



# **Land Use in NDCs**

A Guide to High Ambition



# Introduction

Lands and oceans hold immense amounts of carbon and stabilize the Earth's climate. But land use change is also a major source of greenhouse gas emissions that weaken the biosphere's role in smoothing out weather extremes. A new round of Nationally Determined Contributions (NDCs)—plans developed at the national level to catalyze global action on climate change—should outline transitions in the land sector needed to avoid emissions, store carbon, and adapt to climate instability.

**The first round of national climate plans (NDCs) dealt poorly with questions of land use.**

Authors and project partners from the Land Gap Report developed this 'Guide to High Ambition' to inform the development of new NDCs. Individual country transitions will differ, based on natural endowments and existing consumption patterns.

**This next round of NDCs should focus more on conserving intact ecosystems, building resilient food systems, and addressing climate and biodiversity needs together.**

Our studies suggest that changes in food production and consumption could deliver over 13 gigatons of CO<sub>2</sub> equivalent a year in avoided emissions. New approaches to forest management could result by 2050 in an annual contribution of 10 gigatons of carbon sequestration. Already, community management of forests, grasslands, and coastal ecosystems helps protect more than a thousand gigatons of current carbon stocks—vital for climate stability and healthy Nature.

**Climate action in the land sector should ensure food security and adaptive capacity.**

Avoiding and mitigating emissions are important goals, but these land-sector climate actions should never be used to compensate for a lack of ambition to reduce emissions in other sectors. Land-sector targets, and contributions from the land sector to economy-wide mitigation targets, need to be stated clearly.

**Countries are updating their NDCs for 2025. This round of planning starts now.**



# Recommendations for High Ambition

The UNFCCC Paris Agreement calls for increased ambition in each new round of NDCs. Here we suggest high-ambition land-sector activities to include in new NDCs. The recommendations build from findings in the Land Gap Report, the UNFCCC Global Stocktake, and the new Global Biodiversity Framework developed under the Convention on Biological Diversity.

*The recommendations are organized as **areas of implementation** and **activities to avoid**.*

### AREAS OF IMPLEMENTATION

#### Land Tenure

- Recognizing Rights: Land Titling and Registration
- Community-Based Natural Resource Management

#### Agriculture: managing for resilience

- Agroecological approaches
- Transitioning away from agro-industrial practices
- Ecological Livestock Systems

#### Forests: Protect, Restore, Conserve, Govern well

- End deforestation in commodity production
- Protect all remaining high-integrity ecosystems
- Restore degraded and damaged lands
- Manage to improve ecological integrity

#### Other Land Uses—Managing for Equity and Conservation

- Mangroves, Seagrasses, Peatlands
- Grasslands
- Energy Transitions

### ACTIVITIES TO AVOID

#### Failures of Ambition—to Avoid

- Carbon and biodiversity offsets
- Biomass burning and BECCS
- Tree Planting and Plantations

### FURTHER DISCUSSION

#### Climate Finance

#### Stakeholder Participation



# Principles for effective action

- **Attention to national circumstances.** Not all recommendations are relevant to all countries.
- **Stakeholder participation.** NDCs include actions for mitigating and adapting to climate change that impact people's lives. Public processes of inclusion are themselves important for building community resilience. Principles of equity and social justice must be upheld in NDC development and implementation.
- **Interministerial cooperation** should ensure consistency in land-use policies and attention to local development needs.
- **New and additional finance** for truly high ambition is required in many cases. The reduction of harmful subsidies driving deforestation is needed in many other cases.
- **Clear targets in the NDC** for different kinds of land-sector activities, including expected mitigation and adaptation gains, should be stated.
- **Addressing climate and biodiversity together.** The climate crisis demands that land-based actions be implemented now. Climate change itself may change opportunities for restoration. The best way to build resilience is to ensure that both climate and biodiversity concerns are addressed in land-use planning.

# Recent guides to effective action

- The **UN Environment Assembly Resolution 5.2** on Nature Based Solutions (2022) provides an agreed definition of Nature Based Solutions and provides guidance for their use. All proposed Nature Based Solutions should benefit biodiversity and livelihoods, respect rights, and should exclude carbon and biodiversity offsets.
- Research compiled in the **2022 Land Gap Report** makes clear that the two most important and effective actions for mitigation are conserving all remaining primary forests and ensuring that Indigenous Peoples and local communities have effective ownership and control of their land.
- The **UNFCCC Global Stocktake (2023)** emphasizes the "importance of conserving, protecting and restoring nature and ecosystems towards achieving the Paris Agreement temperature goal, including through enhanced efforts towards halting and reversing deforestation and forest degradation by 2030."
- **Goal A** of the Convention on Biological Diversity's new **Global Biodiversity Framework** calls for "the integrity, connectivity and resilience of all ecosystems [to be] maintained, enhanced, or restored."



# Land Tenure

## THE ISSUES

Securing collective land rights is one of the most cost effective, sustainable and equitable strategies for protecting the world's remaining forests. Secure land tenure hasn't been adequately noted in existing NDCs. Instead, first-round NDCs frequently over-emphasized solutions requiring large-scale land use change, which can create conflict over land and resources. Updated NDCs need to pay more attention to who is living on and providing stewardship for land and territories.



Read **Chapter 4** of the 2022 Land Gap Report

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# Recognizing Rights: Land Titling and Registration

## WHY

Successful climate-adaptive land management requires the legal recognition of the resource rights of Indigenous Peoples, local communities, Afro-descendant Peoples, plus peasants and other smallholders. Guaranteeing those rights must be at the core of climate change mitigation strategies during the next NDC cycle.

Indigenous Peoples and peasant communities manage a huge portion of the global land base but have legal rights to far less of that area. This lack of legal ownership or title to lands creates many climate and sustainability risks for local people: land-grabbing by powerful outsiders, unwillingness or inability to invest in agroforestry or other local restoration approaches, and an increased risk of migration and dispossession.

**Three fundamental commitments** can be made in the NDC related to land tenure:

- Commitment to **go beyond safeguards** and towards community inclusion, using rights-based approaches for land-leases and other projects that involve land use change;
- Commitment to streamline or **simplify the processes** by which indigenous and local groups can **secure legal recognition** of land use and ownership; and
- Commitment to **halt and prosecute illegal logging, mining**, or other forms of encroachment on indigenous territories and protected areas.

There are many important initiatives underway to recognize local control and management rights. Public and private donors are working together in the 'Path to Scale' effort to secure community rights for an additional 400 million hectares of tropical forests—an effort that host countries should highlight in their NDCs.



# Community-Based Natural Resource Management

## WHY

Evidence shows that Indigenous Peoples and local communities with secure land rights outperform both governments and private landholders on measures of forest protection, biodiversity conservation, and sustainable food production. Countries should also build on the existing overlap between primary ecosystems and the collective landholdings of indigenous peoples and local communities.

**Community resilience** is a critical part of responding to the climate crisis. Resilience is built by addressing climate mitigation, adaptation, livelihoods, and biodiversity conservation together. There's a lot of overlap between areas requiring conservation attention and the collective landholdings of Indigenous Peoples and local communities, so opportunities to **involve communities directly in management** should be pursued.

For working lands, it's most appropriate to provide space and support for smallholder-led natural resource management (CBNRM) efforts, including agroecology, silvopastoralism, and agroforestry. If communities receive support for their stewardship—based on genuine participation and secure rights—then the management approaches developed are more likely to be locally specific, flexible, and adaptive. This is the more effective and socially just strategy for protecting and restoring ecosystems.

Indigenous Peoples and local communities are essential for biodiversity conservation. An IUCN partner study found that at least 36% of the global area covered by Key Biodiversity Areas (KBAs) is contained within IPLC-managed lands. Addressing climate and biodiversity planning in an integrated way and putting these indigenous and local community-managed lands under formal protection will lead to better territorial governance.



# Agriculture

## Managing for resilience

### THE ISSUES

Food systems account for a large proportion of all greenhouse gas emissions, so food system change is important for mitigation.

But the agricultural sector also bears much of the harm from extreme climate events. Adaptation must be the priority. Peasants and other small-scale food producers need assistance adopting new practices that respond to climate impacts over the coming decades.



Read **Chapter 5** of the 2022 Land Gap Report

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# Agroecological approaches

## WHY

Agroecology provides more income stability for smallholders and better resistance to extreme climate events. Over time, agroecological approaches build carbon stocks, mainly through agroforestry and multi-scale cropping systems.

Countries should include relevant agroecological practices in their NDCs:

- integrating trees into cropping and livestock systems (**agroforestry**);
- enhancing soil fertility through **more emphasis on nutrient cycling within systems**, rather than relying on external nitrogen inputs (reducing synthetic fertilizer use);
- **ecologically-based feeding** and management of livestock;
- **polyculture systems**, integrating a biodiverse range of crops into production systems;
- improvement in **soil structure**, including improved water-holding capacity;
- **'mosaic' restoration approaches** that improve connectivity at the landscape level;
- **managing for socio-ecological resilience** including rapid responses to any threats to food security;
- **a more locally-focused food system**; better recycling of waste in the broader food system; and consideration of impacts from farm to table.

While the main benefit of agroecological approaches is improved adaptation and greater resilience in the face of extreme weather events, research also shows that practices to restore and regenerate agricultural lands—such as agroforestry—sequester and store more carbon in soils and trees, thereby creating mitigation benefits.

Countries should explore the scope for multifunctional agriculture and food systems through agroecology to ensure healthy food production and improved livelihoods.



# Transitioning away from agro-industrial practices

## WHY

Too much forest conversion results from export-oriented agriculture, mostly in big monocultures that damage biodiversity. Current food systems are too dependent on long-distance transport and production techniques, creating high emissions.

Countries will need help to transition away from current unsustainable models of food production. This includes **dietary shifts** to reduce the amount of land devoted to crops to feed livestock. Many countries are still expanding oil-crop plantations, even though **increasing productivity on existing acres** should be more than enough to meet global demand for palm oil.

Intensive annual cropping for animal feed, and forest conversion for soy and oil palm production, causes big releases of carbon and major losses in ecosystem integrity. Agricultural commodity production systems have also led to losses in resource access and food security for local people. **Maintaining and diversifying local production** while **improving local food storage** and post-harvest

handling are excellent investments in climate resilience.

Part of the NDC should identify opportunities to re-direct incentives away from monoculture and export-oriented commodity agriculture toward agroecology, resilient food systems, and (in some countries) promoting plant-based diets.

County-level vulnerability assessments—showing areas, populations, or crops at greatest risk from climate change impacts—can be a key input into NDCs. **Vulnerability assessments** help guide appropriate subsidy shifts and identify additional finance needs. NDCs should also focus on the importance of **protecting agrobiodiversity** (native foods, appropriate cover crops) and **increasing areas of productive agroforestry**.



# Ecological Livestock Systems

## WHY

Meat and dairy are the highest-emitting sectors in agriculture. Change can happen on both production and consumption sides.

Livestock are integral to many agroecological food systems. At appropriate densities and with a high diversity of feed or forage cropping on long rotations, livestock can positively contribute to managing nutrients at the landscape level. Additionally, NDCs can include designs for **silvopastoral systems**, where livestock graze under trees; **rotational grazing**, to allow for healthy grassland growth; and **restoring pasture with mixed perennial species**. Raising small animals on food waste and locally grown feed should also be encouraged.

Rates of meat consumption have risen considerably in G20 countries. The international trade in animal feeds has come at the expense of forests and more localized diets. NDCs from wealthy countries should **address overconsumption of meat and dairy**, incentivizing instead the healthy eating guidelines established by the World Health Organization. Food loss and waste must also be addressed, as this makes a huge difference in the amount of land required to ensure food and nutrition security for all.

# Forests

## Protect, Restore, Conserve, Govern well

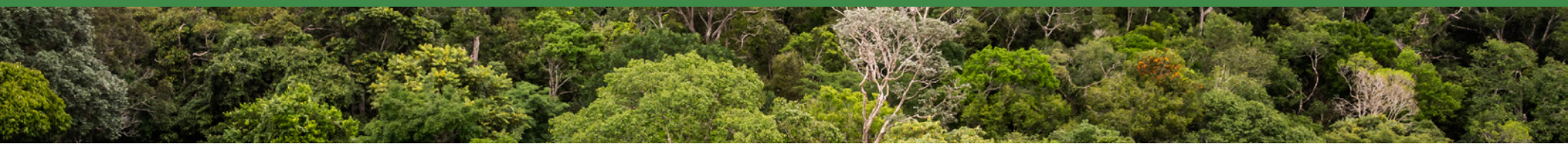
### THE ISSUES

Forests hold most of the world's terrestrial carbon. These stores of carbon are critical for climate stability and must be maintained. Future NDCs should strengthen commitments to 'zero deforestation' and to eliminating forest degradation. Protection, restoration, conservation management, and equitable governance of forests are important and should also be prioritized in new NDCs.



Read **Chapter 3** of the 2022 Land Gap Report

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# End deforestation and forest degradation in commodity production

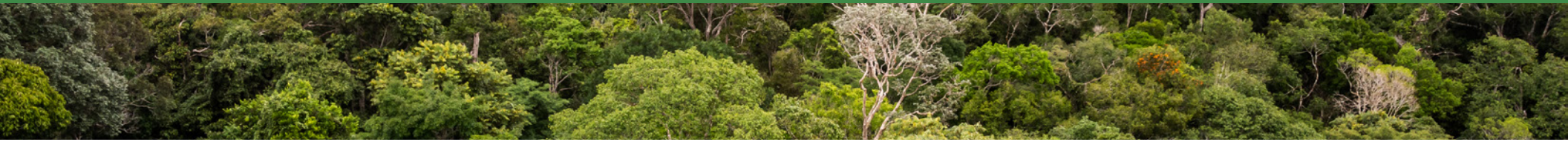
## WHY

Ending deforestation and forest degradation is the most important NDC land-use commitment to make in most countries. It preserves existing carbon stocks and allows for natural regeneration.

Countries that have made **'no-deforestation by 2030' commitments** should outline in the NDC how the commitment will be implemented. Countries responsible for the production of certain 'forest risk' commodities—beef, soy, corn, palm oil, cacao—should also explore how best to increase the participation of family farmers (smallholders) in zero-deforestation supply chains.

Countries and companies making the shift to these sustainably-produced, 'zero-deforestation' products are receiving preferential access to markets and finance—particularly through programs that provide support to smallholders. Private finance is being mobilized to remove deforestation from supply chains. Consumer-country legislation is also a driver.

Illegal logging remains a problem in many countries. **Investments in traceability and national timber tracking systems** help improve collection of taxes and royalties. Brazil has recently taken important steps to combat deforestation through improved land registries, expanded use of satellites for monitoring, and 'no-deforestation' certification for livestock producers. An NDCs should outline ways that the country is combating illegal logging while ensuring that funds derived from commodity production are put back into communities to support livelihoods and food security.



# Protect all remaining high-integrity ecosystems

## WHY

Avoiding forest loss and protecting primary forests is the top land-sector priority for climate and biodiversity, both to keep emissions out of the atmosphere now and to maximize ecosystem integrity in the face of climate change.

A key tenant of ecology is ‘save all the parts.’ This is certainly true for forests. It’s much more efficient and effective to **protect standing forest carbon stocks** than to try and rebuild them. We have a much better scientific understanding of the mitigation potentials associated with different land-use pathways now than just five years ago. This updated scientific understanding should inform the resubmission of NDCs.

We now know that protecting forests pays ‘compound interest’, with benefits that persist for decades. By contrast, current carbon sequestration and future carbon storage potential are both lost when forests are cut.

Protecting forests mostly means addressing the drivers of deforestation and degradation, in particular

removing deforestation from agricultural and wood-product supply chains. **Protecting primary forests from fragmentation** is an urgent priority in achieving climate and biodiversity goals.

NDCs should outline a double-transition based on **‘protect, restore, converge, govern well’**: honoring ‘no deforestation’ commitments; working to improve landscape-level habitat connectivity; and ‘mosaic’ restoration that helps build resilience at the watershed (or regional) level. In managed lands, the focus should be on increasing income from food and other cash crops *via* investments in sustainability and equity.



# Restore degraded and damaged lands

## WHY

Humans have reduced the area of forest cover globally. The loss of primary forests and other forests with a high level of ecosystem integrity has been most pronounced. Restoring forests and rebuilding landscape connectivity are important for mitigation, adaptation, and biodiversity. As earlier emissions from land conversion are phased out, and forests grow back, the mitigation benefits get bigger.

New NDCs should address three types of ecosystem restoration: **halting forest degradation; assisting restoration efforts to more rapidly recover ecosystem health; and allowing secondary forests to recover their biodiversity** through natural regeneration.

Forests can be degraded by logging, too much grazing, expansion of tree plantation monocultures, and through fragmentation from roads and other infrastructure developments. The large area of secondary and degraded forests around the globe could remove much more carbon dioxide from the atmosphere through ongoing regeneration of forests, reduced consumption of short-lived timber products, and ending the conversion of forests for commodity agriculture.

Active restoration that addresses past actions that harmed landscapes offers

significant mitigation and adaptation potential because the carbon uptake from restoration can increase over several decades while significantly enhancing the resilience of ecosystems and communities.

Allowing secondary natural forests to recover their natural biodiversity and carbon stocks can also bring major mitigation benefits at relatively low cost. Sometimes this is called 'passive restoration'—**leaving forests alone to regenerate naturally**.

Whatever the approach taken, restoring forested landscapes relies on traditional and Indigenous community buy-in and leadership. In many cases restoration can be financed with international support. Ecosystem-based approaches to restoration help promote synergies between mitigation, adaptation, and biodiversity conservation.

# Manage to improve ecological integrity

## WHY

Productive forest landscapes can increase carbon sequestration and storage while maintaining economic benefits.

Ecologically and culturally appropriate management of forests for commodity production can provide mitigation and adaptation gains while allowing for the development of non-timber forest products. Recent research shows that improved management of existing forests could contribute half of the total mitigation potential associated with forested lands; however, these mitigation benefits would still be inferior to those from forest management aimed at conservation and ecological restoration.

The basic requirements for ecologically sustainable and culturally appropriate management include: **using native trees**; **longer rotations** between cutting to increase tree diameters while encouraging biodiversity; and designating high-carbon, **high-biodiversity areas as off-limits** to wood extraction.

The 'Forest Landscape Restoration' approach developed by IUCN provides a useful blueprint

for comprehensive management. It combines protection of existing forests, support for natural regeneration, and tree-planting where appropriate. Improving the management of wood-production forests is essential for improving climate resilience and reducing the risks to biodiversity and ecosystem services. Agroforestry and silvopastoral systems should also be considered as part of a landscape restoration effort.

As always, land tenure security should be considered a forest management 'best practice'.





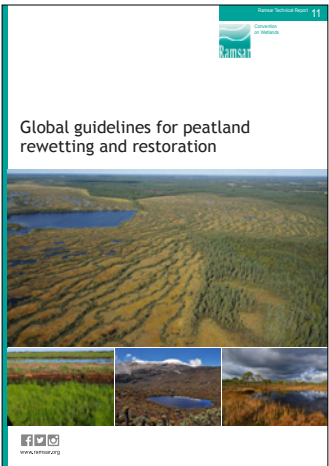


# Other Land Uses

## Managing for Equity and Conservation

### THE ISSUES

Grasslands, wetlands, and peatlands play disproportionately important roles in both mitigation and adaptation. Coastal forests are highly productive at storing carbon, while disturbed peatlands are major sources of carbon emissions. Here we also address the land-use implications of the clean-energy boom—provisions in NDCs that provide guidance for mining of transitional minerals.



Read the Ramsar Convention's  
Guidance on Peatland Restoration

[VISIT PAGE](#)



# Mangroves, seagrasses, wetlands, peatlands

## WHY

Wetlands and peatlands hold vast stores of carbon, so protecting and restoring these ecosystems has a large mitigation impact.

Tropical mangroves are among the world's most productive forests. They also play critical roles in storm protection and as nurseries for fish. NDCs should **recognize mangrove protection** where applicable and restore those that have been damaged through inappropriate development.

Mangroves and seagrasses are often linked in coastal systems. Seagrasses are also high productivity ecosystems and should be protected from sand mining and in-filling.

Peatlands are found throughout the globe. Peatlands should be 'off-limits' to further land conversion, because these systems can build up carbon

stores over centuries. But when drained, those peatlands rapidly release carbon, and drained peat continues to emit carbon for decades. Poorly managed peatlands can also be a source of methane, a powerful greenhouse gas. Rewetting these areas minimizes GHG emissions.

**Restoration of peatlands and mangroves**—restoring these areas to their original function as carbon sinks and fish habitat—should be included in NDC actions, along with a commitment to protect these areas from degradation.



# Grasslands

## WHY

Tree-planting efforts frequently target grasslands for land use conversion, but natural grassland ecosystems are also important for carbon storage.

Pampas, steppes, savannas, prairies—these are all different names referring to ecosystems where grass species are dominant. Animal agriculture—grazing—is often a feature of these ecosystems.

**Rotational grazing**, use of **'cut and carry' systems** to feed animals, plus planting **shelterbelts** to reduce wind erosion can all help maintain the important ecological roles played by intact grasslands. In some degraded areas, reintroducing previously cleared trees while controlling grazing provides the basis for more productive systems and the recovery of soil structure. This **trees + pasture approach (silvopastoralism)** was mentioned in a number of previous NDCs and should be built on further.

The conversion of grasslands to cropland or forest plantations creates a loss of biodiversity and carbon storage capacity. So, grasslands should be a big part of 'land-sparing' efforts enabled by diet change, because vast areas of grasslands are currently devoted to supplying animal feed, especially corn and soy. Eliminating or **significantly reducing the use of grains to feed livestock**—reserving land that can produce crops for direct human consumption—would greatly relieve pressure on grasslands. But also, the **collective tenure rights of pastoralists**—communities dependent on grasslands for livelihoods—should be protected.



# Energy Transitions

## WHY

Transitioning away from fossil fuels will reduce mining and drilling pressures in many areas. However, the siting of clean energy infrastructure, including wind and solar, often requires the use of new lands. In many countries, mining of transition minerals needed for clean energy production will create new pressures on land and water.

A key finding of the IPCC AR6 assessment is the necessity of phasing out fossil fuel use to limit warming to 1.5 degrees C. This should be a key NDC focus. But the implications of this phase-out, and the encouragement of new energy infrastructure, should also be considered as part of a new NDC.

Numerous studies have found that the 20+ minerals deemed critical for the clean energy transition are found on or near lands under indigenous or local community control. NDCs promoting development of transition minerals should **protect the right to 'free, prior and informed consent'**. The NDC can also outline

development plans associated with mineral development that support other 'downstream' parts of the clean energy transition, especially refining. Countries should embrace efforts to **reduce the land footprint of mining** in order to minimize impacts on people and biodiversity.

Countries should work to integrate solar, wind, and geothermal capacity into existing built infrastructure (in cities and on farms). Where a land-use change is required in renewable energy siting, respect for land rights and a commitment to open stakeholder processes should be observed.

# Failures of Ambition—to Avoid

## THE ISSUES

New NDCs should avoid actions that have negative impacts on land and food production. Some high-emitting countries have suggested that land sector sequestration can offset continued emissions in other sectors. But the land sector cannot compensate for a lack of ambition in other parts of the economy.



Read the [2023 Update](#) to the 2022 Land Gap Report

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# Carbon and biodiversity offsets

## WHY NOT

Offsets are designed to give the impression that emissions have been avoided or cancelled. But offsets just transfer responsibility for emissions. Unless the credits are ‘retired’—not used to offset continued emissions—they have no mitigation benefit.

Article 6 of the Paris Agreement, and the voluntary carbon markets, allow countries and companies to try to offset their ongoing emissions by purchasing credits of ‘avoided emissions’ or carbon ‘removals’. Several studies published in 2023 made it clear that **carbon credit schemes to date have badly over-estimated the mitigation impact** of the credits. (That is, there are high levels of ‘over-crediting.’) A scheme to reduce emissions can end up increasing them, because the purchaser continues to emit while the carbon credits in question do not bring about the expected reduction in emissions.

Too many wealthy countries are pinning their hopes on offsets. A rich-country NDC that relies heavily on the use of offsets, particularly those bought from other countries in order to reach ‘net zero,’ cannot be considered ambitious. An offset-reliant NDC fails to take a ‘fair share’ approach

because most offsets today come from land-sector sequestration or ‘avoided emissions’ in other countries. But that can make it harder for the host country to reach its own emission-reduction targets. The **physical constraints on the use of land for carbon removal** need to be addressed honestly.

Biodiversity offsets and credits operate on the same logic as carbon credits, reproducing many of their problems while failing to address biodiversity loss. Constraints in the amount of land available for offsetting biodiversity loss would likely displace people, increase land inequality and undermine local food security.

Commitments to ‘climate finance’ and ‘biodiversity finance’ that are primarily for the purchase of offsets should be held up for careful scrutiny.

# Expansion of biomass burning and BECCS

## WHY NOT

Bioenergy demand is a major driver of forest loss and fragmentation. Bioenergy with carbon capture and storage (BECCS) hasn't delivered 'negative emissions.'

Biomass burning for energy is leading to the degradation of forests in many parts of the world, causing forests in some countries to go from being a net 'sink' of carbon into a net 'source' of emissions. Burning forest biomass is never 'carbon neutral'; forests just take too long to grow back. Intensified and expanded logging is degrading biodiversity of natural forests.

Modeled climate scenarios included in IPCC assessment reports rely heavily on 'negative emissions' from BECCS to achieve 'under 2°C warming' pathways. BECCS was promoted as a set of 'least cost' pathways. But there was no consideration of whether the solution offers co-benefits, and the models are not constrained by—that is, do not take account of—food security or biodiversity conservation. These modeled pathways assumed 'empty lands' in which to plant

bioenergy feedstocks, and frequently relied on the conversion of forests to cropland and / or conversion of agricultural land to energy crops in order to support bioenergy development.

BECCS has yet to be proven at scale. Decreasing costs associated with wind, solar, and energy storage means that BECCS is no longer a 'least cost' option. BECCS plans included in NDCs have relied on **large-scale mobilization of forest biomass as feedstock for burning**. This Guide instead makes clear the urgent need to use limited available land for restoration, agroecology, and truly low-carbon forms of energy. BECCS should have no place in a high-ambition NDC. Neither should standalone large scale biomass energy. Co-firing biomass with coal is not abatement, it exacerbates emissions and impacts biodiversity.

# Tree Planting and Plantation Forestry

## WHY NOT

Tree planting isn't 'forest restoration.' Large-scale tree-planting initiatives can cause lasting harm to ecosystems and biodiversity. This round of NDCs should take seriously the benefits of allowing degraded ecosystems to recover naturally, and avoid dependence on tree plantations.

A number of NDCs previously submitted to the UNFCCC identified tree planting schemes as 'restoration'. But tree plantations, particularly monocultures and the use of fast-growing, water-hungry, non-native species, can create serious harms. Very often, **'afforestation' schemes are proposed in non-forested areas**, leading to increased **wildfire risk** and **high failure rates**.

**Tree planting drives biodiversity loss** in two other ways: through **conversion** of native grasslands and other natural ecosystems, and indirectly by **taking up space formerly used to grow crops, which can lead to deforestation** in primary forests elsewhere. Social impacts include the displacement of local livelihoods and changes in water access and

availability. Successful ecosystem restoration must involve collaboration with forest-dependent and rural communities while respecting the rights of Indigenous Peoples.

The best way to expand natural forests is by allowing degraded areas to recover naturally. Instead of creating new forests, we should **focus on protecting and restoring carbon-rich, long-lived ecosystems**, particularly natural forests.

Protecting existing forests is far more effective for climate action than planting new trees. Plantation proposals that do not consider the multiple values that forests provide have no place in high-ambition NDCs.





# Climate Finance

The greater focus on climate finance and investment as part of new NDCs is a necessary development. Good NDCs will include information on what finance is needed, ideas about where the funding will be sourced, and what national policies help provide access to what types of finance.

NDC mitigation targets may involve some combination of **emission reductions** and **carbon removals** (sequestration), but these **targets must be clearly separated**, so that reliance on future removals is not used to obscure the amount of ongoing emissions from fossil fuels, land clearing, and forest degradation. NDCs should make provisions for separate accounting of emission reductions and carbon removals.

Similarly, NDCs should make clear what amount, or percentage, of the total mitigation effort is due to efforts in the land sector. Any intention to use offsets, including offsets from

beyond the country's national territory, should be clearly stated.

About 80% of current developing country NDCs include **'conditional' NDC targets** dependent on international support. Rich countries should use their NDCs to outline plans to provide climate finance as part of a 'fair shares' effort.

The barriers to a paradigm shift in forest protection and restoration are best overcome *via* grant financing (and readiness support), including: **institutional capacity building** to strengthen forest governance and the implementation of **participatory land-use planning; forest monitoring capacity; and securing tenure rights**. This strengthening of governance can happen both through policy reform and national budget outlays.

Getting the enabling environment right will attract additional support. Partners will

look to see that the host country has made credible commitments to **establish and maintain protected areas; solidify land rights** and tenurial systems; and provide the **enforcement resources** necessary to deter illegal logging and land clearance.

Some countries have based their mitigation performance on **Payment for Ecosystem Services (PES)** programs. Others have used the NDC opportunity to strengthen land tenure systems. Still others have developed national schemes for agricultural and forest products that **certifying** the product as **'deforestation free'** and/or produced in ways that provide a climate benefit.

In any case, **new and additional public grant-based finance** should be mobilized to assist with both 'conditional' mitigation and adaptation needs.



# Stakeholder Participation

More and more countries recognize the importance of broad and effective consultation in updating their NDCs. Transparency is required to achieve the mitigation, adaptation, and financing goals of the Paris Agreement for climate pledges involving land.

Recognition of the key roles played by local communities and Indigenous Peoples in managing forests is an important step in building trust and support for the actions listed in the NDC.

Support will grow from **multi-stakeholder dialogues, with priority given to rightsholders' participation**, and clear processes for avoiding conflict of interests among stakeholders. Free, Prior and Informed Consent (FPIC) should be applied in relation to proposed land-use changes, including for minerals development and clean-energy infrastructure siting.

Land-use plans that account for multiple objectives and coordinate across relevant institutions should be included in NDCs. Getting to this point, and starting the necessary transitions, requires more **inter-ministerial cooperation**. This cooperation is required for balanced outcomes in relation to climate mitigation and adaptation; food security; biodiversity conservation; and appropriate clean energy development.

Ideally, **goals in both the NDC and in national biodiversity action plans (NBSAPs)** will inform national processes for integrated land use development.

The Paris Agreement's Enhanced Transparency Mechanism asks countries to **report** to the UNFCCC every two years **on progress towards achieving mitigation targets** contained in the Nationally Determined Contribution. **Countries should**

**also communicate their conservation and restoration efforts** as part of the adaptation component of the NDC, with mitigation co-benefits, as suggested in the Paris Agreement (Article 4.7).

Most important is clear communication of intended ambition and associated targets, including clarification of any assumptions that underlie the expected land-use contribution to mitigation.

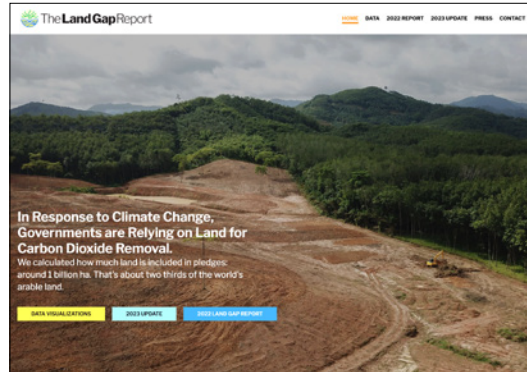
**The authors and organizations associated with the Land Gap Report hope that this overview of high-ambition land-sector actions can translate into greater ambition and greater realism in NDC development.**



## Contact

For further information concerning the Land Use in NDCs: High Ambition Guidance and the Land Gap report, please contact [info@landgap.org](mailto:info@landgap.org)

## Resources



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