

EXECUTIVE SUMMARY

BIODIVERSITY MANAGEMENT GOVERNANCE MECHANISMS THROUGH NATURE-BASED SOLUTION IMPLEMENTATION (NBS) IN THE BIOGEOGRAPHIC CHOCÓ OF COLOMBIA

STRENGTHENING POLICY FRAMEWORKS FOR NATURE-BASED
SOLUTIONS (NBS) IN AFRO-DESCENDANT CITIES IN THE
BIOGEOGRAPHIC CHOCÓ REGION

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Introduction

This brief presents the main findings of task one of the project RG-T4297-P007 aimed at strengthening climate governance mechanisms in the Colombian Biogeographic Chóco (BC) through the implementation of Nature Based Solutions (NbS). Led by AMUNAFRO and the Environmental Research + Action group (ERA) at the Massachusetts Institute of Technology MIT, the project focuses on the Afro-descendant majority cities of Cali, Buenaventura, and Quibdó, characterized by exceptional biodiversity.

Objectives

The BC is one of the most critical global biodiversity hotspots, hosting over 25% of the world's endemic species and home to vital ecosystems that aid carbon sequestration and support over 20% of local employment. By aligning public policy, stakeholder engagement, and project design and investment pathways towards NbS implementation, cities located in the BC such as, Cali, Buenaventura and Quibdó, can protect the BC's biodiversity, address climate and environmental risks and empower communities as co-designers and decision-makers of their bio-cultural assets and sustainable future.

To that end, task 1 aims to address policy gaps that hinder the adoption of NbS and identify opportunities to strengthen policy frameworks, with a particular gender and social inclusion focus. Grounded in the rigorous analysis of 45 national and regional regulatory and policy instruments, this task includes a comprehensive policy assessment and targeted recommendations. It outlines the specific institutional, financial, and regulatory pathways required to mainstream the implementation of Nature-based Solutions in cities in the BC.

Methodology

45 national and regional regulatory and policy instruments were analyzed, including 23 national policies, 19 subregional instruments, and 3 gender-focused frameworks to identify NbS policy gaps in Cali, Buenaventura, and Quibdó. The analysis was complemented and validated through 11 interviews with local environmental authorities. The assessment was structured around six thematic areas, namely (1) water management, (2) biodiversity and land-use planning, (3) green and public infrastructure, (4) nature-based economies, (5) energy and decarbonization, and (6) coastal ecosystems, and five analytical dimensions that constitute enabling conditions for NbS: (1) Governance and institutional capabilities (GC), (2) Financing mechanisms (F), (3) inclusion of women and ethnic communities (I), (4) Incentives (IN), and (5) Co-benefits linked to biodiversity and livelihoods (B). Within the current policy landscape, Colombia's newly enacted Green Cities Law 2476 of 2025 serves as a key enabler by mandating ecological infrastructure and monitoring obligations that support the scaling of NbS in urban areas. Consequently, a capacity analysis was conducted to assess each cities' readiness to comply with the competencies and obligations established by this law.

Results

The policy assessment and recommendations outline a pathway to operationalize national mandates as they relate to NbS in local contexts by proposing mechanisms to unlock finance, strengthen technical capacities and governance, create incentives, and communicate NbS benefits. The analysis resulted in 27 national recommendations along the five analytical dimensions (6 GC, 10 F, 5 I, 2 IN, 4 B) and 24 subnational recommendations (12 general across I, GC, and F; 5 for Cali; 4 for Buenaventura; and 1 for Quibdó), each tailored to local institutional realities.

National recommendations

The recommendations below represent a selection out of 27 national recommendations outlined in the report, prioritized based on timeliness, feasibility and potential impact.



Governance and Institutional Capacities

National Portfolio and Capacity Building Strategy for Nature-Based Solutions

Formulate and centralize a national portfolio of Nature-based Solutions type projects aligned with municipal needs, territorial prioritization criteria, and the Green Taxonomy, while developing a technical assistance strategy to strengthen local capacities for environmental monitoring, access to financing and the use of essential technologies.

Main actor: Ministry of Environment and Sustainable Development (MADS), Biodiverse and Resilient Cities Program.



Financing Mechanisms

Access to financing for implementing SbN

Establish dedicated lines of credit with preferential rates to strengthen technical capacities and support SbN formulation/execution. Coordinate the use of preferential rates, favorable financing terms, and the allocation of environmental surcharges to directly benefit municipalities.

Main actors: Finagro, Findeter and Bancoldex.

Urban Nature-based Solutions Projects through the Industry and Commerce Tax (ICA)

Enable companies to finance SbN in exchange for ICA tax reductions, prioritizing urban adaptation and biodiversity projects included in the national portfolio.

Main actor: Finance departments of municipalities, districts or cities.



Inclusion

Public-Private-Community Partnerships (PPCPs)

Design community-centered PPP models based on blended finance that enable communities to access direct financing and manage SbN projects, bridging investment gaps in conservation, restoration, and climate adaptation.

Main actor: National Department of Planning (DNP).



Benefits and Co-benefits

Decision-support Tools for NbS development

Promote the implementation of tools such as NBSOS to prioritize interventions based on budget, impact, and ecosystem benefits. Strengthening analytical capacities will support a more technical and strategic implementation of NbS.

Main actor: Ministry of Environment and Sustainable Development (MADS).



Incentives

New Selection and Investment Criteria within Existing Funds

Incorporate differential scoring criteria in national fund calls, such as "Sistema General de Regalias" and "Fondo para la vida" to give preference to NbS projects, and establish minimum standards to guide municipalities in integrating ecosystem benefits and co-benefits into project design and implementation.

Main actor: National Department of Planning.

Subnational recommendations across BC cities

The recommendations below represent a selection out of 24 subnational recommendations across the five analytical dimensions, and highlight three cross-cutting recommendations for cities in the BC and one targeted for each of the focus cities.



Governance and institutional capacities

Coordinating mechanism among authorities, environmental entities and community organizations.

Consolidate a formal space where communities, authorities, and academia define shared goals and decision-making processes, guaranteeing systematic participation and strengthening environmental governance. This will be further developed in the NbS platform established in task 3.

Main actor: Regional and local environmental authorities.



Financing mechanisms

Budgeted action plan for environmental monitoring and NbS implementation

Establish an annual monitoring plan with clear indicators, adequate equipment, and a sustained budget that maintains the technical and operational capacity required for effective NbS implementation prioritizing the NbS project portfolio. This should be supported through financing mechanisms such as ICA resources, environmental surcharges, and participatory budgeting

Main actor: Finance offices or Dependencies of the cities



Inclusion

Technical capacities in gender-responsive participation among environmental authorities

Strengthen the participation of women in existing environmental committees including the proposed NbS platform and public decision-making processes through formal collaboration and inclusion mechanisms, integrating their differential climate-change impacts into municipal policies to ensure their role in NbS governance.

Main actors: Gender departments of municipalities, districts or cities.

Specific recommendations per city



Cali

Green space adoption program with incentives to incorporate NbS

Strengthen and expand the green space adoption program by integrating urban biodiversity criteria, offering incentives to companies and community organizations, and aligning it with green corridors, rain gardens and Singapore Index targets to enhance ecological connectivity.

Main actor: Cali Administrative Department of Environmental Management (DAGMA).



Quibdó

Debt-swap or debt-forgiveness mechanism to finance SbN in Quibdó

Develop a debt swap scheme that converts municipal financial obligations into investments in watershed restoration, community forest management, and flood mitigation strategies. Inspired by the Galápagos model, this mechanism should prioritize strategic ecosystems along the Atrato River watershed, and be implemented in coordination with CODECHOCÓ, Afro-descendant community councils, and Indigenous reserves. Its adoption will require agreements with the national government and international partners, and to be tailored to the municipality's limited fiscal capacity.

Main actors: CODECHOCO and Ministry of Finance.



Buenaventura

Blue Bond to finance water and coastal restoration

Design a pilot Blue Bond for the restoration of watersheds, mangroves, and sustainable water infrastructure, bringing together development banks, international cooperation, and the port sector under a shared governance structure, and be linked to voluntary carbon markets to generate income for local communities.

Main actor: Ministry of Finance, Mayor's Office of the District of Buenaventura, and Regional Corporation of Valle del Cauca (CVC)