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REPORT OF THE FULL ASSESSMENT OF FUNDS NEEDED FOR THE IMPLEMENTATION OF THE CONVENTION AND ITS PROTOCOLS DURING THE EIGHTH REPLENISHMENT PERIOD OF THE GLOBAL ENVIRONMENT FACILITY (JULY 2022 TO JUNE 2026)

Note by the Executive Secretary

1. The fourteenth Conference of the Parties adopted the terms of reference for a full assessment of the amount of funds needed for the implementation of the Convention and its Protocols during the eighth replenishment period of the Trust Fund of the Global Environment Facility through its decision 14/23, paragraph 14.
2. The Government of Sweden and the European Union provided generous financial contributions enabling the Executive Secretary of the Convention on Biological Diversity to implement the decision of the Conference of the Parties by contracting a team of three experts to conduct this assessment. The contracting was done through a competitive process based on United Nations rules and in accordance with the adopted terms of reference.
3. The Executive Secretary is hereby circulating the report prepared by the expert team comprising the full assessment of the amount of funds needed for the implementation of the Convention and its Protocols for the eighth replenishment period of the Global Environment Facility (July 2022 to June 2026), for the resumed session of the third meeting of the Subsidiary Body on Implementation scheduled for March 2022. The report is reproduced as it was received by the Secretariat from the experts.
4. The Executive Summary is made available in all languages of the United Nations in document CBD/SBI/3/6/Add.2/Rev.1, also reproduced as it was received by the Secretariat.

REPORT OF THE ASSESSMENT OF FUNDS NEEDED FOR THE EIGHTH REPLENISHMENT OF THE GLOBAL ENVIRONMENT FACILITY TO IMPLEMENT THE CONVENTION AND ITS PROTOCOLS

1. Summary

1. Following is the report provided by the CBD contracted Expert Team for the resumed session of the third meeting of the Subsidiary Body of Implementation in March 2022.
2. A total of 44 countries submitted to the Executive Secretary their estimated funding and investment needs under the financial mechanism for the eighth replenishment of the Global Environment Facility (GEF), as per decision CBD/COP/DEC/14/23. This amounts to responses from roughly 30 per cent of the 145 GEF recipient countries reviewed¹. The analysis done for this report is therefore indicative.
3. Several Parties were unable to submit the information due to the exceptional circumstances related to the COVID-19 pandemic, difficulties in consulting with the national GEF focal points and projecting financial needs for GEF 8 when the post-2020 global biodiversity framework is still being negotiated.
4. The analysis of the submitted questionnaires provides an estimate of financial needs from 210 proposed projects in 44 countries. The information also provides a broad-brush descriptive overview of the projects, including the biomes in which they are likely to take place, the species and strategies involved, whether they relate to a GEF integrated programme, and their links with other conventions and the SDGs.
5. The total funding needs from the 210 projects reported through the questionnaire amounted to USD 4,049,921,897². Of this amount governments are expecting to co-finance 39% and obtain 29% from other sources, leaving the GEF to co-fund 32%. An estimated 78% of projects are related to the convention, while 21% and 38% are for the Cartagena Protocol and the Nagoya Protocol respectively.
6. However, as not all Parties submitted this data, three different scenarios (one of which is based on the questionnaire) were used to extrapolate data from existing sources and to estimate the financing needs for GEF-8.
7. The three scenarios resulted in GEF funding needs for implementing the Convention and its Protocols, over the eighth replenishment period (2022-2026), range from USD 1.5 billion to USD 3.7 billion. The details on these three scenarios are provided in section 7(b) of this report.

2. Introduction

a. Mandate

8. Article 21 of the Convention on Biological Diversity (CBD) and the Memorandum of Understanding (MoU)³, specifically paragraph 5.1, between the Global Environment Facility and the CBD in 1996, state, that in anticipation of the replenishment of GEF, the Conference of the Parties (COP) is to assess the amount of funds necessary to assist relevant countries in fulfilling their commitments under the Convention over the next GEF replenishment cycle.

¹ The Expert Team used the list of 143 countries from the GEF-7 needs assessment report, to which it added Democratic People's Republic of Korea, which submitted the questionnaire, and Somalia.

² The total amount was derived by adding the GEF financing needs, the co-funding expected from governments and the co-funding expected from other sources. It does not necessarily match the total funding needs provided in the relevant column in the questionnaire as there was a mismatch in many questionnaires.

³ CBD COP 3 Decision III/8

9. The Conference of Parties, through its decision, CBD/COP/DEC/14/23⁴, further detailed out the objective, scope, and methodology to carry out an assessment of the amount of funds that are necessary under the Convention and its Protocols over the eighth Global Environment Facility (GEF) replenishment cycle running from July 2022 to June 2026.

10. The COP decision states that the assessment needs to be comprehensive and primarily directed towards assessing total funding needs required to meet the agreed full incremental costs of measures that are eligible for GEF support, in accordance with the guidance provided by the Conference of the Parties.

11. The COP decision 14/23 adopted the terms of reference for the assessment and invited relevant Parties to submit to the Executive Secretary their estimated funding and investment needs under the financial mechanism for the third determination of funding and investment requirements by the Conference of the Parties at its fifteenth meeting.

b. Other relevant decisions

12. The COP requested the Subsidiary Body on Implementation at its third meeting to prepare proposals for a four-year outcome-oriented framework of program priorities for the eighth replenishment period (July 2022 to June 2026) of the Global Environment Facility Trust Fund, aligned with the draft post-2020 global biodiversity framework, for consideration by the Conference of the Parties at its fifteenth meeting.

13. Regarding the post-2020 implementation of Article 21, the note on the financial mechanism issued for the second meeting of the Subsidiary Body on Implementation (CBD/SBI/2/8) highlighted the varied information sources of funding ranging from blended finances, green bonds, new funds, bilateral and multilateral financing, new development partners, and philanthropy.

14. According to the assessment's scope, the funding needs for implementing the Convention and its Protocols from 2022-2026 necessitates the calculation of total needs to implement activities to achieve the post-2020 global biodiversity framework⁵, as well as activities of the Cartagena and Nagoya Protocols.

15. There are 196 Parties to the Convention for Biological Diversity and 183 member countries in GEF. Out of the 183 GEF member countries, 39 have been listed as donors out of which 29 donors pledged US\$4.1 billion in 2018 for the seventh replenishment.

16. The first draft of the post-2020 global biodiversity framework has four long-term goals for 2050 related to the 2050 Vision for Biodiversity. Each of these goals has an associated outcome for 2030 through the 20 action-oriented targets. The GEF-8 time-period would cover roughly half the timeframe of the global biodiversity framework considering the delay in finalizing the framework due to the pandemic.

c. Procedures for implementing the terms of reference – scope and methodology

17. The COP Decision 14/23 requested the Executive Secretary, working with the contracted expert team in accordance with the terms of reference, to prepare a compilation of estimated funding and investment needs submitted by relevant Parties, building on and further fine-tuning the methodology and the three scenarios used by the second determination of funding needs, for consideration by the Subsidiary Body on Implementation, at its third meeting, to inform the third determination of funding requirements by the Conference of the Parties at its fifteenth meeting.

⁴ <https://www.cbd.int/doc/decisions/cop-14/cop-14-dec-23-en.pdf>

⁵ <https://www.cbd.int/doc/c/914a/eca3/24ad42235033f031badf61b1/wg2020-03-03-en.pdf>

18. The details of the expert team are provided in Annex 2 to this report. The main inputs for the assessment are as follows:

19. *Data requests through the questionnaire:* As per decision CBD/COP/DEC/14/23 relevant Parties were invited to submit to the Executive Secretary their estimated funding and investment needs under the financial mechanism for the eighth replenishment of the Global Environment Facility. In this context a questionnaire⁶ was circulated to relevant Parties as the most important tool to collect the required data from GEF-recipient countries. Using the questionnaire the Parties were requested to submit information on

- i. Potential project concepts and data on estimated total project costs to implement the Convention and its Protocols;
- ii. Expected funding from the national government to implement these projects;
- iii. Expected funding from other external sources; and
- iv. Estimated funding needs from GEF-8 based on incremental cost reasoning as per the Operational Guidelines for the Application of the Incremental Cost Principle⁷.

20. A guidance document⁸ was provided by the expert team to assist countries understand these operational guidelines to calculate the estimated funding needs from the GEF for the period 2022-2026. The information requested on potential GEF-8 strategic approaches is expected to be in line with countries' NBSAPs or national priorities and linked with other conventions. The assessment of the submitted questionnaires is provided in section 6 in this report.

21. *Compilation and analysis of the needs identified in national reports:* An assessment was done of any financial needs expressed in the updated national biodiversity strategies and action plans, the sixth national reports, national financial reporting framework and other relevant documents with potential information on national funding needs. The details of this assessment is provided in section 4, sub-paragraphs a, b and c.

22. *Supplementary information provided by GEF-eligible Parties:* Review of the UNDP managed Biodiversity Finance Initiative (BIOFIN) program was conducted to identify data on the project's partner countries' funding needs⁹. Currently, BIOFIN is being implemented in 36 countries in reviewing policies and institutions relevant for biodiversity finance, determining baseline investments, assessing the costs of implementing National Biodiversity Strategies and Action Plans, and quantifying the biodiversity finance gap. Details of the review is provided in section 4 (d) of this report.

23. *Estimated financial implications of the guidance:* Estimation of the financial implications related to the Post-2020 Global Biodiversity Framework would have been useful but considering that the framework is still being negotiated such an assessment was not possible.

24. Experience in the provision of funds by the GEF: This assessment is provided in section 3 below.

25. *Interviews and consultations:* Interviews and consultations were held with regional groups and GEF implementing agencies to seek their input as detailed in section 5 of this report.

⁶ <https://www.cbd.int/financial/gef8needs.shtml>

⁷ http://www.thegef.org/sites/default/files/council-meeting_documents/OPERATIONAL_GUIDELINES_FOR_THE_APPLICATION_OF_THE_INCREMENTAL_COST_PRINCIPLE_5.pdf

⁸ <https://www.cbd.int/financial/gef8needs.shtml>

⁹ <https://www.biodiversityfinance.net/>

3. Experience in the provision of funds by the GEF

a. GEF Programming and allocation history

26. The total value of investments from all GEF resources to achieve the Aichi Biodiversity Targets from all the relevant programming lines in GEF-7 (biodiversity focal area strategy, GEF-7 Impact Programmes, the International Waters Focal Area, the Least Developed Countries Fund for climate change adaptation, the Non-grant Instrument and the Small Grants Programme) in the first 18 months of GEF-7 was \$1.056 billion⁴. This leveraged co-financing of \$8.955 billion for a total investment of \$10.01 billion representing more than \$8 of co-financing for every dollar provided by GEF. This confirms a continuously rising co-financing ratio for GEF biodiversity projects which is above the target of 1:7 set for the entire GEF portfolio during the GEF-7 period. A summary of programming usage of the GEF-7 biodiversity focal area is available¹⁰.

27. The amount of GEF grants to biodiversity projects, both single focus and multifocal, has grown consistently from the pilot phase to the present, with over \$1 billion already allocated in GEF-7, from a start of about \$250 million in the pilot phase. Overall, the cumulative funds to biodiversity (including in multifocal area projects) have now reached \$6.8 billion, with an anticipated \$33.7 billion in co-financing recorded in project documents.¹¹

28. The GEF-7 Corporate Scorecard (December 2021)¹² states that the total utilization of funds allocated under the System for the Transparent Allocation of Resources (STAR) by GEF-7 for biodiversity to date (including the December 2021 work program) is as follows: 89% for Africa; 92% for Asia; 83% for Europe and Central Asia and 87% for Latin America and the Caribbean. The LDCs utilized 95% and SIDS 84% for biodiversity in the same period.

b. GEF Experience to date

29. There are eight biodiversity relevant indicators out of the 11 core indicators of the GEF to monitor the impact of its projects¹³. As indicated, the expected contribution to the core indicators is disproportionately high for the impact programs, particularly for indicators on terrestrial protected areas, land restoration and landscapes with improved practices. The CBD framework currently has about 98 indicative indicators, which countries are encouraged to use to monitor progress on achieving the Aichi Biodiversity Targets.

30. Based on the GEF core indicators, the GEF-7 is making good progress in achieving its targets under the biodiversity focal area (GEF-7 Corporate Scorecard December 2021). It has achieved 51% of the target of achieving 200 million hectares terrestrial protected areas, 100% of the marine target of 8 million hectares and 100% target of restoring 6 million hectares of land.

31. The GEF indicates that its Impact Programs make a significant contribution to achieve its core indicators. The GEF-7 Impact Programs are aimed at delivering environmental benefits on a large scale, with their resources now almost fully programmed. A total of 60 countries are participating in these programs, some in more than one program. Altogether these projects advance an integrated approach to tackling the drivers of environmental degradation through Sustainable Forest Management; Sustainable Cities; and Food Systems, Land Use and Restoration.

32. Under GEF-7, attention has been given to the use of non-grant instruments for blended finance to catalyse investments from capital markets at global and national levels aligned with

¹⁰ Preliminary Report of the Global Environment Facility, June 2020, CBD/SBI/3/6/ADD1

¹¹ FINAL REPORT OF OPS7 (Seventh Comprehensive Evaluation of the GEF) November 2021

¹² <https://www.thegef.org/newsroom/publications/gef-7-corporate-scorecard-december-2021>

¹³ http://www.thegef.org/sites/default/files/documents/Results_Guidelines.pdf

focal area objectives.

33. GEF's interventions in integrating natural capital in the value chain, product certification, sustainable management of landscapes and seascapes to ensure long-term availability of biodiversity-dependent raw material and ecosystem provisioning services are particularly crucial for the private sector.

34. In addition to projects, the GEF is also providing significant funding to the Small Grants Program (SGP). According to the SGP Annual Monitoring Report for fiscal year (FY) 2018 covering July 2018 to June 2019, the active portfolio of small grants projects funded by GEF funds amounted to 3,182 projects for \$108.5 million with co-financing leveraged of \$99.5 million. Focal area distribution of all SGP projects under implementation remain strongly focused on biodiversity as primary focal area, which accounted for the largest share of the portfolio of 40 percent.

c. Performance of the GEF

35. The terms of reference for the expert team agreed by COP14 stated in para 3(a) to consider experience to date, including limitations and successes of projects funded by the Global Environment Facility, as well as the performance of the Facility and its implementing and executing agencies. In this context the expert team reviewed the sixth and seventh overall performance study (OPS) of the Global Environment Facility.

36. The sixth overall performance study (OPS6) of the Global Environment Facility stated that cumulatively, 80 percent of all the rated projects, which account for 78 percent of the GEF grants, are rated in the satisfactory range for outcome. The seventh overall performance study (OPS7) released in November 2021 confirms that cumulatively, 80 percent of all completed GEF projects, accounting for 79 percent of GEF grants, are rated in the satisfactory range for outcomes. The strategic objectives in biodiversity, which derive from those of the Convention on Biological Diversity, have evolved throughout the GEF replenishment periods to refine approaches to address the drivers and pressures promoting biodiversity loss. Achievement of projects targeting effective conservation and management of protected areas is falling short of GEF-5 targets, but targets related to sustainable use and management of biodiversity in land and seascapes are likely to be met.

37. As part of OPS6, the GEF Independent Evaluation Office (IEO) undertook two studies in the Biodiversity Focal Area – a) an evaluation of the GEF funded projects on Access and Benefit Sharing (ABS) and the Nagoya Protocol (NP), and b) a study to assess GEF support to address illegal wildlife trade (IWT) through the GEF Global Wildlife Programme (GWP). These two studies were the first conducted by the IEO on these themes. The Impact Evaluation of the GEF Support to Protected Areas (PAs) and PA Systems was completed in October 2015.

38. The Evaluation of GEF support to biodiversity mainstreaming was presented to the GEF Council in December 2018. This evaluation considered biodiversity mainstreaming as highly relevant to the CBD and its member countries and the private sector. During the first 18 months of GEF-7 (until December 2019), the first objective of its biodiversity strategy, which is focused on mainstreaming, was the priority for expenditure with \$165.6 million, or 69 percent of funds. Objective two, which is focused on protected areas management and species protection, proved a secondary priority for countries with \$65.7 million, or 28 percent, being invested. Objective three, which aims to support implementation of the two protocols and reporting obligations of the convention received a low GEF allocation, although expenditure of these amounts was high.

39. The CBD-mandated National Biodiversity Strategies and Action Plans (NBSAPs) are an important national-level instrument used for biodiversity mainstreaming planning (CBD and UNEP, 2008). 193 of the 196 Parties to the CBD have prepared and submitted at least one NBSAP. GEF support has financed all GEF-eligible countries that have requested funding to

prepare and submit their NBSAPs.

40. Eighty-five percent of biodiversity mainstreaming projects had outcome ratings in the satisfactory range. High scores were received for implementation and execution quality, with lower ratings for monitoring and evaluation and sustainability.

41. The outcome ratings of GEF mainstreaming biodiversity projects are comparable to the outcome ratings for the GEF overall portfolio, including for non-mainstreaming biodiversity projects (82 percent) and all biodiversity projects (83 percent).

42. The 2021 Annual Performance Report presents data on terminal evaluation ratings of completed biodiversity projects. It provides similar data, with 80 percent of projects rated satisfactory on execution and the same proportion on implementation. M&E design and implementation both fall short of this level at around 60 percent being satisfactory.

43. These figures may disguise variations in performance, and analysis was undertaken to explore whether regional factors were important. Looking first at implementation, global and Europe and Central Asia projects both show a high tendency toward satisfactory performance; Asian, African, Latin America and the Caribbean, and regional projects have a lower score. Project outcome ratings show similar variation, with Europe and Central Asia and global projects at the highest level, followed by Asia and regional projects.

44. All terminal evaluations (TE) and ratings are reviewed and validated by the GEF IEO and/or the evaluation office of the respective GEF partner Agency.

45. The OP7 report states that the GEF's clearly impressive project performance at the micro level is playing out against a deteriorating environmental, biodiversity, and climate situation at the macro level. It recommends that the GEF programming be acutely cognizant of this micro-macro disconnect, as it directly compromises the GEF's core mission.

46. There are regional differences in the performance ratings. Mainstreaming projects in Europe and Central Asia (ECA) perform relatively better in outcomes, M&E implementation (87%), implementation quality (93%); mainstreaming projects in Africa have the lowest APR rating both in sustainability (53%), M&E implementation (52%) and for outcomes (81%). Overall, the sustainability ratings for the mainstreaming projects in Asia, ECA and LAC are comparable (70%). Global projects tend to have the highest ratings for outcomes (93%), sustainability (91%) and execution quality (92%) but score lower in M&E design (53%) and M&E implementation (69%).

d. COP recommendation related to GEF performance

47. The Conference of Parties at its fourteenth meeting considered the sixth overall performance study of the Global Environment Facility, as a good basis for the fifth review of the effectiveness of the financial mechanism, as well as the related submissions received from Parties, and invited the Council of the Global Environment Facility to act¹⁴ to further improve the effectiveness of the financial mechanism:

e. Financial implications of future guidance

48. Estimates of the financial implication of future CBD guidance to the financial mechanism related to the four-year framework of programme priorities for GEF-8, aligned to the post-2020 global biodiversity framework, is not available due to the ongoing negotiations. Available information related to total estimated resource needs to implement the global biodiversity framework is provided in this report under the section on global reports.

¹⁴ CBD/SBI/3/6/Add.2

4. Analysis of relevant national and global reports

49. The Expert Panel reviewed and analysed below mentioned national and global reports, the details of which are provided. These reports either provide financial data for the achievement of the Strategic Plan for Biodiversity 2011-2020 or indicate overall global financial needs for the implementation of the Convention and its Protocols. Although this data is not usable to assess financial needs (incremental costs) in the context of the GEF for the eighth replenishment period, it may provide some useful information related to the past trend in national biodiversity expenditure for implementing the Convention and its Protocols.

a. National Biodiversity Strategies and Action Plans (NBSAPs)

50. In accordance with Article 6 of the CBD, Parties develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity in alignment with the objectives of the Convention. The Expert Team reviewed the NBSAPs submitted by Parties up to April 2020 for evidence of relevant financial information on the cost implications of their plans.

51. In the context of the post-2020 Framework, at the CBD COP 14 in November 2018, the Conference of the Parties, invited “Parties and other Governments to consider developing, (...) biodiversity commitments that contribute to the achievement of the three objectives of the Convention, strengthen national biodiversity strategies and action plans, facilitate the achievement of the Aichi Biodiversity Targets, and contribute to an effective post-2020 global biodiversity framework, ...”

52. At COP14 in November 2018, an update on NBSAPs was presented by the Executive Secretary (CBD/COP/14/5/Add.1).

53. Out of the 145 GEF recipient countries reviewed, 58% of the 12 eligible European countries reported some financial data in their NBSAPs; 68% of the 53 eligible African countries, 55% of the 33 eligible Latin American and Caribbean countries, and 38% of the 45 eligible Asia/Pacific countries. The financial data in the NBSAPs presents the amount of funds estimated to achieve the targets and activities set out in the NBSAP. Where the NBSAPs are aligned with the Aichi targets, the estimated funding needs similarly apply to meeting the Aichi targets. However, in many cases NBSAPs go beyond the Aichi targets and therefore, the estimated funding needs also reflect the broader in- country biodiversity priorities.

54. The Expert Team could not use data from the NBSAPs to extrapolate financing needs as the NBSAPs that did provide financial information provided an overall figure for their plan, generally up to 2020, with a few exceptions going beyond 2020. NBSAPs covered different periods and generally, did not disaggregate financial information according to source.

b. National Reports

55. Article 26 of the Convention calls for Parties to present in the form of a national report, information on measures that they have implemented towards meeting the objectives of the Convention. National reports are due every 4 years. In accordance with decision XIII/27, the Sixth National Reports (6NRs) were due on 31 December 2018. A total of 103 Sixth National Reports had been received by the CBD Secretariat and are available online.

56. The Expert Team reviewed 92 Sixth National Reports available on the CBD website at the time of writing the report to identify domestic expenditures.

57. Out of the 12 eligible European countries, 58% had reported some financial data in their latest national reports; similarly, 43% of the 53 eligible African countries, 42% of the 33 eligible Latin American and Caribbean countries and 27% of the 45 Asia/Pacific countries also provided some financial data.

58. The financial data provided in national financial reports present actual funding secured for implementation of the NBSAP. This funding is only disaggregated by domestic or international sources, indicating actual funds mobilized.

59. Regarding the Cartagena Protocol on Biosafety, the Expert Team reviewed the data provided by countries through the fourth national report. Question 167 in the national report is related to Article 28 on the Financial Mechanism and Resources asking countries to report on how much funding the country has mobilized to support implementation of the Cartagena Protocol beyond the regular national budgetary allocation in the current reporting period. More than 60 per cent of the countries reported raising between a few thousand dollars to \$500,000 or more in the reporting period. As the question 167 is limited to current resource mobilization efforts by countries, the national reports to the Protocol do not give any indication of estimated future needs from the GEF.

60. Similarly for the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization, the Expert Team reviewed questions 62.1 (Has your country made financial resources available to other Parties or received financial resources from other Parties or financial institutions for the purposes of implementation of the Protocol as provided in Article 25) and 62.3 (information on the status of funds mobilized in support of the implementation of the Protocol) of the Interim National Report on the Implementation of the Nagoya Protocol. This information has been provided by a limited number of countries and due to the questions related to current resource mobilization efforts, the national reports do not yield any data on the future GEF needs for the 2022-2026 period.

c. Financial Reporting Framework

61. The Expert Team reviewed the reports posted under the *Financial Reporting Framework: Reporting on progress towards 2020* that were available on the CBD Clearing House Mechanism (CHM). A total of 48 reports from GEF eligible countries had been submitted with data, until 2015, on domestic expenditures, including funding sources, for achieving the 2020 Aichi Biodiversity Targets. In addition, financial reports had been submitted by 17 countries with data up to 2020, of which only four were from GEF eligible countries.

62. A comparison of reported annual domestic expenditures for a selection of 48 countries from Asia/Pacific, Europe, Africa and Latin America and the Caribbean that had provided financial information up to 2015 versus an annualized GEF-7 STAR allocation (under the biodiversity allocation alone) demonstrates that for a majority (65% or 31 out of 48) the annualized GEF STAR allocation represented between 1-10% of their own domestic expenditure, while for 23% (11 out of 48) it represented between 11-50% of their own domestic expenditure and for 13% (6 out of 48) it represented over 51% of their own domestic expenditure.

63. As concerns financial reports up to 2020 included in the CBD CHM, out of the 12 eligible European countries, 33% had reported some financial data in their latest national reports; 34% of the 53 eligible African countries, 45% of the 33 eligible Latin American and Caribbean countries and 27% of the 45 Asia/Pacific countries. Financial data reported pertains to domestic expenditure.

64. In addition to the data on domestic expenditures in the past decade, the Expert Team reviewed the actual STAR allocation of countries in GEF-7 compared to their estimated needs based on the CBD questionnaire on needs assessment in 2016.

65. For the 52 GEF eligible countries that had completed the needs assessment questionnaire in 2016, the Expert Team compared the financial needs estimated in the questionnaire to the amount allocated under the GEF-7 STAR allocation for biodiversity alone (not including funding from the impact programmes or STAR allocations from the other areas

that may have included biodiversity outcomes)¹⁵

66. This comparison demonstrates that the largest share of countries (40% or 21 out of 52 countries) who completed the 2016 questionnaire were allocated under the GEF-7 biodiversity STAR allocation 20% or less of their estimated funding needs stated in the questionnaire; 31% (or 16 out of 52) received between 21-50%, 19% (or 10 out of 52) received between 51-100% and 10% (or 5 out of 52) received more than the amount they had estimated.

d. BIOFIN

67. The Panel of Experts looked at all the reports from UNDP-BIOFIN for information and data on countries' funding needs. Currently, BIOFIN supports 36 countries in reviewing policies and institutions relevant for biodiversity finance, determining baseline investments, assessing the costs of implementing National Biodiversity Strategies and Action Plans, and quantifying the biodiversity finance gap. The methodology includes the Convention and its Protocols.

68. To this date, BIOFIN has worked with most of its supported countries to review their biodiversity-related expenditures and develop financial plans to mobilize resources in the future. For example, in its 2018 expenditure review, Colombia reported that total biodiversity investments represented around US\$ 272 million per year (0.12% of national GDP). In comparison, its needs assessment reported financial needs of US\$4.2 billion for the period 2017-2030, of which it expects 24% to come from financial mechanisms¹⁶.

69. Though there are some expenditure reports available for some countries on its website, there is no relevant data that could be used to identify future needs for the period 2022-2026 of the GEF. Once a significant number of countries complete the BIOFIN projects, an estimate of at least country's total financial needs would be available that can be recorded for this assessment.

e. Global Reports

70. Five global reports on financial needs for biodiversity conservation are included in this section. These reports are concerned with estimating current global flows of financial resources for biodiversity conservation (OECD and Financing Nature); future global financial needs for biodiversity conservation or as the gap between current resources and future needs (High-Level Panel and Financing Nature); and past performance of financial resources spent on biodiversity conservation (WWF and Global Monitoring). These reports indicate that developed countries collectively have doubled their efforts in mobilizing financial resources in the last decade for biodiversity but that this effort has not been matched necessarily in the same proportion by the GEF.

71. These reports are included to provide context on the large gap between current financial flows and future financial needs for biodiversity conservation indicating an urgent need to increase financial resources of all types for the post-2020 global biodiversity framework, including the GEF.

72. According to these estimations, the gap in financial resources is of at least 5 to 8 times the current financial flows for conservation. There is no reason to believe that the 'GEF gap' would be smaller than that.

73. The amount of resources for biodiversity conservation should increase at higher rates than before to cope with the ambitious targets for the new framework, and therefore it can be deduced that the resources for the next 2 cycles of the GEF (2022-2026 and 2026-2030) should

¹⁵ Table 3 in the information document CBD/SBI/3/INF/24: GEF STAR-7 Allocation for Biodiversity as percentage of the needs assessment questionnaire (2016)

¹⁶ <https://www.biodiversityfinance.net/colombia>

also be substantially increased.

- i) *OECD Comprehensive Overview of Global Biodiversity Finance: Proposed methodology and initial results (2020)*¹⁷

74. Through aggregating information across multiple datasets reported by 80 countries, it was estimated that a total of US\$ 78-91 billion per year flows into global biodiversity finance. Flows are separated by domestic, public international, and private sector. International flows are further sub-divided into bilateral and multilateral flows and private sector flows are categorized as philanthropy and membership fees, green bonds, impact investing, biodiversity offsets, and payment for ecosystem services (PES) flows.

- ii) *Financing Nature: Closing the Global Biodiversity Finance Gap Report (Deutz et al. 2020)*¹⁸

75. This report presents an estimation on 2019 flows on global biodiversity conservation financing (US\$124-143 billion) and an estimation on global biodiversity conservation financial needs per year by 2030 (US\$ 722-967 billion). The difference (US\$ 598-843 billion per year in 2030) shows the biodiversity financing gap annually by 2030 necessary to achieve proposed conservation targets from a holistic point of view, which includes protection of existing biodiversity through protected areas, but also considers mainstreaming biodiversity conservation investment needs to adequately manage and use “productive” land and seascapes.

76. The authors recommend that international funding for biodiversity should at least double by 2030 and at least cover the costs for developing countries to develop NBSAPs and National Biodiversity Finance Plans. In addition, they recommend that the GEF should: (a) provide additional resources to developing countries for the development of BFPs alongside their updated NBSAPs through the Enabling Activities window; (b) increase the amount of resources available for the biodiversity focal area to support countries with the implementation of national biodiversity finance plans; and (c) prioritize funding for domestic policy reform, rather than discrete biodiversity field projects.

- iii) *High-level Panel on the Global Assessment of Resources for Implementing the Strategic Plan for Biodiversity 2011-2020 (UNEP/CBD/COP/12/INF/4)*¹⁹

77. A review of the 2012 High Level Panel on Global Assessment of Resources for implementing the strategic plan for biodiversity 2011-2020 has also been done. The panel highlighted the costs as well as benefits of achieving each Aichi target. The panel stated that the benefits of biodiversity conservation and sustainable use have been shown to greatly exceed the investment costs for all regions and for a wide range of Aichi Targets. Based on the High-level Panel (2012) annual aggregate estimates of investment needs, the average global per capita investment needed for biodiversity action is estimated to be between approximately US\$20 and US\$60. This translates to investment requirements ranging from 0.08 to 0.25% of global GDP.

- iv) *Global Monitoring Report 2016 (UNEP/CBD/SBI/1/INF/46)*²⁰

78. The global monitoring report 2016 provided information on the status and trends in international financial resource flows to biodiversity. It listed several sources: financial and

¹⁷ <https://www.oecd.org/environment/resources/biodiversity/report-a-comprehensive-overview-of-global-biodiversity-finance.pdf>

¹⁸ https://www.paulsoninstitute.org/wp-content/uploads/2020/09/FINANCING-NATURE_Full-Report_Final-Version_091520.pdf

¹⁹ <https://www.cbd.int/doc/meetings/cop/cop-12/information/cop-12-inf-04-en.pdf>

²⁰ <https://www.cbd.int/financial/monitoring.shtml>

development institutions for biodiversity, equities and equity markets, insurance sector, banking sector, institutional investment, and bonds. It reported that in 2014 over US\$ 7 billion of development assistance screened for biodiversity objectives had biodiversity as a principal or significant policy objective, and that the percentage of assistance screened (a measure of reporting effort) increased substantially from 38% in 2006 to 87% in 2014. It also highlighted that among member countries of the OECD/DAC Creditor Reporting System, several donor countries have more than doubled their international financial resource flows to biodiversity from the 2006-2009 average to 2014.

v) WWF Barometer on CBD's Strategy for Resource Mobilization²¹

79. The WWF Barometer report assessed how the OECD countries have achieved the resource mobilization target on international financial flows – i.e., doubling of the baseline figure by 2015 and at least maintaining this level until 2020. It uses data from the OECD Development Assistant Committee (DAC) including only funds classified as ODA and the GEF related funding portfolio data.

80. Overall, the OECD Development Assistance Committee (DAC) members that are Party to the CBD collectively doubled their biodiversity-related funding by 130% from the baseline to 2015. The funding level reached USD 7.8 billion in 2015. 43% of countries doubled their expenditures; 28% of countries had increased, but not yet doubled funding; and 29% of countries decreased their funding in 2015 compared to the baseline.

5. Consultations with regional groups and GEF implementing agencies

81. The Expert Team attended the WG2020-2 in Rome and presented the assessment and questionnaire at four regional groupings (CEE, GRULAC, Asia/Pacific, and Africa) which provided an opportunity for a question-and-answer session. This was followed by another round of regional meetings held virtually. One-to-one meetings were also held with countries when requested at the WG2020-2. In addition, the Expert Team responded to requests for assistance and organized a number of sub-regional online webinars.

- i. The Africa regional meeting, chaired by the delegate from South Africa, had a particularly good response in terms of participation and discussion. Questions were specifically raised by Ethiopia, Egypt, South Africa and Eswatini. As a follow-up the expert panel member met South Africa and Madagascar to go through the questionnaire.
- ii. The CEE regional meeting was chaired by the delegate from Georgia. This meeting also had an incredibly good response and questions were initiated by Armenia, Belarus, Russia, Tajikistan, and Bosnia-Herzegovina. As a follow-up the expert panel member met Armenia to go through the questionnaire.
- iii. The GRULAC regional meeting was chaired by the delegate from Mexico and questions were raised by Mexico and Colombia. As a follow-up the expert panel member met Colombia, Venezuela, Mexico, and Peru to go through the questionnaire.
- iv. The Asia-Pacific meeting was chaired by the delegate from India and Kuwait. There were no specific questions raised at the meeting. As a follow-up the expert panel member met Malaysia, ACB, India and Cambodia.
- v. The Expert Panel made presentations at the well-attended CBD Information Session on 26th February 2020 held jointly with the CBD Resource Mobilization panel chaired by Ms. Odile Conchou.
- vi. A meeting was held with the members of the CBD Resource Mobilization Expert Team.

²¹ <https://www.wwf.de/fileadmin/fm-wwf/Publikationen-PDF/WWF-Barometer-CBD-SRM.pdf>

- vii. In August and September 2021 online webinars were held with regional groups to present once again the questionnaire and respond to any outstanding questions. Two webinars were offered to francophone countries in September 2021. Participants from three countries (Benin, DRC and Congo) attended.
- viii. In August 2021 a webinar was held for English speaking African countries attended by 5 countries (Botswana, Egypt, Liberia, Kenya and Namibia).
- ix. A webinar was held for South Asia, in August 2021. Thirteen participants from 5 countries (Afghanistan, Bangladesh, India, Nepal and Sri Lanka) attended the South Asian webinar. These were followed by national webinars for Bangladesh, Nepal and Sri Lanka on their request.
- x. A webinar was held for the ASEAN region attended by 12 participants from 4 countries (Malaysia, Vietnam, Laos and Philippines) in August 2021.
- xi. A webinar was held for the Pacific region attended by 3 countries (Micronesia, Samoa and Cook Islands)
- xii. Two webinars were held for the GRULAC region. One for the Spanish-speaking countries and the other one for the English-speaking countries. More than 4 countries attended each webinar.

82. The CBD Secretariat reached out to 5 GEF implementing agencies for the expert team to consult. Consultations were held with the World Bank and IUCN.

- i. The IUCN representative noted that the GEF now has a much more streamlined process which works effectively. She highlighted the importance of country focal points engaging with the agency having the most relevant expertise and which is more likely to be able to leverage the co-funding required.
- ii. Challenges she identified concern projects that straddle more than one focal area and that may, therefore, not be captured by any STAR allocation. She noted the inevitable competition generated by the number of GEF agencies now active, and in some countries, all vying for a small amount of funds through the STAR allocation. She also highlighted the importance of blended funding as a useful way of generating co-funding, including in the form of non-grant funding (which can reach significant amounts).
- iii. An example of a project she considered successful, is the "Conservation Finance Initiative - scaling up and demonstrating the value of blended" (CPIC) which is an example of an innovative partnership on blended financing funded by GEF-6. It brings together Credit-Suisse, Cornell University IUCN and TNC and now has around 100 coalition partners. The aim of the initiative is to leverage public and private financial agencies, philanthropic bodies, conservation organizations and expert advisors to deliver a set of innovative conservation projects in which partners can invest. Funding to projects through the initiative is through a combination of grant and reimbursable funding.
- iv. The World Bank²² (WB) representatives noted that GEF funding for biodiversity support is 26% and biodiversity is one of the most important areas, though the use of GEF funds has been going down. Some reasons are that it is often difficult to demonstrate functionality. There is also more competition and more capacity to implement projects.
- v. They presented us with two examples of successful projects implemented by the World Bank for biodiversity conservation: the Seychelles Blue Bond and Madagascar Sustainable Landscapes Project. In the Seychelles project, they

²² The WB is just one more among many numbers of capacity implementers.

helped the government to issue the world's first Blue Bond in 2018. They mobilized US\$15 million of private sector investment to support the ocean economy and helped the Seychelles' government save over US\$ 8 million in interest charges over the next ten years. In Madagascar, with US\$ 107 million of total funding, they developed a project to increase access to improved irrigation services and agricultural inputs and strengthen the integrated management of natural resources by local actors and, to provide immediate and effective responses to emergencies.

- vi. They also mentioned that going forward, in a post-COVID-19 world, the World Bank. will leverage additional funding from the GEF and will not look just at ecosystems alone but together with other areas (e.g., food security).
- vii. As part of the consultation, they also highlighted how they are developing different scenarios of global economic models to understand welfare implications from changes in ecosystem services that will help to have a deeper knowledge of the impact from conservation funding that could be also relevant for GEF projects.

6. Assessment of the submitted questionnaire on funding needs for the implementation of the Convention and its Protocols

83. In accordance with paragraph 11 of the terms of reference, a questionnaire was developed by the Expert Team to provide information on the total funding needs for prioritized projects for GEF-8²³. The questionnaire and its guidance were made available online in English, French and Spanish between end of February 2020 and October 2021. A total of 11 follow up discussions were held with Parties. Feedback on the questionnaire was positive with Parties confirming that it was easy to complete.

84. The questionnaire includes both qualitative and quantitative information. It requests Parties to list for each project the total estimated funding needs, likely co-funding available and GEF needs using the incremental cost method. In addition, information was requested of the Parties concerning the likely characteristics of the proposed projects (biome, species, integrated programmes, strategies, linkages with other conventions and with the SDGs).

85. As of 22 October 2021, 44 GEF recipient countries had responded to the questionnaire, providing data on a total of 210 potential projects. This proportion (30%) is somewhat low to arrive at a robust conclusion considering that it did not derive from a randomized sample, though it did allow the Expert Team to carry out an indicative analysis for the purposes of this report. A simple analysis of the submissions indicates a well-balanced representation of countries spread across all the relevant regions, including least developed countries, small island developing states and megadiverse countries.

86. As in past years, on the assumption that not all Parties would reply, to reach the final overall figure of funding needs for GEF-8, extrapolations are necessary.

87. The analysis of the questionnaire also provides a qualitative description of the overall portfolio of projects likely to be submitted to GEF-8. A description of the proposed overall portfolio of projects is provided split across biomes, species characteristics, strategic objectives, and integrated programmes. This information may be useful in guiding GEF programmatic decisions.

88. The analysis relies entirely on the data provided by Parties which responded to the questionnaire. Thus, two caveats apply to this analysis: 1. It does not represent the entire

²³ <https://www.cbd.int/financial/gef8needs.shtml>

portfolio likely to be submitted to the GEF-8 (considering a 30% response rate); and 2. It is subject to any potential discrepancies in the questionnaire (i.e., any possible errors or misinterpretations).

a. Portfolio characteristics based on questionnaire responses

89. By October 2021, 44 GEF-eligible Parties (out of 145) had responded to the questionnaire. The analysis of these questionnaires provides an estimation of financial needs for 210 proposed projects.

90. The analysis indicates that estimated total funding needs for these 210 projects from 44 countries amount to USD 4,049,921,897²⁴. Of this amount, governments are expecting to co-fund 39% and obtain 29% from other sources, leaving the GEF to co-fund 32%. An estimated 78% of projects (totalling USD 3.16 billion) related to the convention, while 21% (USD 850 million) and 38% (totalling USD 1.54 billion) related to the Cartagena Protocol and the Nagoya Protocol respectively (note that the sum is greater than 100% since some projects are related to both the convention and one or both protocols).

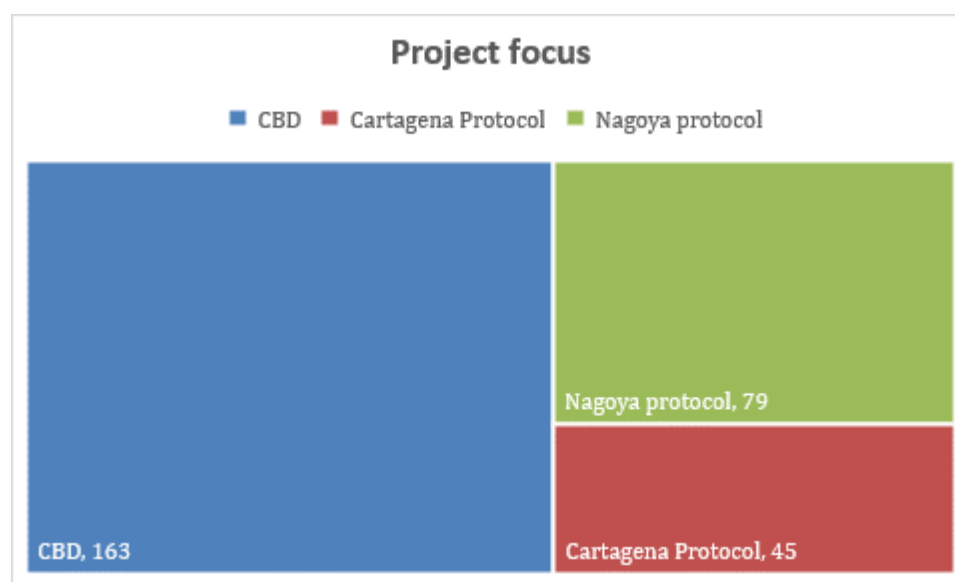


Figure 1: Number of projects related to the CBD, the Nagoya Protocol and the Cartagena Protocol (note that the total is larger than the total number of projects since some projects are related to both the convention and one or both protocols).

²⁴ The total amount was derived by adding the GEF financing needs, the co-funding expected from governments and the co-funding expected from other sources. It does not necessarily match the total funding needs provided in the relevant column in the questionnaire as some projects are related both to the convention and one or both protocols..

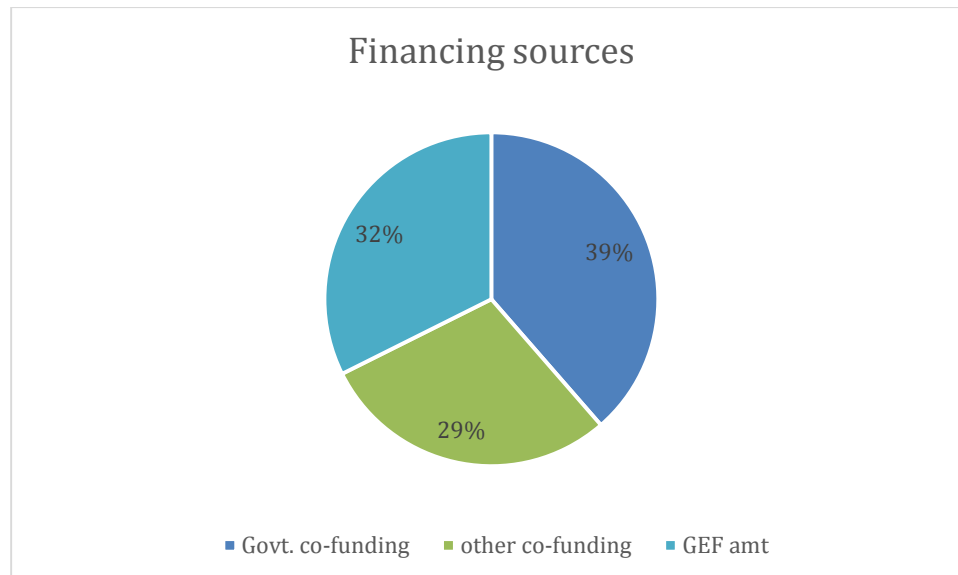


Figure 2: Of the estimated total funding needs for the 210 projects from 44 countries governments are expecting to co-fund 39% and obtain 29% from other sources, leaving the GEF to co-fund 32%.

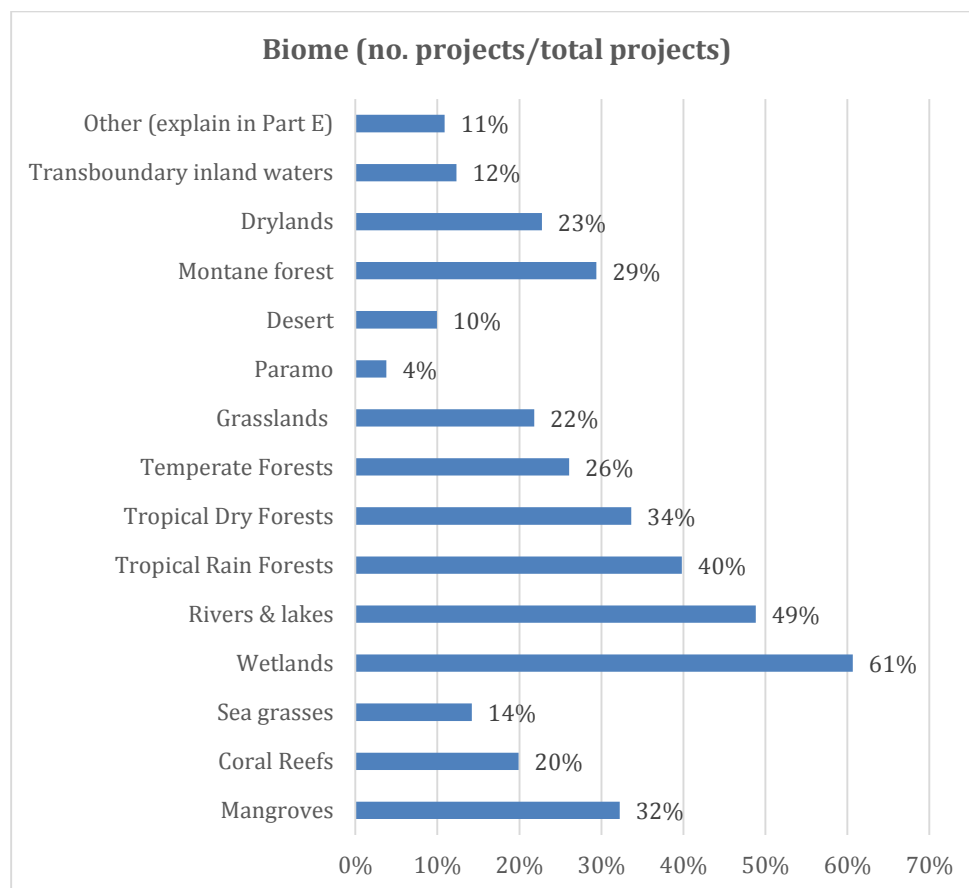


Figure 3: The analysis of the biomes show that wetlands are the most prevalent biome addressed by projects, with 61% of anticipated projects addressing wetlands, followed by rivers and lakes at 49% then tropical rainforests at 40%. The least prevalent biomes are paramo at 4% and deserts at 10%.

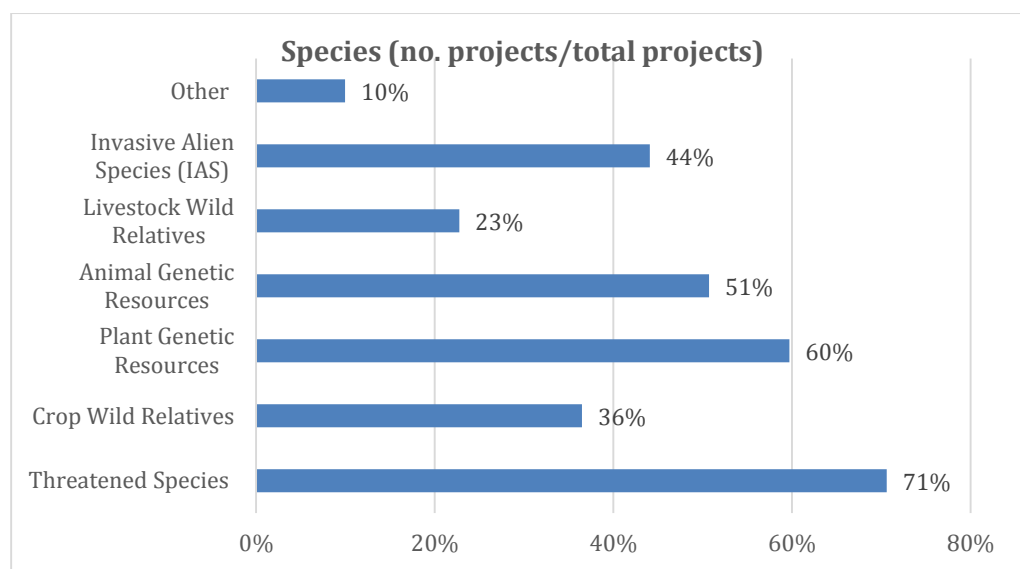


Figure 4: A total of 70% of projects are expected to address threatened species with plant genetic resources appearing in 60% of anticipated projects and animal genetic resources in 51%. Livestock wild relatives were only expected in 23% of projects.

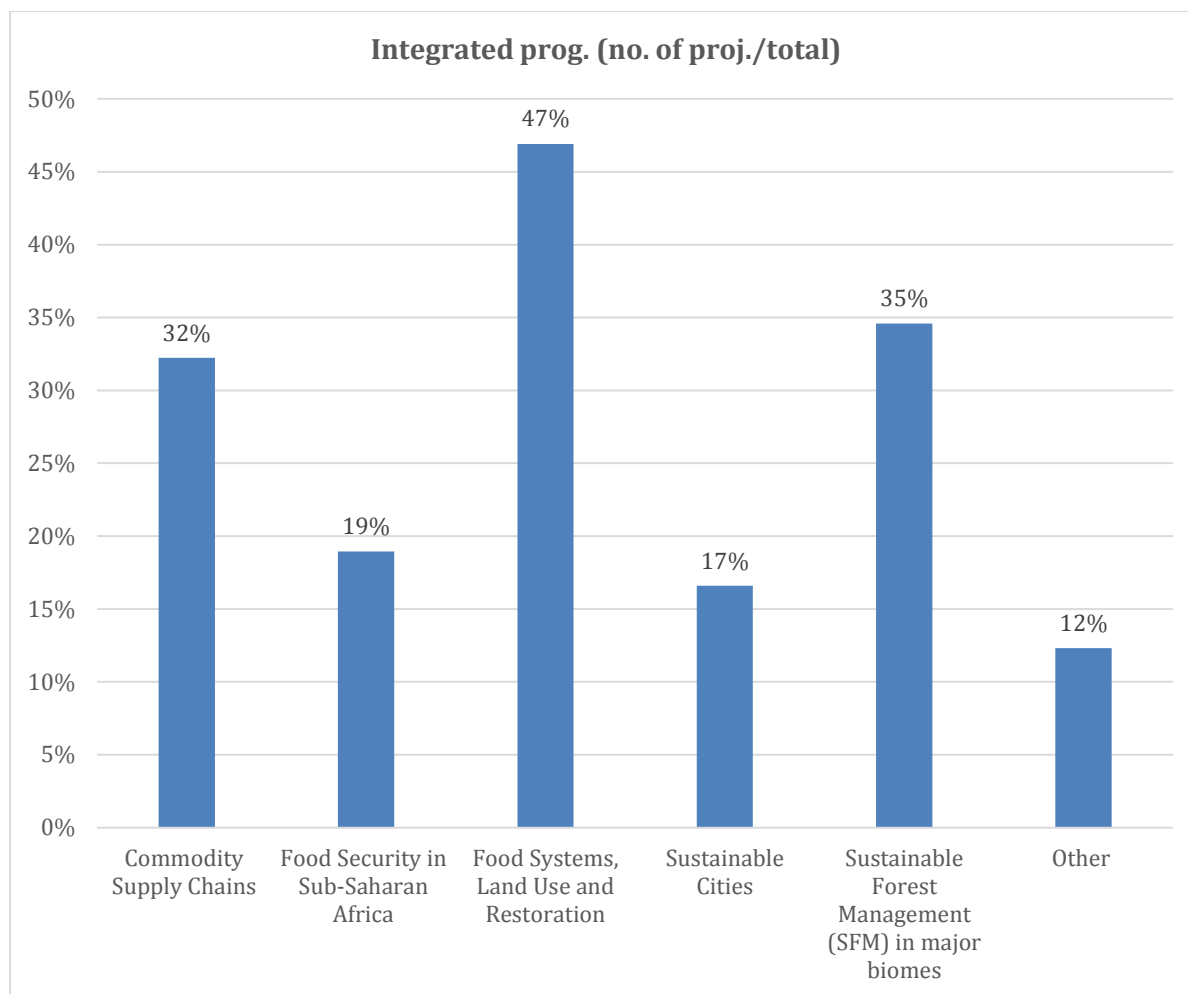


Figure 5: All integrated programmes of the GEF (as per GEF-7) appear reasonably important across the planned projects, with “food systems, land use and restoration” being the most prevalent at 47% and “sustainable cities” being the least prevalent at 17%.

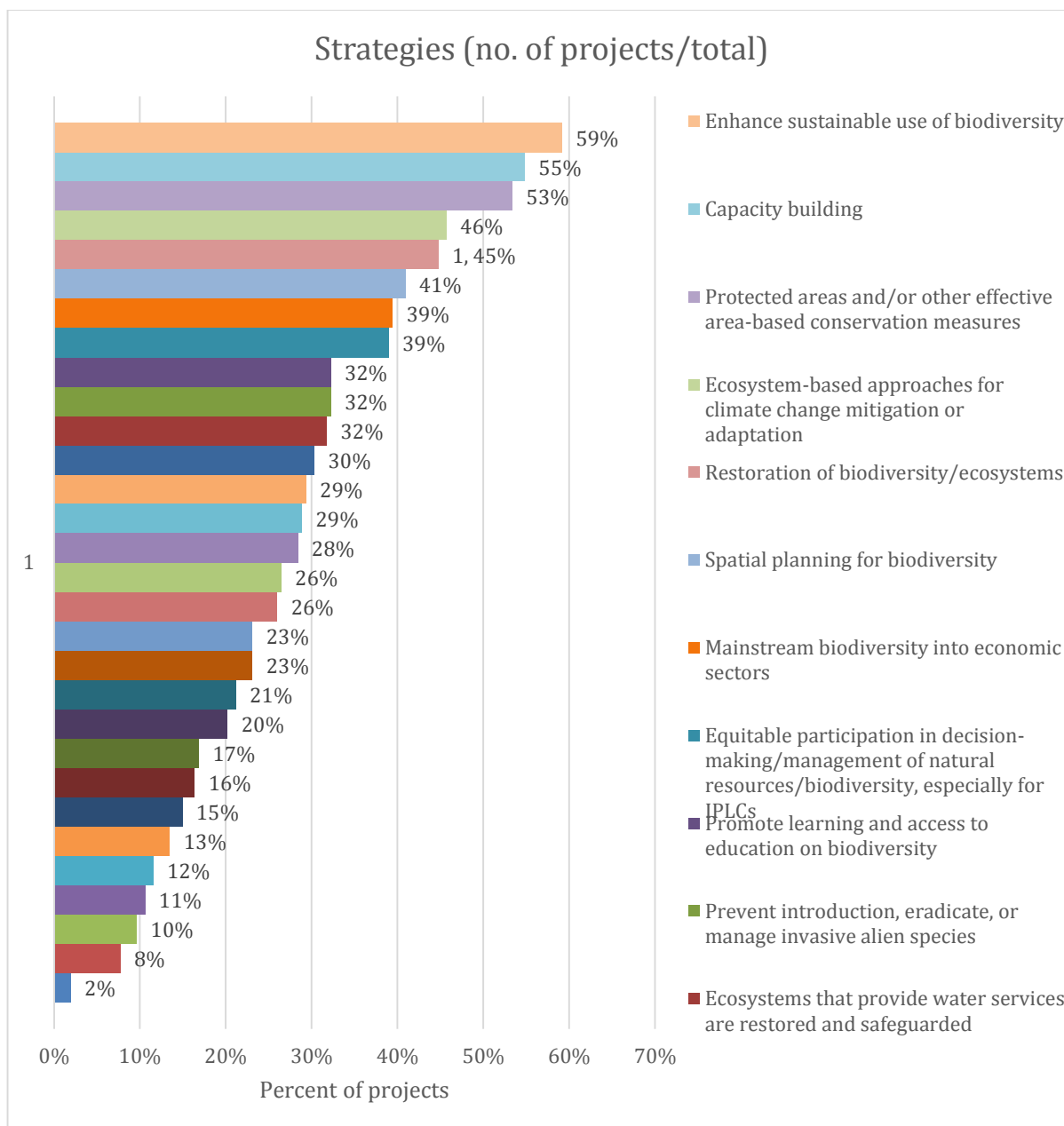


Figure 6: In terms of strategic objectives, enhancing the sustainable use of biodiversity, at 59% was the most cited strategy across proposed projects, followed by capacity building at 55% and protected area and/or other effective area-based conservation measures at 52%. The least common strategies were “preventing potential adverse impacts of biotechnology” at 8%, “strengthening capacity for implementation of the Cartagena protocol on biosafety” at 10% and “enhancing access to green spaces” and “REDD+” both at 11%.

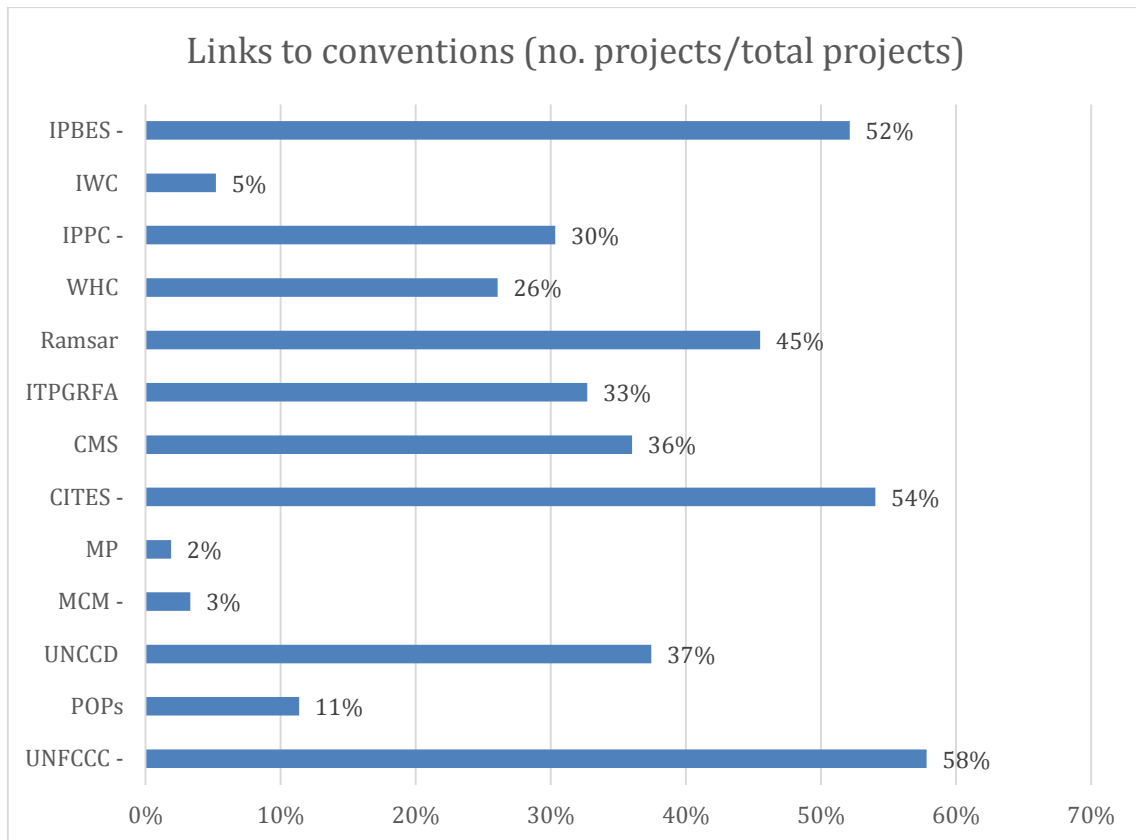


Figure 7: Most projects described (58%) had a link to the UNFCCC, with 54% having a link to CITES and 52% to IPBES. At the other extreme, the IWC, Montreal Protocol on Substances that Deplete the Ozone Layer and Minamata Convention on Mercury were only covered by 5%, 2% and 3% of projects respectively. Finally, SDG 15 (Life on Land) was the most cited (75%) followed by SDG 13 (climate) with 61% and SDG3 (Good health and Human wellbeing) with 58% and SDG 14 (Life below water) with 39%. SDG 7 (Affordable and Clean Energy) was the least cited, at 8%.

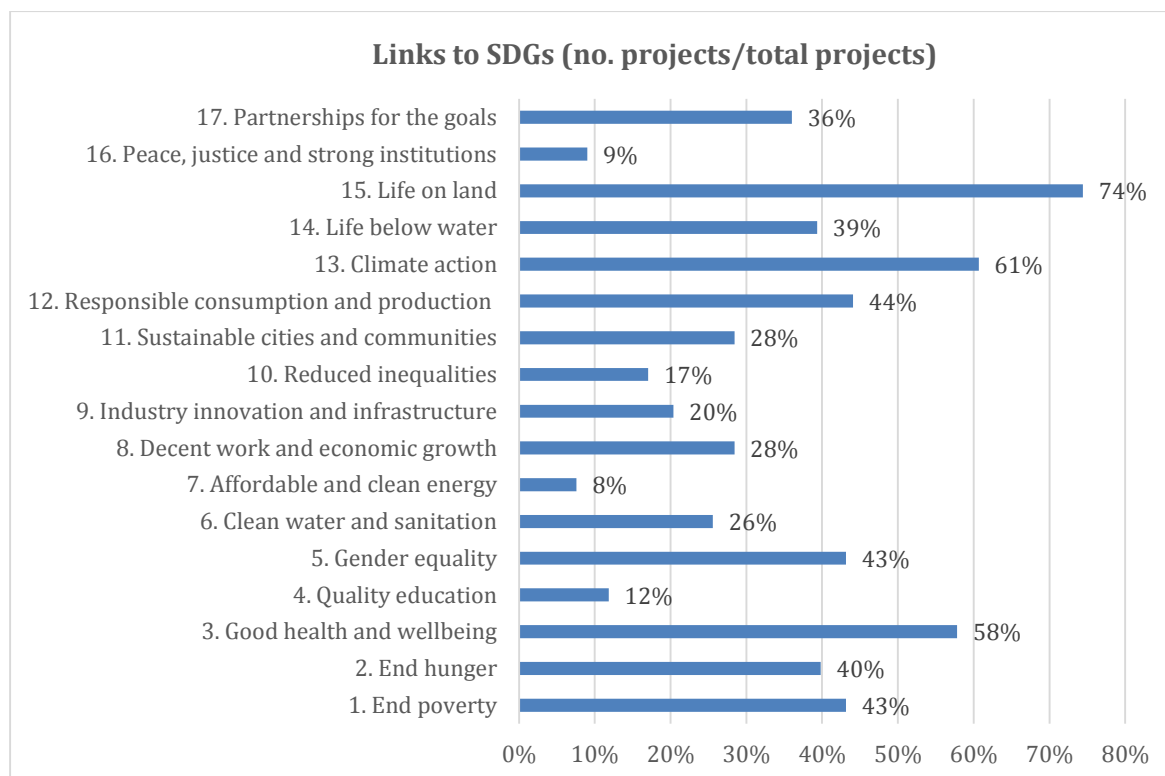


Figure 8: SDG 15 (Life on Land) was the most cited (75%) followed by SDG 13 (climate) with 61% and SDG3 (Good health and Human wellbeing) with 58% and SDG 14 (Life below water) with 39%. SDG 7 (Affordable and Clean Energy) was the least cited, at 8%.

Table 1: Country responses to questionnaire on funding needs

			Funding			
	Country	No. of proposed projects	GEF amt. (USD)	Govt. co-funding (USD)	other co-funding (USD)	TOTAL (USD)
1	Algeria	8	21,424,500	89,847,000	16,600,000	127,871,500
2	Armenia	4	17,300,000	3,650,000	5,750,000	26,700,000
3	Bahamas	1	2,500,000	1,000,000		3,500,000
4	Bangladesh	4	75,000,000	33,000,000	0	108,000,000
5	Belarus	1	2,000,000			2,000,000
6	Benin	1	75,000,000	13,000,000	19,000,000	107,000,000
7	Bhutan	4	7,700,000	2,750,000	350,000	10,800,000
8	Bosnia and Herzegovina	4	7,500,000	2,600,000	0	10,100,000
9	Brazil	7	262,680,000	0	138,350,000	401,030,000
10	Burundi	1	850,680	50,000		900,680
11	Central African Republic	12	26,682,174	2,109,890	150,000	28,942,064
12	Chad	7	47,500,000	6,200,000	18,300,000	72,000,000
13	Colombia	8	168,380,424	228,546,031	524,883,446	921,809,901
14	Comoros	3	5,935,000	15,000	50,000	6,000,000

15	Congo	3	750,000	375,000	375,000	1,500,000
16	Costa Rica	1	55,000	15,000		70,000
17	Democratic People's Republic of Korea	7	6,180,000	2,820,000	0	9,000,000
18	Dominican Republic	3	200,000	178,000	22,000	400,000
19	Ecuador	15	60,300,000	156,500,000	23,500,000	240,300,000
20	Georgia	4	5,000,000	800,000	16,000,000	21,800,000
21	Iraq	1	300,000	100,000	100,000	500,000
22	Jordan	7	13,500,000	0	0	13,500,000
23	Kenya	1	900,000	100,000		1,000,000
24	Liberia	1	2,000,000	250,000	500,000	2,750,000
25	Madagascar	6	91,000,000	14,000,000	46,350,000	151,350,000
26	Mali	7	5,571,504	931,767	1,128,651	7,631,922
27	Mexico	15	140,780,000	579,184,936	201,420,000	921,384,936
28	Mongolia	3	3,400,000	250,000	0	3,650,000
29	Morocco	3	4,125,000	600,000	1,000,000	5,725,000
30	Myanmar	3	12,500,000	0	0	12,500,000
31	Nepal	4	16,500,000	23,500,000	9,500,000	49,500,000
32	Nigeria	4	700,000	62,500	32,500	795,000
33	Pakistan	3	15,000,000	15,000,000	0	30,000,000
34	Philippines	8	34,767,185	171,335,925	59,090	208,603,110
35	Senegal	6	22,600,000	5,550,000	7,700,000	35,850,000
36	Seychelles	10	24,750,000	32,600,000	63,500,000	120,850,000
37	South Africa	4	3,000,000	111,000,000	25,000,000	139,000,000
38	Sudan	2	9,000,000	3,000,000	0	12,000,000
39	Suriname	10	76,000,000	6,550,000	4,750,000	87,300,000
40	Togo	1	7,900,500	550,000	10,500,000	18,950,500
41	Trinidad and Tobago	2	3,000,000	3,000,000	0	6,000,000
42	Tunisia	6	10,000,000	2,000,000	700,000	12,700,000
43	Viet Nam	1	20,000,000	50,000,000	40,000,000	110,000,000
44	Zambia	4	983,556	114,638	0	1,098,194
	TOTAL	210	1,311,215,523	1,563,135,687	1,175,570,687	4,052,362,807

b. Potential scenarios

91. The purpose of the expert team's work was to collect financing needs from all GEF-eligible CBD parties to identify the overall needs for GEF-8. Should all parties respond to the questionnaire, then this would form the basis for the analysis.

92. However, as not all parties submitted this data, different scenarios were used to extrapolate data from existing sources and to define the financing needs for GEF-8. Thus, based on the data provided through questionnaire responses, as well as using insights from previous GEF STAR allocation amounts for biodiversity, at least 3 scenarios were used to project the total amount estimated for GEF-8 cycle. The expert team presents below 3 possible scenarios for the total amount of funds needed from GEF-8 cycle. The lower projection (Scenario 2), however, is not adequate to current circumstances given that it does not take into

account that the new post-2020 global biodiversity framework is currently being negotiated and that GEF-8 funding would apply to this new ambitious strategy.

93. The Expert Team had also reviewed number of national reports submitted to CBD as detailed in section 3 above, but most of this data either reflected the current expenditure or projected needs for achieving the national targets within the 2010-2020 time period of the CBD Strategic Plan. It was not possible to extrapolate financing needs for the period 2022-2026 based on this data.

Scenario 1: Estimate based on questionnaire responses and applying multiplier to GEF-7 STAR allocation to biodiversity

94. Using the data from the Parties that submitted responses to the questionnaire (44 to date), we compared them to the GEF-7 STAR allocation for biodiversity (not including funding from the impact programmes or STAR allocations from other areas that may have included biodiversity outcomes). The percentage increase (or decrease) between GEF-7 STAR allocation to biodiversity and the questionnaire amount was calculated. The average of these percentages was calculated to obtain a multiplier. Applying this figure to the total GEF-7 STAR allocation to biodiversity can provide one means of estimating GEF-8 funding needs. This multiplier figure will be more accurate the larger the number of questionnaire responses.

95. The total amount requested in the questionnaire for the GEF was USD 1.311 billion from 44 countries with 210 projects. A total of USD 417 million were allocated under the GEF-7 STAR allocation. Comparing the STAR allocation with the amount requested from the GEF, there is a 215% percentage increase.

96. We multiplied the STAR allocation only for the countries that had not provided any estimate (101 countries) by this percentage and kept the estimates from the questionnaire (44 countries). We added up all the projections for the 145 countries to get a total amount projected of GEF-8 cycle funding needs of USD 2.7 billion.

Scenario 2: Estimate based on GEF-6 and GEF-7 STAR allocation to biodiversity

97. By calculating the percentage change between GEF-6 and GEF-7 for each of the 145 countries under the STAR allocation (biodiversity) and averaging this percentage over the total, we obtain an average across the parties of 14% increase. This multiplier could then be used in two ways: a) to simply calculate an unambitious change at the same level for GEF-8, or b) doubling this multiplier to provide a more ambitious estimation. Doubling the multiplier as an option was considered based on the past and current discussions on resource mobilisation within CBD. At COP11, the Parties agreed to double the international financial flows to implement the 2010 National Strategic Plan and its Aichi targets. In the current negotiations on resource mobilisation (Target 19), the reflections by the co-chairs following the first session of the third meeting of the working group on the post-2020 global biodiversity framework²⁵, point out that the proposed increase of \$10 billion in international financial flows roughly represents a doubling of support made available to developing countries.

98. In this way, applying the multipliers to the USD 1.292 billion allocated to the biodiversity focal area for the GEF-7 period,²⁶ the increase between GEF-6 and GEF-7 for each of the 145 countries examined is applied, the anticipated funding for GEF-8 would be approximately between USD 1.5 billion and USD 1.7 billion. This linear increase does not take into account the fact that an entirely new post-2020 global biodiversity framework is currently being negotiated and that GEF-8 funding need to apply to this new ambitious strategy.

²⁵ <https://www.cbd.int/doc/c/e26d/3f00/7cb7a016a3b9bed6304f86aa/wg2020-03-06-en.pdf>

²⁶ CBD/SBI/3/6/Add.1

Scenario 3: Estimation based on extrapolating the responses to the questionnaire to the total number of GEF-eligible parties using a statistical model

99. In this scenario, we use the amount of GEF needs reported in the questionnaire and five country characteristics (the number of threatened species as an indication of national biodiversity condition, gross domestic product (GDP) and population density to represent potential pressures on biodiversity, and thus drivers of funding needed, and land area to control for the size of the country) for each country which reported GEF funding needs²⁷. This model provides a statistical relationship between GEF funding needs in the questionnaire and country characteristics. We used this model to project funds to all the other Parties who had not reported their financing needs using the questionnaire.

100. The model was able to explain 63% of the variation on GEF funding and able to project GEF funding needs for 138 countries. There was not enough data on country characteristics for Congo, Cook Island, Democratic People's Republic of Korea, Niue, Somalia, Syria, and Sudan to get projections. The total GEF-8 cycle funding needs projected for all 138 countries was equal to USD 3.7 billion.

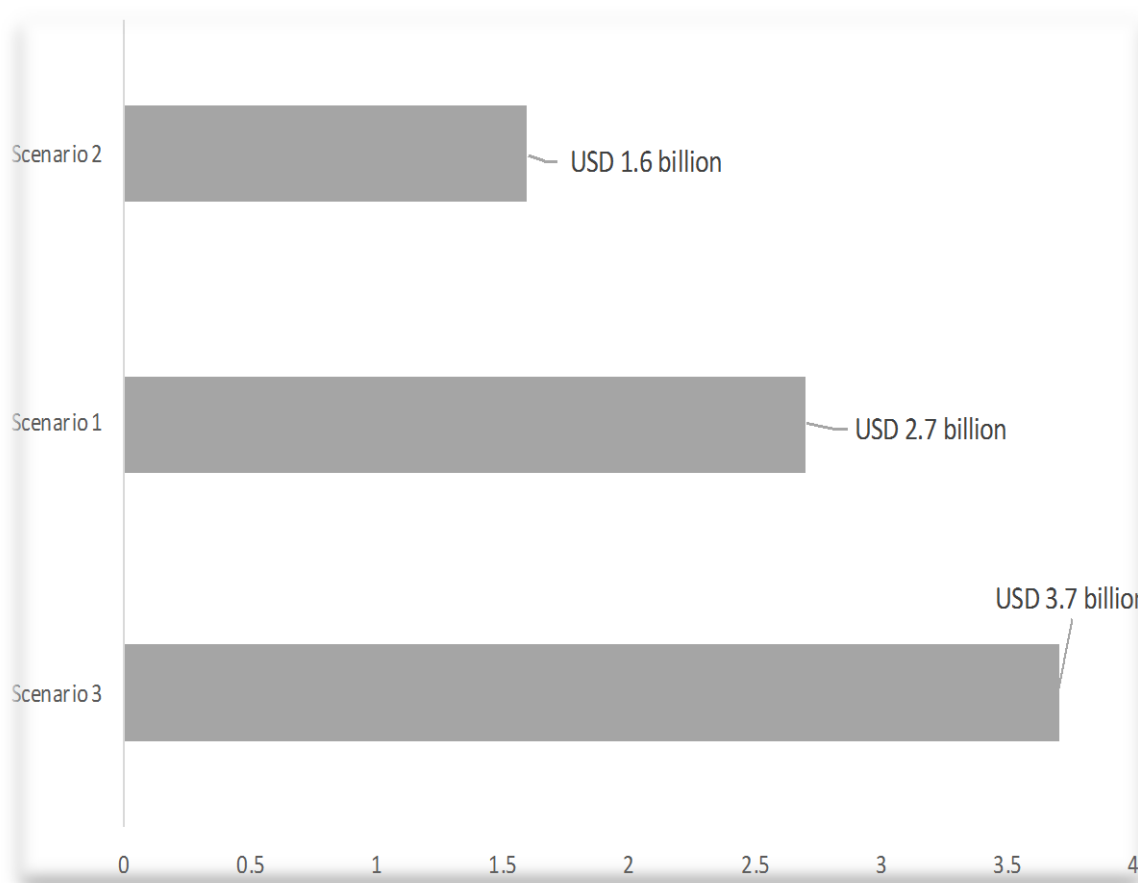


Figure 9: The three scenarios resulted in GEF funding needs for implementing the Convention and its Protocols, over the eighth replenishment period (2022-2026), range from USD 1.5 billion to USD 3.7 billion.

7. Conclusion

101. The Expert Team used the questionnaire and other data to provide CBD Parties with

²⁷ The Supplementary material provides the results and details about this estimation

three possible scenarios for financing needs from the GEF. Using these analyses, financing needs from GEF-8 can be estimated at between USD 1.5 billion and USD 3.7 billion. However, comparing the resource mobilization targets indicated in the draft post-2020 global biodiversity framework with previous CBD targets on resource mobilization it can be observed that the current targets are more ambitious and will require higher financial support than previously required.

102. There was no CBD needs assessment done prior to the start of the Strategic Plan for Biodiversity 2011-2020. The first needs assessment was done for the GEF-6 replenishment period of 2014-2018. This assessment had multiple scenarios, but if just considering the middle scenario based on the GEF co-financing ratio for biodiversity (1:4) that existed in that period, the needs assessments ranged from \$7 billion to \$17 billion for the 4-year period²⁸. The second needs assessment conducted in 2016 for the GEF-7 replenishment, estimated an amount of US\$ 2.739 billion under its scenario 1, based on a 1:2 co-financing ratio²⁹. Compared to these, the current assessment ranges from US\$ 1.5 billion to US\$ 3.7 billion for the GEF-8 replenishment, based on roughly a 1:3 co-financing ratio. The significant difference compared to the first assessment is likely a result of the more focused, project-oriented, methodology that has been employed since the 2016 needs assessment. The present assessment may also benefit from the experience gained by countries in the 2016 assessment which was the first time a project-oriented methodology was used.

103. The discussion related to resource mobilisation in the Open-ended Working Group on the Post-2020 Global Biodiversity Framework also indicates that CBD parties consider GEF to be part of a much larger effort to finance the implementation of the convention and its protocols from all sources. Moreover, the Expert Team also learned from the experience of the previous assessments and provided a more detailed guidance to assist countries project future financial needs while applying the incremental cost principle and broadly identifying the sources and amount of co-financing.

104. The GEF-6 replenishment achieved a 50% nominal increase in total replenishment over GEF-5 (from \$ 3.135 to 4.2 billion) while the biodiversity component increased from \$1.2 billion to \$1.296 billion, a 16% jump only. The biodiversity component for GEF-7 was \$1.292 billion. The co-financing ratio has averaged around 1:5 in the GEF biodiversity portfolio (OPS7)³⁰.

105. As part of the commentaries submitted for the first report from the panel of experts on resource mobilization for the post-2020 global biodiversity framework with respect to Goal 3 on strengthening existing financial institutions and promoting replication and scaling-up of successful financial mechanisms and instruments, it was mentioned that there is a gap in the strategy for resource mobilization in relation to the limitations of GEF to provide non-grant financing²².

106. As a general observation it was also mentioned that GEF being the financial mechanism of the CBD, its biodiversity-related GEF funding increased only by about 30 per cent between GEF-4 and GEF-7. The GEF has supported around 1,300 projects in more than 155 countries through investments of more than US\$ 3.5 billion and more than US\$ 10 billion in co-financing.

107. As a recommendation, the third report from the panel of experts on resource mobilization for the new post-2020 global biodiversity framework, mentions that given that the GEF is the financial mechanism of the CBD, it should: (a) maintain a key role in mobilizing resources for

²⁸ Table 1 of the GEF-6 needs assessment report, <https://www.cbd.int/doc/meetings/cop/cop-11/information/cop-11-inf-35-en.pdf>

²⁹ Table 12 of the GEF-7 needs assessment report, <https://www.cbd.int/doc/meetings/cop/cop-13/information/cop-13-inf-16-en.pdf>

³⁰ Figure 3.1g in the Final Report of OPS7 (Seventh Comprehensive Evaluation of the GEF), November 2021

implementation of the Convention, given its role in mainstreaming biodiversity into development efforts, and ensuring the effective use of resources, (b) strengthen the focus on the protocols and (c) strengthen the linkages with the Green Climate Fund (GCF) to catalyse additional financing for biodiversity.

108. The draft GEF-8 replenishment document on programming directions already includes some of these recommendations highlighting its three objectives being, to improve conservation, sustainable use, and restoration of natural ecosystems; to effectively implement the Cartagena and Nagoya protocols; and to increase mobilization of domestic resources for biodiversity.

Annex 1

Supplementary Information

1. For scenario 3 we consider a statistical model to estimate a linear relationship between GEF funding needs and country characteristics. This model projects GEF funding needs for all GEF recipient countries with enough information on country characteristics. Cross-sectional data per country on five characteristics from World Bank databases was collected for the 44 countries that reported some GEF funding need through the questionnaire. The characteristics included: 1. the numbers of threatened species as indication of national biodiversity condition. 2. Gross domestic product (GDP) and 3. population density to represent potential pressures on biodiversity, and thus drivers of funding needed, and 4. Land area to control for the size of the country. The model followed the following steps to obtain projections for GEF funding needs for GEF-8 cycle. The steps were as follows:

Step 1. Model a linear relationship between GEF funding needs of reporting countries in the questionnaire (44 countries)³¹ and the country characteristics presented above.

Step 2. Estimate GEF funding needs for non-reporting countries (101 countries) using the linear relationship fitted in step 1.

Step 3. Estimate TOTAL GEF funding needs summing up estimated projections of GEF funding needs from step 2 (101 countries) with all GEF funding needs reported in the questionnaire (44 countries).

2. To estimate the relationship between average domestic expenditures and other country characteristics for reporting countries (step 1), we used a multivariate linear regression model of the form:

$$\begin{aligned} GEF\ funding_i &= \alpha_0 + \alpha_1 GDP_i + \alpha_2 \ln threat\ species_i \\ &+ \alpha_3 \ln land\ area_i + \alpha_4 \ln pop\ density_i + \varepsilon_i \end{aligned} \quad 3. \quad (1)$$

where coefficients (alphas) were found using an ordinary least squares method. This method minimizes the sum of the squares of the differences between the observed GEF funding needs values of reporting countries in the questionnaire and those predicted by the linear function combining country characteristics, as shown in the equation above.

Table 1. List of country characteristics included in the models

Country characteristic	Year	Unit
Gross domestic product (GDP)	2010	US\$
Total land area	2018	Square km
Number of threatened mammal species	2018	Sum of species
Number of threatened bird species	2018	Sum of species
Population density	Avg. 2006-2018	Population/land area

Note: All the country characteristics were collected from World Bank databases.³²

³¹ “Reporting countries” here refers to countries that provided funding needs using the questionnaire; “non-reporting countries” refers to countries that did not provided estimations using the questionnaire.

³² <https://data.worldbank.org/>, <https://www.worldbank.org/en/programs/icp#5>, <https://info.worldbank.org/governance/wgi/Home>.

Table 2. Data description, source and link for analysis per country

Country characteristic	Description	Source	Link
Gross domestic product (GDP)	GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in constant 2010 U.S. dollars. Dollar figures for GDP are converted from domestic currencies using 2010 official exchange rates. For a few countries where the official exchange rate does not reflect the rate effectively applied to actual foreign exchange transactions, an alternative conversion factor is used.	World Bank national accounts data, and OECD National Accounts data files.	https://data.worldbank.org/indicator/NY.GDP.MKTP.KD
Total land area	Land area is a country's total area, excluding area under inland water bodies, national claims to continental shelf, and exclusive economic zones. In most cases the definition of inland water bodies includes major rivers and lakes.	Food and Agriculture Organization, electronic files and website.	https://data.worldbank.org/indicator/AG.LND.TO.TL.K2
Number of threatened mammal species	Mammal species are mammals excluding whales and porpoises. Threatened species are the number of species classified by the IUCN as endangered, vulnerable, rare, indeterminate, out of danger, or insufficiently known.	United Nations Environment Programme and the World Conservation Monitoring Centre, and International Union for Conservation of Nature, Red List of Threatened Species.	https://data.worldbank.org/indicator/EN.MAM.THRD.NO
Number of threatened bird species	Birds are listed for countries included within their breeding or wintering ranges. Threatened species are the number of species classified by the IUCN as endangered, vulnerable, rare, indeterminate, out of danger, or insufficiently known.	United Nations Environment Programme and the World Conservation Monitoring Centre, and International Union for Conservation of Nature, Red List of Threatened Species.	https://data.worldbank.org/indicator/EN.BIR.THRD.NO

Population density	Population density is midyear population divided by land area in square kilometers. Population is based on the de facto definition of population, which counts all residents regardless of legal status or citizenship--except for refugees not permanently settled in the country of asylum, who are generally considered part of the population of their country of origin. Land area is a country's total area, excluding area under inland water bodies, national claims to continental shelf, and exclusive economic zones. In most cases the definition of inland water bodies includes major rivers and lakes.	Food and Agriculture Organization and World Bank population estimates.	https://data.worldbank.org/indicator/EN.POP.DNST
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Table 3. Summary statistics for data used in the models

Country data	Obs.	Sum	Mean	St. Dev.	Max	Min
Gross domestic product (GDP) (US\$ billion 2010)	44	7.436	169	400	2,200	1
Total land area (Sq. km)	44	31,635,421	718,987	1,352,706	8,400,000	460
Number of threatened mammal species (N)	44	1,108	25	25	121	2
Number of threatened bird species (N)	44	1,444	33	34	175	5
Population density (Pop/land area)	44		135	197	1,161	2

Table 4. Linear Regression Results

Dependent variable: GEF funding needs	
Explanatory variables	Model coefficients
GDP	7.48e-5***
Ln(Total land area)	-8.23e6
Ln(Average population density)	-1.32e7*
Ln(Number of threatened species)	3.24e7 ***
Constant	5.21e7
White-Huber Standard Errors (heteroscedasticity robust)	Yes
Observations	44
R-squared	0.63

Annex 2

Team of experts for preparing a report on the assessment of funds needed for the eighth replenishment of the Global Environment Facility to implement the Convention and its Protocols

1. **Ravi Sharma**, a national of India and former Director of Implementation and Technical Support at the Secretariat of the Convention on Biological Diversity for almost 10 years, has over 30 years of success in strategizing, implementing, and championing global environmental and innovative programs for the United Nations Environment Programme, Global Environment Facility (GEF), and policy think tanks in India and Kenya. In this period he designed and executed 100+ global, regional and national projects on climate change and biodiversity, and orchestrated more than 50 international policy negotiations and technical workshops. At CBD he had the oversight of its relations with the GEF and issues related to resource mobilization and facilitated the first and second reports of the High-level Panel on the Global Assessment of Resources for Implementing the Strategic Plan for Biodiversity 2011-2020. He is currently advising conservation groups on the post-2020 global biodiversity framework, providing technical support to review projects under a global climate change initiative, assisting a program to transfer risk through micro-crop insurance at farm level and provide farmers with compensation resulting from climate shocks etc. He has a master's degree in economics and a certificate in environmental management.
 2. **Stephanie Mansourian**, a dual Swiss/Egyptian national, has been an environmental consultant for the last 15 years and is also a research associate with Geneva University. Her work in the last 25 years has spanned several environmental topics, including restoration, air pollution, environmental governance, protected areas, and sustainability partnerships among others. She was at the forefront of the development of forest landscape restoration (FLR) at the time when she was managing WWF's related program. Since then, and based on her observations of FLR programs and projects, she carried out her PhD specifically on governance challenges related to FLR. In her work, she takes an integrated approach and seeks to span disciplines wherever possible. As a consultant, her clients include NGOs, conventions, UN agencies and foundations. Her voluntary commitments include serving as a board member of the Audemars Watkins Foundation, a board member of the Society for Ecological Restoration and as deputy coordinator of the IUFRO Task Force on "Transforming forest landscapes for future climates and human well-being". She has published three books and authored several articles in peer reviewed journals.
 3. **Yasha Feferholtz**, a Chilean national, is a fellow at EcoHealth Alliance. In this position, Yasha has been working and advising on USAID and DTRA funded projects for sustainable development and health economics in Indonesia, Malaysia, Thailand, South Africa, Bangladesh, and Liberia. He regularly conducts economic analyses to promote policies on sustainable development and conservation for global projects. Yasha has led studies on the economic impact of emerging infectious diseases, allocation of global resources for the Global Virome Project (GVP), economic valuation of ecosystem services from forest and health, cost benefit analyses for Rabies virus in Asia and Rift Valley Fever virus in Africa, economic impacts of global wildlife trade, and integrated assessment modelling to understand the environmental impact of natural resource degradation. Most of his work is applied to public policy and he has co-authored several peer reviewed papers and reports on sustainable economic development, conservation, and health. After obtaining a degree in finance, Yasha earned his PhD in economics from the University of Wyoming, specializing in environmental economics and behavioral experimental economics under a Fulbright scholarship.
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