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The Biodiversity Finance Initiative

UZBEKISTAN

BIODIVERSITY FINANCIAL NEEDS ASSESSMENT





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Prepared by: Perepada L., Radjabov T. and Umarova Sh.

Editorial board: Cumming T., Shalakhanova A., Sherimbetov Kh.

Data collection: Khodjaev F.

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Biodiversity Finance Initiative (BIOFIN) is a global partnership addressing the biodiversity finance challenge in a comprehensive manner. The Initiative provides an innovative methodology enabling countries to measure their current biodiversity expenditures, assess their financial needs in the medium term and identify the most suitable finance solutions to bridge their national biodiversity finance gaps.

CONTENT

List of abbreviations

UN	United Nations
UNDP	United Nations Development Programme
BIOFIN	UNDP Biodiversity Finance Initiative
NBSAP	National Biodiversity Strategy and Action Plan
FNA	Financial Needs Assessment
ADB	Asian Development Bank
GDP	Gross Domestic Product
BFP	Bodiversity Finance Plan
GBF	Global Biodiversity Framework
CBD	UN Convention on Biological Diversity
BER	Biodiversity Expenditures Review
PA	Protected Areas
PIR	National Biodiversity Finance Policy and Institutional Review

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Executive Summary

The current National Biodiversity Strategy and Action Plan (NBSAP) of Uzbekistan was adopted in 2019 covering the period 2019-2028. The NBSAP provides an implementation framework, including timelines, milestones, and monitoring mechanisms, and is structured based on the Aichi strategic goals/targets. The Plan includes four national strategic objectives. The implementation of the NBSAP was envisaged in two stages, namely in the periods of 2019-2023 and 2024-2028.

This Financial Needs Assessment (FNA) for Uzbekistan's NBSAP outlines the financial resources required to meet the country's biodiversity conservation objectives for the second stage of the NBSAP (2024-2028). Out of 23 activities in this stage, it was possible to cost 14. Seven, activities were reported by the national partners as implemented, and did not require further funding. Thus, the costing exercise in this FNA was able to cover around 70% of the NBSAP activities, and therefore it does not provide an accurate reflection of the full cost of implementing of the entire NBSAP. Based on the costing of the 14 activities the total funding gap was estimated to be US$59.76 million[1]. These cover essential activities such as reducing pressures on biodiversity, expanding protected natural areas, and enhancing ecosystem services. The funding gap identified in this FNA is less than 9.5% of the potential loss of US$637 million (calculated as 0.7% of Uzbekistan's GDP in 2023), which was estimated by the ADB as the possible economic consequence of the climate change in Uzbekistan.

The findings of the FNA highlight the unmet needs and are regarded as a financial deficit in implementing the current NBSAP. The FNA recommends several strategies to bridge this financial gap, including increasing domestic budget allocations, engaging more actively with international donors, and exploring innovative financing mechanisms, such as green bonds, biodiversity offsets, and payments for ecosystem services (PES). These strategies will be studied in-depth in the Biodiversity Finance Plan (BFP) as a next step of the BIOFIN methodology implementation in Uzbekistan. Additionally, strengthening financial governance and building capacity within government institutions was identified as essential to ensure the efficient and transparent use of biodiversity funds.

The FNA findings reveal that the national public finance system lacks effective mechanisms for tracking biodiversity expenditures, complicating the identification of funding gaps. This underscores the need for improved financial tracking systems, such as biodiversity expenditure tagging, to enhance transparency and accountability in resource allocation.

The FNA recommendations could further inform the process of development of a new NBSAP that Uzbekistan Government plans to adopt according to the new national biodiversity targets aligned with Kunming-Montreal Global Biodiversity Framework (KM GBF). Implementing these recommendations is crucial for ensuring long-term biodiversity conservation, ecosystem resilience, and sustainable development in Uzbekistan.

The successful implementation of the NBSAP and the achievement of Uzbekistan's biodiversity goals hinge on securing adequate financial resources, fostering collaboration among stakeholders, and integrating biodiversity considerations into broader national development strategies. This proactive approach will not only support the conservation of Uzbekistan's rich biodiversity but also contribute to sustainable development and the well-being of its communities.

[1] The following rate has been used for this report: 1 US$= 12,600 Uzbek soums. The Central Bank of Uzbekistan set the official exchange rate at 1 US$= 12,600.14 Uzbek soums on March 28, 2024

I. INTRODUCTION

Uzbekistan, a country rich in biodiversity, has demonstrated its commitment to conservation through the development and implementation of the National Biodiversity Strategy and Action Plan (NBSAP). This strategy serves as a comprehensive framework for the protection and sustainable use of the country's wild natural biological resources. The Biodiversity Finance Initiative (BIOFIN) is a UNDP global program that supports countries like Uzbekistan in aligning their national financial resources with their national biodiversity goals. By integrating financial planning with biodiversity priorities, BIOFIN aims to close the funding gap that often hampers effective conservation efforts.

This Biodiversity Financial Needs Assessment (FNA), carried out by the BIOFIN national team in Uzbekistan, focuses on assessing the financial resources required to implement the actions outlined in the NBSAP covering period of 2024-2028. This assessment is crucial in ensuring that Uzbekistan's biodiversity goals are adequately funded and that the country can meet its international commitments under the Convention on Biological Diversity (CBD).

The primary objective of this FNA is to evaluate the financial needs associated with the NBSAP actions in Uzbekistan. Specifically, this assessment aims to:

- identify the current and projected costs associated with each NBSAP action;
- highlight any funding gaps that could hinder the successful implementation of the NBSAP;
- provide recommendations for optimizing the use of existing funds and identifying new financial mechanisms to support biodiversity conservation in Uzbekistan.

I.1. Methodology

The FNA followed BIOFIN methodology as set out in the BIOFIN Workbook (2018 edition). However, it was not possible to apply the recommended methodologies fully, due to challenges related to expenditure recording and the inability to reconcile the Biodiversity Expenditure Review (BER) with NBSAP costing.

This study relies solely on NBSAP's cost projections to indicate financial needs. It does not include the cost of salaries of existing posts or existing regular operational expenses, but only additional costs that would be accrued should the Activity be undertaken. Therefore, **the costs presented in the FNA represent only the Activity funding gap**, and not the total cost of each Activity.

Furthermore, this identified gap represents the unmet financial needs for implementing - specifically and only NBSAP activities, and not any existing programmes of work focused on biodiversity that are not captured as NBSAP Activities

The use of NBSAP projections aims to reflect the actual financial requirements for achieving Uzbekistan's biodiversity goals. Moving forward, the proposed FNA is intended to provide an interim understanding of biodiversity finance needs, while a more comprehensive analysis is expected along with a new NBSAP to be developed by 2026, in alignment with the Kunming-Montreal Global Biodiversity Framework (KM GBF).

Alternative methodologies recommended by the BIOFIN guidelines, such as incorporating comprehensive historical expenditure data or aligning the Biodiversity Expenditure Review (BER) with the Financial Needs Assessment (FNA), could not be applied due to practical constraints in Uzbekistan's public financial reporting systems. Challenges such as the peculiarities of expenditure recording, and the lack of comprehensive cross-sectoral data prevented the use of these approaches. For instance, aligning the BER with the National Biodiversity Strategy and Action Plan (NBSAP)

costing was not feasible because the available expenditure data could not be sufficiently disaggregated to correspond to the specific activities outlined in the NBSAP.

As a result, the chosen strategy of focusing on unmet financial needs, using NBSAP projections, was the most appropriate and practical approach to calculating the financing gap, given the available data and constraints.

I.1.1. Data Collection and Review

The NBSAP was thoroughly analyzed to identify the strategic objectives, specific actions, and timelines outlined in the plan. The actions were categorized according to their implementation mechanisms, expected outcomes, and responsible entities.

Out of 23 activities in current NBSAP, 7 were identified as implemented and excluded from further costing exercise. The remaining 14 activities' financial needs were projected and categorized using the cost categories from the BIOFIN Workbook, which highlights current financial deficit.

To facilitate the data collection, an Excel template was developed to simplify the categorization of biodiversity expenditures based on the BIOFIN Workbook guidelines. Input was provided by specialists from national agencies, supported by the BIOFIN national team, who estimated the costs associated with each costable NBSAP activity. The financial data, representing the needs for NBSAP implementation from 2024 to 2028, were collected from respective national stakeholders. However, the scope and accuracy of the data were limited by the comprehensiveness of the information provided by these stakeholders.

Throughout the process, key stakeholders, including government agencies were consulted to validate the financial data and provide insights into current and future funding opportunities. The *Yashil Makon* (Green Land) nationwide afforestation initiative, mentioned in this report, represents a significant future component of biodiversity financing that should be considered in the next iteration of the NBSAP, given its large-scale afforestation and climate adaptation goals.

I.1.2. Costing Approach

The financial needs for the NBSAP in Uzbekistan were estimated using activity-based costing approach. This methodology aligns with the guidelines provided in the BIOFIN Workbook, ensuring a comprehensive and systematic assessment of the financial requirements needed to implement the NBSAP.

Activity-based costing was employed to assign costs to specific actions within the NBSAP. Each activity was analyzed in detail, considering the resources required, such as personnel, equipment and infrastructure, services, and other operational needs. Costs were then allocated based on the estimated time and resources necessary to achieve the desired outcomes. This granular approach provided a more accurate reflection of the financial needs for each action and objective within the NBSAP.

Several key assumptions underpinned the costing process. Firstly, it was assumed that current and projected biodiversity activities would continue to operate under similar economic and environmental conditions as in recent years. This assumption allowed for the use of historical expenditure data as a baseline as well as activity-based costing for future cost estimations.

Secondly, inflation and economic growth rates were also factored into the cost projections. These rates were based on national economic forecasts, ensuring that the financial needs reflect expected changes in the purchasing power of funds over the five-year period.

The primary data sources for the costing process included financial projections from relevant government agencies, involved in biodiversity-related activities in Uzbekistan. Expert consultations provided the foundation for cost estimations.

I.2. Review of the NBSAP structure and implementation

The NBSAP provides an implementation framework, including timelines, milestones, and monitoring mechanisms, and structured based on the Aichi strategic goals/targets. It assigns responsibilities to various government agencies, NGOs, international organizations such as UNDP, and other stakeholders, ensuring coordinated efforts across sectors. Uzbekistan's NBSAP is structured to address the country's biodiversity challenges through a series of strategic objectives and specific actions in two phases covering 2019-2023 and 2024-2028 periods. The plan's organization is summarized in Table 1.

Table 1. Summary of NBSAP's structure

Strategic Objectives	The NBSAP outlines key strategic objectives aimed at conserving biodiversity, promoting sustainable use of biological resources, and integrating biodiversity considerations into national development planning: I. Integrating the Topic of Biodiversity into State Authority, Management, and Society Activities I.1. Improving the State Environmental Monitoring System by Including Biodiversity Monitoring I.2. Increasing the knowledge and awareness of state bodies and society about the importance of biodiversity and ecosystem services I.3. Developing and integrating mechanisms for the economic valuation of biodiversity and ecosystem services into the planning process. II. Reducing direct pressure on biodiversity and ensuring the sustainable use of its components in productive landscapes. III. Developing the system of protected natural areas and increasing the benefits provided by ecosystem services III.1. Creating a national ecological network (various categories and types of protected natural areas) and expanding the total area of protected natural areas in the country to ensure their effective management III.2. Developing a program to conserve and sustainably use the components of biodiversity used in food production and agriculture IV. Enhancing biodiversity conservation and sustainable use through collaborative planning and capacity building.
Specific Activities	The plan includes 23 detailed activities under each strategic objective and sub-objective, specifying the activities to be implemented, responsible institutions, implementation mechanisms, funding source, duration and expected outcomes.

The Table 2 below delineates the four objectives into a total of 23 activities of the NBSAP. For the purpose of this analysis, all 23 activities were reviewed, and 14 were deemed eligible for costing. The remaining 7 activities, highlighted in brown, were reported by national stakeholders as fully implemented during the first phase of the NBSAP implementation (2019-2023) and, therefore, were not considered in this FNA.

Table 2. Mapping of 23 activities of NBSAP, incl. those implemented (highlighted in brown)

I. Integrating the Topic of Biodiversity into State Authority, Management, and Society Activities"	**II. Reducing direct pressure on biodiversity and ensuring the sustainable use of its components in productive landscapes.**	**III. Developing the system of protected natural areas and increasing the benefits provided by ecosystem services.**	**IV. Enhancing biodiversity conservation and sustainable use through collaborative planning and capacity building.**
1. Establishing a unified system for biodiversity monitoring, organizing monitoring of plant and animal life, and defining the procedure for its implementation.	14. Improving the ecological condition of the Aral Sea region by conducting forest reclamation work on the dried bottom of the Aral Sea.	19. Developing the system of protected natural areas.	21. Conducting systematic monitoring of the implementation of the action plan for the conservation and sustainable use of biodiversity.
2. Creating an information base for the state cadaster and monitoring of protected natural areas, plant and animal life objects using modern geo-information technologies (GIS technologies).	15. Increasing forest cover in desert areas, drainage basins in mountainous regions, and riparian forests.	20. Ensuring the conservation of the gene pool for the restoration of wild relatives of cultivated plants (CWR) populations.	22. Informing stakeholders about the goals and objectives of the Strategy and its implementation progress, including participation in regional and international events, including the Conference of the Parties to the Convention on Biological Diversity (CBD).
3. Improving the work on maintaining the state cadaster of protected natural areas, plant, and animal life in accordance with the unified system of state cadasters.	16. Enhancing mechanisms for biodiversity conservation and biological resource management, including testing landscape-level planning methods, making relevant decisions, strengthening key biodiversity zones, and addressing issues related to creating incentives for sustainable economic development in mountainous areas. Developing regional and international cooperation and partnerships in the Western Tien-Shan and Pamir-Alay.		23. Developing and ensuring the sustainable operation of the National Clearing-House Mechanism for Biodiversity using modern information technologies in accordance with the requirements of the UN Convention on Biological Diversity.
4. Creating a biodiversity website www.biodiversity.uz in three languages (Uzbek, Russian, and English) under the State Committee for Ecology and Environmental Protection.	17. Developing measures to protect natural ecosystems and the habitats of snow leopards.		
5. Inventory of natural resources of wild medicinal, food, and industrial plants.	18. Creating a monitoring system for the condition of biological resources in fisheries and fishery water bodies.		
6. Conducting periodic geobotanical studies of plants in natural pastures and hayfields over 2 million hectares annually.			
7. Registering the number of bird species in the water bodies of Uzbekistan.			
8. Ensuring the inclusion of the Kuymazar and Tudakul reservoirs (Navoi region) in the list of wetlands of international importance (Ramsar Convention).			
9. Integrating biodiversity conservation and ecosystem services into economic sectors.			
10. Enhancing the role of mass media in raising public awareness about the importance of biodiversity.			
11. Organizing an information campaign for the public (nature users) to promote the conservation and sustainable use of biological resources, as well as the importance of their ecosystem services.			
12. Creating a mechanism for assessing the economic value of biodiversity and ecosystem services.			
13. Developing mechanisms to incentivize the conservation, sustainable use, and reproduction of biological resources.			

In particular, the 7 activities implemented in the first phase of the NBSAP include:

Activity 1 – Establishment of a Unified System for Biodiversity Monitoring: According to data provided by national partners, this activity was completed in 2020. An interdepartmental guideline titled "Procedure for monitoring the course of natural processes in the territory of reference protected areas" was developed and operationalized.

Activity 8 - Inclusion of the Kuymazar and Tudakul reservoirs in the Ramsar Convention: These two reservoirs, with a total surface area of 32,000 hectares, serve as a crucial stopover point for migrating birds along the Central Asian Flyway, with an average annual count exceeding 40,000. They were designated as wetlands of international importance in 2020.

Activity 13 – Incentives to the conservation, sustainable use, and reproduction of biological resources: This activity was assessed as partially implemented, as no separate regulatory legal act providing for various types of benefits, as envisaged by the implementation mechanism of this activity, was found during the data collection. However, national partners reported that to implement this activity, a note on fiscal benefits was added to the Law on Hunting and Hunting Farms, stimulating the breeding of game species in nurseries in 2020.

Activity 14 – Afforestation of the dried bottom of the Aral Sea: The NBSAP set a target indicator of 1.2 million hectares for this activity. According to the Forestry Agency, approximately 1.856 million hectares of over 2.7 million hectares of the dried bottom of the Aral Sea in Uzbekistan have been successfully afforested as of 2024. Notably, afforestation efforts have continued uninterrupted, with the Government of Uzbekistan investing through various initiatives established post-NBSAP launch. One significant initiative is "Yashil Makon" (Green Land), launched in November 2021 and aiming to plant a billion trees and shrubs by 2026. This program seeks to expand green spaces, improve air and soil quality, and combat desertification, particularly in urban areas, increasing green coverage from 8% to 30%. Aligned with Uzbekistan's climate commitments under the Paris Agreement, it aims to reduce greenhouse gas emissions by 35% per unit of GDP within the next decade. Although this initiative is directly related to biodiversity and is estimated to need a minimum of US$200 million each year, it was not incorporated into the FNA because it was initiated a few years after the current NBSAP was designed and put into operation.

Activity 16 – Addressing biodiversity conservation through landscape-level planning, decision-making, strengthening key zones, incentivizing sustainable development, and fostering cooperation in the Western Tien Shan and Pamir-Alay: This activity was reported as implemented through implementation of a relevant component of the UNDP/GEF "Sustainable management of natural and forest resources in key mountain regions important for globally significant species of biodiversity" project in 2019 – 2021.

Activity 17 – Measures to protect natural ecosystems and the habitats of snow leopards: Similar to the previous activity, this activity was also reported as completed through implementation of a relevant component of the UNDP/GEF "Sustainable management of natural and forest resources in key mountain regions important for globally significant species of biodiversity" project in 2019 – 2021. As a result of the mentioned project the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan "On approval of the program and action plan for the conservation of the snow leopard" was adopted in August 2021.

Activity 21 – Systematic monitoring of the implementation of the NBSAP: According to national partners, an annual procedure for collecting data from responsible executors, followed by analysis until December 15, was established and operationalized. The findings from the NBSAP annual progress monitoring activity have been systematically used as inputs for various national reports.

II. FINANCIAL NEEDS ASSESSMENT (FNA)

II.1. PIR and BER findings

The Biodiversity Policy and Institutional Review (PIR) prepared by the national BIOFIN team for Uzbekistan provides critical insights into the current landscape of biodiversity finance in the country. The findings from this review are particularly important for informing the FNA. The PIR revealed that Uzbekistan lacks a systematic process for financial needs assessment, which is essential for ensuring that budget allocations align with the actual requirements for biodiversity conservation emanating from the current NBSAP. Currently, budget planning does not incorporate standardized procedures for assessing long-term financial needs as a part of a strategic planning, resulting in financing basic needs only, and potential gaps in funding and inefficiencies in resource allocation.

Moreover, the review highlighted a significant gap in the structure and institutional mechanisms related to biodiversity finance. Specifically, there are no clear guidelines or instructions for protected natural areas (PA) and relevant organizations on how to prepare budget requests that align with biodiversity goals. This absence of comprehensive PA management plans tied to specific targets and budget with structured guidance on the use limits the effectiveness of budget submissions and undermines the ability to secure the necessary financial resources for biodiversity initiatives. For instance, introduction of PA management plans in Kazakhstan has resulted in significant increase of available budget for protected areas, reaching US$70.3 million in 2023, a threefold increase compared to 2018 and a doubling compared to 2022[2].

To address these challenges, it is crucial to strengthen the institutional framework and develop mechanisms that support comprehensive financial planning aiming at effective biodiversity conservation. The Biodiversity Expenditure Review (BER) provides a comprehensive analysis of past and current financial flows towards biodiversity-related activities in Uzbekistan. This review helps in understanding how effectively resources have been utilized and identifies potential gaps that need to be addressed to meet the country's biodiversity goals.

Over the past several years, Uzbekistan has invested in various biodiversity-related activities through public budgets, donor contributions, and private sector involvement. These expenditures have been crucial in supporting conservation efforts, restoration projects, and the sustainable use of biological resources.

Historically, the government of Uzbekistan has allocated funds primarily towards the conservation and restoration of critical habitats, the protection of endangered species, and the implementation of environmental monitoring systems. These investments were often directed through the Ministry of Ecology, with additional support from regional governments for localized projects.

In 2020-2022, international donors, including multilateral organizations such as the Global Environment Facility (GEF) and bilateral donors, have contributed 13% of the total biodiversity expenditure in the country[3]. These funds have been utilized for large-scale projects such as protected area management, community-based conservation initiatives, and biodiversity research. The private sector has also played a role, particularly in the sustainable use of biodiversity resources. Investments have been made in sectors such as ecotourism, sustainable agriculture, and forestry, though these contributions have been more limited compared to government and donor funding.

[2] Kazakhstan Triples Protected Area Budget, Advancing Biodiversity Goals. 2024 https://www.biofin.org/news-and-media/kazakhstan-triples-protected-area-budget-advancing-biodiversity-goals

[3] Biodiversity expenditure review in Uzbekistan. Umarova Sh. and Radjabov T. Tashkent – 2023, 42 pages https://www.biofin.org/index.php/knowledge-product/biodiversity-expenditure-review-uzbekistan

In recent years, the Uzbek Government has increasingly focused on integrating environmental considerations into public finances, especially in the transition to a green economy; however, biodiversity-specific measures have not yet been prioritized in overall development planning. Current financial flows reflect a mix of continued government support, ongoing donor funding, and emerging private sector investments. The government remains the primary source of biodiversity funding, with continued investments in conservation and restoration activities. Recent trends indicate a growing allocation towards integrating environment and climate related issues into national development policies and sectoral plans, also reflecting conservation concerns.

II.2. The Biodiversity Funding Gap

The funding gap for biodiversity in Uzbekistan are projected based on the NBSAP's second implementation phase covering period 2024-2028. These projections highlight the essential financial resources identified as unmet needs to achieve the strategic objectives outlined in the NBSAP. This section provides an in-depth analysis of this projected financial deficit, as summarized in Table 2, focusing on the specific categories and objectives that form the financial framework for biodiversity conservation in Uzbekistan.

The total projected financial gap for implementing the NBSAP from 2024 to 2028 has been estimated as being $59.76 million (Table 2). These projections cover various actions aimed at integrating biodiversity into public governance, reducing direct pressure on ecosystems, and developing protected natural areas, among other objectives. The findings of the FNA highlight the unmet needs are regarded as a financial deficit in implementing the current NBSAP. By focusing on unmet needs, this approach provides a clear picture of the financial shortfalls required to achieve Uzbekistan's biodiversity goals.

Table 3 indicates the funding gap for each of NBSAP objectives, where **Objective I - Integrating the topic of biodiversity into state authority, management, and society activities,** focuses on improving the state's environmental monitoring system, increasing knowledge about biodiversity, and integrating economic valuation mechanisms into planning. This objective has large total gap over five years, reaching approximately US$23.56 million. The major portion of this gap, about US$19.75 million, is allocated to improving the environmental monitoring system, while smaller amounts go toward raising awareness (US$3.58 million) and developing economic valuation mechanisms (US$0.24 million).

The funding gap for the **Objective II - Reducing direct pressure on biodiversity and promoting sustainable use** totaling $8.31 million, emphasizes addressing direct threats to biodiversity in productive landscapes. The smaller funding requirement compared to Objective I implies a narrower scope but equally critical interventions.

The **Objective III - Developing the system of protected natural areas and increasing the benefits provided by ecosystem services)** has the highest funding gap ($27.8 million), underscoring the strategic importance of developing protected natural areas and maximizing the ecosystem services they provide. Creating a national ecological network and expanding protected area coverage ($26.61 million) is the primary focus, reflecting a national commitment to conserving biodiversity. In contrast, the projected funding deficit for programs targeting biodiversity in food production and agriculture ($1.19 million) is significantly lower, suggesting that this sub-component may currently be considered secondary but still essential to ensuring sustainable agricultural practices.

The funding gap for the **Objective IV - Enhancing biodiversity conservation and sustainable use through collaborative planning and capacity building**, is the smallest ($0.78 million), reflecting a relatively minimal resource requirement for collaborative planning and capacity building. This

suggests either existing adequate capacity or limited prioritization of this area compared to direct biodiversity interventions. However, these efforts are crucial for fostering multi-stakeholder engagement and ensuring the long-term sustainability of biodiversity conservation initiatives.

Table 3. Estimated funding gap per objective/sub-objective of the NBSAP

Objectives/sub-objectives	Total Funding Gap for 2024-2028 (in US$)
I. Integrating the topic of biodiversity into state authority, management, and society activities.	
1.1. Improving the state environmental monitoring system by including biodiversity monitoring.	19,748,867
1.2. Increasing the knowledge and awareness of state bodies and society about the importance of biodiversity and ecosystem services.	3,578,854
1.3. Developing and integrating mechanisms for the economic valuation of biodiversity and ecosystem services into the planning process.	239,233
Total for Objective I	**23,566,955**
II. Reducing direct pressure on biodiversity and ensuring the sustainable use of its components in productive landscape.	8,317,460
Total for Objective II	**8,317,460**
III. Developing the system of protected natural areas and increasing the benefits provided by ecosystem services.	
3.1. Creating a national ecological network (various categories and types of protected natural areas) and expanding the total area of protected natural areas in the country to ensure their effective management.	26,614,397
3.2. Developing a program to conserve and sustainably use the components of biodiversity used in food production and agriculture.	1,190,476
Total for Objective III	**27,804,873**
IV. Enhancing biodiversity conservation and sustainable use through collaborative planning and capacity building.	78,571
Total for Objective IV	**78,571**
GRAND TOTAL	**59,767,860**

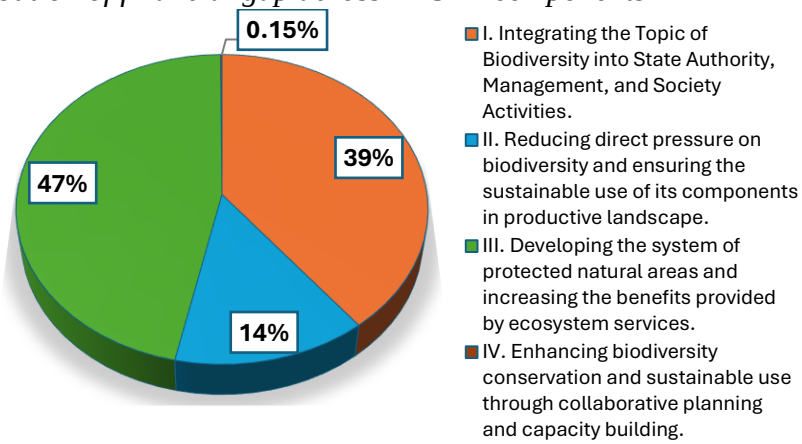
According to the collected data, activities under this Objective aim to achieve several specific NBSAP results. In particular, under *Sub-objective 1.1. "Improving the system of state monitoring of the natural environment by including monitoring of biological diversity in it"* provides for the establishing a unified system for monitoring biodiversity components based on the reference ecosystems in state reserves and creating a unified information database and state cadaster of biodiversity using modern GIS technologies.

The *Sub-objective 1.2. "Increasing knowledge and awareness of government authorities and society about the value of biological diversity and ecosystem services"* focuses on integration of biodiversity *conservation* and ecosystem services considerations into sectoral plans, development and implementation of a communication plan to raise public awareness, as well as a conducting a series of trainings and workshops as a part of information campaign for the population.

Another important *Sub-objective 1.3. "Development and implementation of mechanisms for economic assessment of the value of biological diversity and ecosystem services in the planning process"* envisages development of methodological guidelines for assessing the economic value of biodiversity and ecosystem services using the example of pilot territories, as well as development of mechanisms to stimulate the protection, sustainable use and reproduction of biological resources.

Objective II – Reducing direct pressure on biodiversity and ensuring the sustainable use of its components in productive landscapes, has a finance gap of approximately US$8.32 million. This objective sees a steady increase in funding gap each year, starting at US$1.41 million in 2024 and growing to nearly US$1.92 million by 2028. The relatively small financial gap identified under this Objective is because the most investment-intensive activity, aimed at afforestation of 1.2 million hectares of the dried bottom of the Aral Sea, has been duly prioritized and completed by the Uzbek authorities during the first phase of the NBSAP implementation, as was described in section I.4. above. Thus, the identified financial gap is just to support remaining activities aimed at continued afforestation in desert areas, drainage basins in mountainous areas and *tugai* forests, to preserve natural ecosystems of endangered species habitats (incl. snow leopard), as well as creation of a monitoring system for fishing and the status of biological resources of fishery reservoirs. This, in turn, indicates a consistent commitment to reducing pressure on biodiversity over time.

Figure 1. Distribution of financial gap across NBSAP components



Objective III - Developing the system of protected natural areas and increasing the benefits provided by ecosystem services, focuses on expanding and managing protected areas, as well as promoting the sustainable use of biodiversity in agriculture. This objective has a financial gap of about US$27.8 million over five years, with most of which being projected in creating and managing protected natural areas (US$25.6 million). A smaller deficit (US$1.19 million) is estimated for programs aimed at biodiversity conservation in agriculture.

Uzbekistan has surpassed the NBSAP target of protecting at least 12% of natural areas, with current PAs covering over 14% of the country's total area. However, data analysis has revealed several challenges that must be addressed to ensure the sustainable functioning of the PA system. These challenges include enhancing staff skills, providing necessary technologies and equipment, and creating conditions for staff retention. The latter is the most critical challenge, as the average wage in the PA system is significantly below the national average and requires revision. Consequently, the gap assessment under this objective, among other things, includes the additional cost of salaries should the historical state budget allocations be increased to an appropriate level, with the intention of ensuring the influx and retention of qualified personnel in the PA system.

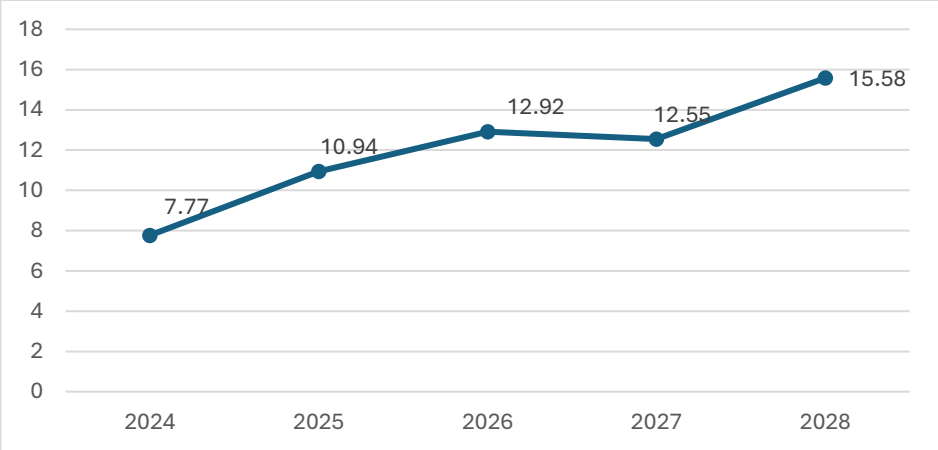
Objective IV – Enhancing biodiversity conservation and sustainable use through collaborative planning and capacity building, is projected to have a smallest gap — US$78,571 over five years. This represents a proportionally insignificant 0.15% of the total NBSAP financial plan as shown in Figure 1. This notably low funding gap raises several critical concerns about the emphasis placed on this objective in relation to the broader goals of the NBSAP.

Capacity building and collaborative planning are essential for long-term biodiversity conservation, involving institutional strengthening, governance improvements, and multi-stakeholder partnerships. However, minimal financial projections suggest these activities are undervalued or under-prioritized, possibly due to limited capacity to identify financial needs or a systemic underappreciation of governance and institutional capacity.

Many NBSAP objectives, such as managing protected areas and reducing biodiversity pressures, rely on strong collaborative planning and capacity-building efforts. Underfunding this Objective risks creating bottlenecks in NBSAP implementation, as capacity gaps and weak institutional coordination could hinder progress. Minimal funding may also indicate reliance on external support, which may be insufficient for Uzbekistan's biodiversity challenges. While international donor programs may support some efforts, sustained domestic investment is crucial for effective biodiversity governance.

The small budget for the Objective IV, despite its targeted nature, highlights a misalignment with broader NBSAP goals. Capacity building is critical for the success of all objectives, necessitating a reassessment of financial allocations to ensure robust institutional and collaborative foundations for long-term biodiversity conservation. Additionally, Uzbekistan faces challenges in spatial planning and relevant spatial data collection for biodiversity conservation and environmental management. While some efforts are in place, the availability, quality, and integration of spatial data across sectors remain limited. This can hinder effective land-use planning, the establishment of protected areas, and the assessment of ecosystem services.

Figure 2. NBSAP financial gap distributed across the five years, in million US$



The Figure 2 illustrates the projected annual funding gaps for implementing Uzbekistan's NBSAP from 2024 to 2028. Starting at US$7.77 million in 2024, the funding gap shows a steady increase over the years, reaching US$10.94 million in 2025 and US$12.92 million in 2026. A slight dip occurs in 2027, with the gap at US$12.55 million, before it rises sharply to US$15.58 million by 2028. The consistent increase underscores the growing financial challenges in meeting biodiversity targets, reinforcing the need for a comprehensive strategy to secure additional funding. The sharp rise by 2028 suggests an urgent call to address this gap to prevent delays or compromises in critical biodiversity actions, such as expanding protected areas and strengthening ecosystem resilience.

II.3. Projected financial gap per cost categories.

Financial gap for biodiversity were analyzed according to the following categories: (1) Programs and Projects, (2) Infrastructure and Equipment, (3) Services and Contracts, (4) Expanding Knowledge, Capacities, and Awareness, (5) Management-Related Costs, (6) Other. These categories were selected based on the BIOFIN Workbook guidelines, which provide a structured approach for classifying biodiversity expenditures to ensure a comprehensive and comparable analysis of financial needs and gaps. Using these categories allowed to group and analyze identified gaps by function and purpose, which brought several benefits to the analysis. Firstly, it helped ensure that all relevant activities, from direct biodiversity projects to supporting infrastructure and capacity-building efforts, were accounted for. This categorization also facilitated a clearer understanding of where additional resources are needed and highlighted any imbalances, such as the potential lack of prioritization of collaborative planning and capacity-building under the fourth NBSAP objective. Moreover, this approach made it easier to identify specific funding gaps in each category, enabling a targeted approach to address shortfalls. For example, with *Infrastructure and Equipment* or *Programs and Projects*, we could see the substantial investment required for on-the-ground biodiversity activities. Conversely, the smaller funding gap projections under *Management-Related Costs* and *Expanding Knowledge* signaled potential areas for further investment, particularly in capacity-building.

The Figure 3 indicates the largest portion of the funding gap is observed in *Programs and Projects*, with a total of US$29.93 million over five years. This category reflects the core activities of biodiversity conservation and management. The funding gap grows steadily from US$4.6 million in 2024 to over US$7.49 million in 2028, indicating ongoing and expanding project-based efforts throughout the period.

Infrastructure and Equipment is the second-largest cost category, with a total identified deficit of US$19.31 million over the five years. This includes need for significant investments in physical resources necessary for biodiversity management, such as monitoring tools, protected area management infrastructure, and other equipment. The gap jumps substantially from 2024, starting at US$1.83 million and peaking at US$5.68 million in 2028, suggesting either a ramp-up in infrastructure needs, as projects and biodiversity management efforts scale up, or anticipated reduction in budgetary allocations over the period.

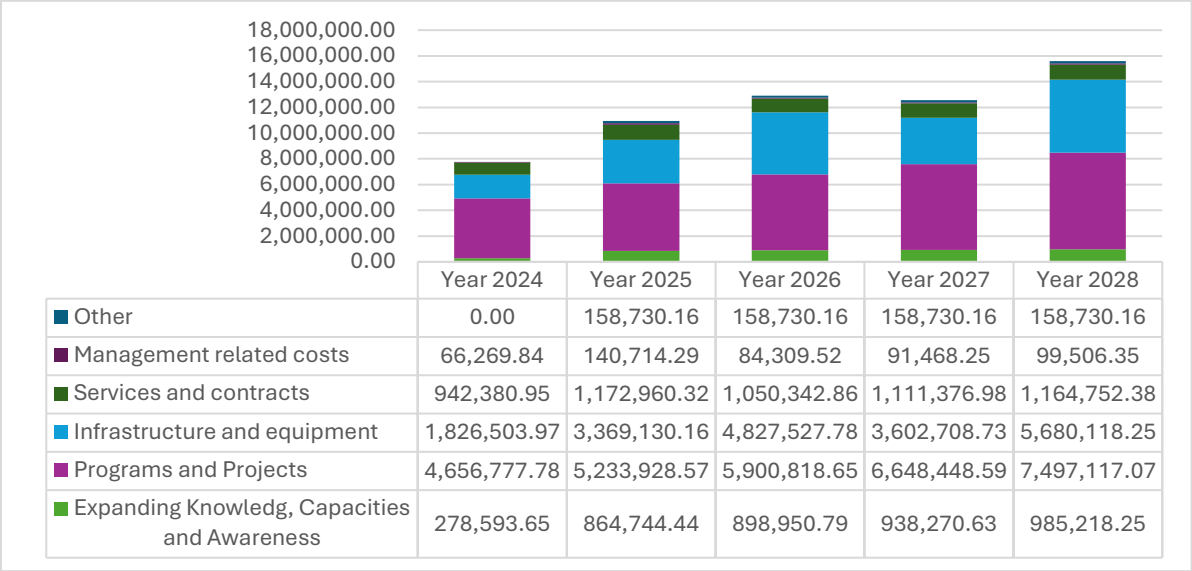
Services and Contracts account for US$5.44 million projected deficit over the five-year period. These costs cover external expertise, partnerships, and other contracted services that complement internal efforts. The funding gap is relatively stable, averaging around US$1 million annually.

Expanding Knowledge, Capacities, and Awareness receives a total financial gap of US $3.97 over the five years. This category reflects investment in education, awareness programs, and capacity-building initiatives. Starting with a modest US $0.28 million in 2024, the gap rises consistently, reaching nearly US$1 million by 2028. This steady increase likely reflects a growing emphasis on community engagement and stakeholder involvement in biodiversity efforts.

Management-Related Costs, including administrative overheads, are at US$0.48 million gap for the entire period. These gap is relatively small, growing from US$66,270 in 2024 to US$99,506 in 2028, indicating that most of these are directed toward implementation rather than administration.

The *Other* category is at US$0.64 million across the five years. This category includes miscellaneous and unforeseen costs, maintaining a constant annual gap of US$0.16 million from 2025 to 2028.

Figure 3. Biodiversity gaps disaggregated by cost category and year, in million US$



	Year 2024	Year 2025	Year 2026	Year 2027	Year 2028
Other	0.00	158,730.16	158,730.16	158,730.16	158,730.16
Management related costs	66,269.84	140,714.29	84,309.52	91,468.25	99,506.35
Services and contracts	942,380.95	1,172,960.32	1,050,342.86	1,111,376.98	1,164,752.38
Infrastructure and equipment	1,826,503.97	3,369,130.16	4,827,527.78	3,602,708.73	5,680,118.25
Programs and Projects	4,656,777.78	5,233,928.57	5,900,818.65	6,648,448.59	7,497,117.07
Expanding Knowledg, Capacities and Awareness	278,593.65	864,744.44	898,950.79	938,270.63	985,218.25

The financial breakdown in Figure 3 highlights that the bulk of resources are dedicated to direct biodiversity-related programs, infrastructure, and external services, with a gradual increase in spending over the five-year period. Significant investments are also made in expanding knowledge and capacities, while administrative and other costs remain relatively small in comparison. This financial gap reflects a balanced approach, ensuring that core biodiversity initiatives are well-supported while also building the capacity and infrastructure needed for long-term sustainability.

Table 4. Distribution of NBSAP funding gap by objectives/sub-objectives by years (in US$).

Objective/sub-objective	Year 2024	Year 2025	Year 2026	Year 2027	Year 2028	TOTAL gap for five years
I. Integrating the Topic of Biodiversity into State Authority, Management, and Society Activities						
1.1. Improving the State Environmental Monitoring System by Including Biodiversity Monitoring	2,052,371	3,559,511	3,954,250	4,653,923	5,528,813	19,748,868
1.2. Increasing the knowledge and awareness of state bodies and society about the importance of biodiversity and ecosystem services	711,886	668,610	697,341	731,648	769,370	3,578,855
1.3. Developing and integrating mechanisms for the economic valuation of biodiversity and ecosystem services into the planning process.	39,286	43,175	47,365	52,095	57,313	239,234
TOTAL for Objective I	**2,803,543**	**4,271,296**	**4,698,956**	**5,437,666**	**6,355,496**	**23,566,957**
II. Reducing direct pressure on biodiversity and ensuring the sustainable use of its components in productive landscape.						
	1,412,698	1,538,889	1,657,143	1,791,270	1,917,460	8,317,460
TOTAL for Objective II	**1,412,698**	**1,538,889**	**1,657,143**	**1,791,270**	**1,917,460**	**8,317,460**
III. Developing the system of protected natural areas and increasing the benefits provided by ecosystem services						
3.1. Creating a national ecological network (various categories and types of protected natural areas) and expanding the total area of protected natural areas in the country to ensure their effective management	3,313,810	4,826,056	6,323,311	5,080,798	7,070,423	26,614,398
3.2. Developing a program to conserve and sustainably use the components of biodiversity used in food production and agriculture	238,095	238,095	238,095	238,095	238,095	1,190,475
TOTAL for Objective III	**3,551,905**	**5,064,151**	**6,561,406**	**5,318,893**	**7,308,518**	**27,804,873**
IV. Enhancing biodiversity conservation and sustainable use through collaborative planning and capacity building.						
	2,381	65,873	3,175	3,175	3,968	78,572
TOTAL for Objective IV	**2,381**	**65,873**	**3,175**	**3,175**	**3,968**	**78,572**
GRAND TOTAL	**7,770,526**	**10,940,208**	**12,920,680**	**12,551,003**	**15,585,442**	**59,767,860**

II.4. Analysis of determining the financial gap

Uzbekistan's current national public finance system does not employ biodiversity expenditure tagging, leading to a lack of relevant data. This absence hinders accurate analysis of financing needs in the biodiversity sector and complicates the identification of the financing gap. As a result, reconciling the public expenditures analyzed in the BER with the activities and cost categories in the NBSAP is often not possible. However, in rare instances where specific expenditures could be analyzed, it was evident that the projections made in this FNA do represent actual unmet needs, highlighting an overall financial gap in implementing the current NBSAP.

For instance, Objective III includes projections of the financial resources needed to improve wage policies in Uzbekistan's PA system. A review of historical budget data revealed that the average monthly salary in the PA system is around $275, significantly lower than the national average of US$400[4]. To achieve the government's goal of reducing poverty and reaching upper-middle-income economy status by 2030, the national average monthly wage needs to double to US$800, similar to Kazakhstan and Russia[5]. Therefore, to ensure sustainable development and effective functioning of the PA system, the government should invest more in human capital, including revising wage and staff retention policies. This would require at least an additional US$400 per staff unit per month in financial resources beyond current allocations, reflecting the actual financial gap.

On another instance, it was possible to reconcile historic budget allocations for afforestation with the NBSAP activities under Objective II aimed at creating forest cover in desert areas, drainage basins in mountainous regions, and riparian forests. The Forestry Agency under the Ministry of Ecology, responsible for these activities, provided well-founded estimations of needs based on NBSAP targets and financial projections from previous budget allocations. This process helped identify the unmet needs of the Agency, highlighting the actual financial gap in implementing NBSAP activities.

The similar approaches have been facilitated by the BIOFIN project team and employed by all national partners, who contributed with data and analyses to this FNA. Thus, despite challenges, this FNA provides a foundational understanding of the unmet financial needs within the NBSAP framework. By focusing on areas where data were available, such as protected area wages and afforestation, it offers a preliminary estimate of the resources required to meet Uzbekistan's biodiversity goals.

The analysis underscores an urgent need for a more refined financial tracking system to improve the accuracy of future assessments. Introducing biodiversity expenditure tagging into the national public finance system would improve the alignment between the BER and NBSAP costing. This would ensure comprehensive accounting of all biodiversity expenditures and clearly identify critical financial gaps. Additionally, increased investments in human capital and targeted program support are essential for sustaining biodiversity management efforts and achieving the strategic objectives of the NBSAP. Moving forward, sustained collaboration among national partners, informed by frameworks like BIOFIN, will be vital in bridging these financial gaps and advancing Uzbekistan's biodiversity and sustainable development commitments.

[4] Average monthly nominal accrued wage: January-September 2024. Statistics Agency under the President of the Republic of Uzbekistan. 2024. https://stat.uz/img/ish-ai-press-reliz-eng_p93487.pdf

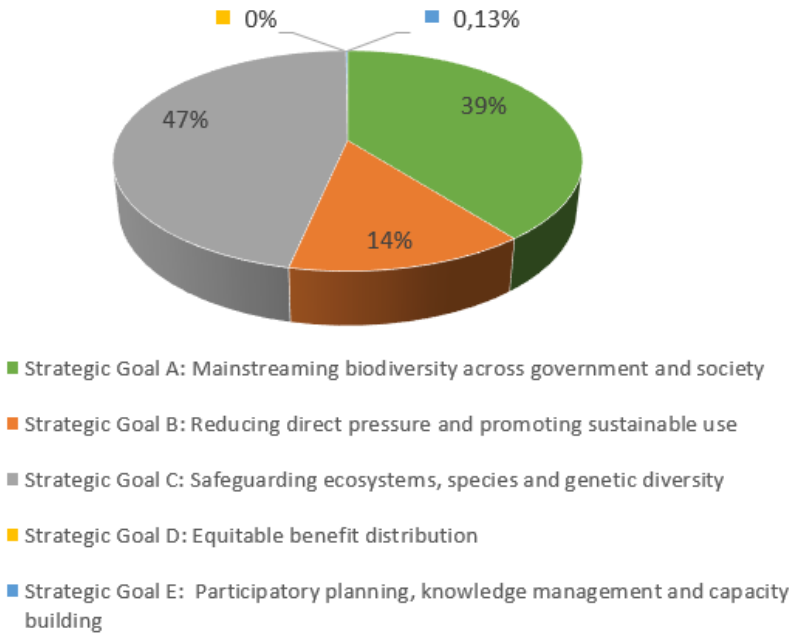
[5] Wages in Uzbekistan Continue to Rise in Early 2024. The Times of Central Asia. 2024. https://timesca.com/wages-in-uzbekistan-continue-to-rise-in-early-2024/

III. RECONCILING NBSAP FINANCING GAP WITH AICHI AND KM GBF TARGETS

The current NBSAP was adopted to fulfill Uzbekistan's national commitments under the Strategic Plan for Biodiversity (2011-2020) and the Aichi Biodiversity Targets, which were endorsed by participating states at the CBD COP10 in 2010. The 20 targets are grouped under five Aichi Strategic Goals providing a flexible framework for promoting effective biodiversity conservation actions by all parties and stakeholders. Therefore, the findings of this FNA were analyzed in the context of the Aichi Strategic Goals. They were further reconciled with KM GBF targets, based on which Uzbekistan has adopted and published an initial list of its revised national biodiversity targets[6]. This provided a forward-looking perspective on how the financial gaps identified in this FNA could be applied to the new NBSAP, which Uzbekistan plans to develop by COP17 in 2026 (see Annex III).

As illustrated in Figure 4, the distribution of financial gap by Aichi Strategic Goals aligns with the results from the NBSAP analysis (see Figure 1), reflecting the NBSAP's structure and logic based on the Aichi Document. The absence of national commitments in the National Biodiversity Strategy and Action Plan (NBSAP) under Aichi Strategic Goal D highlights a critical gap in addressing the equitable sharing of benefits arising from biodiversity use, undermining progress toward the fair and sustainable utilization of natural resources.

Figure 4. Finance gap in current NBSAP distributed by Aichi Strategic Goals.

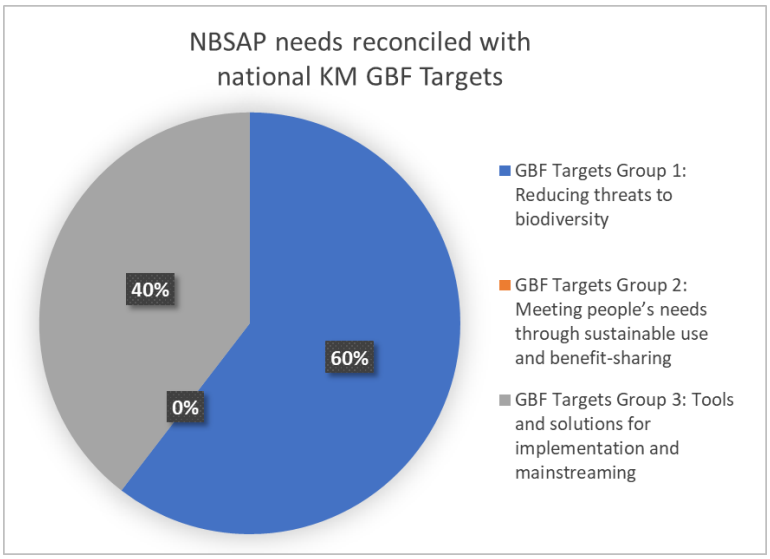


The adoption of the KM GBF in 2022, the global biodiversity landscape has evolved, emphasizing more ambitious, measurable targets. This transition underscores the need for Uzbekistan to update its national biodiversity strategy to meet these new commitments effectively. The alignment of this FNA

[6] At the time of finalization of this report, the Government with the support of the UNDP "GBF Early Action Support" project had developed an initial list of new national biodiversity targets that are aligned with the Kunming-Monreal Global Biodiversity Framework (GBF), which was uploaded to the country's page on the official CBD website and can be found at https://ort.cbd.int/ru/national-targets?countries=uz

with the KM GBF targets offers valuable insight into how Uzbekistan's financial needs for biodiversity conservation will shift to meet the updated, post-2020 global biodiversity agenda.

Figure 5. Alignment of NBSAP financial gaps with KM GBF strategic targets



As shown on the graph in Figure 5, the financial gaps in the current NBSAP highlight activities being mainly prioritized around two overarching goals of the KM GBF, with 60% in *Reducing threats to biodiversity* and 40% in *Tools and solutions for implementation and mainstreaming.* As mentioned above, current NBSAP lacks the important focus on *Meeting people's needs through sustainable use and benefit sharing,* which is prioritized also in the KM GBF.

This FNA's reconciliation exercise with both the Aichi and the KM GBF targets and goals highlights the necessity of a flexible yet forward-looking financial planning approach. The gaps identified in funding for key areas, such as protected area management, species conservation, and restoration of degraded ecosystems, and ensuring equitable benefits-sharing reflect the critical areas where Uzbekistan will need to mobilize additional resources under the new framework.

Furthermore, the integration of KM GBF targets provides a roadmap for Uzbekistan's upcoming NBSAP, offering a blueprint for setting specific, actionable goals that are responsive to both national needs and global biodiversity commitments. By synchronizing the financial planning process with the development of a new NBSAP, Uzbekistan can ensure that its biodiversity strategies are grounded in realistic, achievable financing structures. This forward-looking approach will also support the design of more robust resource mobilization strategies, crucial for filling the identified funding gap. Ultimately, aligning the FNA with global frameworks not only strengthens Uzbekistan's capacity to meet international commitments but also enhances its resilience to biodiversity and climate challenges through strategic, well-funded conservation actions and improved resource mobilization.

IV. CONCLUSION AND RECOMMENDATIONS

IV.1. Conclusions

The KM GBF estimates that an additional $700 billion per year is needed globally to halt and reverse biodiversity loss, compared to the current global spending of approximately $100 billion. Although the gap is significant, it represents only about 0.7% of global GDP. Thus, KM GBF urges governments to repurpose $500 billion annually from harmful subsidies, with the remaining $200 billion needing to come from other sources.

Uzbekistan's commitment to biodiversity conservation is evident through the development of the NBSAP and the ongoing efforts supported by the BIOFIN. The FNA has provided a critical evaluation of the additional financial resources required to implement the NBSAP from 2024 to 2028, highlighting a projected financial gap of approximately $60 million. This 5-year financing gap equaling to around US$12 million in annual average, represents approximately 0.013% of Uzbekistan's annual GDP (US$91 billion in 2023).

According to the Asian Development Bank's (ADB) Asia-Pacific Climate Report 2024[7], Central Asian countries, including Uzbekistan, are projected to experience significant economic losses due to climate change. These losses are estimated to be 0.7% of GDP by 2035, 1.7% by 2050, 3.8% by 2070, and could reach 6% by 2100. The report emphasizes the importance of biodiversity and ecosystems in mitigating climate change impacts on national economies, advocating, among other things, for increased investments in nature-based solutions (NbS). The funding gap identified in this FNA is less than 9.5% of the potential loss of US$637 million (calculated as 0.7% of Uzbekistan's GDP in 2023) as estimated by the ADB report. Addressing this gap by integrating it into national climate change and adaptation strategies and boosting public investments in nature conservation and ecosystem restoration, will help reduce these losses and enhance the resilience of the national economy.

The FNA identified critical funding gaps that could impede the successful implementation of the NBSAP, particularly in areas such as improving environmental monitoring systems, expanding protected natural areas, and enhancing public awareness of biodiversity issues. The analysis revealed that while some activities have been successfully implemented, many remain underfunded, including capacity building and collaborative planning, which are essential for long-term sustainability. Importantly, the FNA highlighted significant disparities in resource needs across NBSAP objectives. These differences suggest opportunities for prioritizing high-impact objectives and aligning them with existing budgets, government expenditure, and external funding programs.

The need for a robust institutional framework and comprehensive financial planning mechanisms is critical to ensure that resource mobilization efforts target the most significant gaps. Furthermore, the lack of adequate mechanisms for tracking biodiversity expenditures within the current national public finance system complicates efforts to assess and address these gaps effectively. Improved financial tracking systems, such as biodiversity expenditure tagging, could not only enhance transparency and accountability but also strengthen the case for raising sufficient funds to meet specific NBSAP objectives. Additional recommendations include conducting a comparative analysis of biodiversity-related budgets and expenditures across sectors to identify synergies and opportunities for reallocation, as well as fostering dialogue with stakeholders to prioritize funding for underfunded yet high-priority objectives.

[7] Asia–Pacific Climate Report 2024: Catalyzing Finance and Policy Solutions. 2024 Asian Development Bank. http://dx.doi.org/10.22617/SGP240498-2

As Uzbekistan prepares to develop a new NBSAP aligned with the KM GBF, the insights gained from this FNA will be highly beneficial and inform the strategy design process. The reconciliation of financial needs with both the Aichi and the new KM GBF emphasizes the need for a flexible and forward-looking financial planning approach. By addressing the identified funding gaps and mobilizing additional resources, Uzbekistan can strengthen its capacity to meet its biodiversity conservation commitments and enhance resilience to environmental challenges.

In conclusion, the successful implementation of the NBSAP and the achievement of Uzbekistan's biodiversity goals hinge on securing adequate financial resources, fostering collaboration among stakeholders, and integrating biodiversity considerations into broader national development strategies. This proactive approach will not only support the conservation of Uzbekistan's rich biodiversity but also contribute to sustainable development and the well-being of its communities.

IV.2. Recommendations

Recommendation 1: Ensure Broad Stakeholder Engagement in the NBSAP Development Process

Adopting a participatory approach in developing the NBSAP is essential. This approach should incorporate a wide range of expertise to ensure that the activities in the strategy and action plan are cost-effective and based on specific, predefined indicators. It is particularly important to involve economists and finance specialists to accurately estimate the costs of NBSAP implementation and to develop effective resource mobilization strategies.

Recommendation 2: Strengthen Protected Areas' Planning and Financing Frameworks

To effectively mobilize and manage biodiversity finance for its PA system, Uzbekistan must strengthen the capabilities of institutions responsible for PA management. This is done through targeted training and capacity-building programs aimed at: a) enhancing financial literacy and management skills among PA managers and staff; b) implementing best practices in budgeting, expenditure tracking, and resource allocation, c) establishing robust monitoring and evaluation systems to track financial flows and measure the impact of investments in PAs. This should go hand in hand with fostering collaboration among governmental and non-governmental stakeholders to ensure diverse perspectives and expertise are included in PA planning and financing.

Recommendation 3. Strengthen Financial Governance and Capacity Building

Enhancing institutional capacity to plan, implement, and monitor biodiversity finance will be essential. Uzbekistan should strengthen its financial governance systems by adopting best practices for budgeting, tracking expenditures, and aligning resources with strategic biodiversity goals. Additionally, training programs for government and non-governmental stakeholders can improve the effective use of biodiversity finance.

Recommendation 4. Enhance Domestic Budget Allocations for Biodiversity

In order to achieve the integration of biodiversity into broader sectoral policies — such as agriculture, water management, and forestry — the government should increase domestic budget allocations for biodiversity-related activities. Strengthening the economic case for biodiversity conservation, supported by the findings of the BIOFIN process, can help Uzbekistan justify enhanced public investment in this critical area.

Recommendation 5. Explore Innovative Financing Mechanisms

To address specific funding gaps identified in the FNA, Uzbekistan should explore innovative financing mechanisms tailored to activities where traditional funding has been insufficient. For example, biodiversity offsets could be linked to projects aimed at expanding protected natural areas, ensuring that development activities contribute to conservation goals. Payments for ecosystem services (PES) could support initiatives such as sustainable water management and reforestation, aligning financial incentives with ecosystem restoration objectives. Similarly, green bonds could finance large-scale environmental monitoring infrastructure and renewable energy projects that indirectly benefit biodiversity. Public-private partnerships (PPPs) should also be pursued for activities that intersect biodiversity conservation and sustainable development, such as ecotourism infrastructure or community-based conservation projects. Engaging the private sector through nature-positive investments can help bridge the funding gap for capacity-building programs and collaborative planning efforts, which were identified as underfunded yet critical to the long-term sustainability of biodiversity objectives. This targeted approach ensures that innovative mechanisms directly address gaps highlighted in the FNA, making them both actionable and impactful.

Recommendation 6. Implement Results-Based Financing Approaches

Results-based financing, where funding is linked to measurable biodiversity outcomes, should be piloted in Uzbekistan. Such approaches can improve the efficiency of resource use and attract greater investment. This could be particularly relevant for ecosystem restoration projects and protected area management.

Recommendation 7. Strengthen International Partnerships and Donor Engagement

Uzbekistan should actively seek additional international funding by reinforcing ties with multilateral organizations such as the Global Environment Facility (GEF) and bilateral donors. This could be done through establishing necessary infrastructure for and employing the blended finance solutions, which would offer donor community and other institutional investors a unique experience, rather than traditional granting schemes. Securing long-term financial commitments from these sources will be critical to closing the financial gap identified in the FNA.

IV.3. Next Steps for Implementing the BIOFIN in Uzbekistan

Next Step 1. Develop a Biodiversity Finance Plan

Building on the findings from the FNA, BER, and PIR, Uzbekistan should continue to develop and implement a comprehensive Biodiversity Finance Plan. This plan should refine existing resource mobilization strategies, incorporating both traditional funding streams and innovative financial mechanisms to address identified funding gaps. It should also specify actionable steps for enhancing coordination among key stakeholders and sectors, ensuring alignment with ongoing initiatives. By clearly defining roles and responsibilities for resource mobilization and fostering cross-sectoral collaboration, Uzbekistan can maximize the impact of its biodiversity financing efforts.

Next Step 2. Revise the FNA to reflect the funding needs of the revised NBSAP

The development of the NBSAP should incorporate the FNA process from the start, in order to developed activities with sufficient detail that can allow for accurate costing, to reflect updated financial needs aligned with new priorities, and to identify funding gaps. This approach will ensure that the most accurate and current information guides the country's biodiversity financing strategies. Reassessing financial gaps and potential funding sources should be a key component of this process.

Next Step 3. Strengthen Stakeholder Engagement

Successfully implementing the BIOFIN process will require active involvement from various stakeholders, including government agencies, the private sector, international donors, and civil society. Establishing and institutionalizing platforms for stakeholder engagement will be essential to ensuring collaboration and alignment of efforts in securing biodiversity finance.

Next Step 4. Monitor and Evaluate Progress

Monitoring and evaluation are critical to ensuring the effective allocation of financial resources and the achievement of biodiversity outcomes. Establishing a robust system to track both expenditures and biodiversity results will enable Uzbekistan to adapt its strategies as needed and ensure the sustainability of biodiversity financing efforts over the long term.

APPENDICES

Appendix I. Reconciliation of NBSAP with Aichi and KM GBF

No.	NBSAP Activity	Corresponding Aichi Targets (Strategic Goal)	Corresponding GBF Targets (Group)	Corresponding National GBF Targets	Corresponding financial needs (in US$)
I. Inclusion of the topic of biological diversity in the activities of public authorities and management and society					**23,566,955**
1.1. Improving the system of state monitoring of the natural environment by including monitoring of biological diversity in it					**19,748,867**
1	Creation of a unified system for monitoring components of biological diversity, establishing the procedure for organizing and implementing monitoring of flora and fauna.	T02(A). By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.	T21(3). Ensure that knowledge is available and accessible to guide biodiversity action	NT21a. To ensure through adequate and cost-effective spatial analysis, field monitoring, effective data processing, and subsequent effective presentation, that biodiversity and ecosystem services information and knowledge are accessible to decision-makers, practitioners, and the public, and it is used to guide effective and equitable governance, integrated and participatory management of biodiversity and maintenance of critical ecosystem services. NT21b. To strengthen communication, awareness-raising, education, research, and knowledge management.	Implemented
2	Creation of an information database on state cadasters and monitoring of objects of protected natural areas, flora and fauna based on modern geoinformation technologies (GIS technologies)	T01(A). By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.	T21(3). Ensure that knowledge is available and accessible to guide biodiversity action	NT21a. To ensure through adequate and cost-effective spatial analysis, field monitoring, effective data processing, and subsequent effective presentation, that biodiversity and ecosystem services information and knowledge are accessible to decision-makers, practitioners, and the public, and it is used to guide effective and equitable governance, integrated and participatory management of biodiversity and maintenance of critical ecosystem services. NT21b. To strengthen communication, awareness-raising, education, research, and knowledge management.	261,111.11
3	Improving work on maintaining state cadasters of protected natural areas, flora and fauna in accordance with	T01(A). By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.	T21(3). Ensure that knowledge is available and accessible to guide biodiversity action	NT21a. To ensure through adequate and cost-effective spatial analysis, field monitoring, effective data processing, and subsequent effective presentation, that biodiversity and ecosystem services information and knowledge	2,539,682.54

No.	NBSAP Activity	Corresponding Aichi Targets (Strategic Goal)	Corresponding GBF Targets (Group)	Corresponding National GBF Targets	Corresponding financial needs (in US$)
	the requirements of the Unified System of State Cadasters			are accessible to decision-makers, practitioners, and the public, and it is used to guide effective and equitable governance, integrated and participatory management of biodiversity and maintenance of critical ecosystem services. NT21b. To strengthen communication, awareness-raising, education, research, and knowledge management.	
4	Creation under the State Committee of the Republic of Uzbekistan for Ecology and Environmental Protection of a website on biological diversity www.biodiversity.uz, operating in three languages (Uzbek, Russian and English)	T01(A). By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.	T21(3). Ensure that knowledge is available and accessible to guide biodiversity action	NT21a. To ensure through adequate and cost-effective spatial analysis, field monitoring, effective data processing, and subsequent effective presentation, that biodiversity and ecosystem services information and knowledge are accessible to decision-makers, practitioners, and the public, and it is used to guide effective and equitable governance, integrated and participatory management of biodiversity and maintenance of critical ecosystem services. NT21b. To strengthen communication, awareness-raising, education, research, and knowledge management.	85,317
5	Inventory of natural reserves of wild species of medicinal, food and industrial plants	T02(A). By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.	T14(3). Integrate biodiversity in decision-making at every level	NT21a. To ensure through adequate and cost-effective spatial analysis, field monitoring, effective data processing, and subsequent effective presentation, that biodiversity and ecosystem services information and knowledge are accessible to decision-makers, practitioners, and the public, and it is used to guide effective and equitable governance, integrated and participatory management of biodiversity and maintenance of critical ecosystem services. NT21b. To strengthen communication, awareness-raising, education, research, and knowledge management.	15,077,042.06
6	Periodic geobotanical surveys of vegetation of natural pastures and hayfields in a volume of	T01(A). By 2020, at the latest, people are aware of the values of biodiversity and the steps they can	T21(3). Ensure that knowledge is available and accessible to guide biodiversity action	NT21a: To ensure through adequate and cost-effective spatial analysis, field monitoring, effective data processing, and subsequent effective presentation, that biodiversity and	1,587,301.59

No.	NBSAP Activity	Corresponding Aichi Targets (Strategic Goal)	Corresponding GBF Targets (Group)	Corresponding National GBF Targets	Corresponding financial needs (in US$)
	2 million hectares per year	take to conserve and use it sustainably.		ecosystem services information and knowledge are accessible to decision-makers, practitioners, and the public, and it is used to guide effective and equitable governance, integrated and participatory management of biodiversity and maintenance of critical ecosystem services. NT21b: To strengthen communication, awareness-raising, education, research, and knowledge management.	
7	Registration of the number of game bird species in water bodies of Uzbekistan	T01(A). By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.	T21(3). Ensure that knowledge is available and accessible to guide biodiversity action	NT21a: To ensure through adequate and cost-effective spatial analysis, field monitoring, effective data processing, and subsequent effective presentation, that biodiversity and ecosystem services information and knowledge are accessible to decision-makers, practitioners, and the public, and it is used to guide effective and equitable governance, integrated and participatory management of biodiversity and maintenance of critical ecosystem services. NT21b: To strengthen communication, awareness-raising, education, research, and knowledge management.	198,412.7
8	Ensuring the inclusion of the Kuymazar and Tudakul reservoirs (Navoi region) in the List of Wetlands of International Importance (Ramsar Convention)	T04(A). By 2020, at the latest, Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits.	T15(3). Businesses assess, disclose and reduce biodiversity-related risks and negative impacts	NT15: By 2030, based on international best practice guidelines*, identify and initiate the development of legal, administrative, or policy measures needed in Uzbekistan to encourage and enable businesses, and in particular large and transnational companies and financial institutions, to progressively: - reduce negative impacts on biodiversity, - increase positive impacts, - reduce biodiversity-related risks to business and financial institutions, - promote actions to ensure sustainable patterns of production.	Implemented
1.2. Increasing knowledge and awareness of government authorities and society about the value of biodiversity and ecosystem services					**3,578,854**

No.	NBSAP Activity	Corresponding Aichi Targets (Strategic Goal)	Corresponding GBF Targets (Group)	Corresponding National GBF Targets	Corresponding financial needs (in US$)
9	Integrating biodiversity conservation and ecosystem services into economic sectors	T02(A). By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.	T14(3). Integrate biodiversity in decision-making at every level	NT14: Ensure the full integration of biodiversity and its multiple values into all relevant national policies, regulations, planning, and development processes, in particular those with significant impacts and high synergies with biodiversity (land degradation, climate change adaption, water and agriculture, and rural socio-economic development, etc.), progressively aligning all relevant public and private activities, and fiscal and financial flows with the goals and targets of the National Biodiversity Strategy.	1,271,673.02
10	Increasing the role of the media in raising public awareness of the importance of biological diversity	T01(A). By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.	T21(3). Ensure that knowledge is available and accessible to guide biodiversity action	NT21a: To ensure through adequate and cost-effective spatial analysis, field monitoring, effective data processing, and subsequent effective presentation, that biodiversity and ecosystem services information and knowledge are accessible to decision-makers, practitioners, and the public, and it is used to guide effective and equitable governance, integrated and participatory management of biodiversity and maintenance of critical ecosystem services. NT21b: To strengthen communication, awareness-raising, education, research, and knowledge management.	1,840,800
11	Organizing an information campaign for the population (nature users) in order to increase the importance of conservation and sustainable use of biological resources, as well as their ecosystem services	T01(A). By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.	T21(3). Ensure that knowledge is available and accessible to guide biodiversity action	NT21a: To ensure through adequate and cost-effective spatial analysis, field monitoring, effective data processing, and subsequent effective presentation, that biodiversity and ecosystem services information and knowledge are accessible to decision-makers, practitioners, and the public, and it is used to guide effective and equitable governance, integrated and participatory management of biodiversity and maintenance of critical ecosystem services. NT21b: To strengthen communication, awareness-raising, education, research, and knowledge management.	466,380.95
1.3. Integration of mechanisms for economic assessment of the value of biodiversity and ecosystem services in the planning process					**239,233**

No.	NBSAP Activity	Corresponding Aichi Targets (Strategic Goal)	Corresponding GBF Targets (Group)	Corresponding National GBF Targets	Corresponding financial needs (in US$)
12	Creation of a mechanism for assessing the economic value of biological diversity and ecosystem services	T02(A). By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.	T14(3). Integrate biodiversity in decision-making at every level	NT14: Ensure the full integration of biodiversity and its multiple values into all relevant national policies, regulations, planning, and development processes, in particular those with significant impacts and high synergies with biodiversity (land degradation, climate change adaption, water and agriculture, and rural socio-economic development, etc.), progressively aligning all relevant public and private activities, and fiscal and financial flows with the goals and targets of the National Biodiversity Strategy.	239,233
13	Development of mechanisms to stimulate the protection, sustainable use and reproduction of biological resources	T03(A). By 2020, at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio economic conditions.	T18(3). Reduce harmful incentives by at least $500 billion per year, and scale up positive incentives for biodiversity	NT18a: By 2026 identify key subsidies and incentives that harm biodiversity and signal a commitment to address these. NT18b: By 2030 initiate substantive efforts to reduce, eliminate, phase out, or reform those subsidies and incentives that have the greatest negative impacts on biodiversity, including those in the energy, agriculture, infrastructure, mining, water, and land use sectors. NT18c: By 2030 scale up positive incentives that support biodiversity conservation and sustainable use, including those that target government-run and private/community-level protected and conserved areas, sustainable land management, nature-positive business, nature-based and ecosystem-based solutions, and infrastructure.	Implemented
II. Reducing direct pressures on biodiversity, sustainable use of its components in productive landscapes					**8,317,460**
14	Ecological improvement of the Aral region by carrying out forest reclamation work on the dried part of the Aral Sea bottom	T05(B). By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.	T01(1). Plan and manage all areas to reduce biodiversity loss	NT1a: By 2030 all areas of Uzbekistan are under a national system of participatory integrated spatial land and natural resource use planning at the district level, that adequately considers and incorporates the restoration and maintenance of biodiversity values and ecosystem services, as part of wider sustainable development planning. NT1b: By 2030 all cities in Uzbekistan have “masterplans” for preserving and creating “green areas” covering 30% of their territory that	Implemented

No.	NBSAP Activity	Corresponding Aichi Targets (Strategic Goal)	Corresponding GBF Targets (Group)	Corresponding National GBF Targets	Corresponding financial needs (in US$)
				enhance both the living environment for people and conservation of biodiversity.	
15	Increasing the forest cover of desert areas, drainage basins in mountainous areas and *tugai* forests	T05(B). By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.	T01(1). Plan and manage all areas to reduce biodiversity loss	NT1a: By 2030 all areas of Uzbekistan are under a national system of participatory integrated spatial land and natural resource use planning at the district level, that adequately considers and incorporates the restoration and maintenance of biodiversity values and ecosystem services, as part of wider sustainable development planning. NT1b: By 2030 all cities in Uzbekistan have "masterplans" for preserving and creating "green areas" covering 30% of their territory that enhance both the living environment for people and conservation of biodiversity.	7,928,571.43
16	Comprehensively addressing issues related to the conservation of biological diversity and improving mechanisms for managing biological resources, including testing methods of planning at the landscape level, making appropriate decisions, strengthening key biodiversity zones, creating incentives for sustainable economic development of communities in the highlands of the Western Tien Shan and the Pamir-Alay, development of regional and international cooperation and interaction	T07(B). By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.	T10(2). Enhance biodiversity and sustainability in agriculture, aquaculture, fisheries, and forestry	NT10: By 2030 areas under arable agriculture, pasture, forestry, and fisheries will be managed sustainably and the increased productivity of such areas will be achieved through the utilization of sound ecologically based best practices, thereby ensuring resilience and long-term efficiency and productivity of these production systems, and to food security, conserving and restoring biodiversity and maintaining nature's contributions to people, including ecosystem functions and services.	Implemented

No.	NBSAP Activity	Corresponding Aichi Targets (Strategic Goal)	Corresponding GBF Targets (Group)	Corresponding National GBF Targets	Corresponding financial needs (in US$)
17	Development of measures to preserve natural ecosystems—snow leopard habitats	T10(B). By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.	T04(1). Halt species extinction, protect genetic diversity, and manage human-wildlife conflicts	NT04: Undertake urgent management actions to conserve species on the Uzbekistan Red List, with priority to those most threatened and endangered, through species-specific conservation action plans, establishment and effective management of ex-situ and re-introduction programmes (in-situ covered by Target 3), and establish mechanisms for minimising human/wildlife conflict.	Implemented
18	Creation of a monitoring system for fishing and the state of biological resources of fishery reservoirs	T06(B). By 2020 all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem-based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.	T05(1). Ensure sustainable, safe and legal harvesting and trade of wild species	NT05: Strengthen the mechanisms for regulation and control of the use and trade of flora and fauna within and to outside of Uzbekistan in accordance with sound national conservation needs and international agreements.	388,888.89
III. Development of a system of protected natural areas (PAs), increasing the volume of benefits provided by ecosystem services					**27,804,873**
3.1. Expanding the total area of protected natural areas of the country in order to create a national ecological network (protected natural areas of various categories and types), ensuring their effective management					**26,614,397**
19	Development of a system of protected natural areas	T11(C). By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.	T03(1). Conserve 30% of land, waters and seas	NT03: By 2030 at least 30 percent of Uzbekistan's terrestrial and inland water areas are effectively conserved and managed through ecologically representative, well-connected and equitably governed systems of protected areas (IUCN Cat. I-IV 0 20%) and other effective area-based conservation measures that will be developed and applied (additional 10%).	26,614,397.01

No.	NBSAP Activity	Corresponding Aichi Targets (Strategic Goal)	Corresponding GBF Targets (Group)	Corresponding National GBF Targets	Corresponding financial needs (in US$)
3.2. Development of a program for the conservation and sustainable use of components of biodiversity in food production and agriculture					**1,190,476**
20	Ensuring the conservation of the gene pool of wild relatives of cultivated plants (CWR) in order to restore their populations	T13(C). By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.	T04(1). Halt species extinction, protect genetic diversity, and manage human-wildlife conflicts	NT04: Undertake urgent management actions to conserve species on the Uzbekistan Red List, with priority to those most threatened and endangered, through species-specific conservation action plans, establishment and effective management of ex-situ and re-introduction programmes (in-situ covered by Target 3), and establish mechanisms for minimising human/wildlife conflict.	1,190,476.19
IV. Improving the conservation and sustainable use of biological diversity through participatory planning and capacity-building					**78,571**
21	Conducting systematic monitoring of the implementation of the Action Plan for the Conservation and Sustainable Use of Biological Diversity	T17(E). By 2015 each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan.	T01(1). Plan and manage all areas to reduce biodiversity loss	NT1a: By 2030 all areas of Uzbekistan are under a national system of participatory integrated spatial land and natural resource use planning at the district level, that adequately considers and incorporates the restoration and maintenance of biodiversity values and ecosystem services, as part of wider sustainable development planning. NT1b: By 2030 all cities in Uzbekistan have “masterplans” for preserving and creating “green areas” covering 30% of their territory that enhance both the living environment for people and conservation of biodiversity.	Implemented
22	Informing stakeholders about the goals and objectives of the Strategy and the progress of their implementation, including during participation in regional and international events, including the Conference of the Parties to the Convention on Biological Diversity (CBD)	T19(E). By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.	T20(3). Strengthen capacity-building, technology transfer, and scientific and technical cooperation for biodiversity	NT20: By 2030 all levels of the education, scientific research, and technical extension system in Uzbekistan ensures essential understanding of the role biodiversity and ecosystem service play in sustainable human development, and that practical capacity to apply that understanding, as appropriate to specific issues and within specific sectors, exists.	15,079.37
23	Development and ensuring the stable	T18(E). By 2020, the traditional knowledge, innovations and	T21(3). Ensure that knowledge is available	NT21a: To ensure through adequate and cost-effective spatial analysis, field monitoring,	63,492.06

No.	NBSAP Activity	Corresponding Aichi Targets (Strategic Goal)	Corresponding GBF Targets (Group)	Corresponding National GBF Targets	Corresponding financial needs (in US$)
	functioning of the National Clearinghouse for Biological Diversity using modern information technologies in accordance with the requirements of the UN Convention on Biological Diversity	practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.	and accessible to guide biodiversity action	effective data processing, and subsequent effective presentation, that biodiversity and ecosystem services information and knowledge are accessible to decision-makers, practitioners, and the public, and it is used to guide effective and equitable governance, integrated and participatory management of biodiversity and maintenance of critical ecosystem services. NT21b: To strengthen communication, awareness-raising, education, research, and knowledge management.	