Nature-based Solutions Assessment Tool

Introduction

The **Nature-based Solutions Assessment Tool** is a key tool within the *Climate & Energy Governance Implementation Framework*, designed to guide stakeholders in evaluating, planning, and implementing nature-based solutions (NbS) to address climate change impacts, enhance resilience, and promote sustainable development. NbS, such as reforestation, wetland restoration, and urban green spaces, leverage ecosystems to deliver climate benefits while supporting biodiversity and community well-being. This tool supports policymakers, regional authorities, civil society organizations (CSOs), and communities in integrating NbS into climate and energy strategies, aligning with the Framework's goals of protecting 75% of vulnerable communities by 2035, achieving net-zero emissions by 2050, and enhancing ecosystem health.

The tool integrates the Framework's principles of equity, sustainability, science-based decision-making, and cooperation, with a focus on the Climate Adaptation and Climate Mitigation pillars. It provides a structured approach to assess NbS potential, prioritize projects, engage stakeholders, and monitor outcomes, ensuring that solutions are inclusive, effective, and aligned with local and global needs.

Objectives

- Assess the potential of NbS to address climate risks and support Framework goals.

- Prioritize NbS projects based on climate, biodiversity, and community benefits.

- Design and implement NbS with stakeholder input to ensure equity and inclusion.

- Monitor and evaluate NbS outcomes using standardized metrics.

- Foster coordination across governance levels and sectors for scalable NbS deployment.

Target Audience

- National and regional policymakers

- National Implementation Units

- Environmental and disaster management agencies

- CSOs advocating for climate resilience and biodiversity

- Indigenous and local communities

- Businesses investing in sustainable land use and green infrastructure

Instructions

1. **Assess NbS Potential**:

   - Use Section 1 to evaluate climate risks, ecosystems, and community needs suitable for NbS.

   - Reference the Adaptation Planning Framework for risk data and the Governance Readiness Assessment Tool for institutional capacity.

2. **Prioritize NbS Projects**:

   - Identify and rank NbS projects in Section 2, aligning with Framework milestones (e.g., 75% vulnerable communities protected by 2035).

   - Engage stakeholders via the Stakeholder Engagement Protocol to ensure inclusivity.

3. **Plan NbS Implementation**:

   - Outline project details in Section 3, including scope, funding, and community benefits.

   - Align with the Climate-Energy Policy Integration Matrix for policy coherence.

4. **Develop Implementation Roadmap**:

   - Create a phased timeline in Section 4 for short-term (2025-2030), medium-term (2030-2040), and long-term (2040-2050) actions.

5. **Monitor and Evaluate**:

   - Track progress using the metrics in Section 5, aligned with the Integrated Climate Metrics System (ICMS).

   - Report outcomes via the Climate Policy Dashboard.

6. **Seek Support**:

   - Explore the Regional Hub concept at globalgovernanceframework.org/framework/hubs or contact existing regional organizations.

   - Email globalgovernanceframework@gmail.com for technical assistance or partnership opportunities.

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1. NbS Potential Assessment

Evaluate climate risks, ecosystems, and community needs to identify opportunities for NbS.

Field	Response
Climate Risks	E.g., Coastal flooding, drought, heatwaves
Ecosystems Available	E.g., Mangroves, forests, wetlands, urban green spaces
Vulnerable Populations	E.g., 200,000 coastal residents, 50,000 smallholder farmers
Potential NbS	E.g., Mangrove restoration, agroforestry, urban tree planting
Current NbS Initiatives	E.g., 5,000 hectares of mangroves restored, 10 urban green spaces
Gaps and Opportunities	E.g., Limited wetland restoration, opportunity for agroforestry expansion
Alignment with Framework	E.g., Partial alignment (NbS coverage below 75% community protection by 2035)

Instructions:

- Use climate risk assessments, biodiversity maps, or the Climate Policy Dashboard for data.

- Identify ecosystems and populations suitable for NbS, focusing on vulnerable groups.

- Assess gaps relative to Framework targets (e.g., 75% vulnerable communities protected by 2035).

Example: Region Z faces coastal flooding and drought, with mangroves and wetlands available for restoration. Current initiatives cover 5,000 hectares of mangroves, but broader wetland restoration is needed to meet the 75% protection target by 2035.

2. NbS Project Prioritization

Prioritize NbS projects based on climate, biodiversity, and community benefits, aligned with Framework goals.

NbS Project	Target Area/Population	Benefits	Priority (High/Medium/Low)
E.g., Mangrove Restoration	Coastal communities (200,000 residents)	Flood protection, carbon sequestration, biodiversity	High
E.g., Agroforestry	Smallholder farmers (50,000)	Soil health, food security, carbon storage	High
E.g., Urban Green Spaces	Urban populations (100,000)	Heatwave mitigation, air quality	Medium
E.g., Wetland Restoration	Rural communities (20,000)	Water security, biodiversity	Medium

Instructions:

- List potential NbS projects, detailing their benefits (e.g., adaptation, mitigation, social).
- Assign priorities based on impact, feasibility, and equity (High for projects benefiting vulnerable groups).
- Validate priorities with stakeholders via the Stakeholder Engagement Protocol, ensuring Free, Prior, and Informed Consent (FPIC) for indigenous communities.

Example: Region Z prioritizes mangrove restoration for 200,000 coastal residents (high flood risk) and agroforestry for 50,000 farmers (food insecurity), with indigenous community input via

FPIC.

3. NbS Implementation Plan

Outline specific NbS projects, including scope, funding, and community engagement.

Field	Response
Project	E.g., Mangrove Restoration
Target Area/Population	E.g., 200,000 coastal residents across 10 communities
Scope	E.g., Restore 10,000 hectares of mangroves
Climate Benefits	E.g., Reduce flooding for 75% of residents, sequester 1 MtCO2e annually
Biodiversity Benefits	E.g., Protect 20 endangered species, enhance fish habitats
Community Benefits	E.g., 1,000 local jobs, improved fisheries
Timeline	E.g., 2026-2035, 1,500 hectares annually
Funding Source	E.g., Framework finance, private investment, carbon credits
Stakeholder Engagement	E.g., Community-led restoration, FPIC for indigenous groups

Instructions:

- Detail each prioritized NbS project, emphasizing climate, biodiversity, and social outcomes.
- Ensure equity by involving local communities and upholding FPIC.
- Identify funding via the Climate Finance Access Navigator.
- Align with the Adaptation Planning Framework for adaptation-focused NbS.

Example: Region Z will restore 10,000 hectares of mangroves by 2035, reducing flooding for 200,000 residents and creating 1,000 jobs, funded by Framework grants and carbon credits, with community-led implementation.

4. Implementation Roadmap

Define a phased timeline for implementing NbS projects, aligned with Framework milestones.

Phase	Timeline	Actions	Milestones
Short-Term	2025-2030	E.g., Restore 2,500 hectares of mangroves, pilot agroforestry for 10,000 farmers	E.g., 20% of coastal communities protected, 20% of farmers trained by 2030
Medium-Term	2030-2040	E.g., Scale mangrove restoration to 10,000 hectares, expand agroforestry to 50,000 farmers	E.g., 75% of vulnerable communities protected by 2035
Long-Term	2040-2050	E.g., Sustain NbS, integrate urban green spaces across 10 cities	E.g., 100% of vulnerable communities protected, net-zero contributions by 2050

Instructions:

- Align with Framework milestones (e.g., 75% vulnerable communities protected by 2035, 100% by 2050).

- Coordinate with other sectors using the Climate-Energy Policy Integration Matrix.

- Engage stakeholders to validate timelines and ensure community ownership.

Example: By 2030, Region Z will protect 20% of coastal communities with 2,500 hectares of mangroves; by 2035, scale to 75% with 10,000 hectares; by 2050, achieve 100% protection and net-zero contributions.

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5. Metrics for Success

Establish indicators to track progress and evaluate NbS outcomes, aligned with the Framework's Integrated Climate Metrics System (ICMS).

Indicator	Target	Measurement Method	Frequency
Vulnerable Communities Protected	75% by 2035, 100% by 2050	Percentage of communities benefiting from NbS	Biennial
Ecosystem Restoration	10,000 hectares of mangroves/wetlands by 2035	Hectares restored, verified by satellite data	Annual
Carbon Sequestration	1 MtCO2e annually by 2035	Carbon storage from NbS projects	Annual
Biodiversity Gains	20 endangered species protected by 2035	Species population trends	Biennial
Community Benefits	80% of local communities report benefits by 2035	Surveys of job creation, livelihoods	Biennial

Instructions:

- Integrate metrics into ICMS for standardized reporting.
- Use satellite data, biodiversity surveys, and community feedback to assess restoration, sequestration, and benefits.
- Report progress via the Climate Policy Dashboard.

Example: Track mangrove restoration annually (target: 10,000 hectares by 2035) and survey communities biennially to ensure 80% report benefits (e.g., jobs, fisheries) by 2035.

Next Steps

1. **Review Results**: Share your NbS assessment and implementation plan with key stakeholders to validate findings and build consensus on priorities.

2. **Develop a Strategy**: Use the roadmap and metrics to integrate NbS into your broader climate and energy governance strategy.

3. **Connect to Regional Resources**:

- Explore the Regional Hub concept at globalgovernanceframework.org/framework/hubs to understand how regional coordination can support your NbS initiatives.
- Identify existing regional organizations in your area that may provide similar functions to the conceptual Regional Hubs.

4. **Access Support**:

- Email globalgovernanceframework@gmail.com for technical assistance and to discuss potential regional collaboration opportunities.
- Inquire about pilot projects or implementation partnerships related to the Regional Hub concept.

5. **Monitor Progress**: Reassess NbS implementation annually to track improvements and adjust strategies based on metrics and stakeholder feedback.

6. **Share Insights**: Contribute lessons learned to the Framework's knowledge repository to support global learning and inform Regional Hub concept development.

Contact and Further Information

For additional support:

- **Online Resources**: Access tools and guides at globalgovernanceframework.org/framework/tools/energy.

- **Technical Assistance**: Email globalgovernanceframework@gmail.com.

- **Regional Governance Concepts**: Learn more about the Regional Hub framework at globalgovernanceframework.org/framework/hubs.

- **Implementation Partnerships**: Inquire about opportunities to pilot Regional Hub functions in your region through globalgovernanceframework@gmail.com.

This tool is a living document, updated periodically. Check the website for the latest version.