EGYPTS' BIODIVERSITY FINANCIAL NEEDS ASSESSMENT

2024

The Biodiversity Financial Needs Assessment for Egypt

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Abbreviations and acronyms

ASA	Accountability State Authority
BE	Biodiversity Expenditure
BER	Biodiversity Expenditure Review
BFP	Biodiversity Finance Plan
BIOFIN	Biodiversity Finance Initiative
CAPMS	Central Agency for Public Mobilization and Statistics
CBD	Convention on Biological Diversity
CBE	Central Bank of Egypt
CSR	Corporate Social Responsibility
CI	Conservation International
COFOG	Classification of the functions of government
CPF	Country Partnership Framework
DNS	Debt-for-nature swaps
EEAA	Egyptian Environmental Affairs Agency
EFR	Environmental Fiscal Reforms
EGP	Egyptian Pound
EPA	Environmental Protection Authority
EPF	Environmental Protection Fund
ER	Expenditure Review
ES	Ecosystem Services
FNA	Financial Needs Assessment
GDP	Gross Domestic Product
GEF	Global Environment Facility
GLOBE	Global Biodiversity Expenditure
GoE	Government of Egypt
IFC	International Finance Corporation
IMF	International Monetary Fund
ISES	Integrated Sustainable Energy Strategy
ICZM	Integrated Coastal Zone Management
IUCN	International Union for Conservation of Nature
LCU	Local Currency Unit
MDGs	Millennium Development Goals
MIGA	Multilateral Investment Guarantee Agency
MoA	Ministry of Agriculture

MoE	Ministry of Environment
MoF	Ministry of Finance
MoPED	Ministry of Planning and Economic Development
NBE	The National Bank of Egypt
NBSAP	National Biodiversity Strategy and Action Plan
NCA	Natural Capital Accounting
NCS	Nature Conservation Sector
NCCS	Egypt National Climate Change Strategy
NCSCB	Nature Conservation Sector Capacity Building
NGOs	Non-governmental Organizations
PA	Protected Area
PES	Payment for Environmental Services
PIR	Policy and Institutional Review
PPP	Public-Private Partnership
SADS	Egypt's Sustainable Agricultural Development Strategy
SDGs	Sustainable Development Goals
SEEA	System of Environmental Economic Accounting
SDS	Sustainable Development Strategy
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
USAID	United States Agency for International Development
USD	United States Dollar

Executive summary

Aim and methodology of the FNA

- The Biodiversity Financial Needs Assessment (FNA) is one of the components in UNDP BIOFIN which aims to provide a comprehensive estimate of the financial resources required to achieve national biodiversity targets set by Egypt in a methodical and comprehensive manner. The FNA compares the financial needs with projected biodiversity expenditures to estimate the finance gap for biodiversity conservation in Egypt.
- Estimating the biodiversity conservation finance needs assists in the development of a financial plan to generate new resources and/or improve the allocation of existing resources as well as providing prominence to the issues surrounding biodiversity conservation and the importance of investing in biodiversity.
- The FNA was developed in alignment with the Biodiversity Finance Policy and Institutional Review (PIR) and the Biodiversity Expenditure Review (BER) for Egypt. The FNA is based on the National Biodiversity Strategic Action Plan 2015-2030 (NBSAP) as the most current and comprehensive strategy for biodiversity conservation in Egypt. Other relevant national strategies were also considered in the FNA process.

NBSAP Priority Areas

- Egypt's NBSAP Actions were categorized into four categories based on budget, impact on biodiversity, likelihood of implementation, and financial impact. By using these categories, decision-makers can more effectively prioritize and allocate resources to NBSAP actions, ensuring that the most impactful and feasible projects are given appropriate support. This approach helps ensure that both large-scale and small-scale actions are effectively planned and implemented, leading to comprehensive and sustainable biodiversity conservation efforts.

The Finance Needs

- The analysis of the NBSAP 2015-2030 revealed that the financial needs to achieve the 6 NBSAP strategic goals and 20 targets for Egypt is US 273 million (EGP 8.43 billion), which is approximately 0.07% of the national GDP in 2023 (IMF, 2023).
- According to Egypt's Biodiversity Expenditure Review 2024, the total government spending on biodiversity conservation for the period 2024-2030 is projected at EGP 6.112 billion (Equivalent to $198 million).
- The FNA has also provided information on 14 national strategies and plans that are related to biodiversity in the country. Some financial figures were presented to provide indicators on the other financial needs for biodiversity conservation in Egypt.
    - For instance, the implementation of the National Strategy for Conservation and Sustainable Use of Medicinal Plants in Egypt requires a funding of $106 million which has not been allocated yet by the government.
    - The estimated budget for the National Climate Change Strategy (NCCS) 2050 is $324 billion of which only about $75 billion of funding is allocated leaving a funding gap of $248.3 billion.
    - There was an absence of financial data for some of the other national strategies. However, the analysis shows that multi-billions Egyptian pounds of investments are required to successfully implement those national biodiversity related strategies.
- The analysis of currently available financial data at the national level indicates **an annual financing gap of approximately $41.7 million (EGP 1.28 billion)**, totalling $291.9 million (EGP 9 billion) for the period 2024-2030, to support biodiversity conservation and other related national strategies. These include sustainable energy, sustainable water resources, sustainable transportation, sustainable cities, sustainable agriculture, the development of lakes, and climate change strategies. Although this is an estimate due to the lack of essential financial data, it can serve as an indicator for future biodiversity financing requirements in Egypt.

Closing the funding gap

- Egypt boasts rich biodiversity, encompassing diverse ecosystems ranging from the Nile River Delta to the Red Sea coral reefs. However, biodiversity conservation in Egypt faces numerous challenges, including habitat degradation, pollution, climate change, and unsustainable resource use.
- Addressing these challenges requires substantial financial resources, yet Egypt's conservation sector suffers from inadequate funding, hampering efforts to protect and preserve its natural heritage. Closing the financing needs gap for biodiversity conservation is critical to ensure the long-term sustainability of Egypt's ecosystems and achieve national and international conservation targets.
- Closing the financing needs gap requires a multi-faceted approach that leverages diverse funding sources, promotes innovative financing mechanisms, enhances public-private partnerships (PPP), and strengthens governance and policy frameworks.

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Introduction

1. Introduction

1.1. Background

The Biodiversity Financial Needs Assessment (FNA) is one of the components in BIOFIN which aims to make a comprehensive estimate of the financial resources required to achieve national biodiversity targets set by a particular country in a methodical and comprehensive manner. It compares these financial needs with projected biodiversity expenditures over a medium to long-term planning horizon in order to estimate the finance gap for biodiversity conservation in the country. By estimating the biodiversity conservation finance needs of a country, the process not only assists in the development of a finance plan to generate new resources and/or improve the allocation of existing resources, but also provides prominence to the issues surrounding biodiversity conservation and the importance of investing in biodiversity. The investment towards achieving national biodiversity targets in a timely manner is essential for sustainable development in Egypt.

The Financial Needs Assessment (FNA) was conducted in close coordination with the National Biodiversity Strategy and Action Plan (NBSAP), the Biodiversity Finance Policy and Institutional Review (PIR), and the Biodiversity Expenditure Review (BER). Since both the PIR and BER processes began before the FNA, the FNA was able to leverage the information and insights from these prior efforts. For instance, the PIR's identification of key biodiversity-related strategies was valuable for the FNA, and the key institutions analyzed in the BER were also considered in the FNA. These components of the Biodiversity Finance Initiative (BIOFIN) are interconnected through shared terminology, stakeholder consultations, analytical methods, and other factors. The BIOFIN initiative is designed such that each component informs and supports the others. Therefore, the FNA builds upon the PIR and BER and contributes to the development of the Biodiversity Finance Plan (BFP), which is a crucial part of Egypt’s overall Biodiversity Finance Plan. All these components have been contextualized to fit Egypt’s unique socio-economic characteristics.

The BIOFIN Workbook provides comprehensive guidance for assessing the financial needs of a country, recommending that the analysis cover both national and subnational biodiversity targets. The Financial Needs Assessment (FNA) for Egypt closely adhered to the guidance outlined in the BIOFIN Workbook. However, the primary document considered was the National Biodiversity Strategic Action Plan 2015-2030 (NBSAP), as it represents the most current and comprehensive strategy for biodiversity conservation in Egypt.

The first NBSAP (1997-2017) was developed to establish a robust foundation for the sustainable management of natural resources, aiming to meet the needs of both current and future generations while aligning conservation efforts with development plans in key sectors such as agriculture, industry, mining, housing, and tourism. This initial plan outlined six main goals and included a national action plan composed of 11 programs.

The NBSAP (1997-2017) was subsequently revised to align with the new Convention on Biological Diversity (CBD) Strategic Plan for Biodiversity 2011–2030, resulting in the updated NBSAP for the period 2015-2030. This plan identifies six strategic goals and sets 20 national targets to combat biodiversity decline. The Egyptian Ministry of Environment, as the main national body responsible for NBSAP implementation, coordinates with various government agencies, private sector entities, and civil society organizations.

While the NBSAP primarily focuses on national biodiversity conservation, its targets are closely aligned with globally recognized Aichi Targets and the Sustainable Development Goals (SDGs). Despite outlining specific targets for 2015–2030, the implementation of the NBSAP has faced several challenges, including the absence of detailed costing for actions and a comprehensive resource mobilization plan.

Egypt is currently updating its NBSAP, including the national biodiversity targets, to align with post-2020 GBF and relevant SDG targets.

Other relevant national strategies were also considered in the FNA process. These documents include:

- Egypt's Strategy and Business Model for Protected Areas 2020
- The National Strategy for Conservation and Sustainable Use of Medicinal Plants in Egypt
- Egypt Conservation of Mediterranean Marine and Coastal Biodiversity By 2030 And Beyond
- National ICZM Strategy for Egypt
- National Wetlands Management Strategy 2004
- Egypt National Climate Change Strategy (NCCS) 2050
- Integrated Sustainable Energy Strategy to 2035 (ISES 2035)
- The National Project for the Development of Lakes
- The National Strategy for Sustainable Tourism in Egypt 2030
- Egypt's Sustainable Transportation Projects
- National Sustainable Cities Initiative
- Egypt's Sustainable Agricultural Development Strategy (SADS) 2030
- The National Water Resources Management Plan (2017-2037)

1.2. Aims and objectives

This Financial Needs Assessment (FNA) aims to answer the crucial question: What financing is truly needed for the country to achieve its stated biodiversity targets? This question is particularly important because environmental budgets are often ambiguous and not based on detailed cost estimates for the investments required to achieve prioritized targets. The FNA seeks to develop a detailed and realistic resource needs assessment and budget for the National Biodiversity Strategic Action Plan (NBSAP), and it also provides financial indicators for other relevant national strategies related to biodiversity.

1.3. Organization of the report

The structure of the Financial Needs Assessment (FNA) report for Egypt includes an executive summary, a general introduction, and three main sections: methodology, results, and conclusions and recommendations.

- Executive Summary: This section provides a concise overview of the entire process, highlighting key findings and recommendations.
- Introduction: The introduction sets the context and outlines the objectives and scope of the FNA.
- Methodology: This section details the approaches used, the main hypotheses formulated for the FNA, and the sources of data. It explains how the FNA was developed, including the specific methods and tools employed.
- Results: As the core of the FNA report, this section presents the findings organized by thematic areas, strategic priorities, NBSAP targets, and BIOFIN categories. It highlights the financial gaps by comparing the financial needs for achieving biodiversity conservation goals in Egypt with the current expenditure identified in the Biodiversity Expenditure Review (BER) component of the project.
- Conclusions and Recommendations: This final section synthesizes the key messages and provides tailored recommendations for various target groups, guiding future actions to address the identified financial gaps and enhance biodiversity conservation efforts.

Photo by Mohamed Habib

Methodology

2. Methodology

The Financial Needs Assessment (FNA) develops a detailed and realistic financial needs assessment and budget for the National Biodiversity Strategic Action Plan (NBSAP), as well as financial indicators for other relevant national strategies, using the process suggested in the BIOFIN Workbook (UNDP 2016, 2018).

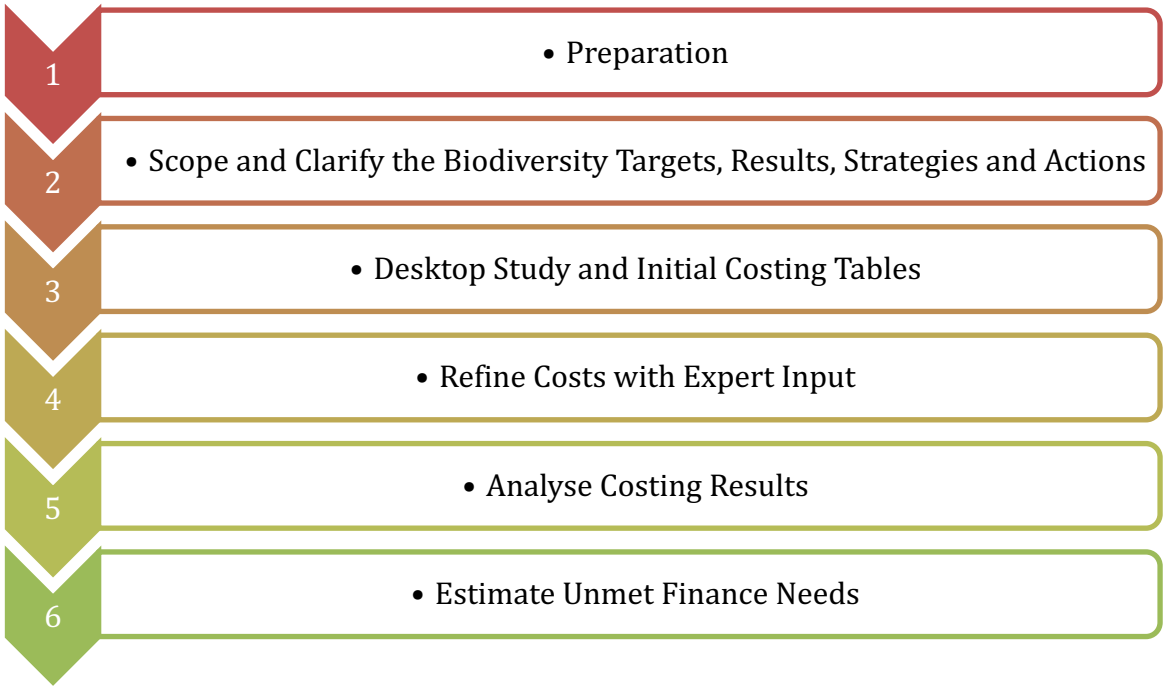


Figure 1. The Financial Needs Assessment Process

Source: UNDP (2018)

The Financial Needs Assessment (FNA) process began after the completion of the Biodiversity Finance Policy and Institutional Review (PIR) and the Biodiversity Expenditure Review (BER) components. The team reviewed the guidelines set out in the BIOFIN Workbook and formulated a plan for the FNA process in Egypt (step 1). Following extensive discussions with key government institutions, relevant stakeholders, and Egypt's UNDP BIOFIN project management, it was decided that the primary document for the FNA assessment would be the National Biodiversity Strategy and Action Plan 2015–2030 (NBSAP). The focus would be on the six strategic goals and 20 national targets of the NBSAP, in addition to other relevant national strategies (step 2).

The process of assessing Egypt's financial needs for biodiversity conservation involved the quantification and costing of these key plans and programs (step 3). The team developed a comprehensive costing framework, and with assistance from project management, standardized the costing based on national budgeting standards (step 4). The NBSAP was thoroughly examined for costing all its actions, while actions related to biodiversity conservation were selected from other relevant plans and programs. Finally, the analysis of financial needs, based on the costing of the selected plans and programs, was performed (steps 5 and 6).

Estimates of biodiversity costs were analyzed and categorized according to the Global Biodiversity Framework (GBF) goals, the BIOFIN categories, and the NBSAP goals. The FNA timeline was aligned with the fifteen-year implementation period of the NBSAP, covering the years 2015 to 2030.

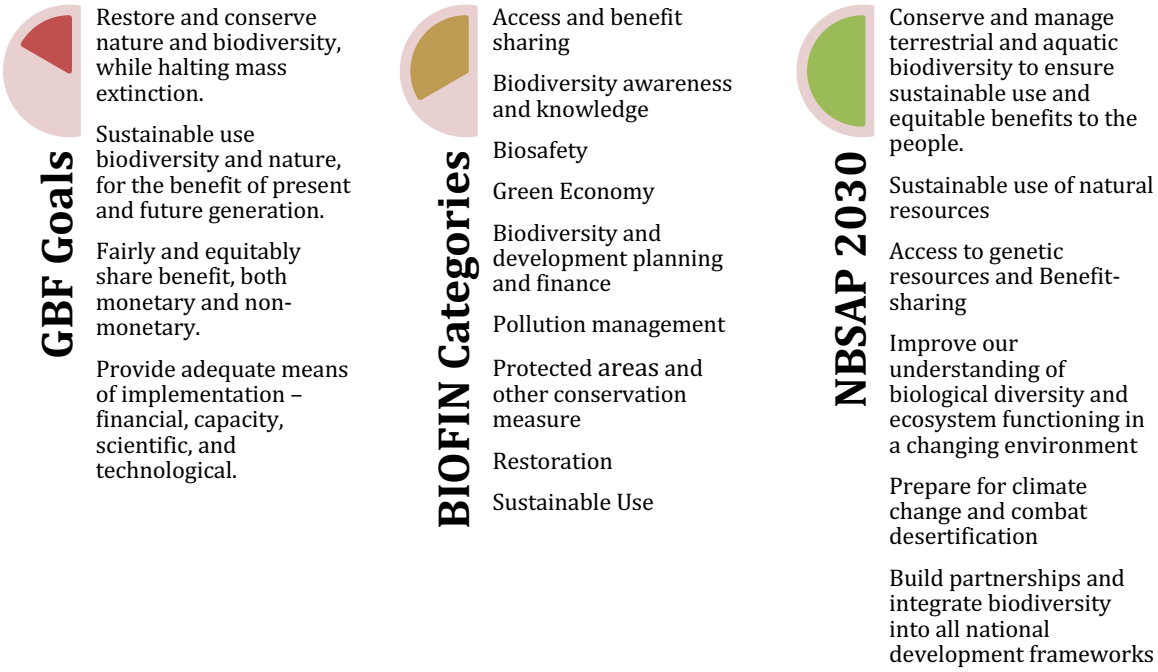


Figure 2. Biodiversity Expenditure Categories

In the Financial Needs Assessment (FNA) calculations, the actions identified in the National Biodiversity Strategy and Action Plan (NBSAP) and other relevant national biodiversity-related strategies were considered as incremental costs beyond the baseline expenditure on

biodiversity conservation. Therefore, for BIOFIN Egypt, the financing gap for biodiversity conservation represents the estimated needs identified in this FNA study.

The total FNA can be estimated by adding the current FNA estimates to the baseline biodiversity expenditure, as calculated in the Biodiversity Expenditure Review (BER) for Egypt. However, some challenges were encountered due to the limited detail available for the costing of many strategies. This limitation may have resulted in an underestimation of the FNA for biodiversity conservation in Egypt.

Despite these challenges, the results of this report are crucial for the next steps of the BIOFIN initiative. They provide essential information for developing the biodiversity finance plan for the country and for mobilizing financial resources to support biodiversity conservation and the sustainable development of Egypt.

Photo by Mohamed Habib

Results

3. Results

Insufficient funding poses a significant obstacle to effective national biodiversity conservation and could severely hinder the achievement of established targets. Unfortunately, comprehensive and reliable data on conservation spending is often lacking in many countries, including Egypt. Therefore, it is crucial to undertake efforts to assess the adequacy of Egypt's conservation financing levels and to understand the extent of underfunding in biodiversity conservation. A strategy that ensures the diversification of funding sources is paramount. Innovative financing mechanisms should be explored to identify and utilize appropriate economic instruments and financing methods. The adoption of these economic instruments and financial mechanisms should be guided by their feasibility and alignment with Egypt's broader economic, political, social, and equity dynamics.

The additional financial resources required to achieve the national targets for biodiversity conservation in Egypt are presented in this section. The results are broadly organized according to the financial needs of the National Biodiversity Strategy and Action Plan (NBSAP) and other relevant national strategies. The NBSAP and some related national strategies included cost estimates, which were used directly in the FNA.

3.1. Finance Needs for the NBSAP Targets

In 2012, the Ministry of Environment initiated the process of updating the National Biodiversity Strategy and Action Plan (NBSAP) for the period 1997-2017. A national biodiversity steering committee was established through a participatory process to review and evaluate the first NBSAP, along with other related national policies and strategies that could enhance biodiversity planning processes. After an initial stocktaking and appraisal of the national biodiversity status and the underlying causes of biodiversity loss, six strategic goals and 20 national targets were identified to address the decline in biodiversity and achieve the Aichi Targets.

The components of the updated NBSAP for 2015-2030 are based on the following sustainable development principles: equity, solidarity and shared responsibility, ecological soundness, know-how and eco-technology, spiritual values, and the sustainable use of natural resources. Given the broad range of issues addressed by the strategy and considering the country's limited resources, it was essential to establish criteria for prioritizing actions and projects that contribute to the implementation of the contemporary strategy. These criteria include:

- Geographic Impact: Evaluating the regional effects of actions.
- Consistency with Convention Objectives: Aligning with the objectives of international biodiversity conventions.
- Urgency: Addressing the most immediate threats to biodiversity.
- Sequence: Planning the logical order of actions.
- Country-Driven: Ensuring actions are aligned with national priorities.
- Attainability and Resource ability: Assessing the feasibility and resource availability for actions.
- Multisectoral Implications: Considering the impact across various sectors.

The proposed budgets in the National Action Plan were developed based on:

1. Previous figures described in the previous NBSAP;
2. Financial analysis of NCS developed by the Nature Conservation Sector Capacity Building (NCSCB) Project;
3. Business plans of the Egyptian PAs;
4. Studies developed by the Strengthening Protected Areas Financing and Management Systems Project;
5. Amount of international aids to conserve biodiversity within the last 20 years;
6. Inflation rates and trends defined by the Egyptian Central Bank within the last 20 years.

Table 1. NBSAP Strategic Goals, Themes, National Targets and Proposed Budgets

Strategic Goal	Theme	Target	Proposed budget (USD Millions)
1. Conserve and manage terrestrial and aquatic biodiversity to ensure sustainable use and equitable benefits to the people	Protected Areas	1: By 2030, PAs network secured and expanded to cover 17% of total terrestrial and inland water and at least 5% of coastal and marine representative areas, especially priority sites of particular importance for biodiversity and key ecological processes, and Effective management of PAs	75
	Endemic and Endangered Species	2: By 2020, develop and implement unified Egyptian methodology for the identification and monitoring of priority of all components of biodiversity according to the international standards to ensure the maintenance or rehabilitation of 50% of our most threatened species focusing on mammals and reptiles to a favorable conservation status	5
	Ex Situ Conservation	3: By 2030, National conservation and rehabilitation programmes of threatened and endemic species at risk are developed and implemented with measures to evaluate its implementation	12
	Alien Invasive Species (AIS)	4: By 2030, all IAS and pathways are identified and prioritized with measures in place to update and verify these pathways, with national programmes for 30% of identified pathways to control and manage IAS	7
		Total	**99**
2. Sustainable use of natural resources	Agrobiodiversity & Fisheries	5: By 2020, Conservation of natural resources through the adoption of ecologically sustainable agricultural management practices	15
	Tourism	6: By 2018, apply CBD tools to monitor and control the impact of tourism on biodiversity, in particular in protected areas and vulnerable ecosystems	5
	Pollution	7: By 2020, measures, including waste management plans and law enforcement, are in place to prevent and reduce the impact of pollution and waste on ecosystems, especially on wetlands and coastal and marine areas	15

Strategic Goal	Theme	Target	Proposed budget (USD Millions)
	Land Use Planning	8: By 2025, negative effects of different sectoral policies (land-use planning, transport, energy, uncontrolled urbanization, etc.) on priority elements of biodiversity are minimized, and measures to correct these effects are applied through developing and implementing land use plans	10
	Inland Waters	9: By 2021 rate of wetland loss reduced by 25% and water efficiency in irrigation improved by 50%	25
	Sustainable Use of Coastal / Marine Life	10: By 2027, promote the implementation of good fishing practices in both Mediterranean Sea and Red Sea, favorable to fish protection and their habitats	15
		Total	**85**
3. Access to genetic resources and Benefit sharing	Access to Genetic Resources and Sharing of Benefits	11: By 2020, Effective operational biosafety and ABS mechanism (measures and legislation) in place, in accordance with national laws and relevant international obligations and serving as national priorities relating to biodiversity	5
	Sustainable Use of Terrestrial Wildlife Resources	12: By 2020, to promote sustainable hunting and harvesting through adequate planning, restoration and protection of key biological resources	7
		Total	**12**
4. Prepare for climate change and combat desertification	Addressing Desertification	13: By 2030, Research and implement measures and strategies to strengthen local-level biodiversity resilience to desertification	35
	Climate Related Biodiversity Adaptation and Mitigation	14: By 2025, investigate and monitor all the effects of climate change on biodiversity and ecosystem services	15
		Total	**50**
5. Improve our understanding of biological diversity and ecosystem functioning in a	Traditional Knowledge and Interdisciplinary Research	15: By 2020, the 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, transferred, and applied	10

Strategic Goal	Theme	Target	Proposed budget (USD Millions)
changing environment	Public Awareness, Education and Training	16: By 2020, enhancing environmental awareness of Egyptians of the importance of biodiversity and ecosystem services through integrating environmental themes into university and school curricula, promoting green media, and supporting youth clubs and eco-industry	12
	Valuation of Ecosystem Goods and Services	17: By 2018, biodiversity values are promoted and integrated into national planning process and mechanisms to support their incorporation into national accounting and reporting systems to be developed	3
	Legal and Institutional Framework	18: By 2018, ensure that the national strategy is supported by effective legislation and institutional frameworks to improve its enforcement	1
		Total	**26**
6. Build partnerships and integrate biodiversity into all national development frameworks	NBSAP Implementation	19: By 2017, proper NBSAP and associated resource mobilization are in place, in addition to establishment of the national biodiversity committee to ensure periodic evaluation of NBSAP	0.5
	Financing the Implementation of the NBSAP	20: By 2020, Adequate financial resources for the effective implementation of the Strategic Plan for Biodiversity 2011-2020 has been mobilized of from all sources, and increased substantially from the current levels	0.5
		Total	**1**
Total			**273**

Source: Egypt's NBSAP (2015-2030)

The financial requirements to achieve the six strategic goals and 20 targets of Egypt's National Biodiversity Strategy and Action Plan (NBSAP) amount to USD 273 million (equivalent to EGP 8.43 billion), which represents approximately 0.07% of the national GDP in 2023 (IMF, 2023).

The financial needs for each strategic goal of the NBSAP vary significantly.

- Goal 1: "Conserve and manage terrestrial and aquatic biodiversity to ensure sustainable use and equitable benefits to the people" requires about 36% of the total budget.
- Goal 2: "Sustainable use of natural resources" requires 31% of the total budget.

Together, these two goals account for the majority of the financial needs for implementing the NBSAP.

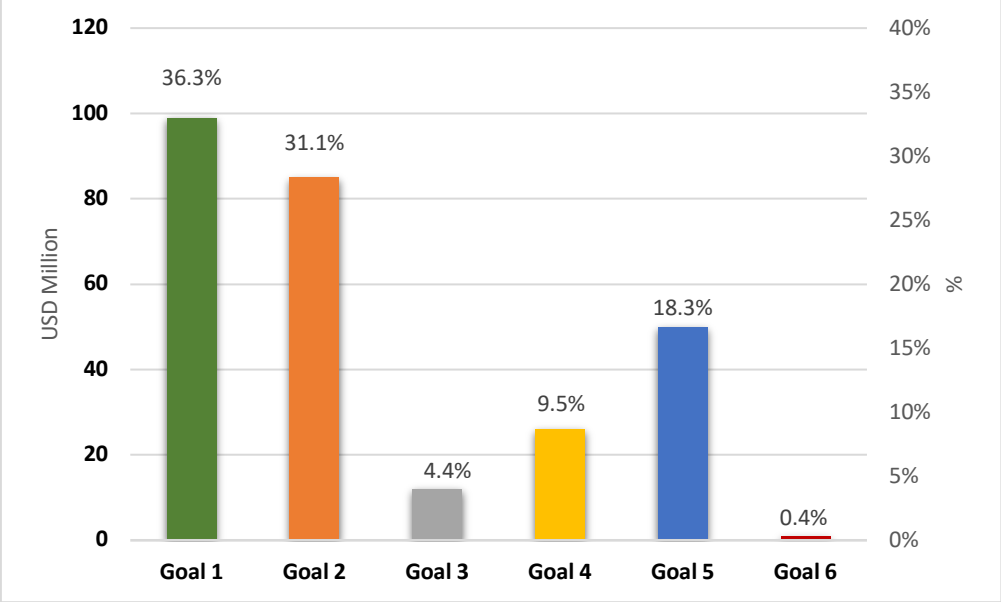


Figure 3. Finance Needs for the 6 NBSAP Goals

The proposed budget allocation for the National Biodiversity Strategy and Action Plan (NBSAP) prioritizes various target areas. It is notable that a significant portion of the budget is allocated to key targets such as Protected Areas, Addressing Desertification, and Inland Waters, underscoring their critical role in conservation efforts. In contrast, targets such as Legal and Institutional Framework, NBSAP Implementation, and Financing for NBSAP Implementation receive comparatively lower budget allocations.

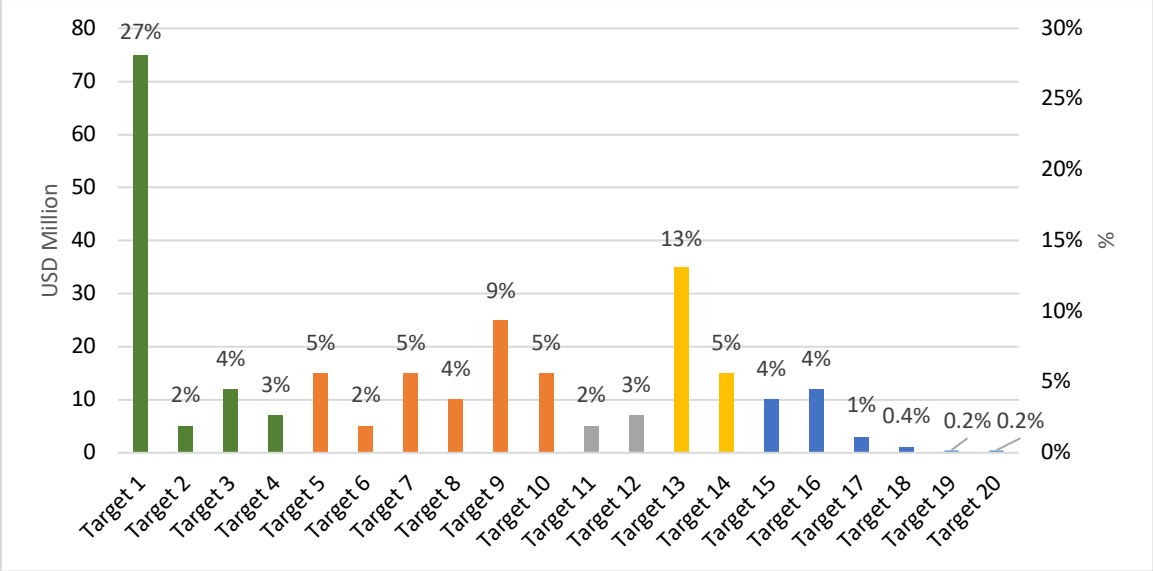


Figure 4. Finance Needs for the 20 NBSAP Targets

The highest budget allocation is for Target 1, which aims to secure and expand protected areas, accounting for 27% of the total budget. Significant allocations also include Target 13, addressing desertification, with 13% of the proposed budget, and Target 9, focused on wetland and water efficiency in irrigation, receiving 9% of the budget.

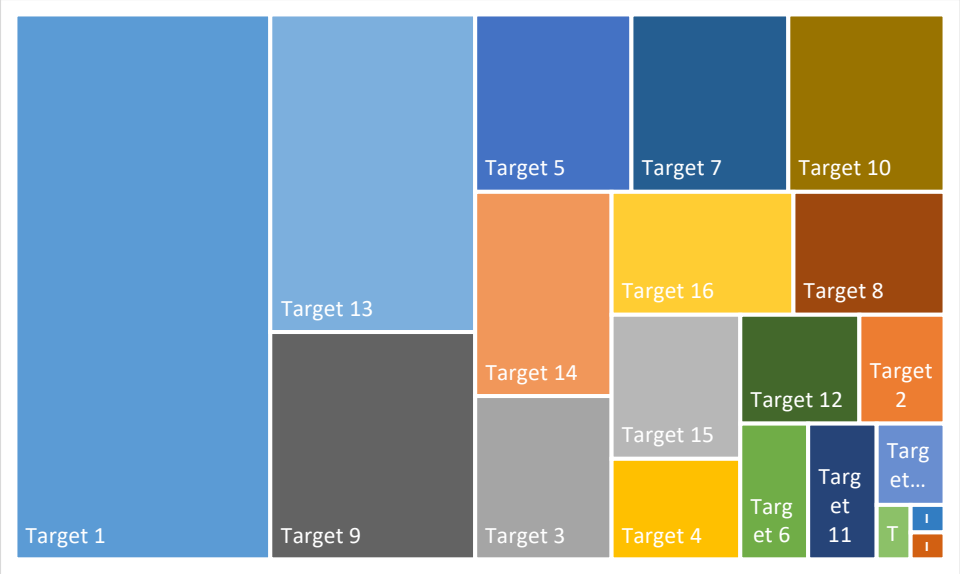


Figure 5. The NBSAP Targets Treemap

The temporal scale establishes timelines for achieving specific targets outlined in the National Biodiversity Strategy and Action Plan. Targets vary in their deadlines, with some already surpassing their intended completion dates, while others are slated for future accomplishment. This timeline underscores the significance of setting time-bound objectives to guide and monitor progress in biodiversity conservation and sustainable development efforts. It is crucial for countries and stakeholders to assess the progress made towards targets with expired deadlines and to identify necessary adjustments or strategies to accelerate progress. Additionally, efforts should prioritize and allocate resources towards targets that are yet to be achieved within their designated timelines.

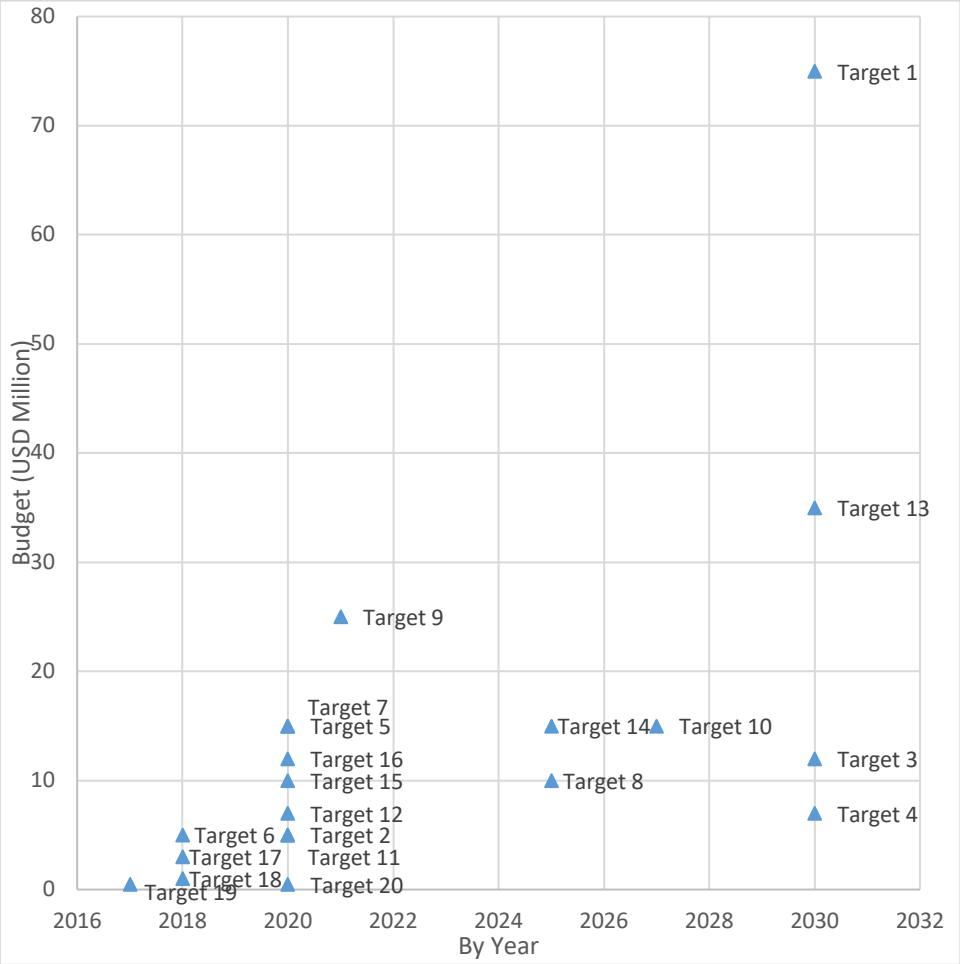


Figure 6. The Temporal scale for NBSAP Targets

Financial Needs According to GBF Goals

The NBSAP targets were categorized according to the Global Biodiversity Framework (GBF) Goals. The findings show that Goal 1 (Restoration & Conservation) requires the highest financial allocation (55%), followed by Goal 2 (Sustainable Use) at 31%.

Table 2. Financial Needs According to GBF Goals

GBF Goals	NBSAP Targets	Amount (USD $)
1. Restore and conserve nature and biodiversity, while halting mass extinction	T1, T2, T3, T4, T13, T14	149
2. Sustainable use biodiversity and nature, for the benefit of present and future generation	T5, T6, T7, T8, T9, T10	85
3. Fairly and equitably share benefit, both monetary and non-monetary	T11, T12	12
4. Provide adequate means of implementation – financial, capacity, scientific, and technological	T15, T16, T17, T18, T19, T20	27
Total		**273**

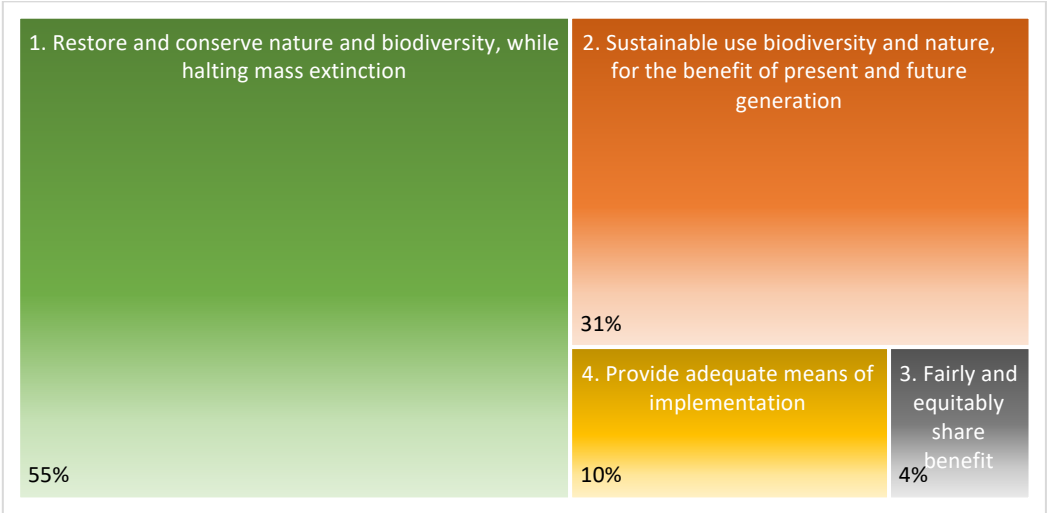


Figure 7. Distribution of Financial Needs According to GBF Goals

Financial Needs According to Aichi Targets

The NBSAP targets were categorized according to the Aichi targets. It was found that Sustainable Use (Targets 5-10) and Protection (Targets 11-13) require the highest financial allocations, accounting for 31% and 30% respectively. Restoration efforts account for 25%, while Mainstreaming and Access and Benefit Sharing account for 9% and 4% respectively. The remaining 1% is allocated to enabling activities. These allocations reflect the prioritization of sustainable utilization, conservation, and restoration of biodiversity resources.

Table 3. Financial Needs According to Aichi Targets

Aichi Strategic Goals(Targets)	NBSAP Targets	Amount (USD $)
Mainstreaming (Target 1-4)	T15, T16, T17	25
Sustainable use (Target 5-10)	T5, T6, T7, T8, T9, T10	85
Protection (Target 11-13)	T1, T4	82
Restoration (Target 14 and 15)	T2, T3, T13, T14	67
Access and benefit sharing -ABS (Target 16)	T11, T12	12
Enabling (Target 17-20)	T18, T19, T20	2
Total		**273**

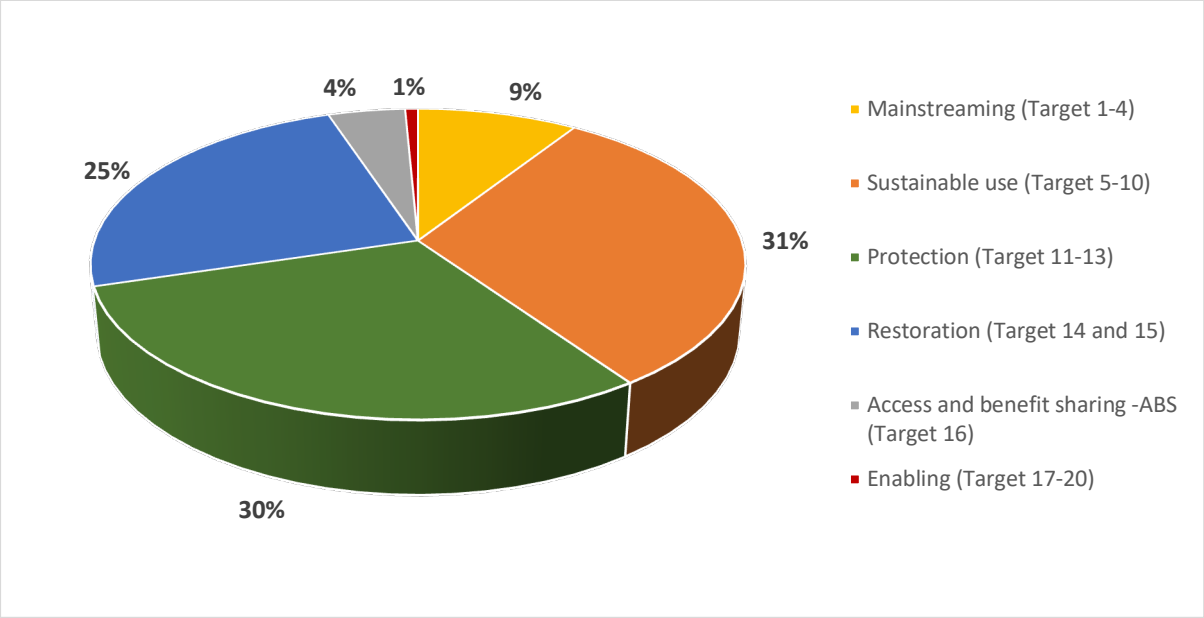


Figure 8. Distribution of Financial Needs According to Aichi Targets

Financial Needs According to BIOFIN Categories

The NBSAP targets were categorized according to BIOFIN Categories, revealing varying percentages allocated to key areas. Protected areas and other conservation measures have the highest financial requirements at 30%, followed by sustainable use at 26% and restoration at 19%. Biodiversity awareness and knowledge are allocated 9%, while pollution management and the green economy each receive 5%. Access and benefit sharing account for 3%, biosafety for 2%, and biodiversity development planning and finance for 1%. This distribution underscores a significant investment in conservation efforts, particularly in protected areas, sustainable use, and restoration. Other important areas such as awareness, pollution management, and the green economy also receive attention, albeit to a lesser extent.

Table 4. Financial Needs According to BIOFIN Categories

BIOFIN Categories	NBSAP Targets	Amount (USD $)
1. Access and benefit sharing	T12	7
2. Biodiversity awareness and knowledge	T15, T16, T17	25
3. Biosafety	T11	5
4. Green Economy	T14	15
5. Biodiversity and development planning and finance	T18, T19, T20	2
6. Pollution management	T7	15
7. Protected areas and other conservation measure	T1, T4	82
8. Restoration	T2, T3, T13	52
9. Sustainable Use	T5, T6, T8, T9, T10	70
Total		**273**

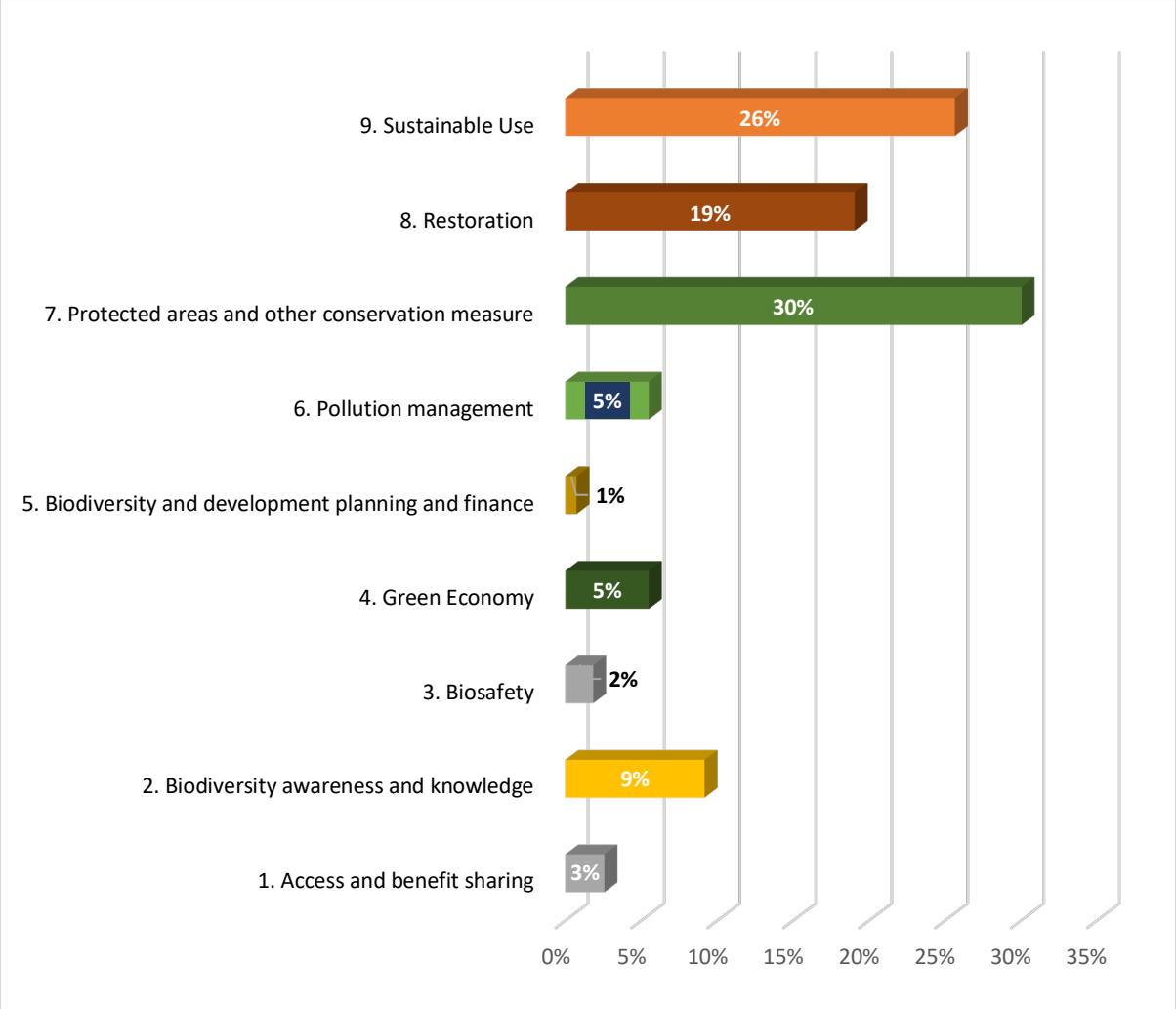


Figure 9. Distribution of Financial Needs According to BIOFIN Categories

3.2. NBSAP Priority Areas

The NBSAP 2015-2030 Actions have been categorized into four groups based on budget, impact on biodiversity, likelihood of implementation, and financial implications. These categories were designed to reflect implementation priorities and constraints, with a focus on cost considerations. By categorizing NBSAP actions in this manner, local authorities can prioritize and allocate resources more effectively, considering the potential impact on biodiversity, the feasibility of implementation, and financial implications.

This approach ensures that both large-scale and small-scale actions are strategically planned and implemented, enhancing comprehensive and sustainable biodiversity conservation efforts. Decision-makers can utilize these categories to prioritize NBSAP actions more efficiently, ensuring that projects with the highest impact and feasibility receive appropriate support.

Table 5. NBSAP Priority Areas

Category	Budget	Impact on Biodiversity	Likelihood to be implemented	Financial Impact	Examples
Category (1) High	Low	High	High	High	Community-led conservation initiatives
Category (2) Medium High	High	High	High	High	Establishment of large-scale protected areas
Category (3) Medium Low	Low	Low	Low	Low	Pilot projects for new conservation techniques
Category (4) Low	High	Low	Low	Low	Expensive but poorly planned infrastructure projects

Budget refers to the financial resources required to implement the action.

Impact on Biodiversity refers to the potential positive effect the action will have on biodiversity.

Likelihood to be implemented refers to the probability that the action will be carried out.

Financial Impact refers to the overall financial implications of the action.

The specific criteria for each rating within each category were defined. For example, for "Budget," a "High" rating was assigned to actions requiring over $1 million in funding, while a "Low" rating was assigned to actions requiring less than this amount. Each impact factor was assessed using a scale, 1-3 rating system, with 1 being the lowest and 3 being the highest. Once each impact factor was rated, a method for combining the ratings was used to determine the overall category. This involved simple addition of the scores and calculating the average the scores across the three "Impact" factors (Impact Mean).

Category (1) High

(Low Budget, High Impact on Biodiversity, High Likelihood, High Financial Impact)

Actions in this category are low-cost but have the potential to significantly benefit biodiversity. These actions are highly likely to succeed and have a substantial economic impact.

No	Actions	Goal	Target	Budget	Impact			Impact Mean
					Biodiversity	Likelihood	Financial	
107	Create additional financial mechanisms to promote biodiversity conservation and protected areas (after creation of the new NCA).	6	20	0.245	2	3	3	2.67
106	Develop resource mobilization strategy and mechanisms for the NBSAP implementation.	6	20	0.05	2	3	3	2.67
43	Set Capacity building for research and development regarding combating pollution.	2	7	0.75	3	2	1	2

No	Actions	Goal	Target	Budget	Impact			Impact Mean
					Biodiversity	Likelihood	Financial	
44	Undertake measures to minimize the impacts from local pollution instances such as oil spills, harmful algal blooms and hydrogen sulphide events at the coast	2	7	0.75	3	2	1	2
37	Encourage eco-tourism in established and managed national parks.	2	6	0.5	2	2	2	2
97	Formulate an indicative economic plan for biodiversity conservation, based on international experience,	5	17	0.45	2	2	2	2
19	Update and verify a list of alien invasive species and identify the most dangerous ones.	1	4	0.35	3	2	1	2
12	Assess status of species and habitats.	1	2	0.25	3	2	1	2
30	Promote environmentally sound, sustainable tourism through “wise use”, ecotourism practices and technologies, in particular at South Sinai, Red Sea, and Western Desert.	2	6	0.25	2	2	2	2
36	Assess impacts of recreational activities in coastal areas.	2	6	0.25	2	3	1	2
39	Set up guidelines and licensing procedures for the desert tourism industry.	2	6	0.25	2	2	2	2
68	Institute "polluter pays” legislation to recover rehabilitation costs of damaged resources affected by applications of GMOs.	3	11	0.25	3	2	1	2
100	Set legal mechanisms for economic incentives for sustainable use of biodiversity.	5	18	0.25	2	3	1	2
105	Upgrade the national system for biodiversity indicators to be more effective.	6	19	0.225	2	3	1	2
101	Develop laws for the conservation of biodiversity.	5	18	0.2	2	3	1	2
104	Enhance the implementation of guidelines and scenarios for mainstreaming of biodiversity into the national development plans.	6	19	0.175	2	3	1	2
83	Promotion of wind energy for electricity generation.	4	14	0.15	2	3	1	2
99	Legal framework for the establishment of the Nature Conservation Agency.	5	18	0.15	2	3	1	2

No	Actions	Goal	Target	Budget	Impact			Impact Mean
					Biodiversity	Likelihood	Financial	
103	Establish a National Biodiversity Committee (NBC) in order to conduct periodic assessments, evaluation and update of the NBSAP.	6	19	0.1	2	3	1	2
7	Increase close cooperation with international organizations at both technical and financial levels	1	1	0.075	2	2	2	2
9	Develop five years action plans that include required staff, equipment and infrastructure based on the actual financial gaps	1	1	0.075	2	2	2	2
108	Formulate an indicative economic plan for biodiversity conservation, based on international experience.	6	20	0.005	2	2	2	2

Category (2) Medium — High

(High Budget, High Impact on Biodiversity, High Likelihood, High Financial Impact)

These actions require significant investment but promise substantial benefits for biodiversity and have a high probability of success. They also have a considerable financial impact.

No	Actions	Goal	Target	Budget	Impact			Impact Mean
					Biodiversity	Likelihood	Financial	
1	Establish a new self-financed system for the conservation of biodiversity	1	1	3.75	3	1	3	2.33
2	Establish a coherent network of PAs with special attention to marine PAs.	1	1	48.75	3	2	1	2
57	Continue wetland restoration and desertification control programs.	2	9	25	3	2	1	2

No	Actions	Goal	Target	Budget	Impact			Impact Mean
					Biodiversity	Likelihood	Financial	
61	Conserve key threatened coastal, coral relief, mangrove and marine species, habitats and ecosystems.	2	10	4.5	3	2	1	2
84	Strengthen the role of the Environmental Ministry in the field of biodiversity research & monitoring.	5	15	4	3	2	1	2
5	Define and implement proper criteria for proper management of key biodiversity hotspots.	1	1	3.75	3	2	1	2
71	Coserve and management of wild species under the pressures of illegal hunting.	3	12	3.15	3	2	1	2
27	To conduct research and conservation relating to the wild relatives of native domestic species and varieties.	2	5	3	2	3	1	2
93	Encourage the development of local NGOs focusing on conservation and environmental education.	5	16	3	3	2	1	2
51	Enhance the infrastructure and natural resource base of all protected areas to make them attractive destinations for tourists and tourism investors and to improve the working environment	2	7	2.25	2	2	2	2
58	Develop habitat mapping, and sensitivity analysis of the entire coastline.	2	10	2.25	3	2	1	2
80	Implement Climate Change Capacity Building Phase II.	4	14	2.25	2	3	1	2
14	Ensure conservation and management of biodiversity hot spots located outside protected areas.	1	2	1.75	3	2	1	2
53	Enhance the implementation of land regulation, pricing and registration.	2	8	1.5	2	2	2	2
13	Ensure the conservation of 20% of threatened species and reintroduce critically endangered species as appropriate and feasible.	1	2	1.25	3	2	1	2
18	Develop guidelines and mechanisms for collection, maintenance, reproduction and reintroduction of plants and animal species in ex-situ programmes	1	3	1.2	3	2	1	2
98	Create sustainable economic mechanisms for the conservation of biodiversity.	5	17	1.05	2	1	3	2

No	Actions	Goal	Target	Budget	Impact			Impact Mean
					Biodiversity	Likelihood	Financial	
35	Reduce the impact of tourism activities on biodiversity and natural habitats.	2	6	1	3	2	1	2

Category (3) Medium — Low

(Low Budget, Low Impact on Biodiversity, Low Likelihood, Low Financial Impact)

These actions are low-cost but also have limited potential to impact biodiversity. They are less likely to succeed and have minimal financial impact.

No	Actions	Goal	Target	Budget	Impact			Impact mean
					Biodiversity	Likelihood	Financial	
42	Establish criteria for monitoring of pollution inside protected areas and associated buffer zones.	2	7	0.75	3	1	1	1.67
22	Launch and strengthen database of alien species	1	4	0.7	3	1	1	1.67
72	Develop effective tools for combating illegal hunting of wild animals (e.g. illegal birds hunting).	3	12	0.7	2	2	1	1.67
74	Define hunting quotas for migratory birds and conduct studies on hunting.	3	12	0.7	2	2	1	1.67
88	Develop national guidelines (topics and sources of information, teaching methodologies, a list of typical errors/misconceptions concerning biodiversity issues in the natural and social science textbooks) for teaching of biodiversity and prepare recommendations for the National Teaching Plan.	5	16	0.6	2	2	1	1.67
92	Increase the role of the media in ecological education and strengthen conservation information dissemination.	5	16	0.6	2	2	1	1.67

No	Actions	Goal	Target	Budget	Impact			Impact mean
					Biodiversity	Likelihood	Financial	
94	Conduct an economic valuation of the country's biodiversity and ecosystems services according to the international standards.	5	17	0.6	2	2	1	1.67
96	Develop the right tools and mechanism to incorporate the value of biodiversity and ecosystem services into the national plans	5	17	0.6	2	1	2	1.67
34	Support criteria for eco-tourism development in protected areas and buffer zones.	2	6	0.5	2	2	1	1.67
52	Uphold environmentally friendly land use practices.	2	8	0.5	2	2	1	1.67
66	Normalize, manage or control the risks associated with the use and release of LMOs.	3	11	0.5	3	1	1	1.67
70	Establishment of national framework for trading Egyptian's native genetic resources and for pharmaceutical and biotechnological uses.	3	11	0.5	2	2	1	1.67
86	Provide oriented systematic reports for the general public about the status of biodiversity	5	15	0.5	2	2	1	1.67
102	Adopt and implement legislation regulating biosafety & ABS issues and provide all necessary institutional support for its implementation.	5	18	0.4	2	2	1	1.67
73	Improve the licensing procedure for hunting of migratory birds.	3	12	0.35	2	2	1	1.67
29	Sustainable management of ecosystems, its heritage and cultural resources based on best conservation and tourism models for the socio-economic wellbeing of the communities and other stakeholders.	2	6	0.25	2	1	2	1.67
31	Promote marine conservations and ecotourism in the business community and general public.	2	6	0.25	2	2	1	1.67
33	Carry out surveys of areas suitable for eco-tourism, taking into account habitat vulnerability.	2	6	0.25	2	2	1	1.67
40	Develop environmental education and awareness campaigns to generate awareness about desert	2	6	0.25	2	2	1	1.67

No	Actions	Goal	Target	Budget	Impact			Impact mean
					Biodiversity	Likelihood	Financial	
	conservation, ecotourism and encourage support for management program							
67	Develop operational guidelines for issues related to biosafety within PAs.	3	11	0.25	2	2	1	1.67
109	Reflection of coast of biodiversity conservation on national budget.	6	20	0.2	2	1	2	1.67
78	Assess the impact of climate change on biodiversity in vulnerable areas and protected areas.	4	14	0.15	2	2	1	1.67
79	Conduct a feasibility assessment of the application of international mechanisms, suggested by UNFCCC (e.g. international carbon market), in Egypt.	4	14	0.15	1	3	1	1.67
59	Develop data base management systems of fishery resources based on stock assessment.	2	10	0.75	2	1	1	1.33
95	Develop an integral value of biodiversity and its links with livelihoods and key ecosystem services to human well-being and human development	5	17	0.3	2	1	1	1.33
11	Develop national interactive centralized biodiversity information system.	1	2	0.25	2	1	1	1.33
32	Promote desert safari to be ecologically reliable avoiding destruction and degradation of natural habitats, landscapes, cultural heritage sites and other resources.	2	6	0.25	2	1	1	1.33
63	Systematic update of existing biotechnologies applications and uses.	3	11	0.25	2	1	1	1.33
65	Build up National Biosafety Database and operational BCH based on the requirements of the CBD.	3	11	0.25	2	1	1	1.33
8	Develop and implement CEPA strategy for PAs in accordance with the Global CEPA for NBSAPs.	1	1	0.75	1	1	1	1
46	Develop and implement Environmental Management Plans (EMPs) for all urban areas.	2	7	0.75	1	1	1	1

Category (3) Low

(High Budget, Low Impact on Biodiversity, Low Likelihood, Low Financial Impact)

Actions in this category require significant funding but have limited potential for biodiversity impact. They are less likely to be successful and have minimal financial benefits.

No	Actions	Goal	Target	Budget	Impact			Impact Mean
					Biodiversity	Likelihood	Financial	
77	Ameliorating the farming system in desertified regions.	4	13	15.75	2	2	1	1.67
17	Inspire ex situ conservation through the establishment of natural history museum, gene banks, seed banks captive breeding centers, zoos and public gardens.	1	3	9.6	3	1	1	1.67
81	Continue the implementation of Integrated Solar Thermal / Natural Gas Power Plant (e.g. Kuraymat).	4	14	6.45	2	2	1	1.67
6	Establish standardized national monitoring systems within PAs based on the current monitoring efforts.	1	1	6	3	1	1	1.67
82	Continue the implementation of the Energy Efficiency Improvement and Greenhouse (GHG) Reduction Projects.	4	14	5.85	2	2	1	1.67
56	Expand desertification control programs focusing on conservation of plant cover, reduction of soil erosion and watershed management.	2	8	5	3	1	1	1.67
60	Prepare and implement pilot Integrated Coastal Zone Management Plans	2	10	4.5	2	2	1	1.67
87	Designate an entity (centre) responsible for biodiversity data analysis and for the development of recommendations from monitoring within the NCS.	5	15	4.5	2	2	1	1.67
91	Support the establishment and functioning of eco-clubs in schools to promote teaching of biodiversity-related topics.	5	16	4.2	2	2	1	1.67
28	Strengthen the capacity of relevant governmental agencies through (among other mechanisms) provision of specialized training.	2	5	3	2	2	1	1.67
62	Re-plant/re-forest mangroves wherever feasible.	2	10	3	3	1	1	1.67

No	Actions	Goal	Target	Budget	Impact			Impact Mean
					Biodiversity	Likelihood	Financial	
21	Reinforce quarantine measures to control intentional and unintentional introduction of AIS.	1	4	2.45	3	1	1	1.67
90	Increase the national capacity for ensuring the production and use of high quality textbooks; prepare education materials suitable for use at preschool institutions and schools.	5	16	2.4	2	2	1	1.67
20	Monitor and control the expansion of key AIS with relevant authorities.	1	4	2.1	3	1	1	1.67
75	Understand and implelment the concept of sustainable legal hunting.	3	12	2.1	2	2	1	1.67
69	Establishment of a national gene bank for all Egyptian species (economic and wild species).	3	11	2	2	2	1	1.67
41	Set up periodical national assessment of pollution within different ecosystems taking into account habitat vulnerability.	2	7	1.5	3	1	1	1.67
47	Develop and implement National Implementation Plans (NIPs) for the Stockholm and Basel Conventions.	2	7	1.5	2	2	1	1.67
49	Investigate and install alternative systems to make use of solid waste as an economic resource.	2	7	1.5	1	2	2	1.67
23	Institute a specialized unit to be concerned with AIS.	1	4	1.4	2	2	1	1.67
16	Practice and adopt a national policy on ex-situ conservation.	1	3	1.2	3	1	1	1.67
38	Launch projects to establish infrastructure and management programs for marine tourism at key sites to mitigate negative environmental impacts	2	6	1	2	2	1	1.67
54	Minimize the uncontrolled urbanization and enhance land-zoning and land use management plans.	2	8	1	2	2	1	1.67
85	Improve & maintain a regularly up-dated biodiversity data base.	5	15	1	2	2	1	1.67
76	Establishment of number of remediation of deteriorated areas.	4	13	19.25	2	1	1	1.67

No	Actions	Goal	Target	Budget	Impact			Impact Mean
					Biodiversity	Likelihood	Financial	
4	Set up GIS-based national planning and evaluation system in accordance with the international standards.	1	1	7.5	2	1	1	1.33
24	Develop a national agrobiodiversity conservation program with relevant authorities in association with public organizations.	2	5	3.75	2	1	1	1.33
10	Implement green economy instruments in PAs.	1	1	2.85	1	1	2	1.33
25	Improve capacity for the recovery and preservation of agrobiodiversity.	2	5	2.25	2	1	1	1.33
55	Develop mapping of soil degradation and desertification	2	8	2	2	1	1	1.33
3	Set new programmes for the capacity building of staff members.	1	1	1.5	2	1	1	1.33
15	Promote more ex-situ conservation efforts.	1	2	1.5	2	1	1	1.33
45	Update greenhouse gas inventory and take action to reduce Greenhouse Gas emissions.	2	7	1.5	2	1	1	1.33
50	Develop, monitor and enforce minimum national standards on soil, water and air quality as well as occupational health.	2	7	1.5	1	2	1	1.33
89	Dissemination of biodiversity information in rural areas.	5	16	1.2	2	1	1	1.33
64	Building the capacity of NCS as the entity responsible for the management and control of biosafety issues.	3	11	1	2	1	1	1.33
26	To create an agrobiodiversity and fisheries inventory.	2	5	3	1	1	1	1
48	Promote increased adoption of the "reduce, re-use and recycle" principle by residents, as well as the public and private sector. Bill on waste management and pollution control enacted and implemented.	2	7	2.25	1	1	1	1

Priority Matrix - NBSAP 2015-2023 Actions

A priority matrix is a valuable tool for effectively prioritizing actions outlined in the National Biodiversity Strategy and Action Plan (NBSAP). This matrix categorizes actions based on their budget, impact on biodiversity, likelihood of implementation, and financial implications. Each quadrant of the matrix represents a different priority level determined by the combination of budget allocation and impact on biodiversity.

Priority Matrix Diagram

	Lower priority	Higher priority
Higher budget	**Category (4) Low** 77,17,81,6,82,56,60,87,91,28,62,21,90,20,75,69,41,47,49,23,16,38,54,85,76,4,24,10,25,55,3,15,45,50,89,64,26,48	**Category (2) Medium** 1,2,57,61,84,5,71,27,93,51,58,80,14,53,13,18,98,35
Lower budget	**Category (3) Medium** 42,22,72,74,88,92,94,96,34,52,66,70,86,102,73,29,31,33,40,67,109,78,79,59,95,11,32,63,65,8,46	**Category (1) High** 107,106,43,44,37,97,19,12,30,36,39,68,100,105,101,104,83,99,103,7,9,108

This priority matrix ensures efficient allocation of resources to maximize impact on biodiversity conservation. It offers decision-makers a clear framework to prioritize the most effective actions and strategically manage conservation efforts.

Descriptions Quadrants:

Quadrant 1: High — Low Budget, High Impact on Biodiversity

Characteristics:

- Actions here are cost-effective with significant positive effects on biodiversity.
- They have a high likelihood of implementation.

- These actions are crucial and should be implemented first.

Quadrant 2: Medium-High — High Budget, High Impact on Biodiversity

Characteristics:

- Actions require substantial financial investment but promise significant biodiversity benefits.
- Medium likelihood of implementation
- Important to pursue, but resource intensive.

Quadrant 3: Medium-Low — Low Budget, Low Impact on Biodiversity

Characteristics:

- Actions are not expensive but have less impact on biodiversity.
- They might serve foundational or exploratory purposes with lower chances of implementation.
- Suitable for implementation when resources are limited.

Quadrant 4: Low — High Budget, Low Impact on Biodiversity

Characteristics:

- Actions are expensive with minimal impact on biodiversity.
- They are less likely to be implemented.
- These actions should generally be given low priority unless justified by specific strategic needs.

3.3. Finance Needs for relevant national biodiversity-related strategies

In addition to the financial requirements for implementing Egypt's NBSAP (2015-2030), there are other national strategies relevant to biodiversity conservation that also require funding. Funding for these strategies will come from relevant government institutions and support from local and international donors. The degree to which these strategies are related to or dependent on biodiversity varies. Financial data for these strategies serve as indicators of the additional funding needed to support other relevant strategies and action plans related to biodiversity in Egypt.

Table 6. Finance Needs for relevant national biodiversity-related strategies

National strategy	Relation to biodiversity	Total funding needs	Funding needs 2024-2030 in million
National strategies directly related to biodiversity and protected areas			
1. Egypt's Strategy and Business Model for Protected Areas 2020	High	$14.1million	$98.9
2. The National Strategy for Conservation and Sustainable Use of Medicinal Plants in Egypt 2010-2030	High	$106.7 million	$35.5
3. Egypt Conservation of Mediterranean Marine and Coastal Biodiversity By 2030 and beyond	High	N/A	N/A
4. National ICZM Strategy for Egypt 2050	High	N/A	N/A
5. National Wetlands Management Strategy 2004	High	N/A	N/A
National strategies indirectly related to biodiversity and protected areas			
6. Egypt Vision 2030	Medium	N/A	N/A

National strategy		Relation to biodiversity	Total funding needs	Funding needs 2024-2030 in million
7.	Egypt National Climate Change Strategy (NCCS) 2050 – Biodiversity 2020-2030	Medium	$199.1million	$126.7
8.	Integrated Sustainable Energy Strategy to 2035 (ISES 2024-2035)	Medium	$78 billion	$46.5
9.	The National Project for the Development of Lakes 2017-2030	Medium	$5.61billion	$28
10.	The National Strategy for Sustainable Tourism in Egypt 2030	Medium	N/A	N/A
11.	Egypt's Sustainable Transportation Projects	Medium	N/A	N/A
12.	National Sustainable Cities Initiative	Medium	$1.8 billions	$18
13.	Egypt's Sustainable Agricultural Development Strategy (SADS) 2030	Medium	N/A	N/A
14.	The National Water Resources Management Plan (2017-2037)	Medium	$50,561,797,752 billion (EGP900 billions)	$16.9

*Energy: $6.5biilion x 7years (2024-2030) x 0.001=$46.5million
*Lakes: EGP100billion/17.8 (exchange rate 2017) =$5.7billion (2017-2030). Cost for the period (2024-2030) =$0.407 billion x7x 0.01= $28million
*Sustainable Cities: $1.8billion X 0.01 = $18million
*Water Resources: $50.6billion/21yeras=2.4b per year*7years*0.001=$16.9million

3.2.1 National strategies directly related to biodiversity and protected areas

Egypt's Strategy and Business Model for Protected Areas 2020

To implement Egypt's natural reserves strategy effectively, it is essential to adopt a new business model that aligns with the strategy's objectives. A user-centric business model has been developed and approved, focusing on reserve visitors and users to ensure effective resource management. This approach aims to enhance visitors' satisfaction and motivate them to contribute financially to the preservation and development of the PA's natural resources, thereby generating an appropriate return on investment. The report presents a comprehensive overview of the current state of Egypt's 30 protected areas within the framework of the business model and strategy development. It outlines the necessary procedures and strategic plan for successful implementation of the business model.

Optimal annual estimates for government expenditures on Egypt's National Park System	USD14,135,965 (EGP 221,934,660 Annual)

Source: Egypt's Strategy and Business Model for Protected Areas 2020, EEAA

The National Strategy for Conservation and Sustainable Use of Medicinal Plants in Egypt

Egypt, with its rich history and diverse ecosystems, is home to a variety of medicinal plants that have been used for centuries in traditional medicine practices. These plants play a significant role in Egyptian culture and have been utilized for their therapeutic properties to treat various ailments. The National Strategy for Conservation and Sustainable Use of Medicinal Plants was prepared within the framework of the 'Conservation and sustainable use of medicinal plants in arid and semi-arid ecosystems in Egypt' project, which is implemented by the Nature Protection Sector of the Environmental Affairs Agency in the Ministry of Environment, with funding from the United Nations Development Program and the Global Environment Facility.

The strategy includes nine main objectives, each of which includes a group of projects, the outcomes of which and their most important milestones have been described. The strategy

also included a breakdown of the costs and financial and administrative measures necessary for its implementation. The strategy will be implemented over twenty years (2010-2030), with its first short-term phase ending after five years, its second medium-term phase ending after ten years, and the long-term phase ending more than ten years.

Medicinal Plants Strategy Funding Gap 2010-2030	USD106,694,828

Egypt Conservation of Mediterranean Marine and Coastal Biodiversity By 2030 And Beyond

This strategy[1] is the proposed national contribution of Egypt towards SAPBIO (The Strategic Action Programme for the conservation of Biological diversity). National analysis of marine and coastal biodiversity situation was made and involving national institutions and the relevant stakeholder's consultation. The purpose is identifying clear and realistic objectives and priority actions needed to achieve the objectives, aligned with SDGs and Post-2020 GBF, and supported by the Integrated Monitoring and Assessment Programme (IMAP). In addition, it promotes mainstreaming of biodiversity in all relevant environmental policies as well as for the sustainable use of marine resources.

The strategy highlighted that fact that financial resource mobilization for biodiversity conservation in Egypt is lagging behind due to the huge funding gaps in spending. Reasons for such wide gaps are not only insufficient finance, but also ineffective institutional entity and limited effective partnerships. There is a need for innovative financing mechanisms, focusing on the direction and scale of investment flow with the support for all partners at national, regional, and international level. According to the strategy, there is a wide gap between what is being spent and what is needed for biodiversity conservation in Egypt.

[1] UNEP/MAP-SPA/RAC, 2021

National ICZM Strategy for Egypt 2050

The strategy was prepared through a comprehensive review of integrated coastal management systems and benefiting from projects implemented in the field of integrated coastal management. The strategy included analyzing the current situation, setting priorities, drawing a road map, and setting standards to measure the implementation of the strategy. The national strategy for integrated coastal management was based on three main axes: 1) Strengthen support for integrated coastal management policy, 2) Sustainable planning for coastal resource uses, and 3) Encouraging and promoting awareness-raising among stakeholders.

National Wetlands Management Strategy 2004

Wetlands are an important part of the ecological system and national resources that need well management for the present and the future. The scope and vision of the National Wetlands Management Strategy 2004 include:

- Wetland conservation has a national priority. Therefore, there is a must to select some wetlands to be a natural protectorate.
- It is required to restore or rehabilitate any lost wetland during the past times and preventing wetland loss anymore.
- The national wetlands conservations plans has to be a part of the national country development plans.
- Social, cultural and economic values of wetlands should be considered by both governmental and non-governmental organizations during their planning stages.
- During wetlands conservations planning; The continuous environmental development for natural resources should be well thought-out taking into consideration Environmental Impact assessment EIA studies for development projects.

3.2.2 National strategies indirectly related to biodiversity and protected areas

Egypt Vision 2030

Egypt Vision 2030 is a national agenda launched in 2016. The vision consists of eight main national goals to be met by 2030 that are in line with the United Nations Sustainable Development Goals (SDGs), and the Sustainable Development Strategy for Africa 2063. There are three dimensions of the strategy economic, social or environmental. Egypt has secured $9.8 billion[2] in development financing to boost the UN's Sustainable Development Goals (SDG) of Egypt Vision 2030 in response to the COVID-19 crisis. A the environmental sector, Egypt seeks to preserve both development and the environment together through the rational use of resources in a way that preserves the rights of future generations in a more secure and adequate way. The country aims to achieve this by facing the effects of climate change, enhancing the resilience of ecosystems and the ability to face natural hazards and disasters, increasing reliance on renewable energy and adopting sustainable consumption and production patterns.

Egypt National Climate Change Strategy (NCCS) 2050

The National Climate Change Strategy 2050 is the country's roadmap for achieving "Objective 3.1: Meeting the challenges of climate change" within the framework of the Egypt Vision 2030. The strategy will enable Egypt to plan and manage climate change at different levels in a way that supports the achievement of the country's desired economic and development goals, following a low-emissions approach. The Government of Egypt (GoE) has allocated a financial package to set a few projects such as energy, transportation, agriculture, water, irrigation, and carbon reduction in the petroleum sector at a cost of about $211 billion for mitigation and $113 billion for adaptation to programs until 2050[3]. It is expected that the NCCS mitigation and adaptation strategies will depend on and have an impact on biodiversity and natural resources in Egypt.

[22] https://english.ahram.org.eg/NewsContent/3/12/397390/Business/Economy/Egypt-secured--bln-for-SDGs--finance-in-;--for-sov.aspx
[3] https://www.egypttoday.com/Article/1/116031/Egypt-launches-National-Strategy-for-Climate-Change-2050

Table 7. Summary of the Mitigation Programs Cost

Sector	Cost (million USD)	Time frame
Industry	130.3	2022/2035
Electricity	144153	2021/2035
Petroleum	1688.51	2023/2030
Transport	57477.45	2020/2030
Civil Aviation	25	2022/2030
Housing and Utilities	31	2022/2024
Waste	7627.4	2021/2035
Total	USD 211 billion	

Source: Egypt National Climate Change Strategy (NCCS) 2050, Ministry of Environment

Table 8. Summary of the Adaptation Programs Cost

Sector	Cost (million USD)	Time frame
Agriculture	52400	2022/2050
Transport	1273	2021/2023
Civil Aviation	9.1	2022/2024
Irrigation and Water Resources	59108.3	2022/2037
Biodiversity	199.1	2020/2030
Total	USD 113 billion	

Source: Egypt National Climate Change Strategy (NCCS) 2050, Ministry of Environment

There are several sources of finance that can help provide the necessary funding to achieve the objectives of the NCCS. For example, the Ministry of International Cooperation has provided development financing amounting to 260 million dollars to the environment sector to implement 4 projects, including solid waste management and control of industrial pollutants, to which development partners contributed: the World Bank, the European Investment Bank, the French Development Agency, the European Union and Italy. It also provided financing for a development plan of $365 million to achieve Goal 13 of the Sustainable Development Goals, which is climate action. According to Egypt National Climate Change Strategy (NCCS) 2050, out of a total of about $211 billion for mitigation programs, there is about $57.6 billion in funding available leaving a funding gap of about $153.6 billion.

Out of a total of about $113 billion for adaptation programs, there is about $18.3 billion in funding available leaving a funding gap is about $94.7 billion.

Climate Change Funding Gap 2024-2050	$248.3 billion

Integrated Sustainable Energy Strategy to 2035 (ISES 2035)

Egypt's economic development hinges on the energy sector, which represents 13.1% of overall gross domestic product (GDP). To meet burgeoning energy demand, the Egyptian government has pursued an energy diversification strategy, known as the Integrated Sustainable Energy Strategy (ISES) to 2035, to ensure the continuous security and stability of the country's energy supply. Egypt's sustainable energy strategy, ISES to 2035, is based on the least-cost approach, whereby energy subsidies are eliminated by 2022 and different energy sources would be able to compete within a free and fair market structure. The strategy developed in 2014 envisages a total share of 16% for coal, 3.3% for nuclear energy and 42% for renewable energy in the installed capacity mix by 2035[4].

The International Renewable Energy Agency (IRENA) developed an in-depth assessment of the policy, regulatory, financial, and capacity readiness challenges that need to be overcome to achieve the targets set out in the ISES to 2035. The Renewables Readiness Assessment (RRA)[5] identified key challenges and highlight solutions to boost renewable energy deployment. According to the assessment, investment in renewable energy capacity over the period is estimated at USD 6.5 billion per year (equals to USD78 billion for the period 2024-2035). By signing more than twenty Memorandum of Understanding (MOUs) for green hydrogen projects and its derivatives in Egypt, with total investments that exceeded 80$ billion[6], renewable energy has taken on a new dimension to improve its economic performance.

Sustainable Energy Funding Needs 2024-2035	$78 billion

[4] Renewable energy outlook: Egypt, a study by International Renewable Energy Agency

[5] Renewable energy outlook: Egypt, a study by International Renewable Energy Agency

[6] New & Renewable Energy Authority – Annual Report 2022

The National Project for the Development of Lakes

The development of Egyptian 14 lakes is one of the giant national projects that aims to develop and grow the lakes, solve the obstacles and problems they face, and return them to the best they were in the past, and even become world-class lakes. The project is an integrated plan of action including financial and technical aspects to maximize the use of the natural resources in the lakes and address all the problems that they face. The project aims to enhance economic returns and rationalize government spending through the integration of government activities and the optimal use of available expertise and capabilities with the aim of improving water quality, treating sources of pollution, restoring the ecosystem, increasing production from fish resources, organizing and improving fishing controls, raising the efficiency of fishermen and improving their working conditions, as an organizational structure has been put forward to manage the national project for developing lakes, and developing an integrated structural and legal framework for managing lakes.

The project was launched in 2017 to develop natural lakes at a cost of 100 billion pounds (equivalent to USD5.630 billion based on 2017 exchange rates)[7]. It aims to cleanse the lakes and remove encroachments to develop the northern lakes and increase Egypt's fish production. It is implemented in coordination between the Engineering Authority of the Armed Forces in cooperation with the General Authority for Fisheries Development and Ministry of Environment.

The National Project for the Development of Lakes Funding Needs 2017	$5,617,977,528 billion (EGP100 billion)

The National Strategy for Sustainable Tourism in Egypt 2030

The strategy aims to increase tourism traffic to 30 million tourists by 2028, by working to achieve incoming tourist traffic rates to the Egyptian tourist destination by about 25% and

[7] https://www.elbalad.news/6050812

30% annually, within the framework of Egypt's vision for sustainable development 2030[8]. The strategy is based on six themes. The sixth theme is 'maintaining the environmental balance and sustaining tourism and archaeological activity'. The state has made efforts in this aspect to transform the Egyptian tourism sector into an environmentally friendly sector, which comes in line with the objectives of the ministry's sustainable development strategy and Egypt's vision 2030 to maintain the environmental balance and the sustainability of tourism and archaeological activity. The aim is to transform the tourism sector into a sector that applies all the requirements of environmentally friendly green practices in accordance with the concept of sustainable tourism. In this regard, ECO Egypt campaign, which was launched in cooperation between Ministry of Tourism and Antiquities and Ministry of Environment to promote ecotourism locally and internationally, pointing to the ministry's enthusiasm to support responsible and sustainable ecotourism, which aims to preserve the environment for green transformation.

Egypt's Sustainable Transportation Projects

According to Egypt's Vision 2023, the country is aiming to provide a transport system that achieves sustainable development and is intrinsically linked with the requirements of future national economic and social development, and at the same time supports the role of transport at the regional and international levels. Egypt has embarked on a number of sustainable transportation projects based on environment-friendly technologies in passenger transport and green infrastructure. Transportation is the second cause of environmental pollution in the country, because of carbon emissions, with transportation being responsible for 23% of carbon emissions in the atmosphere[9]. This has pushed the authorities to lay the foundation for different projects and expansions including a monorail, electric train, the light rail transit (LRT), high-speed electric train, and the Bus Rapid Transit (BRT). There is a great effort in improving the transport infrastructure through the Green Roads, River Transport System, Maritime Infrastructure projects.

[8] https://beta.sis.gov.eg/en/media-center/strategies/national-strategy-for-sustainable-tourism-2030/#:~:text=The%20strategy%20aims%20to%20increase,vision%20for%20sustainable%20development%202030.
[9] https://www.businesstodayegypt.com/Article/7/1946/Clean-Transportation-Era-Begins-Egypt-s-major-sustainable-transportation-projects

Such projects are being funded by the state and through support from international organizations and donors. For instance, in May 2021, the European Investment Bank and Egypt signed the second tranche of a €1.1 billion loan to finance metro and tram projects in Alexandria and Cairo, the two biggest Egyptian cities[10]. The UNDP and GEF has also supported the USD44 million "Sustainable Transport Project for Egypt" that aims to reduce the growth of the energy consumption and the related GHG emissions of the transport sector in Egypt[11].

The aim, states the Ministry of Transport, is to transform transportation into collective means, thereby reducing the number of cars and alleviating traffic congestion. Demonstrating the country's stance on maintaining a safe and green environment, Egypt operated 260 electric buses in Sharm El-Sheikh to transport delegations attending the 27th UN Climate Change Conference (COP27) hosted in November. The ministry has begun its plan to convert to electric transport in Sharm El-Sheikh and the tourist cities of Hurghada, Luxor, and Aswan. In addition, the monorail is set to operate by 2023[12].
National Strategic Plan for Urban Development 2052.

National Sustainable Cities Initiative

During COP27, Egypt has launched its Sustainable Cities Initiative in cooperation with the WB to enhance sustainable solutions in Egyptian cities. The Initiative aims to increase the role of cities in facing climate change by developing a strategic plan to achieve multidimensional sustainability and implementing projects and programs to achieve sustainable development, the international cooperation ministry said in a statement. The World Bank will provide $1.8 billion in funding for climate resilience through the "Egyptian Sustainable Cities Initiative". The funds will support 33 projects in the areas of green economy, energy efficiency and green mobility, as well as the development of urban green spaces[13]. The initiative will be jointly led by the Egyptian Ministry of International Cooperation, Ministry of Local Development, in

[10] https://www.eib.org/en/stories/egypt-green-transport
[11] https://www.undp.org/egypt/projects/sustainable-transport-full-sized-project
[12] https://www.businesstodayegypt.com/Article/7/1946/Clean-Transportation-Era-Begins-Egypt-s-major-sustainable-transportation-projects
[13] https://english.ahram.org.eg/NewsContent/1/1235/479962/Egypt/Urban--Transport/Egypt-launches-national-Sustainable-Cities-Initiat.aspx

collaboration with the private sector, civil society organizations (CSOs) and the governorates. It will initially be implemented in Greater Cairo, which is considered the economic and industrial center of Egypt with an estimated population of 22 million.

Egypt's Sustainable Agricultural Development Strategy (SADS) 2030

The Ministry of Agriculture has developed the Sustainable Agricultural Development Strategy 2030 in which a medium-term action plan was developed for Egypt, integrating the current sustainable agricultural development strategy with the existing linkages between agriculture, water, land use, climate change, agro-industry, input supply, food security and nutrition. Key objectives of the strategy are improving the standard of living for workers in the agricultural sector and achieving safe levels of food security; promoting sustainable agriculture in the sense of sustainable and good use of agricultural resources; eradicating poverty in rural areas and reducing its rates; preparing a vision for how to face climate change; increasing the competitiveness of Egyptian agricultural exports; and creating new job opportunities to combat unemployment.

To achieve this strategy, a set of policies have been put in place to be implemented to achieve the greatest amount of self-sufficiency in strategic crops. The horizontal expansion projects are considered one of the most important axes to support the policy of self-sufficiency and reduce the gap, as it aimed to reclaim the desert to increase the agricultural area by more than 3.5 million acres during the past and coming short period, the most important of which is the Toshka Al-Khair project with an area of 1.1 million acres and the New Delta project. The giant project covers an area of 2.2 million acres, the North and Central Sinai development project covers an area of 456 thousand acres, and the Egyptian rural development project covers an area of 1.5 million acres, in addition to other projects in southern Upper Egypt and the New Valley with an area of 650 thousand acres[14]. The current and planned expansion of [15] agriculture activities is expected to have a great impact on biodiversity and natural resources,

[14] https://moa.gov.eg/ministry-activities/news

[15] https://www.youm7.com/story/2023/3/9/%D9%85%D8%A7-%D9%84%D8%A7-%D8%AA%D8%B9%D8%B1%D9%81%D9%87-%D8%B9%D9%86-%D8%A7%D8%B3%D8%AA%D8%B1%D8%A7%D8%AA%D9%8A%D8%AC%D9%8A%D8%A9-%D8%A7%D9%84%D8%AA%D9%86%D9%85%D9%8A%D8%A9-%D8%A7%D9%84%D8%B2%D8%B1%D8%A7%D8%B9%D9%8A%D8%A9-%D8%A7%D9%84%D9%85%D8%B3%D8%AA%D8%AF%D8%A7%D9%85%D8%A9/6109460

therefore some of the strategic objectives of the SADS towards 2030 focus on promoting the sustainable use of natural agricultural resources and improving the climate for agricultural investment.

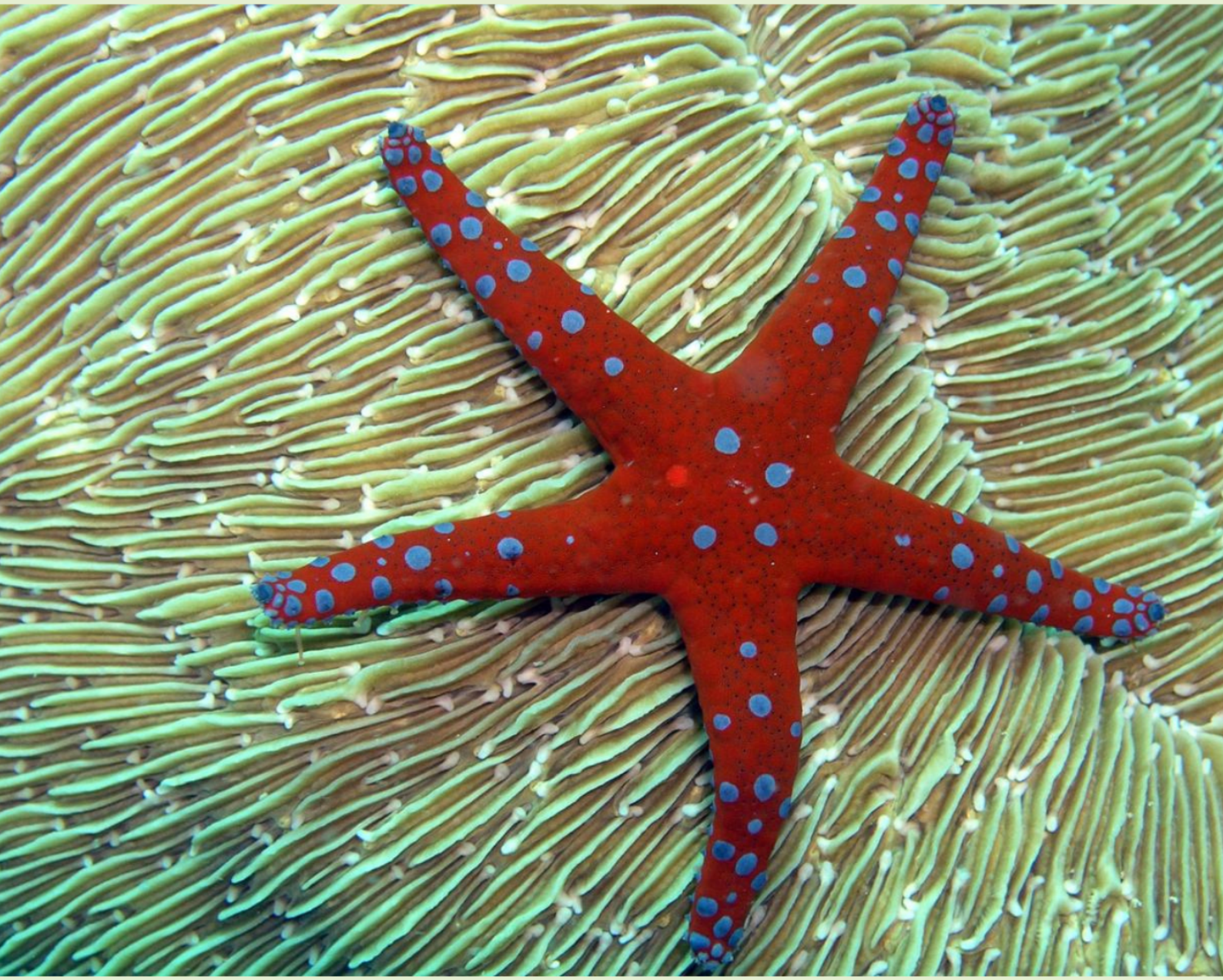
The National Water Resources Management Plan (2017-2037)

Egypt has developed a strategic plan for managing water resources until 2037, at an initial estimated cost of EGP900 billion[16]. The plan is based on four main axes: 1) Improving water quality, including the establishment of two- and three-year treatment plants, 2) Developing new water resources, as the past period witnessed a growing national trend to localize seawater desalination technology, 3) Rationalizing the use of available water resources and raising the efficiency of the Egyptian irrigation system, as the state has adopted a national project to line canals and convert to modern irrigation systems in order to achieve maximum benefit from our limited water resources, and 4) Creating an appropriate environment in line with work programs and water projects, through legislative and institutional development and increasing citizens' awareness of the importance of rationalizing water and preserving it from all forms of waste and pollution.

The axes of the National Water Resources Plan include the development of new additional water resources such as deep groundwater in the Western Desert and Sinai, harvesting torrents and rain, and the use of non-traditional water resources such as seawater desalination. The plan also includes the optimal use of existing water resources with the importance of reducing water losses. In addition to irrigation development projects, reuse of agricultural drainage water and treated sewage, as well as protection of public health and the environment, and work to reduce pollution rates of waterways with industrial and municipal waste.

The National Water Resources Management Plan Funding Needs (2017-2037)	$50,561,797,752 billion (EGP900 billions)

[16] https://www.dostor.org/4134912



Biodiversity Investment Needs

4. Biodiversity Investment Needs

Biodiversity is a critical component of Egypt's natural heritage, supporting ecosystems, providing essential ecosystem services, and contributing to the country's socio-economic development. However, Egypt's biodiversity faces numerous threats, including habitat loss, pollution, climate change, and unsustainable resource extraction. To address these challenges and safeguard biodiversity, significant investment is needed across various sectors, including conservation, research, education, and sustainable development. It is also crucial to integrate biodiversity conservation into broader sustainable development agenda especially Egypt Vision 2030 and other relevant national strategies.

The table below summarizes the funding needs for biodiversity conservation in Egypt for the period 2024-2030. These funding needs represent the financial resources required to address both direct and indirect contributions to the conservation of biodiversity and ecosystems in Egypt. The current expenditure on biodiversity conservation in Egypt (the baseline needs), as calculated in the BER 2024, was subtracted from the total investment needs (direct and indirect) to provide an amount representing the funding gap.

Funding Needs for Biodiversity in Egypt (2024-2030) =

1. Direct funding needs
   +
2. Indirect funding needs
   –
3. Expenditures on Biodiversity 2024-2030 (the baseline as in Egypt’s BER 2024)

It is essential to note that some of these calculations are rough estimates due to the lack of detailed financial data in national strategies and accounting systems specifically related to biodiversity conservation. Additionally, data was unavailable for some national strategies, leading to a gap in this estimate. If such information were available, it is expected that the current figure of $660 million would be higher. It is crucial that biodiversity conservation and protected area-related expenditures and revenues be included in national accounts and budgets. The availability of financial data for national strategies and action plans will enable proper financial planning for biodiversity conservation in Egypt.

Table 9 Funding Needs for Biodiversity in Egypt 2024-2030

Funding needs	**Number in USD Million**
1. Direct funding needs	
NBSAP 2015-2030 (funding needs for the period 2024-2030)	$119.4
Egypt's Strategy and Business Model for Protected Areas 2020	$98.9
The National Strategy for Conservation and Sustainable Use of Medicinal Plants in Egypt 2010-2030	$35.5
2. Indirect funding needs	
Egypt National Climate Change Strategy (NCCS) 2050 – Biodiversity 2020-2030	$126.7
Integrated Sustainable Energy Strategy to 2035 (ISES 2035)	$46.5
The National Project for the Development of Lakes 2017-2030	$28
National Sustainable Cities Initiative	$18
The National Water Resources Management Plan (2017-2037)	$16.9
3. BER: Expenditures on Biodiversity 2024-2030 (the baseline as in Egypt's BER 2024)	($198)
Gap (Direct +Indirect-BER)	**$291.9**

4.1. Direct Biodiversity Investment Needs

Direct biodiversity investment needs in Egypt refer to the financial requirements necessary for implementing the National Biodiversity Strategy and Action Plan (NBSAP) and for the establishment and management of protected areas. These efforts are crucial for conserving Egypt's biodiversity and safeguarding critical habitats. The review of Egypt's NBSAP 2015-2030 indicates that the financial resources required to achieve the goals of biodiversity conservation

in Egypt amount to approximately $273 million (equivalent to $119.4 million for the period 2024-2030).

'Egypt's Strategy and Business Model for Protected Areas 2020' provides detailed information on the funding needs for protected areas in Egypt, including investments in park infrastructure, ranger patrols, community engagement, and wildlife monitoring. Additionally, expanding the protected area network and enhancing connectivity between protected areas are essential for improving ecosystem resilience and species conservation.

In addition to the financing needs for the National Biodiversity Strategy and Action Plan (NBSAP) and protected areas, there are several other strategies that are directly related to biodiversity conservation and require funding, including:

- The National Strategy for Conservation and Sustainable Use of Medicinal Plants in Egypt 2010-2030
- Egypt Conservation of Mediterranean Marine and Coastal Biodiversity By 2030 and beyond
- National ICZM Strategy for Egypt 2050
- National Wetlands Management Strategy 2004

4.2. Indirect Biodiversity Investment Needs

Indirect biodiversity investment needs in Egypt refer to the financial requirements necessary to address the underlying factors that contribute to biodiversity loss and degradation. While direct investment in conservation projects, protected areas, and species management is essential, indirect investment targets the root causes of biodiversity decline, such as unsustainable land use practices, habitat fragmentation, pollution, and climate change. By addressing these underlying drivers, indirect biodiversity investment aims to create a conducive environment for biodiversity conservation and sustainable development. Key strategies of indirect biodiversity investment needs in Egypt include:

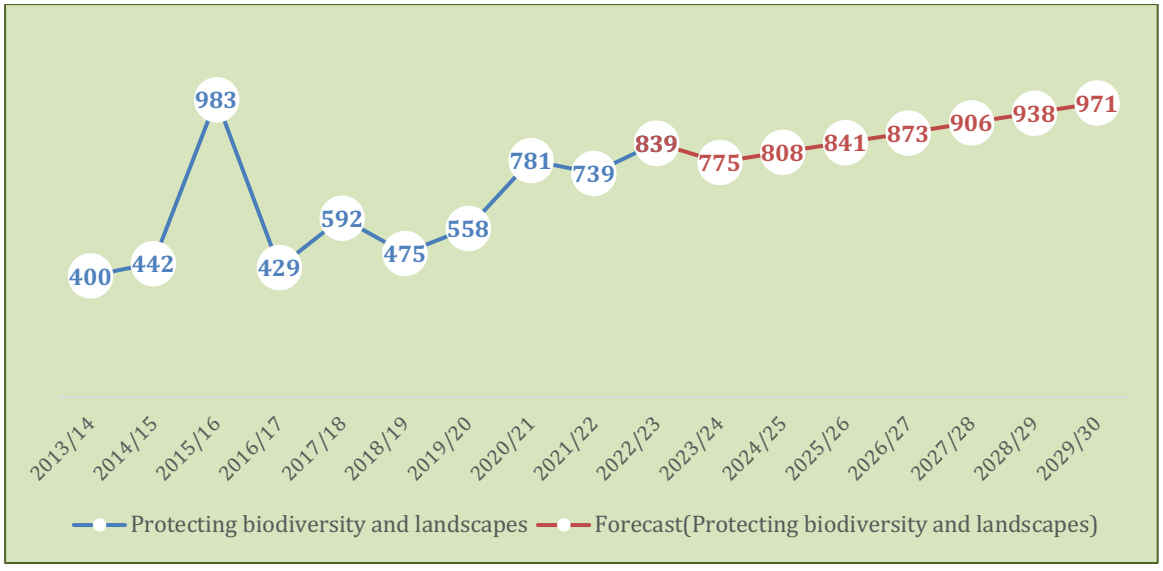
- Egypt Vision 2030
- Egypt National Climate Change Strategy (NCCS) 2050 – Biodiversity 2020-2030
- Integrated Sustainable Energy Strategy to 2035 (ISES 2035)
- The National Project for the Development of Lakes 2017-2030

- The National Strategy for Sustainable Tourism in Egypt 2030
- Egypt's Sustainable Transportation Projects
- National Sustainable Cities Initiative
- Egypt's Sustainable Agricultural Development Strategy (SADS) 2030
- The National Water Resources Management Plan (2017-2037)

Addressing indirect biodiversity investment needs in Egypt requires a holistic approach that integrates biodiversity conservation objectives into broader development strategies and investment plans. By investing in sustainable agriculture, fisheries, forestry, water resource management, sustainable energy, sustainable transport, climate change adaptation, and environmental education, Egypt can create synergies between biodiversity conservation and socioeconomic development, ultimately contributing to the long-term sustainability and resilience of its ecosystems and natural heritage.

4.3. Egypt's Biodiversity Expenditure Review (BER) 2024

According to the Egypt's Biodiversity Expenditure Review (BER) 2024, the total government spending on biodiversity conservation for the period 2024-2030 is projected at EGP 6.112billion (Equivalent to $198million).



4.4. Funding Sources

- **Government Budgets and Grants:** Government budgets and grants represent primary sources of funding for biodiversity conservation initiatives in Egypt. Allocating adequate resources to environmental agencies, protected area authorities, and research institutions is essential for implementing conservation projects and addressing biodiversity investment needs.
- **International Aid and Donor Funding:** International aid agencies, multilateral organizations, and bilateral donors play a crucial role in supporting biodiversity conservation efforts in Egypt. Securing grants, loans, and technical assistance from international donors can finance large-scale conservation projects, capacity-building initiatives, and policy reforms aimed at enhancing biodiversity conservation and sustainable development.
- **Public-Private Partnerships:** Public-private partnerships offer opportunities to leverage private sector resources and expertise for biodiversity conservation projects in Egypt. Collaborating with private companies, NGOs, and local communities can mobilize additional funding, technical support, and social capital for conservation initiatives while promoting corporate social responsibility and sustainable business practices.
- **Philanthropic Foundations and NGOs:** Philanthropic foundations, NGOs, and civil society organizations contribute significantly to biodiversity conservation efforts in Egypt through grants, donations, and volunteerism. Supporting grassroots initiatives, community-based organizations, and conservation projects led by local stakeholders can enhance conservation outcomes and promote community engagement in biodiversity conservation.

Photo by Mohamed Habib

Conclusions and Recommendations

5. Conclusions and Recommendations

The following conclusions key messages and recommendations for different target groups and stakeholders are a result of information from the FNA analysis combined with observations and discussions with key government institutions, relevant stakeholders, and the project management. Biodiversity conservation in Egypt faces significant financing challenges due to various factors such as limited financial resources, competing development priorities, and inadequate institutional capacity. Closing the financing needs gap for biodiversity conservation requires a multi-faceted approach that leverages diverse funding sources, promotes innovative financing mechanisms, enhances public-private partnerships, and strengthens governance and policy frameworks.

Understanding the Financing Needs Gap:

- **Current Funding Landscape:** Egypt's biodiversity conservation efforts are primarily financed through government budgets, international aid, and philanthropic contributions. However, available funding falls short of meeting the growing conservation needs, resulting in underinvestment in critical conservation initiatives such as protected area management, species conservation, and habitat restoration.
- **Identifying the Financing Gap:** The financing needs gap for biodiversity conservation in Egypt arises from the disparity between the financial resources available and the funding required to address conservation challenges effectively. This gap hinders the implementation of conservation projects, limits the scale of conservation efforts, and undermines the country's ability to achieve biodiversity conservation targets set forth in national strategies and international agreements.

Recommendations to close the Financing Needs Gap:

- **Diversifying Funding Sources:** Expanding the range of funding sources for biodiversity conservation is essential to close the financing needs gap. This includes exploring alternative financing mechanisms such as environmental taxes, biodiversity offsets, and payments for ecosystem services to generate additional revenue for

conservation projects. Additionally, engaging with private sector entities, philanthropic foundations, and civil society organizations can unlock new funding opportunities and foster collaborative conservation initiatives.

- **Review and Increase Entrance Fees:** The current entrance fees for many protected areas in Egypt do not fully reflect their conservation and tourism value especially in comparison with similar PAs in other parts of the world. To address this, a review and adjustment of these fees is necessary to increase revenue. Economic tools such as willingness-to-pay surveys can provide valuable insights for setting appropriate fee levels. To avoid deterring visitors, the current tiered pricing structure could be implemented, offering reduced rates for Egyptians and students while charging higher fees for international tourists. The additional revenue generated should be dedicated to conservation projects, infrastructure upgrades, and educational programs, ensuring that the increased fees directly benefit the parks and support their long-term sustainability.
- **Improve Revenue Retention:** Currently, revenue from protected areas is directed to the Environment Protection Fund (EPF). Within this fund, resources are allocated to support various projects and expenses across all departments of the Egyptian Environmental Affairs Agency, including those related to protected areas. A substantial portion of revenue from park fees and related activities are not allocated to support protected area management. Allowing protected areas to retain a larger share of their generated revenue would provide a stable financial base for ongoing management and development. This can be achieved through policy reforms that ensure a fixed percentage of income is reinvested directly into park operations, maintenance, and staff training, creating a sustainable financial model for conservation efforts.
- **Improve Concession Process:** Enhancing the concession process for ecosystem services in protected areas can attract responsible, high-quality businesses while boosting revenue and improving social, economic, and environmental outcomes. To optimize the concession system, the application process should be simplified and streamlined, making it more accessible to reputable business operators. Establishing clear environmental and operational standards is essential to prevent harm to these sensitive areas. A competitive bidding process should be employed to select proposals

based on the quality of services and financial viability, alongside fair revenue-sharing models that benefit both concessionaires and the protected areas.

- Regular monitoring and evaluation of performance will ensure compliance with established standards and help address any issues that arise. Prioritizing opportunities for local businesses will foster local community engagement and provide economic benefits to local populations. Transparency throughout the process is crucial, along with providing training for both concessionaires and staff to ensure effective management and the adoption of sustainable practices. By implementing strict environmental standards and equitable revenue-sharing agreements, the activities of concessionaires will support both the park's ecological integrity and the visitor experience.
- **Biodiversity Offset:** Introducing a biodiversity offset program can create a financial mechanism to support conservation management in Egypt. This involves requiring developers or industries that impact natural habitats to invest in conservation projects as compensation. These investments can fund habitat restoration, protection of endangered species, and other conservation initiatives within protected areas. Integrating biodiversity offsets into regulatory frameworks, can help Egypt support environmental preservation and enhance the resilience of its protected areas.
- **Biodiversity Credits in the Carbon Market:** Incorporating biodiversity credits into Egypt's carbon market holds substantial potential for achieving biodiversity conservation goals, fostering sustainable development, and attracting international investment. By addressing the challenges and capitalizing on the opportunities, Egypt can pave the way for a more inclusive and environmentally sustainable carbon market.
- **Promoting Innovative Financing Mechanisms:** Harnessing innovative financing mechanisms can help mobilize resources for biodiversity conservation in Egypt. Establishing conservation trust funds, green bonds, and impact investment funds dedicated to biodiversity conservation can attract investment from domestic and international investors, channelling capital towards priority conservation projects and initiatives. Furthermore, incentivizing green finance and sustainable investments through tax incentives, subsidies, and regulatory frameworks can encourage private sector participation in conservation financing.

- **Strengthening Public-Private Partnerships:** Enhancing public-private partnerships (PPPs) is crucial for leveraging resources, expertise, and technology for biodiversity conservation in Egypt. Collaborating with private sector entities, academic institutions, and NGOs can facilitate knowledge exchange, capacity-building, and co-financing arrangements for conservation projects. Moreover, promoting corporate social responsibility (CSR) initiatives and sustainable business practices can encourage private sector engagement in biodiversity conservation efforts while delivering tangible benefits to both businesses and ecosystems.
- **Improving Governance and Policy Frameworks:** Enhancing governance and policy frameworks is essential to create an enabling environment for biodiversity conservation financing in Egypt. This includes strengthening regulatory frameworks, streamlining permit processes, and enforcing environmental laws to ensure compliance and accountability in conservation activities. Additionally, integrating biodiversity conservation objectives into national development plans, sectoral policies, and strategic documents can mainstream conservation priorities and mobilize government support for conservation financing initiatives.
- **Building Institutional Capacity:** Investing in institutional capacity-building is critical to enhance the effectiveness and efficiency of biodiversity conservation financing mechanisms in Egypt. This involves providing training, technical assistance, and professional development opportunities for government agencies, conservation organizations, and other stakeholders involved in conservation finance. Strengthening monitoring and evaluation systems, data management capacities, and financial reporting mechanisms can improve transparency, accountability, and performance in conservation finance management.

Closing the financing needs gap for biodiversity conservation in Egypt requires concerted efforts from governments, private sector entities, civil society organizations, and international partners. By diversifying funding sources, promoting innovative financing mechanisms, strengthening public-private partnerships, and improving governance and policy frameworks, Egypt can mobilize resources, enhance conservation outcomes, and achieve its biodiversity conservation targets in alignment with sustainable development goals. Investing in

biodiversity conservation is not only essential for preserving Egypt's natural heritage but also for securing the well-being of future generations and promoting environmental sustainability.

Biodiversity Investment

- **The investment in biodiversity and ecosystem conservation** is recognised as an investment into sustainable development due to the economic returns generated from healthy ecosystems and ecosystem services.
- **Policy Coherence and Integration:** Integrating biodiversity conservation into broader sustainable development agendas requires policy coherence and integration across sectors. Aligning biodiversity conservation objectives with national development strategies, sectoral policies, and international commitments can mainstream conservation priorities and promote synergies between biodiversity conservation and sustainable development goals.
- **Sustainable Tourism and Nature-Based Solutions:** Promoting sustainable tourism and nature-based solutions can generate revenue, create employment opportunities, and support biodiversity conservation in Egypt. Investing in ecotourism infrastructure, visitor facilities, and nature-based recreation activities can harness the economic potential of Egypt's natural assets while minimizing negative impacts on biodiversity and ecosystems.
- **Green Finance and Sustainable Investments:** Leveraging green finance mechanisms and sustainable investments can mobilize funding for biodiversity conservation projects and sustainable development initiatives in Egypt. Encouraging green bonds, impact investing, and eco-friendly financing schemes can attract private sector investment in conservation projects, renewable energy infrastructure, and climate-resilient development pathways.

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