

Proposed structure of '2023 ENACT NbS Report'

Total targeted length: <40 pages

WHAT	WHO
FOREWORDS ENACT Co-chairs: Egypt & Germany IUCN High Level Champions	Core writing team (IUCN coordinates contributions)
EXECUTIVE SUMMARY INTRODUCTION: High Integrity NbS & the ENACT Partnership [2pg]	Core writing team

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.

The ENACT Partnership follows the [multilaterally agreed definition of NbS](#)

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

- x 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.
- x 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.
- x 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.
- x Highlight the link between water and food security ² 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.
- x 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.
- x 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.

*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 security² 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?

- x 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.
- x Highlight a need for more robust and ready-to-use incentive mapping techniques that account for both time and scale.
- x 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.
- x 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

- x Highlight the negative biodiversity effects of urbanization and urban development, and the potential to reduce these effects and increase biodiversity in cities through NbS.
- x Highlight the link between urban resilience and human health ² for instance, increasing urban shade cover can help mitigate heat extremes, but must be designed with social and biodiversity considerations.
- x 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).
- x 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 ?

- x 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:
- x Include non-traditional stakeholders such as artists and socially focused community groups, and work to build partnerships between sectors and actors.
- x Bridge divides in power over decision making for urban land use.
- x Offer multiple modes of engagement to accommodate different views and life circumstances.
- x High

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

- x 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.
- x 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.

- x Project partners
- x Brief description of project and core objectives
- x Contribution of initiative to adaptation, biodiversity and mitigation
- x Alignment of initiative with high-integrity IUCN NbS Sta ET EMC Q and core [(in)-2,is BT /TT0a ET EM

x Discuss the governance challenges of Ny1cp8e cse(cu)-3.00on

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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?

- x 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).
- x 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.
- x 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.
- x Address how the application of NbS to DRR builds upon (is distinct from/improves upon) orthodox/gray practices of DRR ud[TW e W* n BT /TT1 10.98 Tf 108.02 456.94 Td [(Addre)-2.996 p3nu1

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

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

Key Resources:

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- x 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.
- x 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.).
- x 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.
- x 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?

- x 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).
- x 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

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

- x 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.
- x 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.
- x The workforce transition from unsustainable sectors to employment within a high-skill, low-carbon economy can be significantly supported by NbS jobs. However, NbS HPSOR\PHQW LV QRW DOZD\V DXWRPDWLFDOO\ UHFRJQLJHG 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?

- x 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 LQVLJKWV SURYLGH VRXQG HYLGHQFH IRU , 3 / & ¶V KLVWRULFD to the conversation of biodiversity.

- o 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.
- x 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.
 - o However, recognizing the current dearth of ILK in NbS projects, which is drastically limiting the effectiveness and ensuing credibility of such interventions.
- x 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.
- x 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.
- x Underline the important role of IPLCs and Women in actualizing the climate mitigation potential through NbS ±particularly through environmental stewardship ² 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.
- x + L J K O L J K W W K H G U L Y H W R H Q V X U H W K D W 1 E s s e n t i a l U H μ O R F D O O realise this approach, IPLCs and women need to be involved throughout the life cycle of NbS interventions.
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CROSS-CUTTING - LIVELIHOODS

State of Play: What is the current state of play for adaptation, mitigation, and NbS?

Underlying drivers of NbS employment, opportunities for vulnerable households and the role of NbS in livelihoods. NbS is now employing almost 75 million people working in NbS and is spreading globally and sectorally: the majority of NbS employment is in lower-middle income countries, and practically all of the employment is in forestry and agriculture (despite the majority of NbS expenditure being in other sectors).

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workers and households to diversify their agricultural practices and/or engage in new complementary livelihood activities (such as beehive additions to smallholder farms).

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.

- o 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.

- o 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 that 10% of global GDP is spent on nature and 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.

- o 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.

- o Similarly, the costs/risks are also best combated by sharing arrangements that are capable of working together.

Considering the vast quantities of capital within private finance, the value of unlocking

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.

- o 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?

- x 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.
- x 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.
- x 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.
- x 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.

- o 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?

- x Understanding and cooperation between conservation 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.
- x A greater range of tools and methodologies to inform all stages of implementation and evaluation of NbS for health systems is needed.
- x 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.
- x 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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