-making.

Peru’s Ministry of Environment, supported by the United Nations Development Programme (UNDP) NDC Support Programme, has put in place an institutional change process called an NDC Multisectoral Working Group (GTM-NDC, in its Spanish acronym), integrating 14 of Peru’s government entities. The GTM-NDC is responsible for producing NDC-related information and coordinating the development of sectoral action plans that outline the mitigation and adaptation measures to be implemented in the country. Four specialists (supported by UNDP and based at the Ministries of Transport and Communications, Housing Construction and Sanitation, Agriculture and Irrigation, and the Forest and Wildlife Service) generate the necessary information for the design and implementation of prioritized measures. The GTM-NDC has identified 61 mitigation measures and 96 adaptation measures and has also identified key actors and enabling conditions for their implementation. A public consultation process called Dialoguemos has involved other stakeholders in the NDC process.

Kenya is integrating its biodiversity goals into sectoral strategies through inter-institutional and cross-sectoral collaboration.

Kenya launched its BIODEV2030 initiative in March 2020, supported by the Agence Française de Développement, coordinated by Expertise France and implemented by International Union for Conservation of Nature and World Wide Fund For Nature. The project aims to accelerate the integration of biodiversity into priority sectors essential for both biodiversity and economic development. To achieve this goal, BIODEV2030 is collaborating with the Ministry of Environment and Forestry to establish a coordinating platform for biodiversity stakeholders. The initiative also partners with the Inter-sectoral Forum on Agrobiodiversity and Agroecology to develop voluntary commitments in the agriculture, livestock, and forestry sectors. A National Biodiversity Coordination Committee (NBCC) has been established to enhance coordination and collaboration among national, country, and local level multi-sectoral agencies that work towards biodiversity goals. An important next step will be to ensure the NBCC and the NDC implementation unit of Kenya work together, ensuring alignment and coherence in their strategies to achieve their targets.

Colombia is developing integrated sectoral climate action plans that combine mitigation and adaptation actions to implement its NDC in line with its LTS.

Colombia is implementing its NDC on a sectoral level, through the country’s Low-Carbon and Resilient Development Strategy, under which the country developed eight sectoral mitigation action plans (SMAPs) from 2014 to 2016. Following the approval of the National Climate Change Policy in December 2016 and in the context of the National System for Climate Change, Colombia is now transforming its SMAPs into integrated climate change plans, which will include both mitigation and adaptation actions. The plans will be developed and implemented by sectors and territories, with clearly defined responsibilities, timelines, and implementation routes to achieve the national-level mitigation and adaptation targets.
Engaging many stakeholders and rights holders throughout NDC development and implementation is essential for achieving climate and land sector goals in the short- and long-term. Consulting stakeholders in gender-responsive, equitable and inclusive processes, and gaining the Free, Prior and Informed Consent (FPIC) of Indigenous Peoples help establish consensus on an implementation path and fosters a sense of ownership and shared responsibility over policies’ outcomes. This multi-level buy-in from stakeholders adds legitimacy and credibility to NDC implementation, especially when different stakeholders’ priorities come into conflict.

Stakeholder participation is especially important to collect country- and region-specific information to incorporate into NDC implementation plans in the land sector. Meaningful stakeholder input should reveal unique social, gendered, political, and economic challenges in any given country context, allowing countries to reject ‘one-size-fits-all’ approaches that may undermine NDC implementation.

Implementing NDCs in the land sector also provides a valuable opportunity to advance social inclusion, gender equality and women’s empowerment by identifying and elevating the unique needs and capacities of especially marginalized groups, such as Indigenous Peoples, local communities, women, youth, etc. For example, taking a gender-responsive approach requires recognizing that women and men have different experiences, perspectives, and knowledge on land use given their different roles, rights, and responsibilities. Integrating these different perspectives requires acknowledging and addressing the socio-economic, social, cultural, and political barriers facing women which often can prevent them from effectively participating in land use decision-making.

Ensuring meaningful consultation and engagement with IPs and LCS is of equal importance. Inclusion of these groups is key for respecting their rights and integrating their concerns into land sector planning. These communities are particularly impacted by land sector decisions and can make significant contributions to the implementation of mitigation and adaptation measures.

Effective stakeholder engagement can improve the sustainability of AFOLU policies and practices and enhance the livelihoods of marginalized groups. Robust and inclusive stakeholder engagement requires a recognition that different stakeholders’ perspectives and knowledge – across genders, classes, age groups, and ethnicities – have value. Only through socially inclusive, gender-responsive, and collaborative decision-making can solutions be found that serve the greater interests of society.

Engaging stakeholders helps foster strong, constructive, and responsive relationships that are key for ensuring effective design and implementation of projects. When stakeholders are effectively engaged, their acceptance and ownership of the project is enhanced, besides strengthening the benefits and social and environmental sustainability of actions. Stakeholder engagement is both a goal in itself as well as a means for achieving projects outcomes. It seeks to uphold the rights of those who may be affected by a project, while at the same time it seeks to improve projects results related to democratic governance, environmental protection, respect for human rights, and prevention and resolution of conflict.
Are these conditions to ensure that equitable participation of diverse stakeholders, human rights and safeguards, and the rights of IPs are – i.e., policy shifts and investments needed to align climate and land use policies and practices with human rights and environment safeguards? Identify and prioritize the issues that matter most to IPs and local communities. Mandate that new climate and land use policies formalize how IPs’ rights will be respected, protected, and enforced. See Table 32. 

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For more details, refer to "Inclusive consultations" and "Participatory dialogues to build trust and confidence" and the chapter on "Indigenous Peoples and Local Communities".
For the first time, the Democratic Republic of Congo recognizes the distinct environmental rights of IPs

The Democratic Republic of Congo has adopted a new law on the Promotion and Protection of the Rights of the Indigenous Pygmy Peoples. This law, for the first time, distinguishes IPs from local communities and allows for recognition of their separate rights and protection. It legally secures ancestral lands, protects, and promotes traditional knowledge and practices, and addresses the challenges of occupation or dispossession faced by forest communities. With this distinct recognition, the Indigenous Pygmy peoples now have the basis to claim and exercise their right to FPIC regarding decision-making in their territories.

Case Studies:

Securing the right to Free, Prior, and Informed Consent through legislation

National legal frameworks are increasingly legislating the right to FPIC of Indigenous Peoples. For example, in Asia, the Philippines passed the Indigenous Peoples Rights Act (1997); in Ecuador, the right to FPIC is enshrined in its Constitution. Peru has its Law on the Rights of Consultation to Indigenous or Native Peoples (2010) while Colombia’s Law 160 of 1993 has provisions on FPIC.

Other efforts to secure FPIC have recently occurred in Africa, such as:

The Republic of Congo pioneered the legal protection of IPs' rights in Africa

The Republic of Congo was the first African country to adopt a national legislative framework for the protection of IP rights. The 2011 Law On the Promotion and Protection of the Rights of Indigenous Peoples establishes a legal basis for the protection and assertion of the rights, culture, and livelihoods of IPs. The established legal framework ensures that consultations are held before any measures are implemented that affect IPs’ cultural or property rights, the demarcation of land based on customary law, the right to revenue generated by land use and the requirement of Free, Prior, and Informed Consent.

Mainstreaming gender-responsive and socially inclusive approaches in domestic forest policy

Papua New Guinea is putting gender at the heart of FPIC

In Papua New Guinea, where women generally have limited influence in land use decision-making, UNDP, through the UN-REDD Programme, has made efforts to ensure gender considerations are incorporated into the National REDD+ FPIC Guidelines, in coordination with the country’s Climate Change and Development Authority. This process has involved integrating gender perspectives into the operational framework, recognizing both women and men as potential land owners and users, and ensuring gender balance in local FPIC facilitation teams. The process has also made gender a key consideration in the development of national policies to ensure women’s participation in forest management.

Cambodia has integrated a gender-responsive approach throughout its forest policies and institutions

In Cambodia, gender objectives are included throughout the country’s main forest policy documents. The National Forest Program highlights the promotion of women’s participation in forest management at both national and local levels as a means to improve the institutional structure of the Forestry Administration. The National Reducing Deforestation and Forest Degradation (REDD+) Strategy establishes a gender group that reviews and provides gender-specific inputs, which has resulted in the collection of gender disaggregated data, and the strategy states that its implementation is guided by gender-responsive approaches. The NDC includes adaptation measures with gender disaggregated targets for forestry, and notes that participation of women could be increased in the forestry sector.

Kenya has recently published new policies that promote and mainstream women’s participation in forest management

Kenya’s National Policy on Gender and Development, passed in 2019, obligates the state to mainstream gender in all its policy and legal frameworks, programs, and operations, including explicitly policies related to sustainable natural resource management and climate change mitigation and adaptation. The draft Forest Policy 2020 includes provisions that mandate the Kenyan government to ensure the involvement of women and other marginalized groups in sustainable forest management. Kenya's REDD+ safeguards include requirements that actions, policies, and measures are gender responsive and embody gender equality and disaggregation, and that no more than two-thirds of members of REDD+ decision-making public bodies should belong to one gender.
**CASE STUDIES:**

**Stakeholder engagement in the design and implementation of NDCs**

**Canada is partnering with Indigenous Peoples for climate solutions**

Canada reported its collaboration with Indigenous Peoples in the implementation measures of its Pan-Canadian Framework on Clean Growth and Climate Change to make progress towards its first NDC. In its revised NDC, the government committed to:

- Power rural, remote, northern and Indigenous communities that currently rely on diesel with clean, reliable energy by 2030.
- Co-develop solutions with IPs to ensure carbon pricing works for them and their communities.
- Increase funding for Indigenous Protected and Conserved Areas and Indigenous Guardians programs with a portion of the recent investments of $2.3 billion in Canada’s Nature Legacy Initiative, to help address the biodiversity crisis, fight climate change, and protect and create jobs.
- Support self-determined climate action which is critical to advancing Canada’s reconciliation with Indigenous Peoples, as is the leadership of Indigenous Peoples to achieve the foundational transformations required to address and mitigate the consequences of climate change.
- Continue to partner with IPs in adapting to the changing climate and contributing to national decarbonization efforts, to position indigenous climate leadership as a cornerstone of Canada’s Strengthened Climate Plan.
- Engage with key stakeholders, including IPs, to achieve its commitment to reach net-zero GHG emissions by 2050.

**Inclusiveness in Honduras’s NDC revision process**

In Honduras, UNDP supported a highly inclusive and society-wide NDC revision process. This exercise encompassed 74 technical working meetings, three socialization workshops, and three validation meetings involving key stakeholders. Key measures and targets aligned with SDGs and comprehensive information on social inclusion (gender equality and equity, young people, and Indigenous and Afro-Honduran peoples) were developed through the process. The process also included six social commitments, including the identification of clear roles of relevant institutions to play a role in NDC implementation and ensure the promotion of social inclusion, gender equality, women’s empowerment, and intergenerational equity. To validate the recommendations on social inclusion and gender that were proposed for the updated NDC, a national consultation was held with targeted participation of groups of women, youth, and Indigenous and Afro-Honduran Peoples. This process resulted in a more robust and inclusive revised NDC for Honduras.
Implementing countries’ NDCs in the land sector in a way that supports long-term objectives requires sufficient institutional, technical, and knowledge capacities. Regardless of how strategic and comprehensive a given policy or regulation is, any given plan will struggle to achieve its intended outcome when countries lack the human, financial, technical, or institutional capacities needed to see it through.

Capacity building is a continuous process that seeks to address identified gaps and promote gradual improvements both in individual and institutional abilities to perform actions. Having strong institutional, technical and knowledge capacities is an enabler of NDC implementation, helping countries design and implement effective policies, access and manage financial resources, monitor and report progress, and collaborate and engage stakeholders.

Overarching NDC implementation is country-driven and shifts based on unique country contexts; similarly, capacity building needs differ significantly from country to country. Many countries are at different stages of their sustainable development journey and face diverse constraints and needs. For some countries, top priorities may include adequate funding for staff salaries. For others, priorities may include access to higher education and staff training. Others might lack access to specific technologies and technical knowledge, which may take precedence over other capacity building measures. Though capacity building is not a one-size-fits-all category, it remains an essential building block for NDC implementation in the land sector.

Building Block 3: Institutional, technical, and knowledge capacity-building measures

Why capacity building?

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Assessing, updating, and addressing Mongolia’s adaptation technology needs

In 2013, Mongolia conducted its first technology needs assessment to determine climate change adaptation technology priorities. The country’s Ministry of Environment and Green Development facilitated stakeholder engagement, defined implications of climate change for the country’s development priorities and strategies, prioritized sectors, and subsectors, and identified technologies as high priorities for climate change adaptation. The assessment identified that arable farming and animal husbandry were the sectors most vulnerable to climate change. It also highlighted that the social, economic, and environmental losses due to climate change impacts were expected to be greater in those sectors compared to others.

Four years later, Mongolia submitted their Initial Biennial Update Report (BUR) under the UNFCCC. The 2017 BUR refers to the country’s technology needs assessment. However, the actual technology needs listed in the BUR do not relate to the land sector, despite their prioritization in the 2013 technology needs assessment. That said, in 2018, Mongolia submitted its Third National Communication to the UNFCCC wherein the country reviewed and deepened its assessment of adaptation technology needs based on the 2013 report. Using the output of the previous assessment as background data and material, Mongolia updated the technology needs it first expressed five years earlier.

With this renewed and updated clarity, the country is currently receiving support from UNDP (with funding from the Green Climate Fund) to improve the adaptive capacity and risk management of rural communities. Running from 2021 to 2028, the project will integrate climate information into land and water use planning at the national and sub-national levels; scale up climate-resilient water and soil management practices for enhanced small-scale herder resource management; and build herder capacity to access markets for sustainably sourced, climate-resilient livestock products.

Use of Indigenous and traditional knowledge and practices for adaptation

Jamaican farmers use guinea grass mulching to adapt to droughts

In some areas of Jamaica, droughts are becoming more frequent, making farmers whose livelihoods depend on agriculture more vulnerable. In general, there is a wide perception that negative effects of droughts can be mitigated through appropriate technologies. However, the unavailability of resources usually hampers their actual adoption. One agricultural practice which has been widely adopted is guinea grass mulching, which consists of covering land with dried guinea grass after it has been prepared for cultivation. This is done before sowing, in order to ensure that moisture is conserved; weeds are controlled, soil erosion, run-off and soil temperature are reduced, soil structure is improved and volatile fertilizer material is retained. By doing this, farmers can produce crops during the dry season without having to resort to irrigation. Guinea grass mulching enhances soil moisture for germinating seeds and allows for a better crop establishment and nutrient uptake.

Agriculture diversity as an adaptation tool in China

In China, IPs such as the Hani people have long embraced agiodiversity as a means of dealing with the risk of drought, illustrating the importance of this tool in adaptation. The Hani and other ethnic minorities in the Ailao Mountain, to the south of the Red River in Yunnan Province, have been extensively practicing rice terrace agriculture for many years. In the Yunnan Province, the monsoon climate consists of the wet season from June to October and the dry season from November to May. Agriculture is highly vulnerable to the impacts of drought, and in many parts of the Yunnan Province, agricultural production suffered a huge loss in a drought that occurred between 2009 and 2012. However, the agriculture of the Hani people was not greatly affected by that drought, mainly due to their use of agiodiversity.

Seasonal climate advisories developed locally in Kenya and Ghana

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Communities, service providers and meteorological departments in Kenya and Ghana have developed and widely disseminated locally relevant seasonal climate advisories, producing seasonal, and in some cases, short-range forecasts. These were disseminated to farmers and livestock keepers through community-held seminars, chiefs’ meetings, radios and mobile telephones, churches and mosques, governmental and non-governmental extension services, and local early warning systems.
Accurate and timely monitoring, including measurement, reporting, and verification (MRV), capacities are crucial for land-based mitigation for several reasons. Building human, operational, and financial capacities to monitor deforestation is an important step toward enforcing laws and reducing illegal activity that harms the land sector. Further, increasing transparency in the forest sector (i.e., making data, information, and decisions accessible to stakeholders and rightsholders) can improve the accountability of forest sector actors.

To this end, civil society-led monitoring and deforestation alert tools can play an important role for holding governments, landowners, and companies accountable and improving overall transparency. Improved data on the effectiveness, co-benefits, and risks of emerging response options can help achieve sustainable land management.

It is key to strengthen and formalize countries’ institutional arrangements for their national monitoring and MRV systems. This includes building technical capacity for NDC implementation in the land sector and enhancing access to national climate information. It also requires building and enhancing the capacity of national institutions to coordinate, manage, and implement climate actions listed in their NDCs in a structured, clear process.

Monitoring and reporting on countries’ NDC progress is central to NDC implementation. Tracking NDC progress can inform any adjustments to implementation plans. Additionally, increased requirements for monitoring and reporting progress in the AFOLU sector under the Enhanced Transparency Framework (ETF) highlight how important these components are in developing NDCs and their periodic updates.

Building Block 4: Monitoring, data, and target-setting improvements

Why monitoring, data, and target setting?

Accurate and timely monitoring, including measurement, reporting, and verification (MRV), capacities are crucial for land-based mitigation for several reasons. Building human, operational, and financial capacities to monitor deforestation is an important step toward enforcing laws and reducing illegal activity that harms the land sector. Further, increasing transparency in the forest sector (i.e., making data, information, and decisions accessible to stakeholders and rightsholders) can improve the accountability of forest sector actors.

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<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
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<tr>
<td>Hold short-term actions</td>
<td>Place monitoring, data, and a multi-sector effort monitoring and reporting system. Include own MRV and data analysis responsibilities. Allocate sufficient finance within national reporting used, including those that monitor and report on safeguard practices.</td>
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Uruguay’s National Climate Change Policy and NDC Progress Tracker

In 2020, Uruguay launched a publicly accessible interactive dashboard to enable users to monitor the implementation of the country’s global commitments in tackling climate change. After more than a year since its initial launch, the dashboard underwent significant enhancements to provide a more comprehensive and illustrative version. This was done with the support of the Agency for Electronic Government and Information and Knowledge Society.

For each measure included in Uruguay’s NDC, the dashboard displays the level of progress towards a respective goal. Users can filter measures in a variety of ways, including by sector or area, by the institution responsible for their monitoring, or by their current progress status. Notably, the dashboard also classifies measures according to their potential impact on gender inequalities. Furthermore, the dashboard shows towards the maintenance of carbon sinks and makes it possible to distinguish between progress towards conditional and unconditional emission intensity reduction targets. For each objective and measure, users can download information sheets that clarify existing progress values.

The tool has strengthened civil society’s access to information while also reinforcing the accountability of institutional actors in consistently providing up-to-date and relevant data on established goals and measures. Currently, a working plan is in place to ensure datasheets are updated according to the pre-established methodologies. In this context, Uruguay has also issued its first sovereign bonds associated with environmental indicators, which align the public financing strategy with the national commitments to sustainability and low-carbon economic development. The key performance indicators of the bonds issued are based on the goals established by the country’s NDC, further underlining how efficient MRV systems can incentivize investments in NDC implementation.

National and regional advances in forest monitoring in the Congo Basin

Gabon has been a leader in real-time deforestation monitoring to inform sectoral governance.

Gabon institutionalized its remote sensing activities through the creation of the Gabonese Agency for Space Studies and Observations (AGEOS, in its French acronym). In collaboration with the National Parks Agency, AGEOS produces land cover maps as part of the National Observation System for Natural Resources and Forests. AGEOS enables real-time monitoring of the national forest cover and contributes to efforts to reduce deforestation in key driving sectors such as forestry, agriculture, and infrastructure. Additionally, Gabon has assessed its national forest baseline and put in place a roadmap to monitor and update forest inventory data in a consistent manner.

CASE STUDIES:
Parties to the Paris Agreement are committed to making “finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.” This requires both new climate finance and the redirection of existing financial flows towards climate-aligned action.

However, countries often lack sufficient finance for meeting their NDC targets.87 As one example of insufficient public finance in the land sector, global public finance for forests (both domestic and international) reaches an average of just USD 2.3 billion per year – that’s less than 1 percent of the up-to USD 460 billion required annually to conserve, manage, and restore forests in line with Paris Agreement targets.88

NDC implementation in the land sector can be supported with a range of financial mechanisms. In terms of domestic public finance, mechanisms include grants, loans, green budgeting tools, tailored fiscal policies, and programs for blended and de-risked finance. Some of these tools can also incentivize green private investments. Within international and donor finance, increased finance can come from readiness and capacity building support as well as results-based payments. Carbon markets also provide an opportunity for mobilizing funds.

Alongside the public sector, private sector actors have yet to make bold, systemic changes to align their investments with climate goals in the land sector (Box 2). Few financial institutions include deforestation and other ecosystem conversion safeguards for their investments.89 Most private finance flowing to AFOLU activities – which far outweighs public funding for AFOLU – is still directed towards activities that are likely harmful to the environment.90

Building Block 5: Sufficient and appropriately distributed finance

Why finance?

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Is effective finance in short-term actions to enable effective climate action? Strengthening these capacities to monitor climate finance and consider investing in access to funds directly. When capacities are increased in the short-term can serve as a stopgap while internal monitoring practices are put in place. Strengthening these capacities is critical to ensure effective implementation of climate finance and access to funds directly. Key considerations include:

- **Hiring and Staff Training**: Invest in hiring competent staff and providing them with training to effectively manage climate finance. Staff should be equipped with knowledge of financial management, climate change, and project implementation.
- **System Improvements**: Enhance and streamline financial systems to ensure efficient and transparent management of climate finance. This includes developing comprehensive investment plans and improving accounting and reporting practices.
- **Strategic Partnerships**: Seek out strategic partnerships with organizations like UNDP and the United Nations Environment Programme (UNEP) that are already available for support to recipient countries.
- **Review Existing Capacities**: Review existing capacities to receive, manage, and report on climate finance. This review should help identify capacity gaps and areas for improvement.
- **Access and Management**: Develop mechanisms to ensure entities can access funds directly. This includes establishing clear criteria for access and ensuring that funding is transparent and accountable.
- **Investment Planning**: Create a comprehensive investment plan that aligns with national climate change goals and priorities. This plan should focus on diversifying sources of finance, including private investments, green bonds, and carbon markets.
- **Implementation and Evaluation**: Implement and evaluate these strategies to ensure effective use of climate finance. Regular monitoring and evaluation are crucial to assess the impact of climate finance on emission reductions and support recipient countries in achieving their NDC goals.

For it or, that climate is not aligned with NDC goals and targets, and without understanding land sector investments. It is crucial to harmonize national and donor priorities and ensure that funding proposals are aligned with NDC goals and objectives.

- **Domestic Budgets**: Ensure that domestic budgets are aligned with mitigation targets in the land sector. Are domestic budgets aligned with mitigation targets in the land sector, including reaching the AFOLU activities, projects, and communities most in need of financing? Are funding proposals elevating donor priorities over national objectives and needs? How do funding proposals influence domestic budgeting and influence priorities?
Box 2. Recommendations for private finance actors

What short-term actions can private finance actors take to support NDC implementation in the land sector?

**Manage risk**

- Develop a full understanding of the company’s or institution’s exposure and contribution to climate, forest, and other ecosystem-related risks and impacts (in the short, medium, and long term).
- Incorporate processes for assessing climate, forest, and other ecosystem-related risks into existing portfolio risk management processes. This includes processes for identifying, managing, and mitigating risks.

**Invest “green”**

- Implement lending standards and policies that actively promote green investments and lending to ecosystem conservation and restoration-oriented land sector businesses.
- Prioritize investments that are aligned with and synergistic with zero-deforestation and zero-conversion, or net positive, goals, applying the mitigation hierarchy to all investment decisions. Limit the volume of private finance flowing to activities that have a detrimental impact on forests and other ecosystems.
- Invest in landscape finance for ecosystem conservation and restoration activities that holistically address the major drivers of deforestation, conversion, and land degradation, both market and non-market based, and that promote sustainable and regenerative agriculture. One such example is the support of multi-stakeholder platforms that can promote constituency building, strategic planning, mapping, and project development.

**Use carbon credits to take – not shirk – responsibility**

- When using nature-based carbon credits to meet internal climate mitigation targets, organizations should first prioritize emissions reductions within the organization’s internal operations and the operations of companies within investment portfolios and only after, compensate for residual emissions.
- In addition, consider investing in nature-based carbon credits as part of strategies to achieve societal decarbonization beyond companies’ own value chains and institutions’ direct investment portfolios.
Aligning fiscal incentives with national climate and land sector objectives

Countries are using land taxes to encourage conservation practices

In Brazil, financial support for agriculture is often conditional on environmental criteria.

Brazil implemented environmental conditionalities for agricultural support in 2008, when it introduced a law determining that banks could only provide rural credit to producers in the Amazon region who presented proof of compliance with environmental regulations. This measure prevented the loaning of BRL 2.9 billion (USD 1.4 billion) and is estimated to have avoided deforestation of over 270,000 hectares between 2008 and 2011, representing a 15 percent decrease in forest clearing in the biome during the period. Environmental conditionalities became increasingly common in Brazil’s agricultural sector over the years, and the country introduced policies aimed at promoting a transformation in the sector. Beyond being required to comply with the law, farmers in Brazil also receive incentives to adopt more sustainable practices.

Here, a leading policy in this area is Brazil’s low-carbon agriculture plan: the Sectoral Plan of Mitigation and Adaptation to Climate Change for the Consolidation of a Low Carbon Economy in Agriculture (ABC, in its Portuguese acronym). Since 2010, the plan has provided priority access to government-subsidized credit to those who adopt agricultural practices that either increase productivity or reduce emissions. ABC supports farmers in adopting their agricultural practices and creates complementarity between capacity building, credit provision, and the promotion of climate-friendly techniques and behavior change. The policy was extended for the 2021-30 period through the Sectoral Plan of Adaptation and Low Carbon Emissions in Agriculture and Forestry (ABC+, in its Portuguese acronym). The new version of the program reinforces the strategies of the original ABC while increasing its scope, promoting technical and scientific innovation, and prioritizing monitoring and evaluation.

Central banks and financial regulators are beginning to systematically assess and address countries’ exposure to biodiversity- and other nature-related risks.

Developing and applying biodiversity risk assessment frameworks

Biodiversity loss and ecosystem degradation pose a systemic risk to the financial sector, but many financial actors are not fully aware of what this could mean to their investments. To that end, new risk assessment frameworks are being developed to take these issues into consideration. In 2020, the Netherlands’ central bank, De Nederlandsche Bank, pioneered biodiversity risk assessment when it reviewed the extent to which the Dutch financial sector is exposed to risks from the loss of biodiversity. The assessment found that 36 percent of Dutch investments rely on one or more ecosystem services, putting EUR 510 billion at risk. The total biodiversity “footprint” of the sector, expressed as a loss of species from a “pristine” ecosystem scenario, is 17 times as large as the country of the Netherlands itself.

France’s central bank conducted a similar review in 2021. The review found that 42 percent of the total value of French financial institutions’ securities were issued by companies either highly or very highly dependent on ecosystem services. To illustrate this scale, consider a pristine ecosystem being converted into a parking lot. Using this analogy, French financial institutions’ biodiversity footprint would be equivalent to paving over one fourth of the country.
Conclusion

Decisions made today can either accelerate the transition to a sustainable society or lock-in future emissions

Though it is easier to compartmentalize current policy actions from desired climate targets, governments cannot afford to wait to mitigate their country’s emissions to achieve their NDC targets. This is true particularly for the land sector, which not only accounts for a substantial share (22 percent) of global emissions, but also serves as a major carbon sink while contributing to SDGs and other key benefits and tradeoffs.

To implement their NDCs in line with intended long-term climate and development pathways, countries must undergo significant societal transformations. In addressing this challenge head-on, countries’ immediate focus must be on creating favorable conditions that enable coherent, equitable policies that help achieve NDCs. Governments must integrate their NDC targets, goals, and policies into national legislative, regulatory, and planning processes as a means of ensuring implementation in the LTSs.

Policymakers can take short-term, tangible steps to ensure that their country is on the right path to meeting climate goals in the land sector. The highest priority must be to ensure that land sector governance is strong, inclusive, and participatory. Governments are set up for success when they collaborate across sectors; enable inclusive participation; build their institutional, technical, and knowledge capacities; develop monitoring and reporting infrastructure; and facilitate effective financial flows to climate action.

Governments have a leading role to play, but they are not alone in holding responsibility for achieving a shared, prosperous future. The private sector, civil society, and all citizens must contribute, according to their means and abilities, to aligning action with intention. By focusing on short-term action that policymakers can take to strengthen enabling conditions, this guidance aims to support countries in kicking-off the transformation required for long-term, sustainable climate action in the land sector. Hopefully, other stakeholders will be incentivized and inspired to follow suit.
AFOLU: In the context of national greenhouse gas (GHG) inventories under the United Nations Convention on Climate Change (UNFCCC), AFOLU is the sum of the GHG inventory sectors Agriculture and Land Use, Land Use Change and Forestry (LULUCF).

Enhanced Transparency Framework (ETF): Improved set of rules for monitoring and reporting progress under the Paris Agreement. The ETF allows a greater level of transparency and comparability of information reported by Parties through the use of common reporting guidelines and a standardized format for the reporting of information. It also includes the use of a facilitative, non-intrusive and non-punitive approach to the review of reported information, with a focus on providing technical assistance and support to Parties in improving the quality and completeness of their reported information.

Global Stocktake: Periodic review of the implementation of the Paris Agreement. It aims to assess the collective progress towards achieving the Agreement’s long-term goals and to enhance the actions and support provided to Parties to reduce greenhouse gas emissions and address climate change. It is set to be completed every five years, with the first stocktake occurring in 2023. The UNFCCC’s subsidiary bodies (Subsidiary Body for Scientific and Technological Advice (SBSTA) and Science Based Targets initiative (SBTi)) assist the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement in conducting the global stocktake, especially with regards to the technical assessment component through the technical dialogue and the Joint Contact Group. The UNFCCC has developed an online resource hub to facilitate online availability of all global stocktake inputs by thematic area.

Long-term Low Greenhouse Gas Emission Development Strategies (LTS): Article 4.16 of the Paris Agreement states that all Parties should strive to formulate and communicate long-term low greenhouse gas emission development strategies, taking into account their common but differentiated responsibilities and respective capabilities, in the light of different national circumstances. These strategies provide a vision and roadmap for how a country will achieve its long-term decarbonization goals, typically 2050 or beyond, while also pursuing sustainable development. As of August 2023, 66 LTS had been submitted to the UNFCCC.

LULUCF: In the context of national greenhouse gas inventories under the UNFCCC, LULUCF is a GHG inventory sector that covers anthropogenic emissions and removals of GHG in managed lands, excluding non-CO2 agricultural emissions.

Nationally Determined Contributions (NDCs): Article 4.2 of the Paris Agreement requires each Party to prepare, communicate and maintain successive nationally determined contributions (NDCs) that it intends to achieve. Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions. These country-specific climate action plans to reduce emissions and adapt to climate change also include information on how a country will finance and support these efforts. NDCs are intended to be updated and strengthened over time.

REDD+: Policy approaches and positive incentives in the forest sector that include reducing emissions from deforestation and forest degradation, as well as the sustainable management of forests and the conservation and enhancement of forest carbon stocks in developing countries. The UNFCCC Conference of the Parties (COP) developed a framework with a package of decisions to operationalize REDD+.

Sustainable forest management: Sustainable forest management can be defined as stewardship and use of forests and forest lands in a way, and at a rate, that maintains their biodiversity, productivity, regeneration capacity, vitality and their potential to fulfill, now and in the future, relevant ecological, economic and social functions, at local, national, and international levels, and that does not cause damage to other ecosystems. Actions include forest planning and monitoring, mapping forest resources, implementing appropriate silvicultural measures to maintain the growing stock resources at - or bring to - a level that is economically, ecologically and socially desirable, increasing the health and vitality of forests, rehabilitating degraded forest ecosystems, reforestation and afforestation, minimizing the use of pesticides, clearly defining property rights and land tenure arrangements, protection of sites with recognized specific historical cultural or spiritual significance, recognizing and respecting Indigenous Peoples’ rights and traditional knowledge and community involvement, and conservation of biological diversity. Other measures include longer rotations, less intensive harvesting, continuous cover forestry, mixed stands, more adapted species, selected provenances, high quality wood assortment.
Annex 1: Methodology

This guidance was developed through a combination of a desk review, semi-structured interviews with technical experts, and consultation with and input from experts from forestry country governments, civil society, and multilateral institutions.

The desk review focused on reviewing literature that is currently available to help countries develop and implement their climate strategies under the Paris Agreement. This allowed revisiting and updating short-term recommendations that have already been made and filling gaps that still exist in prioritizing short-term AFOLU sector action.

To ensure accuracy and relevance, international experts across the AFOLU sector were consulted for input and validation. Semi-structured interviews were conducted with the following experts:

- Aline Mosnier – Scientific Director, Food, Agriculture, Biodiversity, Land-Use, and Energy (FABLE) Consortium
- Haseeb Bakhtary – Senior Consultant, Climate Focus
- Nataliya Vasylyeva – Climate Change Technical Specialist, UNDP Climate Promise
- Nathália Nascimento – Member, Science Panel for the Amazon
- Patty Fong – Program Director, Climate and Health & Well-being, the Global Alliance for the Future of Food
- Richard Eba’a Akyi – Senior Scientist & Hub Leader, Center for International Forestry Research (CIFOR)
- Scarlett Benson – Director of Corporate Standards, the Food and Land-Use Coalition (FOLU)

Drawing on semi-structured expert consultations and existing NDC implementation guidance documents, five interconnected building blocks of effective policymaking in the AFOLU sector were identified:

1. Cross-sector collaboration
2. Socially inclusive and gender-responsive stakeholder engagement
3. Institutional, technical, and knowledge capacity-building measures
4. Monitoring, data, and target-setting improvements
5. Sufficient and appropriately distributed finance

In addition to the consultations with experts, UNDP and Climate Focus organized and facilitated a side-event on the margins of the 58th session of the SBSTA in Bonn, Germany, on 14 June 2023. This event, “Accelerating NDC implementation through the forest sector: Short-term actions and long-term strategies”, was an opportunity to introduce the draft NDC Implementation Guidance to forest country stakeholders, collect feedback and invite them to contribute to the document’s review process. In total, 29 participants attended the side-event, with members of governments and NGOs from Brazil, Cambodia, Dominica, Ecuador, Guatemala, Kenya, Nepal, and Philippines.

By nature of this guidance’s overarching scope – which targets policymakers across regions and contexts – the recommendations presented are broad and may not be applicable to every country or government. While recommendations are primarily aimed at forest countries, their broad nature and focus on effective policymaking will still be relevant to stakeholders and policymakers in other contexts.

Though the recommendations presented here highlight some of the most common and consensus-backed principles of effective policymaking, the guidance remains non-exhaustive. The recommended short-term actions will need to be tailored to the unique policy, economic, and technical conditions of each country and region. This guidance therefore intends to serve as a menu of ideas for policymakers in priority forest countries and beyond to effectively and rapidly advance on AFOLU targets and implement their NDCs.

The final guidance presented here is intended to reflect the collaborative effort implemented to develop and refine it. Its authors hope that it can support transformative action in the implementation of NDCs in the land sector.
2.1 Methodology
A high-level analysis of the 66 LTSs submitted to the UNFCCC as of August 2023 was carried out to:
1) explore whether countries include further information about quantitative or qualitative targets in the AFOLU sector, either as a whole or disaggregated into agriculture and/or LULUCF targets;
2) provide an initial indication of the degree of alignment between NDs and LULUCF targets and have been submitted by a Party; and
3) identify what AFOLU mitigation options are most commonly put forward across LTSs.

For objective 2, on the coherence between NDs and LTSs, the comparison framework developed was based on the immediate availability of information in the NDs and LTSs. It does not analyze or judge the extent to which mitigation from forests is or is not included in national or regional policy plans. It rather assesses the extent to which the whole or disaggregated into agriculture and/or LULUCF targets; or quantitative or qualitative targets in the AFOLU sector, either as a mitigation measure or providing by far the greatest land-based and other sectors.

The analysis found that over 90 percent of LTSs include a quantitative or qualitative AFOLU mitigation target, whether related to agriculture, LULUCF or both. Those 60 percent include both agriculture and LULUCF targets and 2 percent include agriculture-related targets only. Further, analyzing the nature of these targets found that most relate to emissions reductions (63 percent of the LTS that have targets related to AFOLU), with 37 percent related to quantitative targets referring to increasing the countries’ land sink absorption capacity (27 percent), afforestation (15 percent), increasing forest cover (13 percent), reducing the surface subject to deforestation and forest degradation (8 percent), and land restoration. Only a few LTSs do not cover the AFOLU sector at all.

2.2 Coherence of forest sector targets and pathways in NDs and LTSs

Analyses of AFOLU in NDs have previously been conducted. As of October 2022, over 80 percent of NDs refer to the AFOLU sector. Reducing deforestation is often highlighted in NDs not only as a mitigation measure but also as an action providing a range of non-carbon socio-economic and environmental benefits. Most Parties also identify agriculture as a high priority for adaptation, often emphasizing co-benefits and aiming to use mitigation opportunities in the sector. Over 40 percent of NDs further specify quantitative LULUCF targets.

Comparisons of AFOLU inclusion in both NDs and LTSs have not yet been developed. Therefore, for the 66 countries or groups of countries that had submitted both an NDC and an LTS as of August 2023, an original preliminary assessment was conducted to compare the nature, specification, quantification, and time frame (within a 2030 – 2050 horizon) of the targets, assessing their consistency and relationship through six levels of coherence (Table A1). Without analyzing all the hypotheses underlying different business-as-usual or climate ambition mitigation pathways outlined across different LTSs, this analysis seeks to capture the extent to which 2030 AFOLU targets are described in corresponding NDs and LTSs, and the extent to which the LTs builds upon the NDC target to provide targets beyond 2030.

Overall, only 41 percent of the LTSs were assessed to provide a degree of alignment with the NDCs, with evidence suggesting that both documents are coherent and can contribute to the long-term policy planning and action prioritization. Less than 40 percent of countries assessed present a forest-related target in one or both of the documents. The NDCs or do not mention forests in their NDCs.

2.3 Mitigation actions in the AFOLU sector, and inclusion in LTSs

Mitigation actions in the AFOLU sector are varied, and region and context dependent. A range of interventions is available, each with different impacts on socio-economic aspects such as food security and land tenure, as well as biodiversity conservation. Due to the capacity of land systems to store carbon, many mitigation options in AFOLU involve maintaining or improving agricultural and forested landscapes, with ending deforestation and implementing large-scale afforestation and reforestation offering by far the greatest land-based mitigation potential.

- Reducing deforestation and forest degradation (REDD+): emissions from land use and land-use change occur mostly due to deforestation and forest degradation. Actions to reduce forest clearing and degradation include adopting and enforcing stronger mandates for forest protection and sustainable management, strengthening regulations empowering civil society, strengthening law enforcement, legal frameworks and institutional capacities, conducting conservation and restoration activities, establishing binding due diligence regulations and mandatory disclosure of forest-related risks and progress against pledges, monitoring, securing legal rights of IPs and LCs, and strengthening land-use planning, among others. Under the UNFCCC, Reducing Emissions from Deforestation and Forest Degradation (REDD+) is a specific framework that guides activities related to reduced deforestation of forests in developing countries. To be labeled as REDD+, projects must comply with a series of stringent requirements.

- Managing forests sustainably: sustainable forest management can be defined as managing and using of forests and forest lands in a way, and at a rate, that maintains their biodiversity, productivity, regenerability, cultural, social, economic, and other functions and values that do not cause damage to other ecosystems.

- Actions include forest planning and monitoring, mapping forest resources, implementing appropriate silvicultural measures to maintain and improve growing stock resources at - or bring to - a level that is economically, ecologically, and socially desirable, increasing the vitality and their potential to fulfill, now and in the future, the many functions and values that do not cause damage to other ecosystems. Actions include forest planning and monitoring, mapping forest resources, implementing appropriate silvicultural measures to maintain and improve growing stock resources at - or bring to - a level that is economically, ecologically, and socially desirable, increasing the vitality and their potential to fulfill, now and in the future, the many functions and values that do not cause damage to other ecosystems.
Annex 2. Analysis of AFOLU in LTSs, and comparison to NDCs

Mitigation options outlined by countries in their LTSs

The diversity of mitigation options available in the AFOLU sector – and their large dependence on local context – is reflected in the wide range of planned actions outlined in countries’ LTSs (Figure A1). These intended AFOLU-related mitigation options fall into the following categories:

- **Mitigation actions in forest systems** are put forward in over 85 percent of submitted LTSs including afforestation and reforestation, restoration, conservation and reforestation for reduced deforestation and degradation, and fire control. These actions are put forward in over 85 percent of submitted LTSs including afforestation and reforestation, restoration, conservation and reforestation for reduced deforestation and degradation, and fire control.

- **Mitigation actions in food systems** are put forward in over 55 percent of submitted LTSs by putting mitigation actions linked to agriculture systems and improving the sustainability of food production to meet their long-term climate targets. Over 55 percent of submitted LTSs lay out mitigation actions linked to agriculture systems and improving the sustainability of food production to meet their long-term climate targets.

- **Mitigation actions in agricultural systems** are put forward in over 55 percent of submitted LTSs by putting mitigation actions linked to agriculture systems and improving the sustainability of food production to meet their long-term climate targets.

- **Improving food loss and waste**: Actions to promote reducing and eliminating food loss and waste include national policies on food safety, quality, labeling, traceability, and (3) agroforestry or agri-food systems. Other actions related to improving management of cropland and grazing lands include improving livestock feed quality and manure management, improved infrastructure and energy systems, waste management, conservation agriculture, climate-smart agriculture and adapting livestock.

- **Mitigation actions in forest systems** are put forward in over 85 percent of submitted LTSs including afforestation and reforestation, restoration, conservation and reforestation for reduced deforestation and degradation, and fire control. These actions are put forward in over 85 percent of submitted LTSs including afforestation and reforestation, restoration, conservation and reforestation for reduced deforestation and degradation, and fire control.

- **Soil management practices** can enhance the capacity of the soil to sequester carbon. Examples include reducing soil disturbance by reducing or eliminating tillage, enhancing carbon input by cultivation of cover crops, crop rotation and residue management.

- **Other** specific technologies described include CCS, biochar and blue carbon.
### Annex 2. Analysis of AFOLU in LTSs, and comparison to NDCs

<table>
<thead>
<tr>
<th>Alignment</th>
<th>Countries</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fully Aligned</td>
<td>Chile, Colombia, Costa Rica, Nepal, Sri Lanka</td>
<td>Chile: Both the NDC and LTS state reducing emissions from the forestry sector due to degradation and deforestation of the native forest by 25 percent by 2030, considering the emissions average between the period 2005-2013. Furthermore, they mention recovering and sustainably managing 200,000 hectares of native forests. However, the LTS states that by 2050, they will sustainably manage and recover the necessary areas of native forests to achieve the carbon neutrality committed in the NDC. Nepal: Both the NDC and LTS state that by 2030, 45 percent of the total area of the country will be under forest cover, with the LTS showing increased ambition targets under an additional measures scenario.</td>
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<tr>
<td>Aligned</td>
<td>Bosnia and Herzegovina, China, India, Indonesia, Mexico, Singapore</td>
<td>China: Both the NDC and LTS state that the forest stock volume will increase 6 billion cubic meters over 2005 level by 2030, but the LTS further states China’s forest coverage rate will reach about 25 percent by 2030. Mexico: Both the NDC and LTS state reaching net zero deforestation by 2030. However, no further targets are described in the documents or mention a pathway for 2050.</td>
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<tr>
<td>Somewhat Aligned</td>
<td>Andorra, Cambodia, Ethiopia, Guatemala, Tonga, Tunisia, Uruguay, Zimbabwe</td>
<td>Guatemala: Both the NDC and LTS refer to similar mitigation options such as forest plantations and conservation but the targets are difficult to compare since they are not aligned numerically. Tonga: Both the NDC and LTS state 30 percent of land in Tonga to be utilized for agro-forestry or forestry. However, while the NDC states this goal is to be reached by 2025, the date is not specified in the LTS.</td>
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<tr>
<td>Poorly Aligned</td>
<td>Belize, Benin, Canada, Fiji, Gambia, Georgia, Morocco, Nigeria, North Macedonia, Republic of Korea</td>
<td>The Gambia: The NDC states that GHG emissions in the LULUCF sector will be 589,000 tons CO₂-e, decreasing by 45.6 percent as compared to the expected baseline level in 2030. The LTS states that with the implementation of mitigation options, it is envisaged that there will be a reduction of 330,000 tons CO₂-e in 2030. Republic of Korea: The NDC states the country will maintain and improve its carbon sinks with sustainable forest management, conservation and restoration and will increase forestlands by greening urban spaces, but no numerical target is described. The LTS states a 38.7 million tons CO₂ reduction in the overseas reduction &amp; forestry sector by 2030.</td>
</tr>
</tbody>
</table>
Endnotes

83COMIFAC. (n.d.-a).
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90Forest Declaration Assessment Partners. (2022a).
91Climate Focus. (2021).
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