

**Proposed structure of ‘2023 ENACT NbS Report’**

Total targeted length: <40 pages

| WHAT  | WHO  |
|---|--|
| <p><b>FOREWORDS</b></p> <ul style="list-style-type: none"> <li>● ENACT Co-chairs: Egypt &amp; Germany</li> <li>● IUCN</li> <li>● High Level Champions</li> </ul>  | <p>Core writing team (IUCN coordinates contributions)</p>  |
| <p><b>EXECUTIVE SUMMARY</b></p>   | <p>Core writing team</p>   |
| <p><b>INTRODUCTION: High Integrity NbS &amp; the ENACT Partnership [2pg]</b></p> <p><i>This section will contextualise the ambition of the ENACT Partnership within the broader space of NbS. It will emphasise the vision and goals of ENACT as focused on advancing high-integrity NbS for addressing the interlinked climate change and biodiversity loss crises.</i></p> <p><i>The ENACT Partnership follows the <a href="#">multilaterally agreed definition of NbS</a> adopted at the Fifth Session of the United Nations Environment Assembly (UNEA-5) as: ‘actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems which address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services, resilience and biodiversity benefits.’</i></p> <ul style="list-style-type: none"> <li>● Introducing ENACT: a Partnership to network global action on NbS across the Rio Conventions</li> <li>● Framing NbS: the why and how of high integrity NbS</li> <li>● Scope of the Report &amp; Links to Rio Convention Policy Processes</li> </ul> | <p>Core writing team</p>   |
| <p><b>SECTION 1 – Synthesis: State of Knowledge on NbS Goals [6pg]</b></p> <p><i>This section will provide an elaborated introduction to the ENACT NbS Goals:</i></p> <p><i><u>Adaptation</u>: Enhanced protection and resilience of at least 1 billion vulnerable people (including at least 500 million women and girls).</i></p> <p><i><u>Biodiversity</u>: Up to 2.4 billion hectares of healthy natural ecosystems secured through protection of 45 million ha, sustainable management of 2 billion ha, and restoration of 350 million ha.</i></p>   | <p>Core writing team + specialists for each area.</p> <p>Drafting process to include a systematic literature review to undergird the context-specific content of section 2, data</p> |

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| <p><i>Mitigation: Significantly increased global mitigation efforts through protecting, conserving and restoring carbon-rich terrestrial, freshwater and marine ecosystems.</i></p> <ul style="list-style-type: none"> <li>● NbS &amp; Climate Change Adaptation <ul style="list-style-type: none"> <li>○ How much can NbS contribute to adaptation? <ul style="list-style-type: none"> <li>▪ Studies of NbS for adaptation.</li> <li>▪ How can different NbS contribute to adaptation?</li> </ul> </li> <li>○ Social and environmental safeguards.</li> <li>○ Funding needs and financing options.</li> </ul> </li> <li>● NbS &amp; Biodiversity Net Gain <ul style="list-style-type: none"> <li>○ How much can NbS contribute to biodiversity net gain? <ul style="list-style-type: none"> <li>▪ Studies of NbS for biodiversity net gain.</li> <li>▪ How can different NbS contribute to adaptation?</li> </ul> </li> <li>○ Social and environmental safeguards.</li> <li>○ Funding needs and financing options.</li> </ul> </li> <li>● NbS &amp; Climate Change Mitigation <ul style="list-style-type: none"> <li>○ How much can NbS contribute to adaptation? <ul style="list-style-type: none"> <li>▪ Studies of NbS for adaptation.</li> <li>▪ How can different NbS contribute to adaptation?</li> </ul> </li> <li>○ Social and environmental safeguards.</li> <li>○ Funding needs and financing options.</li> </ul> </li> </ul> | <p>integration from the ENACT Dashboard, and expert review from topic specialists.</p> |
| <p><b>SECTION 2 – Impact: The ENACT Dashboard [9pg including figures]</b></p> <p><i>This section will introduce the ENACT Dashboard to provide a baseline on quantifiable achievements toward the three NbS Goals. The Dashboard will draw from the Contributions for Nature Platform (CfN) following investment in adaptation-tracking capacity, as well as other vetted sources of data. Establishing baselines through the initial report is a vital step to monitoring progress and prioritising next steps for the partnership.</i></p> <ul style="list-style-type: none"> <li>● Introduction: Setting the Goals &amp; Building the Data <ul style="list-style-type: none"> <li>○ Establishing the ENACT NbS Goals</li> <li>○ Building the ENACT Dashboard <ul style="list-style-type: none"> <li>▪ Introduce the Contributions for Nature Platform as the engine to power the ENACT Dashboard, and explain how it will contribute in year one.</li> <li>▪ Discussion of the criteria for using or excluding sources of data and other platforms and intentions to build out this component of the CfN capacity for the ENACT Dashboard.</li> <li>▪ Identifying the present, overarching data limits, including limited alignment with IUCN's Global Standard for NbS among current submissions, and</li> </ul> </li> </ul> </li> </ul>   | <p>Core writing team + Contributions for Nature Platform team</p>                      |

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| <p style="text-align: center;">overview of what is necessary to overcome this challenge.</p> <ul style="list-style-type: none"> <li>● NbS &amp; Climate Change Adaptation <ul style="list-style-type: none"> <li>○ ENACT NbS Goals &amp; Climate Change Adaptation</li> <li>○ What we Know about NbS Goals &amp; Adaptation</li> <li>○ Looking Forward</li> </ul> </li> <li>● NbS &amp; Biodiversity Net Gain <ul style="list-style-type: none"> <li>○ ENACT NbS Goals &amp; Biodiversity Net Gain</li> <li>○ What we Know about NbS Goals &amp; Adaptation</li> <li>○ Looking Forward</li> </ul> </li> <li>● NbS &amp; Climate Change Mitigation <ul style="list-style-type: none"> <li>○ ENACT NbS Goals &amp; Climate Change Mitigation</li> <li>○ What we Know about NbS Goals &amp; Adaptation</li> <li>○ Looking Forward</li> </ul> </li> <li>● Summary: Looking forward to next year's report <ul style="list-style-type: none"> <li>○ Discussion of how to enhance reporting on actual Mitigation, Adaptation, and Biodiversity Goals.</li> <li>○ Discussion of how to enhance reporting on full achievements of Mitigation, Adaptation, and Biodiversity Goals.</li> </ul> </li> </ul>   |   |
| <p><b>SECTION 3 – Analysis: Evidence for NbS Achievements [30pg, 3pg/topic]</b></p> <p><i>This section will highlight the success of ENACT partners through NbS. Success will be documented alongside challenges to identify key areas for policy action, research focus, and/or investment. Here, we will also highlight how the achievements contribute to all three ENACT NbS goals: adaptation, mitigation, and biodiversity.</i></p> <p><i>The categorization of achievements will relate to the ENACT workstreams which align with both the Marrakech Partnership Resilience Pathways and the High-Level Champions Sharm Adaptation Agenda. We include also Human Rights and NbS to address the important links between high-integrity NbS and the rights of Indigenous Peoples and local communities, gender, and the concerns of youth.</i></p> <ul style="list-style-type: none"> <li>● Agriculture Systems</li> <li>● Water Systems</li> <li>● Human Settlement Systems</li> <li>● Oceans and Coastal Systems</li> <li>● Green-Grey Infrastructure &amp; DRR Systems</li> <li>● Renewable Energy Systems</li> <li>● Cross-cutting: Human Rights – IPLC, Gender, Youth</li> <li>● Cross-cutting: Livelihoods</li> <li>● Cross-cutting: Funding &amp; Finance (public &amp; private)</li> </ul> | <p>Core writing team in consultation with partners.</p> <p>Drafting process will involve soliciting partner input on examples of achievements under each challenge and cross-cutting concern. An expert point organization/person will be identified to lead the curation of input from partners. This person will, where possible, make use of FEBA working groups and other</p> |

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| <ul style="list-style-type: none"> <li>• Cross-cutting: Health</li> </ul> <p><i>Each of the above sections will follow the same outline:</i></p> <ul style="list-style-type: none"> <li>• State of Play: What is the role of NbS in this system in relation to adaptation, biodiversity, and mitigation</li> <li>• Key Targets &amp; Indicators</li> <li>• Key Research Needs</li> <li>• Examples of Best Practices from ENACT Partners</li> <li>• Key Publications &amp; Resources</li> </ul> | existing networks of practice to develop the sub-section. |
| <b>Conclusion – Key Policy Recommendations</b>   |   |
| <b>References</b>  | Core writing team   |

**SECTION 3 TEMPLATES**

**AGRICULTURE SYSTEMS**

**State of Play: What is the role of NbS in agriculture systems, and how do NbS in this system relate to adaptation, mitigation and increasing biodiversity?**

- Highlight the effects of climate change on food production and related impacts on water, and the need/potential to adapt to these effects through NbS strategies in agriculture & water management.
- Highlight the contributions of agriculture and associated land use changes to GHG emissions (including accounting for energy cost of food production, food loss & food waste) and the potential for GHG mitigation through reduced deforestation and sequestration.
- Highlight the negative biodiversity effects of agricultural and aquaculture expansion and the land use practices of industrial agriculture, and the potential to reduce these effects and increase biodiversity through NbS in agriculture and aquaculture. Note the important role biodiversity plays in assuring sustainable food production.
- Highlight the link between water and food security—water is an essential agricultural input and agricultural practices have a direct impact on water quality and availability. [Example: Algal Blooms]. Further, aquaculture practices have a direct effect on long term food security and ocean ecology and can be improved through application of NbS.
- Address how the application of NbS to agriculture systems builds upon (is distinct from/improves upon) other framings of sustainable agriculture, aquaculture, fisheries and water management (including regenerative agriculture & agroecology). Highlight how many NbS techniques for agriculture systems are existing techniques adopted from Indigenous Peoples.
- Address the need for NbS in agriculture systems to account for land access and food sovereignty concerns and address the risks that low-integrity NbS for other purposes (GHG sequestration) can reduce food & water security as well as biodiversity. Emphasize the overall importance of land and water use and the links to access.

**Key Targets & Indicators: How do you value and evaluate the application of NbS agriculture systems?**

- Highlight that the selection and design of NbS for food & water security must seek to maximize synergies while reducing trade-offs but address that trade-offs cannot/may not be mitigated in all instances. Discuss means to evaluate these decisions through examples.
- Highlight a need for more robust and ready-to-use incentive mapping techniques that account for both time and scale.
- Highlight the need to incorporate considerations for human health (and other ancillary challenges) in any evaluation or NbS selection and design and related incentive mapping.
- Address the overarching need to balancing existing limits in research with a certain urgency to act, including discussing the need to improve links between research, policy and practice. Highlight the near-term options by example.

### **Key Research Needs: What knowledge gaps exist for the application of NbS in agriculture systems?**

- Highlight a need for site-specific selection of NbS interventions that also account for beyond-site effects through a landscape approach.
- Highlight the need for governance structures that accommodate multiple stakeholders, and decision-making processes that balance stakeholder power.
- Address concerns of food sovereignty and enhancing inequalities through NbS.
- Address concerns of farmer uptake and capitalization (how to ensure the most capitalized farms are not further rewarded/concentrated).
- Highlight the need to consider issues of overall agricultural productivity and leakage in relation to NbS interventions.
- Highlight the challenges at the level of the state, namely regulations and subsidies that incentivize poor farming and water management practices.
- Highlight the need to align investment with agriculture's seasonality.
- Highlight the need for better GHG sequestration tracking and accounting, and related systems to reward value.

### **Examples of Best Practices from ENACT Partners:**

*\*Please note that we are concurrently working with IUCN teams to source possible examples in alignment with the IUCN Global Standard for NbS. Additional suggestions are welcome, however.*

- Project partners
- Brief description of project and core objectives
- Contribution of initiative to adaptation, biodiversity and mitigation
- Alignment of initiative with high-integrity IUCN NbS Standard Criteria
  - Successes
  - Challenges
  - How to address challenges

### **Key Resources:**

*\*Please provide a brief description of the resource, including (1) intended audience, (2) functionality and purpose, (3) host/ownership information and how to access*

## **WATER SYSTEMS**

**State of Play: What is the role of NbS for water systems, and how do NbS in this system relate to adaptation, mitigation and increasing biodiversity?**

- Highlight the effects of climate change on water systems and the need/potential to adapt to these effects through NbS strategies in agriculture & water management.
- Highlight the contributions of water system practices and associated land use changes to GHG emissions (including accounting for energy cost of food production, food loss & food waste) and the potential for GHG mitigation through reduced deforestation and sequestration.
- Highlight the negative biodiversity effects of agricultural and aquaculture expansion and the land use practices of industrial agriculture, and the potential to reduce these effects and increase biodiversity through NbS in agriculture and aquaculture. Note the important role biodiversity plays in assuring sustainable food production.
- Highlight the link between water and food security—water is an essential agricultural input and agricultural practices have a direct impact on water quality and availability. [Example: Algal Blooms]. Further, aquaculture practices have a direct effect on long term food security and ocean ecology and can be improved through application of NbS.
- Address how the application of NbS in water systems builds upon (is distinct from/improves upon) other sustainable aquaculture, fisheries and water management. Highlight how many NbS techniques for water security are existing techniques adopted from Indigenous Peoples.
- Address the need for NbS for water security to account for resource access concerns and address the risks that low-integrity NbS for other purposes (GHG sequestration) can reduce water security as well as biodiversity. Emphasize the overall importance of land and water use and the links to access.

**Key Targets & Indicators: How do you value and evaluate the application of NbS for water systems?**

- Highlight that the selection and design of NbS for water security must seek to maximize synergies while reducing trade-offs but address that trade-offs cannot/may not be mitigated in all instances. Discuss means to evaluate these decisions.
- Highlight a need for more robust and ready-to-use incentive mapping techniques that account for both time and scale.
- Highlight the need to incorporate considerations for human health (and other ancillary challenges) in any evaluation or NbS selection and design and related incentive mapping.
- Address the overarching need to balancing existing limits in research with a certain urgency to act, including discussing the need to improve links between research, policy and practice. Highlight the near-term options by example:

**Key Research Needs: What knowledge gaps exist for the application of NbS for water systems?**

- Highlight a need for site-specific selection of NbS interventions that also account for beyond-site effects through a landscape approach.
- Highlight the need for governance structures that accommodate multiple stakeholders, and decision-making processes that balance stakeholder power.
- Address concerns of food sovereignty and enhancing inequalities through NbS.
- Address concerns of farmer uptake and capitalization (how to ensure the most capitalized farms are not further rewarded/concentrated).
- Highlight the need to consider issues of overall agricultural productivity and leakage in relation to NbS interventions.
- Highlight the challenges at the level of the state, namely regulations and subsidies that incentivize poor farming and water management practices.
- Highlight the need to align investment with agriculture's seasonality.
- Highlight the need for better GHG sequestration tracking and accounting, and related systems to reward value.

### **Examples of Best Practices from ENACT Partners:**

*\*Please note that we are concurrently working with IUCN teams to source possible examples in alignment with the IUCN Global Standard for NbS. Additional suggestions are welcome, however.*

- Project partners
- Brief description of project and core objectives
- Contribution of initiative to adaptation, biodiversity and mitigation
- Alignment of initiative with high-integrity IUCN NbS Standard Criteria
  - Successes
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### **Key Resources:**

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## **HUMAN SETTLEMENT SYSTEMS**

**State of Play: What is the role of NbS for human settlement systems, and how do NbS in this system relate to adaptation, mitigation, and biodiversity?**

- Highlight the effects of climate change on cities including both people and infrastructure, and the need/potential to adapt to these effects through NbS strategies in managing the various climate threats, both slow onset (heat waves) and sudden (storm surges). Note the specific challenges of coastal cities in the application of NbS for climate change.
- Highlight the contributions of urban development and urban consumption to GHG emissions (including accounting for the differential energy use of different populations and sites within a single city) and the potential for reducing this contribution through NbS.

- Highlight the negative biodiversity effects of urbanization and urban development, and the potential to reduce these effects and increase biodiversity in cities through NbS.
- Highlight the link between urban resilience and human health—for instance, increasing urban shade cover can help mitigate heat extremes, but must be designed with social and biodiversity considerations.
- Address how the application of NbS to urban & infrastructure resilience builds upon (is distinct from/improves upon) other framings of sustainable cities and green building (including green infrastructure and biomorphic design).
- Address the need for NbS for urban & infrastructure resilience to avoid gentrification nor create additional barriers to rights to the city and common space. Address the risks that some urban greening initiatives can work against social concerns or fail to create biodiversity or other ecological benefits if poorly designed.

### **Key Targets & Indicators: How do you value and evaluate the application of NbS to human settlement systems?**

- Highlight that NbS for urban & infrastructure resilience should follow selection and design criteria to maximize their appeal to citizens with multiple preferences. Discuss means to mediate and maximize these preferences through co-design techniques which at minimum:
- Include non-traditional stakeholders such as artists and socially focused community groups, and work to build partnerships between sectors and actors.
- Bridge divides in power over decision making for urban land use.
- Offer multiple modes of engagement to accommodate different views and life circumstances.
- Highlight the importance of aligning NbS with broader urban strategic priorities as well as the possibility of leveraging formal public mandates to focus future urban development on appropriate NbS.
- Highlight the need to incorporate consideration of broad incentives in relation to NbS for urban & infrastructure resilience to create diverse buy in.
- Highlight the importance of investing in monitoring and evaluation and establishing the long-term viability of an intervention through sustainable maintenance plans.
- Address the overarching need to balancing the importance of context-specific NbS design for cities with the advantages that come with cross-city knowledge sharing and best practice approaches, including discussing the need to improve links between Global South and Global North cities. Highlight the near-term options by example.

### **Key Research Needs: What knowledge gaps exist for the application of NbS in human settlement systems?**

- Highlight a need for better understanding of multi-actor collaboration techniques that contribute to democratic selection and sustainable maintenance of NbS interventions for urban & infrastructure resilience.
- Highlight the need for improvements of data and monitoring on the multiple impacts of NbS for urban & infrastructure resilience including
- Benefits to social and qualitative factors such as public health and access to green space; and
- Estimate of the monetary value associated with the NbS in relation to cost.
- Highlight the need for improved maintenance practices that ensure long-term sustainability of the NbS without overburdening citizens or specific organizations, and/or



focus on selection of low maintenance NbS designs that account for local maintenance capacity.

- Highlight the need to create understand the best public incentives to support NbS for urban & infrastructure resilience, including in the form of taxes or policy depending upon context.
- Highlight the need to work within and outside current systems of spatial design and land use planning, and how NbS for urban and infrastructure resilience will/can require new models of zoning, adjustments to building codes, and public prioritization of ecological and social concerns over capital accumulation in urban development.

### **Examples of Best Practices from ENACT Partners:**

*\*Please note that we are concurrently working with IUCN teams to source possible examples in alignment with the IUCN Global Standard for NbS. Additional suggestions are welcome, however.*

- Project partners
- Brief description of project and core objectives
- Contribution of initiative to adaptation, biodiversity and mitigation
- Alignment of initiative with high-integrity IUCN NbS Standard Criteria
  - Successes
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  - How to address challenges

### **Key Resources:**

*\*Please provide a brief description of the resource, including (1) intended audience, (2) functionality and purpose, (3) host/ownership information and how to access*

## **OCEANS & COASTAL SYSTEMS**

### **State of Play:**

- Emphasize the critical role of oceans in securing a liveable climate system and safeguarding biodiversity, noting that addressing key societal challenges is not possible without ocean health.
- Discuss the integration of high-integrity NbS with conserving and restoring ocean health and coastal systems.
- Highlight the role of oceans and coastal ecosystems in providing climate change adaptation benefits through NbS. Note the specific challenges and vulnerabilities of coastal ecosystems to climate change.
- Highlight the role of oceans and coastal ecosystems in providing GHG mitigation benefits and how this possibility is enhanced through NbS. Note the critical timelines and negative feedback loops of accelerating climate change in reducing this potential.
- Highlight the role of oceans and coastal ecosystems as sites for the application of NbS which inherently achieves biodiversity net gain, and what is known about how this is best achieved.

- Discuss the governance challenges of NbS in relation to oceans and coastal systems, including the particularly high rate of customary rights and informal usufruct rights that guide coastal access and use.

#### **Key Targets & Indicators:**

- Discuss the need to align NbS in ocean and coastal systems with related environmental policy and targets as well as management plans and point to good methods for achieving this.
- Discuss the need to consider NbS impact to ecosystem services at various scales, i.e., from sea basin to local context, and the way such evaluations can be linked to relevant policy targets.
- Discuss the need to evaluate trade-offs when designing NbS' in ocean and coastal systems and point to good methods for selecting these as well as minimizing harm to the extent possible.
- Discuss the need and good practices for long-term impact assessments and management and design strategies that account adequately for climate risk given the acute vulnerabilities of ocean and coastal systems.

#### **Key Research Needs:**

- Highlight the need for best and good practice data on optimal tools for selecting among possible NbS' in ocean and coastal systems. Elaborate on how this process needs to account for alignment with existing marine policy in addition to broader environmental, social, and economic factors.
- Highlight the specific engagement and governance challenges of ocean and coastal systems in relation to selecting, implementing, and monitoring NbS' in these contexts. Elaborate on the need for ocean and coastal system-specific risk management practices.
- Highlight the specific funding and financing needs and challenges of NbS in ocean and coastal systems. Elaborate on the current understanding of good/best approaches and the priority questions to address through further research.

#### **Examples of Best Practices from ENACT Partners:**

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- Brief description of project and core objectives
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## **GREEN-GREY INFRASTRUCTURE & DRR SYSTEM**

**State of Play: What is the role of NbS for green-grey infrastructure and DRR and how do NbS for these systems relate to adaptation, mitigation, and biodiversity?**

- Highlight the effects of climate change on increasing disaster risk for both people and infrastructure, and the need/potential to adapt to these effects through NbS strategies in managing the various climate threats, both slow onset (heat waves) and sudden (storm surges).
- Highlight the contributions of orthodox/gray-only DRR strategies to GHG emissions (including accounting for negative effects on ecosystem resilience and the carbon footprint of gray DRR infrastructure) and the potential for reducing this contribution through NbS.
- Highlight the negative biodiversity effects of disasters, and strategies to reduce disaster risk and the potential to reduce these effects and increase biodiversity through NbS.
- Address how the application of NbS to DRR builds upon (is distinct from/improves upon) orthodox/gray practices of DRR and elaborate the linkages and distinctions between NbS for DRR and Eco-DRR as alternative concepts.
- Highlight the link between NbS for DRR and social resilience—for instance, diversifying livelihoods and increasing ecosystem resilience as a safety net against socio-economic loss and damage.
- Overview the need for NbS for DRR to incorporate hybrid green-gray systems given the conditions created by climate change, and the adaptation limitations of a pure ecosystem-based approach.

**Key Targets & Indicators: How do you value and evaluate the application of NbS to green-grey infrastructure and DRR?**

- Highlight the existing, relevant guiding principles in the field of green-grey infrastructure DRR, specifically the CBD Guidelines on EbA for Eco-DRR among others. Note the way NbS for DRR follows an Eco-DRR perspective and address disaster vulnerability as both a social and environmental condition.
- Discuss the need for an NbS for green-grey and DRR approach that addresses the drivers of risk, and how these will vary across context, but also be scale dependent (global, national, and/or local in particular). Related, highlight the importance of locational priority (low lying cities, coastal zones, agricultural landscapes) and integrating a landscape approach in NbS for DRR.

**Key Research Needs: What knowledge gaps exist for the application of NbS for green-grey infrastructure and DRR?**

- Highlight the importance of mainstreaming NbS within broader global green-grey and DRR policies including across the Sendai Framework for DRR (specifically Priority 4 on

BBB), as well as the Global Biodiversity Framework, wherein priority can be placed on safeguarding adaptive, biodiverse ecosystems with mitigation benefits.

- Highlight the importance of integrating NbS for green-grey infrastructure and DRR in state-level policy, including in National Adaptation Plans, and long-term economic development plans, as well as the importance of integrating NbS for green-grey infrastructure across sectoral policy including water, public health, energy, and infrastructure.
- Discuss the challenges and trade-offs of NbS for green-grey infrastructure and DRR given the pace of climate change, and the time-lag of certain NbS for DRR interventions. Note the role of green-gray options in NbS for DRR in such circumstances and in general.
- Discuss the challenge of data availability and public/private trust in NbS for green-grey infrastructure and DRR, and the need for more guiding materials, robust data on tested methods, while also noting the existence of some key documents (UNEP's Words into Action Guide for example, and the work of PEDRR).
- Discuss the related challenge of financing/funding NbS for green-grey infrastructure and DRR. Build from the related issues of data and trust limitations, while also referencing efforts to increase climate finance overall, and the current efforts within the UNFCCC to fund loss & damage to address current shortfalls in adaptation and unmitigable risk. Note the links between DRR and L&D, and that investment in the former would reduce the latter, but each should be additional allocations as climate finance/funding overall needs to increase.

### **Examples of Best Practices from ENACT Partners:**

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## **RENEWABLE ENERGY SYSTEMS**

**State of Play: What is the role of NbS for the just energy transition and how do NbS for renewable energy systems relate to adaptation, mitigation, and biodiversity?**

- The just energy transition places people at the centre and seeks to mitigate environmental impacts, support impacted communities and build an equitable clean energy future. NbS can support this ambition and provide the necessary framework for achieving a successful just transition.
- The transition to a clean energy system is an essential part of tackling climate change, but it needs to be achieved alongside rapid reductions in GHG emissions. NbS can facilitate accelerated GHG reductions by enhancing carbon sinks (in the biosphere, hydrosphere, etc.).
- Helping communities adapt to climate impacts is central to the clean energy transition. NbS can support these efforts to reduce climate-related risks, such as reducing heat stress in cities by urban tree planting, which in turn leads to lower electricity consumption and cost-saving for cooling appliances like air conditioning.
- Biodiversity can improve under NbS initiatives through the protection, restoration and management of ecosystems in which biodiversity exists. Urban greening, for example, can support urban biosphere integrity by reincorporating ecosystems and environs (previously degraded by human activities) that enable the co-existence of biodiversity alongside urban dwellers.

### **Key Targets & Indicators: How do you value and evaluate the application of NbS to the just energy transition?**

- Highlight the need to harness and develop metrics and predictions for NbS application for the just energy transition to accurately examine their effectiveness compared with alternatives (grey-engineered adaptation solutions, for example).
- Underscore the advantages of applying NbS for the just energy transition in the context of mitigation against other GHG removal methods which have limited scalability or require large amounts of land to implement (direct air capture, BECCS, etc.).
- Discuss the need to value NbS for the just energy transition in the context of progressive economic thinking that prioritizes the safe (within biophysical limits) exploitation of energy and material flows over the intransigent aspiration of continuous growth.
  - Highlighting the advantage of NbS approaches in this regard (congruent with sustainable development within planetary boundaries)
- Recognize the value of applying NbS interventions for supporting the workforce transition from unsustainable sectors to green sectors – the ability of NbS to create jobs and protect livelihoods.
- Explore interconnectedness and coherence between energy transition strategies and NbS. For instance, showcasing the advantages provided by natural mechanisms that support the efficacy of clean energy methods (e.g., PV in green roofs can be beneficial for residents as well as the environment: increasing power output and reducing urban heat island stress).

### **Key Research Needs: What knowledge gaps exist for the application of NbS for the just energy transition?**

- Developing a greater understanding of the distribution of benefits and burdens of NbS for the just energy transition – particularly in the context of climate justice. For example, poorer communities in urban areas have struggled to access the benefits of NbS implementation. Furthermore, NbS interventions can also lead to the gentrification of

areas, thus potentially exacerbating social inequalities and marginalizing disadvantaged communities.

- The coupling of NbS and just energy transition strategies requires further research in terms of the political economy and political ecology considerations of nature-led energy systems.
- Voluntary carbon markets could play a small but useful role in supporting the energy transition through NbS. High-integrity carbon credits are needed alongside a more rounded metric system which assesses carbon removal potential in conjunction with social and natural benefits.
- The workforce transition from unsustainable sectors to employment within a high-skill, low-carbon economy can be significantly supported by NbS jobs. However, NbS employment is not always automatically recognized as a “green job” according to the ILO standard. A set of just transition policies is needed to support entities working with NbS to attain adequate labour standards (core & green standards), foster skills development in NbS and prevent short-term risks to jobs and livelihoods arising from the energy transition.

### **Examples of Best Practices from ENACT Partners:**

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## **CROSS-CUTTING – HUMAN RIGHTS**

### **State of Play: What is the role of IPLCs Rights & Gender for NbS and how does IPLCs Rights and Gender relate to adaptation, mitigation, and biodiversity?**

- Reflect the understanding that the vast majority of IPLC lands (~90%) are categorised as being in an adequately healthy ecological condition, and over a third of the global land area covered by present Key Biodiversity Areas (KBAs) lie within IPLC lands. These two insights provide sound evidence for IPLC’s historical and current sustainable approach to the conversation of biodiversity.

- Reflect that the IPLC inclusion in NbS practices should not, however, stand only on the basis of ecological validity, but is an issue of human rights and rectification of historic wrongs.
- Underscore the ecological, environmental, and societal expertise inherent within Indigenous and local knowledge (ILK) can provide significant benefits to the design, development, implementation, evaluation, and maintenance of NbS interventions.
  - However, recognizing the current dearth of ILK in NbS projects, which is drastically limiting the effectiveness and ensuing credibility of such interventions.
- Highlight the importance of IPLCs as key stakeholders in NbS approaches. Note that stakeholder engagement in NbS approaches must go beyond recognition and center equitable inclusion and ownership.
- Highlight the importance of women as key stakeholders in NbS approaches. As women are particularly disproportionately impacted by climate change (more likely to perish during natural disasters, displaced due to climate impacts significantly more, etc.), they should be appropriately represented in the development and implementation of climate solutions – including NbS.
- Underline the important role of IPLCs and Women in actualizing the climate mitigation potential through NbS – particularly through environmental stewardship—and the need for high quality benefits sharing arrangements. Actions such as upholding the rights of IPLCs and women, incorporating ILK knowledge of important ecosystem processes impacting land and coastal carbon sinks, and supporting and empowering the capacity of IPLCs to develop their own specific NbS strategies (recognizing and valuing the role of women) on their territories are crucial to realizing global NbS mitigation potential.
- Highlight the drive to ensure that NbS are ‘locally adapted’ and that to successfully realise this approach, IPLCs and women need to be involved throughout the life cycle of NbS interventions.
- Emphasize the alignment between the Global Biodiversity Framework’s (GBF) vision of ‘living in harmony with nature’ and IPLCs practices and values. In essence, the approach of pursuing a harmonious relationship with nature permeates the core values, spiritual beliefs, and traditional laws of IPLCs. Do this while noting the fact that IPLC knowledge is not monolithic, however, and must be incorporated through place-based principles of inclusion.

### **Key Targets & Indicators: How do you value and evaluate IPLCs Rights & Gender for NbS?**

- Highlight the importance of utilizing guidance for the development of NbS, such as the IUCN NbS Gold Standard. Criterion 5 of this standard sets the requirement of having inclusive, transparent, and empowering governance processes. The indicators under this standard can offer valuable guidance which supports the successful realization of NbS.
  - Note that other guidance must be sought on a context specific basis, as there is regional variation in the right and equitable processes of inclusion.
- Discuss the necessity of NbS to be “locally adapted” and, therefore, the crucial involvement of women in the local adaption of NbS due to their social responsibilities and roles. Highlighting how women are integral to NbS strategies.
- Outline the key factors of ensuring a gender-inclusive approach to NbS, such as gender consideration throughout NbS project phases, surmounting barriers to gender visibility

and voice, recognition of the importance of tailored approaches to address gender-differentiated needs, backstopping initiatives seeking to engender inclusive and participatory governance, etc.

- Discuss the twin-vulnerability state faced by IPLCs in relation to the application of NbS: the state of being vulnerable to both the impact of climate change and potential solutions developed to address it (NbS, for example).
  - Highlighting how NbS interventions can have a positive effect on IPLCs by addressing the challenges faced by indigenous communities, but, conversely, if poorly designed and implemented, can have catastrophic effects on IPLCs that even outweigh the impacts of climate change (such as imprudent protection of land and natural resources can physically and economically displace IPLCs and result in livelihood uncertainty and erosion of culture).
- Underscore the value of establishing IPLCs in NbS leadership roles, which can stimulate the contemporary inclusion of ILK and, importantly, create the potential for IPLCs to foster adaptive capacity – facilitating their ability to address future environmental issues.

### **Key Research Needs: What knowledge gaps exist for IPLCs Rights & Gender for NbS?**

- Address the scarcity of literature on gender and climate change and discuss the merits of bolstering NbS funding projects which secure women as key stakeholders to support the expansion of this important body of literature.
- Highlight the need to increase the utilisation of stakeholder mapping in NbS projects to reduce intervention failure and increase success by heightening the understanding of disparate stakeholder influence patterns – paying particular attention to the merits of emphasizing and enhancing IPLCs and gender-inclusive strategies.
- Consider the communication pitfalls of advancing the design and development of NbS policy and projects without IPLCs and gender inclusion, which can result in powerful opposition and the notion of ‘NbS colonialism’ – threatening IPLCs culture and long-standing rights.
- Discuss the historic exclusionary design of technical and financial aspects of low-integrity NbS, which undermines the ability of IPLCs successfully participate in NbS markets, such as the development of PES and carbon offsets.

### **Examples of Best Practices from ENACT Partners:**

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### **Key Resources:**



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## **CROSS-CUTTING - LIVELIHOOD SYSTEM**

### **State of Play: What is the role of livelihoods for NbS and how does this system relate to adaptation, mitigation, and biodiversity?**

- Underline the ability of NbS to generate new employment, create resilient livelihood opportunities, and increase incomes for vulnerable households – thus enhancing overall societal and economic resilience.
- Highlight recent research showing almost 75 million people working in NbS activities and discuss the imbalanced spread of NbS employment globally and sectorally: the vast majority of NbS workers live in lower-middle income countries, and practically all of NbS employment is within forestry and agriculture (despite the majority of NbS expenditure occurring in high-income countries).
- Flag that most NbS jobs are part-time and total employment for full-time equivalent (FTE) jobs is a fraction of the total employment (~14 million) – and findings do not capture potential job loss and displacement from NbS application.
- Outline how NbS interventions utilising specific delivery pathways (such as through Payment for Ecosystem Services (PES)) can contribute positively to jobs and livelihoods - encompassing mitigation, biodiversity, and adaptation activities.
  - For example, highlight PES arrangements that can boost ecosystem services, such as biodiversity conservation, carbon sequestration and water quality improvement.

### **Key Targets & Indicators: How do you value and evaluate livelihoods for NbS?**

- Discuss the recent finding that an additional 20 million jobs could be generated globally if investment in NbS were tripled by 2030. An investment of this magnitude has been identified as a key step toward achieving biodiversity, land restoration and climate goals.
- Outline the value of investing in climate-resilient local industry (i.e., tourism) to improve jobs and livelihoods and prepare communities to better withstand climate-induced events.
- Discuss the value of investing in climate-resilient productive landscapes to boost jobs and livelihoods. Highlighting how many NbS can sustainably increase the productivity of landscapes and seascapes. For example, agriculture is directly dependent on the ecological services provided by the biosphere and hydrosphere ecosystems. And through the application of NbS interventions, higher crop yields can be realized due to increased soil health and biodiversity, reduced pollution, and improved water quality.
- Discuss the benefits of implementing certification schemes as a reward mechanism for NbS interventions in the agricultural sector, which ensure sustainable harvesting strategies and employment of production practices that limit ecological degradation. Thus, providing greater 'green job' authenticity to a large number of NbS workers currently employed in the agricultural sector.
- Highlight the capability of NbS to increase the productivity of current livelihoods and generate new livelihood opportunities. These NbS-based opportunities can facilitate

workers and households to diversify their agricultural practices and/or engage in new complementary livelihood activities (such as beehive additions to smallholder farms). Auxiliary livelihood opportunities contribute to the portfolio of income-generating practices that households can perform. Additionally, diversifying livelihoods reduces the risks associated with any individual shock or stress resulting from climate change.

### **Key Research Needs: What knowledge gaps exist for livelihoods for NbS?**

- Discuss the need for the design and actualisation of transition policies to support the development of livelihoods and jobs within the NbS sector. Such policies are termed 'Just Transition' policies and include measures to support enterprises and cooperatives working in NbS, bolster skills and technical ability, support potential NbS workers to gain appropriate expertise through learning and ensure NbS enterprises comply with core labour standards.
  - Also highlight the need to develop policies that help prevent risks to jobs and livelihoods that will arise in the short to medium term from workers transiting from less sustainable to more sustainable sectors.
- Emphasize the importance of securing significant investments in the NbS enabling environment to attain the job and livelihood potential of NbS (long-term impact, secure broader outreach and reach populations most vulnerable). Evidence has shown that whilst NbS possess significant potential to create jobs and enhance livelihoods, investments in complementary strategies are needed to maximise their potential and ensure an integrated approach to climate action, conservation, and development.
- Highlight the necessity to further understand the temporal and spatial benefits of NbS implementation for jobs and livelihoods. I.e., identify the benefits of NbS application for job generation and livelihood enhancement that occur away from the site of implementation or that arise at a later point in time.

### **Examples of Best Practices from ENACT Partners:**

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## **CROSS-CUTTING - FUNDING & FINANCE (PUBLIC & PRIVATE)**

## **State of Play: What is the role of private & public funding & finance for NbS and how does it relate to adaptation, mitigation, and biodiversity?**

- Currently, the vast majority of NbS are financed via public and philanthropic capital. At least four times as much funding (~ 500 billion USD) for NbS solutions is required to achieve climate and nature targets. To bridge this funding gap, private finance must play a greater role in NbS: by attracting private investors to scale NbS projects and enhancing the capacity of NbS projects to leverage private investment.
  - Highlight how this is in sharp contrast to climate finance, where private sector capital dominates fiscal flows.
- Climate finance is overwhelmingly directed at mitigation activities despite a growing acknowledgement of the benefits of natural habitats to protect against climate-induced disasters, in the form of avoided economic losses and safeguarding vital ecosystems which contribute towards greater biosphere integrity.
  - For example, mangrove restoration and protection can provide benefits (DRR, fisheries, recreation, etc.) ten times the cost of applying such NbS interventions.
- Incentives and the necessity to scale public finance and catalyse private finance for NbS are increasingly stark. Recent figures reveal over half of the world's GDP is dependent on nature and  $\frac{3}{4}$  of global crops rely on pollination. Highlight the universal recognition of the intimate link between biodiversity loss and climate change – filling the nature funding gap is essential to tackle biodiversity loss and climate change.
  - Illustrated by the recent UNFCCC Sharm El Sheikh Implementation Plan + the Kunming-Montreal Biodiversity Framework (political consensus that biodiversity loss and climate change are two sides of the same coin: the poly-crisis)
- Raising the necessary finance for NbS interventions is a complex and slow process. Funding mechanisms are often difficult to apply for and can require co-financing arrangements. Furthermore, emphasize how both public & private finance decision-making is dominated by short-term investments, which are at odds with the long-term financing required for NbS to ensure adequate planning and maintenance that supports the sustained provisioning of NbS services.
- Highlight the initiatives and alliances that have been developed to address the challenges of finance and funding for NbS, including those launched under the UNFCCC, and other public pledges (Blue Carbon Initiative, Partnership for Forests, etc.) as well as funding through GEF and GCF.

## **Key Targets & Indicators: How do you value and evaluate private & public funding & finance for NbS?**

- Benefits from NbS interventions are often not captured by one party or organization; therefore, NbS must be valued against their ability to provide benefits to many different groups – to do so multilateral partnerships involving public & private finance are seen as critical to the provisioning of NbS projects.
  - Similarly, the costs/risks are also best combated by sharing arrangements that don't isolate or burden those least capable of shouldering them.
- Considering the vast quantities of capital within private finance, the value of unlocking private finance flows for NbS is enormous. Coupled with this is increasing acknowledgement in the financial and business sector that climate impacts are something to be very concerned about. The private sector faces many climate concerns, such as transitional risks (innovation, regulation, etc.) and physical risks (climate-induced disasters).

- The value of private investment and hybrid public-private finance in NbS can be enriched by banking institutions. Banking institutions can promote investment by positioning NbS as attractive and economically appealing compared with alternatives within the private sector and through multilateral development banks providing resources and technical assistance that can bolster the financial security of NbS projects and increase their return-on-investment appeal.
- Highlight the value of harnessing innovative financial instruments to attract private finance and scale public finance.
  - Example: climate bonds which direct all proceeds towards financing or refinancing green projects addressing climate change (example: Climate Bond Initiative).

### **Key Research Needs: What knowledge gaps exist for private & public funding & finance for NbS?**

- NbS interventions impact human, social and natural capital, not just material and financial capital. Therefore, it is important to improve the metrics of these other forms of capital so that the value of NbS approaches is accurately appraised.
- Blended finance approaches can combine different financial instruments (pooling both public & private finance) in a symbiotic manner which amplifies strengths and diminishes weaknesses. Further understanding and broader deployment of these approaches is required.
- Strategic partnerships between multiple cross-sectoral financiers can provide significant financial and non-financial benefits. Financially, this can lead to the combination of different financial instruments, unlocking more capital, developing efficiency, and stimulating innovation. Non-financially, private sector NbS investments securing funding from public sector sources can be assured of a higher positive climate impact by harnessing the investment criteria (governance and sustainability standards), risk screening, environmental and social safeguards belonging to public financial institutions, etc.
- Further research is needed to understand the consequences of developing equity and risk-sharing arrangements as opposed to debt finance for NbS interventions.

### **Examples of Best Practices from ENACT Partners:**

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## **CROSS-CUTTING - HEALTH SYSTEM**

### **State of Play: What is the role of NbS for health and how do NbS for this system relate to adaptation, mitigation, and biodiversity?**

- Nature safeguards our health and wellbeing in a variety of ways – and working with nature in the form of NbS approaches (for mitigation, adaptation & biodiversity) can improve human health and wellbeing. NbS can offer health advantages now and in the future.
  - Pressure on the environment stemming from human activities applies pressure to the ecosystems and associated services on which humans depend and through which good health and well-being are achieved.
- Climate change precipitates harmful impacts on human health (undermining social & environmental determinants for good health & wellbeing: water access, healthcare access, protection from extreme weather events, food security, etc.). NbS for mitigation can help reduce the long-term impacts of rising global temperatures and, in turn, reduce the adverse health consequences of a changing climate.
- NbS for adaptation enables communities around the world to build resilience and reduce vulnerability to the impacts of climate change being felt now and in the future. NbS for adaptation can support human health by protecting communities from climate-induced disasters, improving water security and air quality, supporting sustainable and resilient food systems, etc.
- Climate change and environmental degradation threaten biosphere integrity. NbS approaches are living solutions which inherently work in harmony with nature. This approach can therefore support the factors which determine biodiversity: creating habits, protecting habitats, limiting pollution, addressing climate change, etc.

### **Key Targets & Indicators: How do you value and evaluate the application of NbS to health systems?**

- Due to the myriad ways in which nature impacts human health, NbS approaches must be designed in a context-specific manner which aims to fulfil specific objectives and enhance synergies and limit trade-offs.
- Emphasize the need to implement NbS for health that address the most pressing concerns within each context where they are being deployed.
- Target NbS approaches which offer symbiotic benefits between health, such as harnessing the synergistic relationship between nature connectedness and mental and physical health (natural environment exposure can reduce morbidity, provide psychological relaxation, etc.)
- Highlight the need to identify and utilize the growing number of evaluation frameworks which help optimize the application of NbS for health.
- Stress the need for human health outcomes arising from NbS approaches to be identified, benchmarked and regularly assessed - thereby ensuring accountability and strengthening adaptive management.

## **Key Research Needs: What knowledge gaps exist for the application of NbS for health systems?**

- Understanding and cooperation between conversation and health sectors is imperative to the success of NbS for health and wellbeing. Enhancing partnership frameworks and cross-sectoral knowledge is crucial to this end.
- A greater range of tools and methodologies to inform all stages of implementation and evaluation of NbS for health systems is needed.
- Emphasize the need for greater recognition of the interrelatedness and interdependency of human, animal, and environmental health to inculcate a clearer sense of collective ambition and systems thinking mindset.
- Highlight the work of One Health and demonstrate the benefit of enriching such initiatives to strive for better public health outcomes across sectors and advancing efforts to NbS for health systems.

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