

#### Submission to the Standing Committee on Finance on the "Financing Nature-based Solutions" Forum July 2020

On behalf of Conservation International (CI), Environmental Defense Fund (EDF), Land Use and Climate Knowledge Initiative (LUCKI), National Wildlife Federation (NWF), Rare, Seychelles' Conservation and Climate Adaptation Trust (SeyCCAT), Wildlife Conservation Society (WCS), and World Wildlife Fund (WWF) we express our appreciation to the Standing Committee on Finance (SCF) of the United Nations Framework Convention on Climate Change (UNFCCC) for the decision adopted at its 21<sup>st</sup> meeting to focus the next Forum on "Financing Nature-based Solutions (NBS)" and for the invitation to submit proposals that will serve as inputs for the final organization of the Forum, focusing on three key elements: "Scope and purpose," "NBS related papers and case studies that could inform the Forum," and "Potential institutions and events to partner with in its organization." We hope that in addressing such a relevant topic, the next forum will provide a meaningful opportunity for communication and continued exchange of information among public and private bodies and entities dealing with climate change finance, and promote linkages and coherence to advance enhanced mobilization of resources towards Nature-based Solutions to climate change.

#### This submission is divided into the following sections:

- 1. Summary of Recommendations
- 2. Introduction
- 3. The Role of Nature-based Solutions in Tackling Climate Change
- 4. Comments and Recommendations Based on the Co-facilitators Note
- 5. NBS Papers/Case Studies
- 6. Institutions to Partner with or to Organize Elements of the SCF Forum

## Summary of Recommendations

The following is a summary of our key recommendations. Greater detail is provided in <u>Section 4:</u> <u>Comments and Recommendations Based on the Co-facilitators Note.</u>

- <u>Balance between mitigation and adaptation.</u> NBS offers unparalleled opportunities to contribute simultaneously to both adaptation and mitigation, in addition to achieving the goals of the SDG and CBD. The Forum should aim to maintain a **balance between mitigation and adaptation** NBS when designing sessions and opportunities for future NBS financing.
- <u>Engagement at the Forum.</u> NBS is important for the livelihoods of a diversity of stakeholders, and thus the Forum to discuss NBS financing should also ensure inclusive and diverse participation. Additionally, the discussion around NBS financing options will be more fruitful with an interactive session allowing for more engagement from participants.
- <u>Future of NBS Finance.</u> A session dedicated to a way forward will be critical to ensure there is an opportunity for any SCF mandates and next steps to be identified. In addition, it will be beneficial for the SCF Forum to note existing dialogues within the UNFCCC that the discussion can continue or build off of as well, such as the ocean-climate dialogue and the lands-climate dialogue at the SB52, the Local Communities and Indigenous Peoples Platform (LCIPP) and the Koronivia Joint Work on Agriculture (KJWA). Further, the future of the NBS finance topic should be considered for additional SCF papers and research, such as developing an exploratory note on ocean-climate finance options and an outcome paper on types of NBS financing.
- <u>Considerations for Funding Priorities.</u> As described throughout this submission, **cross-sectoral actions should be prioritized for funding**, including support needed to address barriers to finance, access to funding and enhancing enabling conditions to implementation. Additionally, NBS is a solution to other cross-cutting challenges as well such as a **green recovery** effort from the coronavirus pandemic.

## Introduction

The importance of Nature-based Solutions (NBS) for sustainable development and, in particular, to address climate change, biodiversity benefits, and human-wellbeing has been increasingly recognized through such processes as 1) the United Nations General Assembly declaration for 2021-2030, 2) the "UN Decade on Ecosystem Restoration," 3) the United Nations Secretary General's Climate Action Summit dedicated track on NBS, 4) the revised framework and targets of the CBD, 5) the Paris Agreement, and 6) Parties' Nationally Determined Contributions (NDCs). To a greater degree than other types of climate action, NBS offer unparalleled opportunities to contribute simultaneously to both adaptation and mitigation, as well as to the achievement of social, economic and environmental objectives in ways that combat desertification, preserve

biodiversity, improve livelihoods, alleviate poverty and promote broad participation, cooperation and leadership of local communities, Indigenous Peoples, and other stakeholders. The current COVID-19 global pandemic has also demonstrated that NBS are a critical component of many green recovery policies and financial packages to ensure that climate action and biodiversity play an integral part in socio-economic recovery. Therefore, we applaud the SCF's decision to give these solutions special attention.

We interpret the term "Nature-based Solutions" to include a broad array of conservation, restoration, and improved land and coastal management policies, strategies, and actions that increase carbon storage, reduce greenhouse gas emissions across global forests, wetlands, grasslands, and other agricultural/marine landscapes<sup>1</sup>, and also enhance capacities of countries, people, and ecosystems to increase resilience and adaptation to climate change. Many countries and jurisdictions have come to recognize the value of integrating NBS into their conservation and sustainable development efforts, often with good results that deliver services costeffectively and with a high degree of stakeholder support.

Nature-based solutions are defined by the International Union for the Conservation of Nature (IUCN) as "actions to protect, sustainably manage, and restore natural or modified ecosystems, that address societal challenges effectively and adaptively, simultaneously providing human well-being biodiversity benefits." and In this submission we use the term "Nature-based Solutions" to include other terms such as "Natural Climate Solutions" and "Ecosystem-based adaptation" as well as the land sector activities referred to as Agriculture, Forestry and Other Land Use (AFOLU) and Land Use, Land-Use Change and Forestry (LULUCF) in IPCC guidance.

With the signing of the Paris Agreement in 2015, the world took a historic decision to limit the rise of global temperature to well below 2° Celsius compared to pre-industrial levels, and pursuing efforts to limit it to 1.5° Celsius. Along with sharply reducing energy and industrial emissions, achieving this goal will require signatory countries to urgently engage all available solutions and environmentally sustainable technologies to reduce land and coastal sector emissions, such as agroecological and conversion-free agriculture practices, reduction of food loss and waste, and REDD+ for the forest sector, protect carbon stored in forests and other irreplaceable ecosystems (mangroves, wetlands, seagrasses, salt marshes, grasslands, savannah etc.), and actively remove carbon from the atmosphere (carbon sequestration) by growing ecologically-appropriate trees or restoring and rehabilitating terrestrial and coastal ecosystems. In our view, NBS must play an important role should the goals of the Paris Agreement be reached, and therefore we welcome the special attention of the SCF on NBS. Maximizing the mitigation and adaptation benefits of NBS will require a substantial increase in financial flows toward this effort, and we welcome all appropriate sources of public and private sector investment, voluntary and regulatory carbon markets that follow environmental integrity principles and fit into mitigation hierarchies, and non-market approaches in mobilizing climate finance for NBS, including addressing perverse

<sup>&</sup>lt;sup>1</sup> Griscom, B. et al., 2017. Natural Climate Solutions. Proceedings of the National Academy of Sciences Oct 2017, 114 (44) 11645-11650. <u>http://www.pnas.org/content/114/44/11645/tab-article-info</u>.

incentives and subsidies. The SCF can play a vital role in characterizing, directing, and tracking this finance in ways that help make it more effective.

# The Role of Nature-based Solutions in Tackling Climate Change

The concept that natural systems can be managed to address climate change is not new. Indeed, it was recognized as a component of global climate strategies in the initial Framework Convention on Climate Change in 1992.<sup>2</sup> In the intervening years, we have learned a great deal about how to combine climate benefits from the land with sustainable development in a warming world. The Paris Agreement created a watershed moment in 2015, singling out the distinct importance of the land sector in its Article 5 and encouraging countries to use approaches that reflect its multifaceted role – in climate mitigation, climate adaptation, biodiversity protection, food security, and other priorities.

In the sections below, we provide information to help the SCF assess the potential role of NBS in tackling climate change for mitigation and adaptation, we highlight successful examples that could be scaled up, we explain how various existing mechanisms contribute to enabling environments for NBS (and what gaps remain), and we identify opportunities to direct and scale finance towards NBS.

#### **Forest Ecosystems**

International channels to enable and direct finance for forest mitigation activities in developing countries have been established over the past decade, and they are now ready for operation at large scale through countries' first round of contributions under the Paris Agreement (2021-25). The 2013 Warsaw Framework on REDD+<sup>3</sup> established a set of safeguards, rules, and expectations for climate mitigation activities in forests, which were explicitly reaffirmed in Article 5 of the Paris Agreement. Many developing countries have built up their capacity to meet the conditions of the Warsaw Framework in preparation for receiving results-based payments. In addition, many have also included forest activities – often under the framework of REDD+ – in their NDCs under the Paris Agreement. These preparations have made significant improvements to the enabling environments for accessing climate finance at scale for forest NBS – though it remains to be seen whether these same improvements will have spillover benefits for non-forest NBS.

<sup>&</sup>lt;sup>2</sup> In that agreement, countries committed to "promote and cooperate in the conservation and enhancement ... of sinks and reservoirs [of carbon], including biomass, forests and oceans as well as other terrestrial, coastal and marine ecosystems[.]"

<sup>&</sup>lt;sup>3</sup> REDD+ can include "(a) Reducing emissions from deforestation; (b) Reducing emissions from forest degradation; (c) Conservation of forest carbon stocks; (d) Sustainable management of forests; (e) Enhancement of forest carbon stocks" (Decision 1/CP.16). For more information, see <a href="https://unfccc.int/topics/land-use/resources/warsaw-framework-for-redd-plus">https://unfccc.int/topics/land-use/resources/warsaw-framework-for-redd-plus</a>.

Funding for REDD+ activities, including public sources of bilateral and multilateral finance and private sources of foundations and investments, has provided opportunities for tropical countries to focus their climate action on forest ecosystems. For example, in October 2017, the Green Climate Fund (GCF) approved a pilot program for up to US\$500 million in REDD+ program results-based payments, consistent with the Warsaw Framework for REDD+.<sup>4</sup> To date, GCF has approved payments through this program for projects in Paraguay, Chile, Ecuador, and Brazil. In our view, the approval of these pilot programs was a major step in the process of successfully operationalizing Article 5 of the Paris Agreement. The GCF program seeks to advance the implementation of forest climate action by requiring that countries reinvest the proceeds from the results-based payments into activities that align with their NDC, their REDD+ strategy, or a low-carbon development plan. Within the financial landscape for forests, GCF is one of a select few entities that is directly responsible to the UNFCCC and is accountable to a balanced representation of countries. We believe that GCF's financial support for tropical countries' efforts to fight climate change by conserving and restoring forests can serve as a model for future funding streams targeting a wider range of NBS.

A second example is the Forest Carbon Partnership Facility (FCPF), which has been supporting REDD+ efforts through the Readiness Fund and the Carbon Fund since 2008. The Readiness Fund, which helps countries establish the building blocks (e.g., developing national REDD+ strategies, reference emission levels, measurement, reporting, and verification (MRV) systems, proper environmental and social safeguards, etc.) now supports 47 countries, of which 34 are expected to submit Readiness Packages<sup>5</sup> by the close of the Fund in December 2022. There are a total of 18 countries in the Carbon Fund, which pilots jurisdictional results-based payments to countries that have achieved verifiable emission reductions in their forest and broader land-use sectors and advanced through REDD+ readiness. To date, four of those countries – Ghana, Mozambique, DRC, and Chile – have signed agreements for the sale, transfer of, and/or payment for emission reductions, and 14 more are expected to sign agreements by November 2020. The financial flows being provided by the FCPF have proven to be a catalyst for securing forest ecosystems in countries seeking recognition and compensation for their REDD+ efforts.

The current scale of finance for NBS has been a helpful beginning, but it has only leveraged a small fraction of the full value of forest NBS. One recent estimate suggests that nearly 200 million tons CO<sub>2</sub>-e of forest mitigation may be available annually at prices up to US\$20 per ton CO<sub>2</sub>-e,<sup>6</sup> while another estimates that well over 4 billion tons CO<sub>2</sub>-e per year may be obtained for up to

<sup>&</sup>lt;sup>4</sup> The GCF pledged to pay US\$5 per ton CO<sub>2</sub>-e, with potential for bonus payments for country programs that incorporate additional non-carbon benefits. The GCF has opened the request for proposals from the end of 2017 until 2022. For more information, see <u>https://www.greenclimate.fund/document/terms-</u>reference-pilot-programme-redd-results-based-payments.

<sup>&</sup>lt;sup>5</sup> Readiness Packages are detailed documents that describe the activities designed to support a REDD Country Participant's capacity to participate in future systems of positive incentives for REDD+, and include a reference scenario, a REDD+ Strategy and a monitoring system.

<sup>&</sup>lt;sup>6</sup> Busch et al. 2019. Potential for low-cost carbon dioxide removal through tropical reforestation. Nature Climate Change 9: 463-466. <u>https://doi.org/10.1038/s41558-019-0485-x</u>.

US\$100 per ton CO<sub>2</sub>-e.<sup>7</sup> The enormous magnitude of these numbers suggests that current forest finance has barely scratched the surface of the global potential. In our view, any efforts by the SCF to catalyze sustained, large-scale finance for NBS activities might well deliver crucial long-term benefits. Furthermore, the finance delivered so far has overlooked certain opportunities and synergies, resulting in an imbalance in financial support for different types of REDD+ activities, with a significant thematic gap in the conservation of existing forest stocks.<sup>8</sup> This gap has implications for countries' ability to protect intact forests (forests free from significant anthropogenic degradation), which collectively store enough carbon to jeopardize the Paris goals, if emitted,<sup>9</sup> while also providing the service of sequestering a significant fraction of humanity's annual carbon emissions each year<sup>10</sup>.

While we acknowledge that reducing emissions from deforestation and forest degradation are among the most urgent priorities for NBS finance, we also believe that the entire suite of REDD+ activities must be supported in a coordinated way in order to avoid merely chasing emissions from one locale to another. Concurrent and coordinated investments to protect, manage, and restore forest resources will be needed to deliver sustainable development goals and avoid negative climate impacts. At the same time, an expanded scope of activities might also require an expanded scope of financial instruments and approaches to facilitate access for this wider range of purposes. We suggest that the SCF should dedicate an ongoing effort to this challenge, starting at the Forum, with the goal of informing countries about how private, public, and innovative finance can be applied to address the full suite of activities considered under REDD+.

#### **Coastal and Marine Ecosystems**

Coastal and marine ecosystems and their importance for overall climate action have gained more attention from the international community in recent years. This importance was highlighted in the "Guide to Including Nature in Nationally Determined Contributions: A checklist of information and accounting approaches for natural climate solutions," authored by many of our organizations, and is fully aligned with our perspective:

Coastal wetlands – mangrove forests, tidal salt marshes, and seagrass meadows – also known as 'blue carbon ecosystems,' along with freshwater wetlands and peatlands, are an essential part of the climate solution. The soils in mangrove forests store approximately 6.4 billion tonnes of carbon globally, representing 49% - 98% of the carbon storage capacity in a mangrove ecosystem. There are significant climate adaptation benefits from

<sup>&</sup>lt;sup>7</sup> Griscom et al. 2020. National mitigation potential from natural climate solutions in the tropics. Philosophical Transactions of the Royal Society B 375: 20190126. http://dx.doi.org/10.1098/rstb.2019.0126.

<sup>&</sup>lt;sup>8</sup> Funk et al. 2019. Securing the climate benefits of stable forests. Climate Policy 19:7, 845-860, DOI: 10.1080/14693062.2019.1598838

<sup>&</sup>lt;sup>9</sup> Potapov, P. et al. (2017) The last frontiers of wilderness: Tracking loss of intact forest landscapes from 2000 to 2013. Science Advances 2017;3: e1600821.

<sup>&</sup>lt;sup>10</sup> Estimates range up to 11 Gt CO2-e/year sequestered in these forests. Le Quéré, C., et al. (2018) Global carbon budget 2017. Earth Syst. Sci. Data10: 405-448. Pan. Y. et al. (2011) Science 333: 988-993. Houghton (2013) Carbon Management (4)5.

blue carbon ecosystems as well including: an increase in improved water quality and fishery production; improved livelihoods through tourism and other coastal jobs; and the protection of coastlines from storm surges, floods and erosion.<sup>11</sup>

The importance of these ecosystems was also recognized in the "Chile-Madrid Time for Action."12 This UNFCCC decision established a dialogue on the ocean and climate change to consider how to strengthen mitigation and adaptation action. The dialogue could provide an opportunity for the SCF to better understand how climate finance could catalyze opportunities in coastal and marine ecosystems. We recommend that a representative designated by the SCF and familiar with the NBS Forum should present on the relevant work during the dialogue. Furthermore, we suggest that a representative from the ocean dialogue present at the SCF Forum, to highlight how climate finance can leverage the potential of oceans and coasts as valuable and underfunded NBS. Given this interest and alignment with the ocean-climate dialogue, the SCF could also consider developing a note to explore ocean and coastal finance options, to be included as a background input to inform the Forum.

#### Ocean-Climate Dialogue Connections

Sample Statistics from Party and Non-Party Submissions for the Ocean-Climate Dialogue: 22 submissions of 46 total specified NBS and/or EbA, 27 mentioned blue carbon, and 25 mentioned the protection of mangroves, salt marshes, seagrasses, deep ocean systems and coral reef ecosystems. Given this interest and alignment with the oceanclimate dialogue, the SCF could also consider developing a note to explore ocean and ocean and coastal finance options.

NBS in coastal wetland ecosystems have exceptional potential for synergies between mitigation and adaptation, which would offer countries opportunities to enhance climate ambition in their NDCs. However, the implementation of coastal NBS must be adequately financed if these synergies are to be achieved. Ecosystem-based Adaptation (EbA) in coastal and marine ecosystems is also critical for sustainable development as these actions improve fisheries for food security and livelihoods of small-scale fisheries from coastal communities and eco-tourism. A community-based approach for coastal and marine NBS interventions enhances social, economic and ecological resilience when combined with a behavior change approach for long-term solutions.<sup>13</sup> Despite the clear adaptation and mitigation benefits, protecting and restoring ocean biodiversity receives less than US\$500 million in philanthropic funding globally each year.<sup>14</sup>

<sup>12</sup> Decision 1/CMA.2. For more information, see

https://unfccc.int/sites/default/files/resource/cp2019\_\_L10E\_adv.pdf.

<sup>&</sup>lt;sup>11</sup> Beasley, E., Schindler-Murray, L., Funk, J., Lujan, B., Kasprzyk, K., Burns, D. (2019). Guide to Including Nature in Nationally Determined Contributions: A checklist of information and accounting approaches for natural climate solutions. Conservation International, The Nature Conservancy, Land Use and Climate Knowledge Initiative, Environmental Defense Fund, National Wildlife Federation, Climate Advisers, Wildlife Conservation Society, Nature4Climate

<sup>&</sup>lt;sup>13</sup> Lomboy, CG., Belinario, F., et al. (2019) *Building household economic resilience to secure a future for near shore fishers in the Philippines.* Marine Policy. Vol 99 (334 - 342)

<sup>&</sup>lt;sup>14</sup> The Becht Family Charitable Trust (2020) *Protection and restoration of marine ecosystems, and the transition to sustainable agricultural practices: a philanthropic response to the impact of food systems on the environment.* 

NBS from coastal and marine ecosystems play a unique connecting role across other international bodies, such as the UN Convention on Biological Diversity (CBD), where area-based protection efforts are cross-cutting elements of biodiversity, climate mitigation, and climate adaptation strategies. These NBS approaches can include the protection and restoration of other coastal and marine ecosystems, like coral reefs, while promoting specific climate benefits, which strengthens the link between biodiversity conservation, fisheries, and climate change.

#### **Agriculture and Rural Landscapes**

Agricultural activities are critical for income generation in developed and developing countries, provide vital sources of food, energy, housing, and livelihoods to rural and urban populations, and remain vulnerable to the impacts of climate change. At the same time, these activities continue to be a substantial source of emissions. Food production contributes to approximately 12.5 GT CO<sub>2</sub> eq or 24% of annual greenhouse gas emissions, of which 5.6 Gt CO<sub>2</sub> eq come mainly from livestock production and rotting food and 6.9 GT CO<sub>2</sub>eg come from agriculture practices, fertilizer use, and land conversion and deforestation.<sup>15</sup> Agriculture also has the potential to meaningfully contribute to climate action through NBS; many countries include agriculture in their NDCs, but sustainable approaches, better practices, land use planning and soil restoration are only partially reflected. Food loss and waste, consumption and diets are not mentioned at all, despite their high mitigation potential. In some cases, this may be due to technical and institutional weaknesses, but many countries have also expressed reluctance about committing to emission reductions in this sector as long as food security and income generation remain of paramount concern. Through discussion in the Koronivia Joint Work on Agriculture<sup>16</sup> (KJWA) and other fora, countries are working to improve their capacities, with the aim of deepening the role of agriculture and food systems in their NDCs. Given the importance of the agricultural sector to achieving meaningful mitigation, adaptation, and food security gains, the SCF may consider identifying specific guidance and means to increase financing to address these challenges in developing countries and inviting the KJWA to work closely and jointly with the SCF during the Forum. Addressing perverse incentives and subsidies would be an important first step for further discussion.

#### **Inter-Sectoral Efforts**

We note that Parties may best achieve the combined benefits of decreasing emissions, enhancing adaptive capacity, and increasing resiliency of natural ecosystems and communities by coordinating the use of NBS across economic sectors. Toward this end, we recommend that these cross-sector climate actions should be included in NDCs, and we further suggest that they should be prioritized for climate finance over approaches that do not yield as many concomitant benefits. Examples of taking an inter-sectoral approach include: integrating infrastructure planning with conservation goals; promoting sustainable landscape programs between forestry and agriculture; developing policies for compensating impacts of infrastructure development on forests or

<sup>&</sup>lt;sup>15</sup> IPCC. 2019. Special Report on Climate Change and Land. <u>https://www.ipcc.ch/srccl/</u>; EAT. 2020. Diets for a Better Future. <u>https://eatforum.org/content/uploads/2020/07/Diets-for-a-Better-Future\_G20\_National-Dietary-Guidelines.pdf</u>

<sup>&</sup>lt;sup>16</sup> For more information, see <u>https://unfccc.int/topics/land-use/workstreams/agriculture</u>.

wetlands; combining natural and built infrastructure for coastal protection; implementing land use planning with ecosystem disaster risk management; or promoting tree cover in watersheds to ensure hydropower efficiency and predictability.

With communities and natural ecosystems facing increasing risks from weather- and climaterelated hazards, the latest scientific evidence — from both model-based assessments and empirical sources — suggests that nature-based approaches can be equally or more effective than conventional structural approaches for hazard mitigation, and they are often more costeffective.<sup>17</sup> However, given that climate risks can threaten the long-term viability of NBS, ecosystem management must move beyond traditional conservation and restoration approaches to acknowledge and actively manage these risks. We encourage the SCF to explore these synergies in detail and to develop means to de-risk such approaches and scale up climate investments in these sensible protections.

## Comments and Recommendations Based on the Co-facilitator's Note

#### 1. On the scope and purpose of the Forum

#### 1.a. On the Context and Narrative

The draft program outline of the 2021 SCF Forum details the importance of NBS for addressing climate change through its growing recognition in key UN forums like the UN Secretary General's Climate Action Summit. Maintaining and strengthening political support around NBS will be an important outcome of the Forum as well as generating financial momentum around support to best practices. Throughout the Forum and all themes, we encourage the SCF to ensure that the following guiding principles of sustainable financing are adequately considered and integrated.

#### Guiding principles or considerations of sustainable financing

The overall UNFCCC framework and work to date in several of its bodies has recognized that activities in the land sector, which includes NBS, should enhance both social and environmental benefits; this important dimension was fully and concretely embodied with the adoption of the "Cancún Safeguards" for REDD+<sup>18</sup> in 2010. Building on this important precedent, finance should only be provided for all NBS actions provided that the activity, project or program adheres to social and environmental principles. The Paris Agreement also recognizes the Cancún Safeguards and we propose that any work of the SCF on NBS financing be guided by, *inter alia*, the following elements to be applied to all sectors:

<sup>&</sup>lt;sup>17</sup> Glick, P., E. Powell, S. Schlesinger, J. Ritter, B.A. Stein, and A. Fuller. 2020. The Protective Value of Nature: A Review of the Effectiveness of Natural Infrastructure for Hazard Risk Reduction. Washington, DC: National Wildlife Federation. <u>https://www.nwf.org/Educational-Resources/Reports/2020/06-05-20-Protective-Value-of-Nature</u>

<sup>&</sup>lt;sup>18</sup> <u>https://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf#page=12</u>

#### i. Ensure environmental integrity

NBS finance for mitigation actions should be provided when the accounting approaches and methodologies that are utilized are consistent with UNFCCC and IPCC guidance, in particular when involving internationally transferred mitigation outcomes. Common accounting approaches ensure environmental integrity, meaning that emissions and reductions are real, verifiable, and permanent (or utilize a robust mechanism to address reversals). They must also avoid double counting of associated emissions reductions, so that any emissions reduction is counted and claimed only once toward mitigation obligations. This requires robust practices for NDC accounting, including for corresponding adjustments, as well as strong systems for monitoring, reporting, and verifying reductions and utilization of aligned registries and corresponding adjustments for any emissions reductions transferred or sold. For NBS adaptation actions, environmental integrity also refers to the importance of ecosystem health by ensuring appropriate interventions considering the local biodiversity of flora and fauna and sustainability.

#### ii. Prioritize transparency, completeness, and consistency

Related to environmental integrity, accounting approaches and methodologies should facilitate transparency and completeness, such that the scope is clear, and all relevant greenhouses gases are addressed (including carbon dioxide, methane, and nitrous oxide, as relevant). The same accounting approaches or methodologies should be utilized between the establishment of the NDC targets and tracking progress on implementation to ensure robustness, accuracy, consistency, and comparability of results.

## *iii. Monitor social and environmental safeguards, including food security and respect for gender considerations*

Parties and non-state actors have a system for providing information on how social and environmental safeguards are being addressed and respected (for example, see para 71 of 1/CP.16; 12/CP.17; and 17/CP.21). The "Cancún Safeguards" in Appendix I of 1/CP.16, coupled with related decisions on Safeguard Information Systems and the KJWA (see 4/CP.23) provide a valuable roadmap for ensuring the inclusion of relevant safeguards. Any action related to the implementation of NBS should respect and enhance Indigenous Peoples and Local Communities (IPLCs) rights and knowledge, including supporting the improvement of capacities to participate and implement activities related to the Local Communities and Indigenous Peoples Platform (LCIPP).<sup>19</sup>

#### iv. Use inclusion and a rights-based approach for consultation

Parties and non-state actors should follow best practices and relevant national legislation and international conventions for consultation of stakeholders. For instance, some countries have adopted Convention 169 of the International Labor Organization which includes the right to consultation. Best practices for NBS should also recognize the principle of Free, Prior and Informed Consent (FPIC), which refers to the right of local communities and Indigenous Peoples

<sup>&</sup>lt;sup>19</sup><u>https://unfccc.int/LCIPP#:~:text=The%20platform%20has%20been%20established,lessons%20learned</u> %20on%20mitigation%20and

to give or withhold their consent for any action that would affect their lands, territories or rights. Investments on NBS at all scales may consider the framework provided in UNFCCC the Gender Action Plan agreed during COP 25.<sup>20</sup>

#### 1.b. On Proposed Themes

We consider the scope of the themes and draft program proposed to be generally comprehensive. We offer suggested recommendations for consideration to strengthen the SCF's mandate of facilitating the participation, collaboration and engagement of the private sector, financial institutions, and academia. Further, the SCF Forum should consider options for ensuring representation from stakeholders across sectors to share their experience as well as learn how to engage in this space most effectively.

Below are our comments on the current proposed themes from the Co-facilitators' Note with the aim of providing additional context to consider for addressing each topic. Lastly, the NBS thematic focus offers the opportunity for the SCF and other climate finance actors to provide a space to discuss all aspects of NBS, including those currently underutilized or underrepresented. For example, the topics of agroecology, regenerative and conservation agriculture, carbon farming, paludiculture<sup>21</sup>, silvopasture<sup>22</sup> and other agroforestry systems, sustainable livestock management, protected areas<sup>23</sup>, community-based small-scale fisheries as an EbA approach, and intact forest conservation could be integrated throughout each of these themes.

## (a) Creating enabling environments to facilitate access to climate finance for NBS on adaptation and mitigation;

Enhancing access to NBS climate finance through the creation of enabling environments is critical for mitigation and adaptation actions across national and local levels. National level examples could be to support the development of long-term low-carbon development strategies (LTLCDS) as a broader framework, develop National Adaptation Plans, and develop domestic emissions pricing policies that incorporate NBS, such as emissions trading systems or carbon taxes with offsets. This theme should address how to enhance the capacities of countries in order to increase ambition of NDCs as well as promote the inclusion of NBS in national and local level climate and sustainable development policies, budgets, and legal frameworks. Many developing countries did not include mitigation or adaptation targets for the land sector — including coastal ecosystems — in their initial NDCs, in part because of their uncertainty about delivering potential emission reductions or other reporting obligations. The gaps identified in the 2015 NDCs can provide a basis for capacity-building financing needs for NBS at the global and national levels, as well as identification of other means of implementation and technical support.

<sup>&</sup>lt;sup>20</sup> <u>https://unfccc.int/topics/gender/workstreams/the-gender-action-plan</u>.

<sup>&</sup>lt;sup>21</sup> Paludiculture is the use of wet or rewetted peatlands for agriculture or forestry under conditions in which peat is conserved.

<sup>&</sup>lt;sup>22</sup> Silvopasture is the intentional combination of trees, forage and livestock managed as a single practice. <sup>23</sup> "A protected area is a clearly defined geographical space, recognised, dedicated and managed,

through legal or other effective means, to achieve the long term conservation of nature with associated ecosystem services and cultural values" (IUCN Definition 2008)

As outlined in the "Guide to Including Nature in Nationally Determined Contributions: A checklist of information and accounting approaches for natural climate solutions," Parties should review existing development plans that link sectors as well as institutional arrangements or agreements if they exist. These planning processes should be the outcome of a joint effort between the relevant ministries and government actors. For Parties opting to include energy derived from the use of biological feedstocks (i.e. bioenergy), for example, a variety of accounting approaches have been assessed by the IPCC and should be referenced in the national GHG inventory. Transparency will be key to understanding whether Parties are accurately accounting for the overall change in emissions to the atmosphere, and financial and technical support should be directed at countries to build capacity on implementing the latest accounting methodology using the IPCC guidance.

Enhanced carbon accounting capacity is important to handle implications of actions that play out across different sectors. For example, if domestic biomass feedstock is used, Parties should reconcile their energy and land-sector accounting approaches using identical reference points (e.g. historical reference year or period, or BAU) to account for any inter-sectoral leakage. In addition to carbon accounting, transparency is important for communicating and reporting adaptation actions, often from the common metrics described in ecosystem-based adaptation approaches. Additional funding and capacity should continue to be directed to improving NBS adaptation reporting metrics to enhance transparency.

## (b) Harnessing local community and indigenous knowledge, gender responsive policies, climate resilience and adaptation, technology and capacity-building;

We are supportive of the theme focused on local community and Indigenous knowledge and gender responsive policies. LCIPs are integral to implementing NBS measures in their local communities, and they must gain access to climate finance to effectively implement NBS interventions. Strengthening local capacities is critical for the participation of LCIPs in national climate policy processes and related mechanisms to ensure respect of rights and equitable access to benefits, as discussed in the LCIPP. Finance flows must take the multi-level implementation of the UNFCCC agreed gender action plan into consideration to ensure proper representation of women in decision-making and benefit-sharing for improved technology and capacity building.

## (c) Applying NBS as a means of de-risking and scaling up climate investments throughout multi-level governance;

In our experience, NBS may be positioned to play an important role in de-risking climate investments and paving the way for scaling up. Jurisdictional (national or state/province level) NBS approaches are already designed to help mitigate potential risks and spur increased finance flows for mitigation and adaptation actions. For example, jurisdictional REDD+ approaches are able to effectively address risks associated with additionality, reversals, leakage, and permanence, and are thus primed for at-scale climate investments.

#### (d) The role of climate finance for ecosystems capturing carbon, swamp plants, biodiversity protection, fire management (e.g. fire management projects, including Savanna, forest and preventing forest fires), restoring land, addressing deforestation and afforestation, sustainable forests and preventing desertification;

This theme could be clarified by referencing "all carbon-rich ecosystems" and the adaptation and resilience benefits of each, particularly for those ecosystems that are generally underrepresented in NBS discussions. For example, additional policy and methodological efforts to fully reflect intact and natural forests in crediting mechanisms and recognize that current "additionality" approaches are limiting access to finance for developing countries could be considered. Another example could be the critical role that coastal and marine ecosystems (mangroves, seagrasses, salt marshes, coral reefs, etc.) play in addressing mitigation and adaptation actions like enhancing coastal resilience, reducing coastal erosion, and improving food security when protected for biodiversity. Widely overlooked is the essential role of grasslands and savannahs in climate mitigation, particularly in terms of global carbon storage and sequestration. They represent between 20 and 34 percent of the global stock of carbon in terrestrial ecosystems (150-200 tons of carbon / hectare). Grasslands and savannahs store in total at least three times more carbon than tropical rainforests. Because of their deep root systems and because they are more resilient to droughts and fires, grassland and savannah systems may store carbon more reliably than other vegetation types in drought and fire-prone regions.<sup>24</sup>

#### (e) NBS as a driver of the NDCs and NAPs;

We suggest this be reframed as "*NBS as a driver of <u>climate action and ambition</u> in <i>NDCs and NAPs*." Our suggested change focuses the NBS discussion on climate action and ambition for mitigation and adaptation. To enable NBS as a driver of climate action and ambition, means of implementation and support are needed to improve reporting and monitoring capacity in developing countries in particular. The technology, MRV capacity, data gathering, and institutional coordination for NBS finance needs attention, with the aim of improving robustness and accuracy in data gathering and processing. NBS financers also need to provide funds to increase and improve the use of adaptive management in NBS implementation. Further, identifying concrete mechanisms for financing adaptation continues to be a challenge and barrier to implementation, which could be addressed by identifying gaps and opportunities during the session.

#### (f) Various types of finance for NBS.

We recommend that this topic include aspects outlining 1) specific types of finance currently available for different policy measures and activities; 2) factors that affect the suitability of different types of finance for different activities; and 3) the potential opportunities for additional sources of financing, including private and public investments and blended approaches, to play a role at both national and global scales. Assessing the future of the GCF, GEF, and Adaptation Fund in financing NBS is also a critical element that needs to be addressed — in particular, on the future of REDD+ finance or other emerging NBS finance approaches.

<sup>&</sup>lt;sup>24</sup> Dass, P., Houlton, B.Z., Wang, Y., and D. Warlind. 2018. "Grasslands may be more reliable carbon sinks than forests in California." Environmental Research Letters. 13(7). <u>https://iopscience.iop.org/article/10.1088/1748-9326/aacb39/meta</u>

The role of markets, carbon taxes, carbon pricing, and similar mechanisms also need attention, both at the global and national level, so as to fill the gap on financial needs to achieve the agreed global goals. Potential sources of up-front finance to developing countries should also be addressed, particularly to invest in NBS that are already functioning as carbon sinks (intact and other natural forests, coastal sections of Marine Protected Areas, etc.). These various sources of up-front finance should be considered with the possibility of generating carbon credits in the future firmly in mind (e.g. via emissions reductions, restoration, protection and enhancement of carbon stocks, sustainable forest management, etc.), since many countries do not currently have their own capital to invest. A discussion around innovative NBS finance mechanisms, resources, and sources, including repurposing existing subsidies for NBS, may be considered under this theme, although we emphasize the importance of utilizing existing frameworks and strategies, such as REDD+, which are at the cusp of being realized at a jurisdictional scale.

Article 6 of the Paris Agreement could be an important source of finance for NBS. This Article establishes a broad framework for voluntary cooperation among Parties in delivering climate action and sets out three approaches through which Parties may interact: 1) bilateral or regional cooperative approaches via internationally transferred mitigation outcomes (ITMOs); 2) a centrally-governed UNFCCC mechanism to contribute to mitigation and support sustainable development; and 3) non-market approaches. Encouraging the transfer of high-quality emission reductions generated in all sectors, including the land sector, can drive needed flows of finance to climate actions addressing both sources and sinks, particularly in developing countries, and can enable Parties to achieve far greater emission reductions and enhance their overall ambition at the same overall cost.<sup>25</sup>

#### Other themes as suggested in the Annex

## (a) The multi-dimensional and cross-border nature of NBS as a means to enhance cooperation and to avoid negative impacts;

We recommend not spending too much time on cross-border issues given that implementation of NDCs is within national borders, but instead use the time associated with this topic to discuss finance requirements and potential, including increasing GEF/GCF funding for multilateral/binational action as well as for climate action in areas beyond the national jurisdiction, including NBS approaches like Marine Protected Areas.

# (b) Understanding NBS and its potential role in tackling climate change adaptation and mitigation and the different dimensions of NBS, including links to biodiversity, desertification and sustainable development goals, at sub-national, national, regional and global levels;

We recommend this theme also explore the role of NBS beyond tackling climate change, and touch on the financial and economic benefits of NBS, including relevant elements countries are undertaking for a green recovery effort to COVID-19. For example, a recent report found that

<sup>&</sup>lt;sup>25</sup> Piris-Cabezas, P. et al., 2018. The power of markets to increase ambition.

https://www.edf.org/sites/default/files/documents/Power\_of\_markets\_to\_increase\_ambition.pdf

the economic benefits of protecting 30% of the planet's land and ocean outweigh the costs at least 5-to-1.<sup>26</sup> Doing so could help make the case for financing NBS at scale more compelling, and highlight that investing in nature is also about investing in people and the economy.<sup>27</sup>

(c) Role of climate finance as a catalyst for securing ecosystems, by supporting the synergies in addressing biodiversity loss and climate change and harnessing the potential of nature/ecosystem-based solutions – enhancing biodiversity can contribute towards mitigation and adaptation to climate change, combating desertification, restoring degraded land, enhancing flood protection, ensuring food security and preserving human health and well-being;

We recommend that this theme consider the linkages with other relevant UN forums like the UN Convention of Biological Diversity, UN Sustainable Development Goals, and UN Convention to Combat Desertification. This may also be a good opportunity to link with other existing dialogues within the UNFCCC to build on expertise from the ocean-climate dialogue and the lands dialogue to be held during the SB52, as well as the research dialogues at the SB52 which may cover similar topics from a scientific perspective.

## (d) Facilitating access to climate finance for adaptation and mitigation actions and measures that utilize NBS.

Access to finance is a vital theme to consider during the SCF Forum and a known barrier for many developing countries who require additional capacity to develop high-quality proposals or technical capacity for implementing NBS measures to monitor progress and impact of mitigation or adaptation actions. Access to finance is also a significant challenge for key actors, including Indigenous Peoples and local communities, who are essential to NBS.

#### 1.c. Recommended Next Steps for the Organization of the Forum and Beyond

The details above provide recommendations per suggested theme and other areas of consideration. In addition, we recommend the following points to ensure an inclusive and productive session:

- <u>Inclusive and diverse participation</u>. Ensure that the SCF Forum is accessible and open to a diversity of stakeholders to participate in the Forum. For example, on the NBS implementation side: subnational governments, CSO, Indigenous Peoples, local communities, women, and youth; and on the financing side: donor governments, multilateral fund representatives, private fund representatives, companies, investors, and foundations.
- <u>Balance between mitigation and adaptation.</u> The SCF Forum is an opportunity to explore all NBS approaches, and thus we recommend a balanced approach to ensure mitigation and adaptation NBS are both featured.
- <u>Interactive Engagement.</u> The proposed break-out sessions are an important factor in the organization of the SCF Forum to ensure that participation is engaging and interactive to

<sup>&</sup>lt;sup>26</sup> <u>https://www.campaignfornature.org/protecting-30-of-the-planet-for-nature-economic-analysis</u>

<sup>&</sup>lt;sup>27</sup> <u>https://nature4climate.org/nature-positive-recovery/</u>

maximize the opportunity for an exchange of ideas, experiences, and lessons learned on NBS finance.

• <u>Way Forward</u>. Ensure that the breakout session on key outcomes and way forward has adequate time for discussion amongst stakeholders given that any mandates and next steps will be discussed here.

To ensure that the discussion during the SCF Forum on Nature-based Solutions results in discrete opportunities and actions as a way forward for the SCF and related stakeholders, we offer the following recommendations to be considered by the SCF as actions to pursue beyond the SCF Forum:

- <u>Connection with Existing UNFCCC Dialogues</u>. Consider linkage opportunities to present during the SB52 dialogues on ocean-climate (mitigation and adaptation) or lands (adaptation) or have a representative from each respective dialogue present at the SCF Forum, depending on each event's timing, to highlight how oceans/coasts and land-based adaptation are a valuable and underfunded NBS solution. Synergies with the LCIPP and the KJWA, among others, should also be considered.
- <u>Cross-sectoral Importance in Funding Priorities</u>. We recommend that these cross-sectoral climate actions should be prioritized for inclusion in NDCs, as well as for climate finance over other conventional approaches that do not yield as many concomitant benefits.
- <u>Exploratory Note on Ocean-Climate Finance Options</u>. Given the interest and alignment with the ocean-climate dialogue, the SCF could also consider developing a note to explore ocean and coastal finance options to be included as a background input to inform the Forum, per identified in many of the submissions to the UNFCCC Secretariat informing the dialogue.
- <u>Outcome Paper on Types of NBS Financing</u>. A key outcome of the SCF Forum could be to a paper identifying (i) specific types of finance for different policy measures and activities, (ii) the most suitable sources of financing across all NBS approaches, including the underrepresented approaches, and (iii) a discussion of the most impactful roles for private, philanthropic, public and blended finance investments at national and global scales.
- <u>Including NBS into green/blue recovery policies and financial stimulus packages</u>. The SCF should highlight the potential NBS can play for green and blue recovery measures, including alignment of economic recovery with climate change and biodiversity outcomes. The coronavirus pandemic is presenting enormous challenges to international climate action and biodiversity conservation, with, for example, increased deforestation rates, illegal fishing activities, poaching of protected areas, etc. The economic stimulus packages should anchor climate change and biodiversity action in the recovery through NBS.

## **NBS** Papers/Case Studies

#### • <u>Guide to Including Nature in Nationally Determined Contributions</u> (2019)

This guide includes a checklist of information and accounting approaches for natural climate solutions. It is intended to be a resource for countries as they consider how to use natural climate solutions – such as forests, agricultural lands, and coastal wetlands – to achieve their climate goals. The checklist details information relevant for NDC enhancement using conservation, restoration and management activities. Available in English, Spanish, French, and Portuguese.

https://www.conservation.org/docs/default-source/publication-pdfs/guide-to-including-naturein-ndcs-en.pdf?sfvrsn=4abd631e\_2

#### • Enhancing NDCs through Nature-Based Solutions (2020)

Eight simple recommendations on integrating nature into NDCs and examples taken from current country NDCs. Recommendation #8 is to include the needs for technical and financial support to achieve results. Report also emphasizes the importance of measurable outcomes from countries in order to access climate finance.

https://www.worldwildlife.org/publications/enhancing-ndcs-through-nature-based-solutions

#### • <u>Blue Carbon and Nationally Determined Contributions: Guidelines on Enhanced Action</u> (2020)

A guide on how countries may include blue carbon in their Nationally Determined Contributions. The guide is intended to support countries seeking to promote and preserve these climate benefits by providing technical guidance on the multiple avenues by which coastal wetlands can be included within new and updated Nationally Determined Contributions (NDCs) to the Paris Agreement to contribute to countries' raised ambition on climate action utilizing the protection, restoration, and sustainable management of blue carbon ecosystems: mangroves, seagrass and saltmarshes.

https://static1.squarespace.com/static/5c7463aaa9ab95163e8c3c2e/t/5ee3ca72decb154d36 1fc0ae/1591986808552/061220 Blue-Carbon-NDCs FinalB spreads.pdf

#### • <u>Core principles for successfully implementing and upscaling Nature-based Solutions</u> (2020)

A critical analysis of the strengths and weaknesses of the NbS principles recently adopted by the International Union for Conservation of Nature, compared to (1) the Ecosystem Approach that was the foundation for developing the NbS definitional framework, and (2) four specific ecosystem-based approaches (Forest Landscape Restoration, Ecosystembased Adaptation, Ecological Restoration and Protected Areas) that can be considered as falling under the NbS framework. Unless there is clarity on its evolution, definition and principles, and relationship with related approaches, it will not be possible to develop evidence-based standards and guidelines, or to implement, assess, improve and upscale NbS interventions globally. Three of the eight NbS principles stand out from other approaches: NbS can be implemented alone or in an integrated manner with other solutions; NbS should be applied at a landscape scale; and, NbS are integral to the overall design of policies, measures and actions, to address societal challenges. Reversely, concepts such as adaptive management/governance, effectiveness, uncertainty, multi-stakeholder participation, and temporal scale are present in other frameworks but not captured at all or detailed enough in the NbS principles. <u>https://doi.org/10.1016/j.envsci.2019.04.014</u> • <u>The Protective Value of Nature: A Review of the Effectiveness of Natural Infrastructure</u> for Hazard Risk Reduction (2020)

This report summarized the latest science on the effectiveness of natural infrastructure in lowering the risks to communities from weather- and climate-related hazards. Evidence suggests that both natural and nature-based approaches for hazard mitigation can be equally or more effective than conventional structural approaches (i.e. "gray infrastructure"), and they are often more cost-effective. Thus, natural defenses can play a critical role in enhancing the resilience of human and ecological systems to natural disasters and climate change. https://www.nwf.org/Educational-Resources/Reports/2020/06-05-20-Protective-Value-of-Nature

#### • Estimating the Power of International Carbon Markets to Increase Global Climate Ambition (2019)

By helping achieve emissions targets more inexpensively than expected, carbon market systems, including forests and other natural climate solutions, can lower political resistance to more ambitious targets, enabling deeper and faster cuts in emissions over time. Using a dynamic global partial-equilibrium carbon market model, this study quantifies cost savings under scenarios for emissions trading within and across countries, as well as the corresponding potential to escalate reductions if those cost savings were translated into greater mitigation. The study finds global use of carbon markets could allow the world to nearly double climate ambition relative to current Paris pledges (NDCs) over 2020–2035, without increasing total costs compared to a base case without international markets. The results show that since avoided deforestation is such a large source of low-cost mitigation, linking reduced deforestation to an international carbon market drives a majority of the potential ambition gains across the modeled scenarios. International markets, including forests, play a potentially even more critical role as global climate ambition increases.

#### Working paper:

https://ceep.columbia.edu/sites/default/files/content/events/Lubowski%20et%20al.%20on%2 0Carbon%20Markets.pdf

#### Fact sheet:

https://www.edf.org/sites/default/files/documents/Power\_of\_markets\_to\_increase\_ambition. pdf

#### • Behavior Change for Nature: A Behavioral Science Toolkit for Practitioners (2019)

Our growing understanding of human behavior and decision-making holds tremendous promise for inspiring the behavior change necessary to conserve nature and provide for the communities who depend on it. Comprised of 15 behavioral strategies and numerous case studies, this toolkit offers proven and promising behavioral approaches to addressing today's most pressing environmental challenges that enable nature-based solutions to be sustainable. The three categories that describe the main drivers of behavior change are: motivate the change by harnessing the right incentives, emotions, and cognitive biases; socialize the change by leveraging the deeply social nature of our behavior; and ease the change by removing hassle, helping people plan, and building supporting environments. https://behavior.rare.org/wp-content/uploads/2019/10/2019-Behavior-Change-for-Nature-Report-digital.pdf

#### • <u>Case Study: Seychelles Debt Conversion for Marine Conservation and Climate</u> <u>Adaptation</u> (2017)

In 2015, the Government of Seychelles in partnership with The Nature Conservancy (TNC) and Seychelles' Conservation and Climate Adaptation Trust (SeyCCAT) concluded an innovative financing mechanism whereby there was a debt buy-back of US\$ 21.6 M through an impact loan on condition of the designation of 30% of Seychelles' EEZ and disbursing at least US\$ 200,000 annually for a period of 20 years towards ocean conservation and climate adaptation.

https://www.convergence.finance/resource/3p1S3pSTVKQYYC2ecwaeiK/view

#### • Adapt a carbon tax to protect tropical forests (2020)

While deforestation continues in many developing countries, not just the carbon but critical ecosystems services and biodiversity resources are being also lost. Countries such as Colombia and Costa Rica have deployed fiscal instruments based in oil-taxes to generate funding for climate action and forests conservation and these examples illustrate that investments in protecting biodiversity to reduce carbon emissions can favor poor people because such investments have wider social benefits beyond landowners and parks. Tropical deforestation and land-use change must be halted to safeguard the climate and global biodiversity. The widespread adoption of a tropical carbon tax is a practical way forward and the international community should support this approach. https://www.nature.com/articles/d41586-020-00324-w

#### • <u>Carbon Pricing Efficacy: Cross-Country Evidence</u> (2020)

To date there has been an absence of cross-country empirical studies on the efficacy of carbon pricing. This paper present estimates of the contribution of carbon pricing to reducing national carbon dioxide (CO<sub>2</sub>) emissions from fuel combustion, using several econometric modelling approaches that control for other key policies and for structural factors that are relevant for emissions, using data for 142 countries over a period of two decades, 43 of which had a carbon price in place at the national level or below by the end of the study period. Evidence is found that the average annual growth rate of CO<sub>2</sub> emissions from fuel combustion has been around 2 percentage points lower in countries that have had a carbon price is associated with a reduction in the subsequent annual emissions growth rate of approximately 0.3 percentage points, all else equal. While it is impossible to fully control for all relevant influences on emissions growth, our estimates suggest that the emissions trajectories of countries with and without carbon prices tend to diverge over time. https://link.springer.com/article/10.1007/s10640-020-00436-x

#### • Nature-based transformative adaptation. A practical handbook (2016)

This booklet aims to improve understanding of what transformative adaptation is, and how to identify, design, and implement initiatives that support transformative adaptation to climate change based on nature. With an improved understanding of transformative adaptation, project managers and policymakers can be better positioned to incorporate this type of adaptation when designing adaptation programs, plans, and initiatives. The booklet also provides examples of transformative approaches based on nature that can support climate resilient development pathways on the ground as well as a brief overview on the major financial initiatives that are supporting transformative adaptation (Chapter 5). http://doi.org/10.5281/zenodo.3386441

#### • <u>Protecting irrecoverable carbon in Earth's Ecosystems</u> (2020)

Avoiding catastrophic climate change requires rapid decarbonization and improved ecosystem stewardship. To achieve the latter, ecosystems should be prioritized by responsiveness to direct, localized action and the magnitude and recoverability of their carbon stores. Here, we show that a range of ecosystems contain 'irrecoverable carbon' that is vulnerable to release upon land use conversion and, once lost, is not recoverable on timescales relevant to avoiding dangerous climate impacts. Globally, ecosystems highly affected by human land-use decisions contain at least 260 Gt of irrecoverable carbon, with particularly high densities in peatlands, mangroves, old-growth forests and marshes. To achieve climate goals, we must safeguard these irrecoverable carbon pools through an expanded set of policy and finance strategies. <a href="https://www.nature.com/articles/s41558-020-0738-8.epdf?author\_access\_token=poi3Fn4fkhP7\_SK-vector\_strate\_com/stille

yFKaTNRgN0jAjWel9jnR3ZoTv0OGVcM5jAVKvW5Gyld6F2q0ve6uY5HlQ2nGzEyTtPTSUlu TOykc5x3bM9HdnsqyTZdAL\_YY02dyngC4HUYA6LeqaLAr26jCXCx1eABw5d\_FQ%3D%3Dhttps

#### • Securing the climate benefits of stable forests (2019)

Stable forests – those not already significantly disturbed nor facing predictable near future risks of anthropogenic disturbance – may play a large role in the climate solution, due to their carbon sequestration and storage capabilities. Their importance is recognized by the Paris Agreement, but stable forests have received comparatively little attention through existing forest protection mechanisms and finance. As a result, today's stable forests may be at risk without additional efforts to secure their long-term conservation. We synthesize the gaps in existing policy efforts that could address the climate-related benefits derived from stable forests, noting several barriers to action. We argue that resource and finance allocation for stable forests should be incorporated into countries' and donors' comprehensive portfolios aimed at tackling deforestation and forest degradation as well as resulting emissions. A holistic and forward-looking approach will be particularly important, given that success in tackling deforestation and forest degradation where it is currently happening will need to be sustained in the long term. https://doi.org/10.1080/14693062.2019.1598838

20

# Institutions to Partner with or to Organize Elements of the SCF Forum

All our organizations are keenly interested in the success and outcomes of the forums. Should you have questions about the content of this submission or like additional information, please reach out to the corresponding authors.

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