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Planning, monitoring, reporting and review: global review of collective progress in the implementation of the Kunming-Montreal Global Biodiversity Framework

Methodologies used in the preparation of the Global Report on Collective Progress in the Implementation of the Kunming-Montreal Global Biodiversity Framework**

Note by the Secretariat

I. Introduction

1. The global report is a scientific and technical report which was produced using a series of methodologies which were developed to review the information provided by Parties through their NBSAPs, national targets, national reports, including the headline, binary, component, complementary and national indicators in a systematic way and to identify trends. Methodologies were also developed to compile and analyse information submitted by actors other than national governments and other sources.

2. The present document contains a description of the methodologies used in producing the global report. All methodologies presented in this document were co-developed by the Secretariat and the Ad Hoc Scientific and Technical Advisory Group for the Preparation of the Global Report on Collective Progress in the Implementation of the Kunming-Montreal Global Biodiversity Framework. The Advisory Group's mandate, as defined in decision 16/32, is to oversee and guide the compilation, analysis and synthesis of relevant scientific, technical and technological information for the global report.

3. The table below summarizes the methodologies used in the preparation of each section and subsection of the global report on collective progress in the implementation of the Kunming-Montreal Global Biodiversity Framework. The annex to the present note describes the methodologies

Table – Summary of the different methodologies and sources of information used in the preparation of each section and subsection of the global report on collective progress in the implementation of the Kunming-Montreal Global Biodiversity Framework.

* [CBD/SBSTTA/28/1](#).

** The present document is being issued without formal editing.

<i>Section of the report</i>	<i>Subsection of the report</i>	<i>Sources of information and methodologies used</i>
Summary of the conclusions and key messages of the global report	(no subsections in the report)	Not described in this document. This section Primarily based on section III of the report, no specific methodology for this section
I.A Introduction to the Kunming-Montreal Global Biodiversity Framework and the Global Report	(no subsections in the report)	Not described in this document. Review of relevant COP decisions and other relevant sources of information, no methodology was developed for this section
I.B Global status and trends		Not described in this document. Review of relevant literature, including the fifth edition of the Global Biodiversity Outlook and relevant assessments of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, no methodology was developed for this section
II.A Summary of the status of national biodiversity strategies and action plans, national targets, national report submissions, and submissions from actors other than national governments.		Review of the submissions made through the online reporting tool as at 9 March 2026. Analysis of the national biodiversity strategies and actions plans using the methodology described in section A of the annex to the present note. Analysis of the commitments from actors other than national governments described in section B of the annex to the present note.
II.B Collective progress towards the implementation of the targets	Progress overview	A synthesis of all the information presented on the target, no methodology was developed for the synthesis across the target
	Target elements and collective ambition from national targets	An analysis of how each element of each target of the Kunming-Montreal Global Biodiversity Framework was addressed in the national targets submitted by Parties through the online reporting tool using the methodology described in section C of the annex to the present note.
	Indicators of progress	An analysis of the data provided by Parties through their national reports for the headline, binary, component and complementary indicators of the monitoring framework as well as off national indicators using the methodology described in section D of the annex to the present note.
	Self-assessment of progress	An analysis of how Parties have collectively assessed their national progress towards the implementation of their national targets based on the methodologies described in section E of the annex to the present note.

<i>Section of the report</i>	<i>Subsection of the report</i>	<i>Sources of information and methodologies used</i>
	Actions, successes and challenges	An analysis of the qualitative information in the national reports with the assistance of artificial intelligence tools using the methodology described in section F of the annex to the present note.
	Contributions of actors other than national governments	Analysis of the commitments from actors other than national governments described in section B of the annex to the present note.
	Examples of linkages with other agreements, processes and organizations	Analysis of the submissions provided in response to notification 2025-099 and the identification and development of case studies using the methodology described in section G of the annex to the present note.
	Case studies	The identification and development of case studies based on the national reports submitted through the online reporting tool using the methodologies described in sections F and G of the annex to the present note. Additionally, analysis of the submissions provided in response to notifications 2025-099 and 2025-100. Note that case studies appear throughout the global report on collective progress in the implementation of the Kunming-Montreal Global Biodiversity Framework and the same methodologies were used to identify and develop the case studies regardless of where they appear in the report.
II.C Collective progress towards the 2050 goals	Progress on related targets	Analysis of progress based on how Parties have aligned their national targets to the goals of the Kunming-Montreal Global Biodiversity Framework and assessed progress towards these using the methodology described in section H of annex to the present note.
	Indicators of progress	An analysis of the data provided by Parties through their national reports for the headline, binary, component and complementary indicators of the monitoring framework as well as off national indicators using the methodology described in section D of the annex to the present note.
	Non-prescriptive options	Analysis of successful actions reported by Parties through their national reports with the assistance of artificial intelligence tools using the methodology described in section F of the annex to the present note.

<i>Section of the report</i>	<i>Subsection of the report</i>	<i>Sources of information and methodologies used</i>
II.D Provision of means of implementation		A review of the provision of means of implementation based on (1) information provided in the national reports, national biodiversity strategies and action plans, and national targets submitted by Parties through the online reporting tool as at 9 March 2026, (2) a review of data from Global Environment Facility (3) a review of information from the sources identified in decision 16/32 and using the methodology described in section I of the annex to the present note.
II.E Contributions of relevant multilateral environmental agreements, international organizations and processes		Not described in this document as this section is based on a review of the submissions provided in response to notification 2025-099 and the review of national biodiversity strategies and action plans, national reports and other sources of information consistent with decision 16/32.
Part III: Conclusions and key messages	III.A Synthesis of collective progress towards the implementation of the Kunming-Montreal Global Biodiversity Framework, including the 2030 mission and the 2050 vision	This section represents a synthesis of all sections of the global report on collective progress in the implementation of the Kunming-Montreal Global Biodiversity Framework with a focus on the collective progress made in implementation. The section was developed by looking at the messages across the full report.
	Progress scorecard	A visual representation of progress towards the national targets prepared using the methodology in section J of the annex to the present note.
	III.B Moving forward: challenges and opportunities	This section represents a synthesis of synthesis of all sections of the global report on collective progress in the implementation of the Kunming-Montreal Global Biodiversity Framework with a focus on addressing the gaps and challenges identified throughout the report. The section was developed by looking at the messages across the full report.

Annex

Description of the methodologies used in the preparation of the Global Report on Collective Progress in the Implementation of the Kunming-Montreal Global Biodiversity Framework

A. Methodology for the analysis of national biodiversity strategies and action plans

4. The methodology for the analysis of NBSAPs was previously published in SBI/6/INF/5. It has been reproduced in this document for ease of reference.

5. The approach to the NBSAP analysis is drawn from the guidance in decision 15/6 and from previous guidance adopted by the COP (including, in particular, that contained in decision IX/8). The methodology also builds on previous experience preparing summary analyses of NBSAPs submitted in the post 2010 period and before.

6. The analysis was done by staff of the Secretariat and the NBSAP Accelerator Partnership. First, temporal coverage of revised and existing NBSAPs was analysed. Then, each revised NBSAP was analysed by one analyst who looked across sections of the NBSAP for the inclusion focal topics (described below). Then, for each focal topic, staff analysed the associated text across all NBSAPs (described below) to understand how these topics were included to reflect overall national approaches (e.g. whole of government). This was done to ensure representativity of interpretations in the analysis and consistency of the analysis for each focal topic.

7. As per decision 15/6, national targets are submitted using the template adopted in Annex I of 15/6. Therefore, the methodology for assessing the NBSAPs does not include an assessment of the national targets. The methodology for assessing the national targets is described in section C of the annex to the present note.

1. Step 1: Temporal coverage of NBSAPs

8. The temporal coverage of existing NBSAPs was reviewed to identify how many Parties had NBSAPs that expired by 2029 or before, by 2030 and later than 2030. This was done for both revised NBSAPs, submitted in line with decision 15/6, and past NBSAPs submitted between COP15 and COP16. A count of each temporal coverage category (<2029, 2030, >2030, undefined) was obtained for revised and pre-COP15 NBSAPs separately.

2. Step 2: Topical analysis of revised NBSAPs

9. First, the analysis looked for the inclusion of key focal topics. Several topics relating to the planning process, monitoring, means of implementation, synergies, and mainstreaming were identified in each NBSAP. The list of focal topics was extracted from the text of decision IX/8 with some more recent topics from later decisions added due to their relevance to the Kunming-Montreal Global Biodiversity Framework (Table 1).

Table 1

List of topics included in the analysis and relation to decision IX/8 or a later decision

<i>Focal topic</i>	<i>Context as based on decision IX/8</i>
Whole-of-government	Implicitly addressed through cross-sectoral integration and high-level government support
Policy adoption	NBSAPs framed as key implementation tools within policy and legislative frameworks
Assessment	Explicit review and revision requirements

Participation	Strongly emphasized in text
Non-state actor contributions	Participation of other actors was mentioned. The word contribution is from decision 16/32.
Coordination mechanism	Explicit requirement for coordination mechanisms
Planning	Required in text
Monitoring	Required in text
Biodiversity Finance	Resource mobilization emphasized in text
Communication	Public communication encouraged in text
National Development Plan	Required in text for mainstreaming
Sustainable Development Plan	Part of mainstreaming
Poverty Eradication	Explicitly included in text
Subnational	Encouraged in text
Conventions and MEAs	Strongly encouraged in text
Cartagena Protocol	Biosafety was mentioned in the text. Decision 15/4 mentions the Protocols explicitly.
Nagoya Protocol	Access and Benefit Sharing included in text, but Protocol did not yet exist. Decision 15/4 mentions the Protocols explicitly.
Digital sequence information	Issue not yet part of the Convention text; however, Decision 15/4 mentions the digital sequence information.

10. The inclusion of the “whole-of-government” and “policy adoption” topics was assessed based on the answers to the standardized online reporting tool questions answered during the submission of a Party’s NBSAP. These questions explicitly ask for a summary of how the NBSAP was prepared, its legal status and approving body (e.g. head of state, minister, parliament, ...).

11. To identify whether each of the other focal topics were present, staff asked:

- (a) Assessment: has the Party undertaken an assessment of its previous NBSAP?
- (b) Participation: did the NBSAP process engage different ministries and/or stakeholders?
- (c) Non-State actor contributions: Does the NBSAP include contributions (activities, actions) of non-state actors (other than their participation in government-led PMRR processes)?
- (d) Coordination mechanism: does the country have an NBSAP coordination body/mechanism?
- (e) Planning: does the NBSAP contain concrete actions, policies and programmes designed to meet the national targets?
- (f) Monitoring: does the NBSAP include a monitoring and evaluation system/plan?
- (g) Biodiversity Finance: does the NBSAP include elements of biodiversity finance?
- (h) Communication: does the NBSAP have a communication strategy (i.e. how the NBSAP, and biodiversity action at the national level will be communicated to the public)?
- (i) National Development Plan: does the NBSAP link to the country's national/economic development plan?
- (j) Sustainable Development Plan: does the NBSAP link to the country's national sustainable development plan?
- (k) Poverty Eradication: does the NBSAP link to the country's poverty eradication strategy?
- (l) Subnational: does the NBSAP address the subnational level or Subnational Biodiversity Plans?

(m) Conventions and MEAs: does the NBSAP make reference to other Conventions and/or MEAs?

(n) Cartagena Protocol: does the NBSAP discuss the Cartagena Protocol, the Nagoya-Kuala Lumpur Supplementary Protocol, or other biosafety issues?

(o) Nagoya Protocol: does the NBSAP discuss the Nagoya protocol?

(p) Digital Sequence Information: does the NBSAP mention DSI, the Cali Fund or the Multilateral Mechanism?

12. For each of these topics, a set of key words were defined and used to search for relevant content in every NBSAP. When key words search resulted in a match, staff read the highlighted text to answer each of the questions above with a “yes” or “no”. When no keywords matched, a “no” was reported for the focal topic.

13. In cases where the focal topic was identified in an NBSAP (i.e. “yes”), staff read the relevant section to understand the context in which each topic was included. A short summary about how the focal topic was included in the NBSAP was produced in each case. In some cases, a short explanation about “no” answers was also provided to explain the answer when keywords did match to text (e.g. a keyword match was due to global target text rather than NBSAP content). For each focal topic, the proportion of NBSAPs addressing them was calculated.

14. Some of the focal topics in this analysis appeared in the text of national targets. These cases reflect aspirations or intentions of Parties and not the current state of affairs. The NBSAP analysis distinguishes between intentions which may become a reality in the future and the current institutional arrangements or other measures. For example, many countries aspire to enhance public awareness or monitoring and have, in their NBSAPs, national targets and actions/measures to do so. However, the intent of this analysis is to understand whether such efforts are currently in place, not whether Parties intend to develop public awareness or monitoring actions in the future. Therefore, national targets or future aspirations were not included in further analysis and are recorded as “no”.

3. Step 3: Cross-cutting analysis of focal topics

15. Following the topical analysis of each NBSAP, a cross-cutting analysis of each topic across all NBSAPs was done. This analysis investigated how each topic was included across NBSAPs.

16. For “whole-of-government” and “policy adoption”, Party answers to the online reporting tool standardized questions were used to analyze how many NBSAP addressed these focal topics and how (e.g. what percentage of Parties adopted their NBSAP into law).

17. For each other topic, the analysis used those NBSAPs with “yes” answers to identify how each focal topic was treated in detail. For each focal topic analyzed, the summary descriptions accompanying “yes” answers were used. As each topic is significantly different from others, the type of detail studied in each cross-cutting analysis varied widely. For example, on the topic of participation, the type of ministry (e.g. Agriculture, Tourism, Forestry, ...) as well as the level of engagement (e.g. consultation, committee, implementation) was analyzed across NBSAPs, producing a record of how often each ministry was involved with NBSAPs and in what capacity, across Parties. Similarly, on the question of biodiversity finance, estimates of how many Parties identified different types of finance (e.g. domestic, international, public or private) were calculated. For multilateral environmental agreements, the type and frequency of mention of each multilateral environmental agreement across NBSAPs was estimated. Every other topic was treated in a similar fashion, as relevant. This detailed analysis was summarized, allowing for a more in depth understanding of how Parties are addressing each of the focal topics in their NBSAPs.

B. Methodology used in the analysis of commitments from actors other than national Governments

18. The analysis drew on commitments submitted through the online reporting tool. Of the 4,759 commitments accessed through the online reporting tool at the time the global report was prepared, 4,579 were excluded on the grounds of insufficient information for analysis or because they were duplicative (3,313 submissions contained only the name of the submitting organization and the objective, 1,214 contained no description, and 52 were duplicate records). This left 180 commitments, which formed the basis of the analysis. Each commitment was reviewed and categorized against seven categories agreed by the AHSTAG:

- (a) resource mobilization and finance;
- (b) sustainable practices and restoration;
- (c) conservation actions addressing the drivers of biodiversity loss;
- (d) governance and cooperation;
- (e) mainstreaming; data and knowledge; and
- (f) participation and inclusion (community-led approaches, indigenous peoples and local communities, and gender).

19. As many commitments span several of these categories, a single commitment could be assigned to more than one category. To support consistency in the assessment, a categorization framework was developed and applied across all 180 commitments.

20. Where information derived from the commitments submitted by actors other than national governments was used in section II.B of the global report, summaries were prepared drawing on the commitment descriptions, their categorization, and associated fields such as implementation considerations. Artificial intelligence (Claude, Opus 4.7) was used at two points in this process:

- (a) First, to verify the consistency and validity of the categorization, using the categorization framework and the dataset of 180 commitments as source material; and
- (b) Second, to support the drafting of the target-by-target summaries, which were generated by the model from an analyst-defined structure and then reviewed and revised by the analyst.

C. Methodology for the analysis of national targets

21. The methodology for the analysis of national targets was previously published in SBI/6/INF/5. It has been reproduced in this document for ease of reference.

22. In the template for the communication of national targets adopted by the Conference of the Parties through its decision 15/6, Parties are requested to map each national target to at least one target of the Framework. Moreover, Parties can indicate how closely each of their national targets are aligned with the relevant target of the Framework using a three-point scale (low, medium or high alignment). Parties are also requested to:

- (a) provide a description of the main policy measures that would be taken to reach the national target;
- (b) specify the aspects of the Framework target that are covered;
- (c) describe which considerations listed in section C of the Framework were considered in setting the national target;
- (d) list any component, complementary or national indicators that would be used to measure the national target, in addition to the agreed headline and binary indicators, and;
- (e) elaborate the contribution of non-State actors towards reaching the national target.

23. The methodology used to undertake the analysis used in the preparation of the global report of collective progress in the implementation of the Kunming-Montreal Global Biodiversity Framework builds on past experiences with preparing assessments for the Aichi Biodiversity Targets and the preliminary analysis presented to SBI-5¹. The methodology has three steps:

- (a) The first step analysis general information across Parties;
- (b) The second step analyses the extent to which the elements of the Framework targets are addressed by the national targets; and
- (c) The third step analyses the extent to which the national targets cover the overall scope and ambition of the targets of the Framework and assesses the overall target alignment of the national targets to each target of the Framework

24. It is important to note that the methodology used in this analysis only considered the scope of national targets as measured against that of the targets of the Framework. It has not considered national circumstances. Moreover, the range of approaches that Parties have taken in setting their national targets and the level of detail provided in the submission through the online reporting tool, as described below, have created challenges in analysing the information systematically.

1. Step 1: General analysis

25. All national target submissions were downloaded from the Online Reporting Tool (ORT) as at 9 March 2026. Therefore, any changes made to already submitted national targets after that point are not reflected in the analysis. Similarly, any new national targets submitted after that date are not included in the analyses. Upon download, all national targets not in English were translated using Google translate.

26. National targets were organised by the targets of the Framework based on the mapping included by Parties in their submissions. If a national target was tagged with multiple Framework targets, then it was included in the analysis of each associated Framework target, resulting in some national targets contributing to the analysis of multiple Framework targets.

27. The national targets submitted by Parties contained varying levels of detail. The Secretariat reviewed each national target to assess its level of detail and classified each national target as a “detailed national target” or “a national target with limited detail”, based on the richness of information included in the submission fields. Some Parties also submitted draft national targets. Where this was explicitly noted in the submission, the national target was classified as “a draft national target”.

28. An analysis of the following elements of the national target submissions was undertaken:

(a) *Degree of alignment* – For each national target, Parties were requested to indicate the degree to which it was aligned with the associated target of the Framework. Parties were requested to do this using the categories “high”, “medium” or “low” alignment. This information was used to report on the number of Parties with at least one national target with high alignment to the associated target of the Framework. This information was further aggregated to report on the percentage of national targets with high, medium or low alignment to the Framework target and the number of Parties with at least one national target which has a high degree of alignment to the target of the Framework;

(b) *Elements of section C of the Framework* - For each national target, Parties were requested to indicate which of the eighteen considerations from section C of the Framework were taken into account in the development of the national target and/or which elements will be considered

¹ www.cbd.int/doc/c/e24a/347c/a8b84521f326b90a198b1601/sbi-02-02-add2-en.pdf and www.cbd.int/doc/c/4aa3/ba07/3a75f18c4c1222245b118eb9/sbi-05-02-add2-rev1-en.pdf

in the implementation of the national target. This information was aggregated to determine the percentage of national targets which took each of the considerations into account;

(c) *Optional indicators* – The use of component, complementary and national indicators, is optional in the national reporting process. Based on the information in the national target submission, the number of national targets with associated component, complementary and national indicators was calculated. Similarly, the number of Parties with at least one component, complimentary and national indicator for any national target associated with a given target of the Framework was calculated;

(d) *Means of implementation* - In the national target submissions Parties were requested to include information on the associated means of implementation. Specifically, Parties were asked to indicate if means of implementation were required or were available. This information was aggregated to calculate the number of national targets where Parties indicated they required additional means of implementation. This information was also aggregated to calculate the number of Parties which indicated they required additional means of implementation for at least one of their national targets for each associated Framework target;

(e) *Commitments of actors other than national governments* - In the national target submissions, Parties were requested to indicate the non-state actors which have made commitments in relation to the national target. This information was aggregated to calculate the number of national targets which have identified a role for actors other than national governments.

29. Note that some of the information described above is directly accessible through the online reporting tool. The online reporting tool provides up to date information on the national target submissions. As the information in the tool is updated in real time as submissions are entered or updated, it may differ from the results of this analysis.

2. Step 2: Coverage of the elements of the Framework targets by national targets

30. In the national target submissions, Parties are requested to provide for each of their national targets:

- (a) The title of the target;
- (b) A description of the target;
- (c) The main policy measures to implement the target; and
- (d) The aspects of the associated Framework goal or target that it addresses

31. Based on this information, the Secretariat assessed how well each national target addressed the different elements of its associated Framework target. The analysis used the elements defined by the AHTEG on indicators in their gap analysis (CBD/COP/16/INF/3/Rev.1).

32. For each national target submission, the Secretariat² analysed the extent to which each element of the associated Framework target was addressed. This was done using five mutually exclusive categories:

- (a) *Not addressed*: The element was not mentioned in any of the national target fields.
- (b) *Addressed to a limited extent*: The element is mentioned in the national target submission, but limited detail is provided. For example, target 1 of the Framework calls for all areas to be under spatial planning or other management process. A national target that indicates a spatial

² Note that the analysis was done by staff of the Secretariat, each target was assessed by a specific staff member to ensure consistency within the analysis of a given target. Once the analysis for each target was completed, the analysis was validated by one staff member.

planning exercise will be undertaken in general terms, would be assessed as “addressed to a limited extent”, as it does not provide sufficient detail to address the element.

(c) *Partially addressed*: The element is mentioned in the national target submission; however, either the quantitative value, or the deadline, or the substantive scope of the element is lower than what is in the Framework target, or the national target does not address the full breadth of the element of the Framework target. For example, target 7 of the Framework has an element calling for excess nutrients lost to the environment to be reduced by at least half by 2030. A national target which aims to reduce excess nutrients lost to the environment by 25% or which calls for excess nutrients to be reduced by 50% by 2040 would be assessed as partially addressing this element. If an element of a Framework target includes a quantitative value and the national target does not, then this is the maximum score possible for that that element of the target.

(d) *Fully addressed*: The element is mentioned in the national target and matches the scope of the Framework target. This means that all parts of the element are fully addressed, any quantitative aspects match those in the Framework target and the deadline of the national target matches that of the Framework target. Note that if a country copied exactly the text of the Framework target, then they would be considered as “fully addressed” – even if policy measures described do not include information on how all elements of the target will be addressed in practice.

(e) *Exceeded*: The national target has a higher quantitative value, or its deadline is sooner than that of the associated element of the Framework target. For example, the Framework target element calls for 30% of marine areas to be protected and the national targets sets a value of 40%, or the national target aims to achieve its objective prior to 2030 (or 2025 for elements which have a 2025 deadline). This score is only achievable for elements containing a quantitative objective.

3. Step 3: Coverage of the overall scope of the Framework targets by national targets

33. Based on the information obtained for each element from step 2, an overall assessment of how closely each national target addresses the overall scope (i.e. all elements) of the associated Framework target was undertaken. Each national target was assessed and placed into one of the following categories:

(a) *Not addressed* – None of the elements of Framework target were addressed by the national target.

(b) *Addressed to a limited extent* – At least one of the elements of the Framework target was addressed to a limited extent and no element was addressed to more than a limited extent by the national target.

(c) *Partially addressed* - At least one element of the Framework target was partially addressed, and no element was addressed more than partially by the national target.

(d) *Substantially addressed* – At least half of the elements of the Framework were fully addressed by the national target, but other elements were not.

(e) *Fully addressed* – All elements of the Framework target were fully addressed or exceeded by the national target.

34. In many cases Parties have set multiple national targets related to a single Framework target. In such cases, it became necessary to aggregate each national target element assessed into a single assessment to accurately represent a Party’s coverage of the element across its relevant national targets. This aggregation was done using the same categories as above. For each element, the overall element assessment used the highest category for any individual national target. In cases where several elements were assessed as “partially addressed” the overall assessment considered if these “partially addressed” elements collectively add up to an assessment of “fully addressed” (i.e. the different parts of the element are addressed in separate national targets that together cover the element fully, addressing its entire scope) (See table 2). The information collected through this process was

aggregated to provide an assessment of extent to which the national targets set by Parties collectively match the overall scope of the targets of the Framework.

Table 2

Example aggregation of element coverage for a Party with four national targets mapped to a single Framework target with three elements. This information is illustrative only and does not represent any real Party or target

<i>Related National Targets</i>	<i>GBF element 1</i>	<i>GBF element 2</i>	<i>GBF element 3</i>
National Target A	Not addressed	Partially addressed	Fully addressed
National Target B	Not addressed	Fully addressed	Exceeded
National Target C	Not addressed	Not addressed	Addressed to a limited extent
National Target D	Addressed to a limited extent	Not addressed	Fully addressed
Overall	Addressed to a limited extent	Fully addressed	Exceeded

D. Methodology for the analysis of the headline, binary, component, complementary and national indicators used in the national reports

35. For each Framework target and goal, several aspects of indicator use by Parties were analysed:

- (a) number of headline, component, complementary, and national indicators submitted;
- (b) number and type of disaggregation used; and
- (c) the length of time series submitted.

36. For each indicator in the monitoring framework (headline, binary, component, and complementary), the number and proportion of Parties submitting data were calculated. These metrics were further disaggregated by UN regions to assess the geographical representativeness of submissions. For each headline indicator, the proportion of Parties that used pre-populated data provided through the online reporting tool and, separately, the proportion that submitted disaggregated data were also estimated. In addition, qualitative information provided by Parties in the comment fields associated with each headline indicator was reviewed and synthesised by analysts to identify and summarise the main challenges encountered in compiling and reporting the indicator.

37. Some of the information analysed in these analyses (i.e. number of indicators used, general disaggregation categories and challenges) was used in the global report. More detailed results are available in an information for SBSTTA-28.

1. Headline indicators

38. For all headline indicators, a preliminary data curation step was required. As Parties submitted data in a variety of ways, all submissions had to be first checked for compatibility with the data submission template. Specifically, many Parties submitted indicator data values in the “comments” column of the online reporting tool template or filled in the “disaggregation” column with entries

such as “total” or “national”. In the former case, all data submitted by Parties as comments were copied into the dataset used for analysis to avoid losing submissions and include as many Parties as possible in the analysis. In the latter case, all values submitted by Parties that did not represent a disaggregation were recorded as national-level indicator values.

39. Then for each indicator in turn, every Party submitted value was compared to the metadata of the headline indicator. In cases where Party submissions did not correspond to the metadata, these were either used to compute the expected indicator value or not used in the aggregate measure of progress. Cases where it was possible to compute the expected indicator value include headline indicators A.1, A.2, 1.1, 2.1, 3.1, D.1, D.2, D.3 and 18.2. In these cases, transformations required converting units of area (into ha/km²) or currency (into USD) or computing the percentage area covered by the submission out of the total Party area (for A.2 and 3.1). For all 27 headline indicators, there were cases where Party submissions were too different from the expected metadata to be included (e.g. monetary values submitted for headline indicator B.1, total counts/area submitted for indicators requiring percentage values with no information on the relevant denominator for 9.2, 10.1 and 12.1, ...). Where Party submissions were not included in the aggregate headline indicator value, they were still included in the trend analysis described below.

40. These data curation steps resulted in a standardised dataset for every indicator including both aggregated and disaggregated data. In cases where only a single disaggregated value was submitted (e.g. only forests for A.2 Extent of Natural Ecosystems) this was used as the Party-level submission for aggregation. In cases where a Party submitted multiple disaggregation but no national value (e.g. individual ecosystem areas), all disaggregations were summed together to produce a Party-level value for aggregation, assuming that Parties had submitted mutually exclusive disaggregations. This was not done if the assumption was obviously violated.

41. At all stages of data curation, analysts relied on the comments provided by Parties in their submission to inform on the most appropriate way to use and interpret their data.

42. Following all data curation, Party-level indicator values were aggregated to produce a collective measure of progress for each indicator. As every headline indicator has a unique methodology, approaches to aggregation for each indicator were defined by the AHSTAG at its eighth meeting and are described in Table 3. Aggregating Party-level submissions required accounting for differences in time series length. Decisions on how to treat missing years in the aggregation process are also described in Table 3 for each headline indicator. Most Party submissions focused on the years 2020 to 2025, therefore analysis and aggregate graphs in the global report largely focus on this period. However, data from earlier years was used, when submitted, to support filling in gaps in time series.

43. To display the representativeness of the aggregate measure of progress of each headline indicator, the number and proportion of Parties from each UN region for whom data was included in the aggregate was calculated. For some indicators (A.2, D.1, D.2, D.3, 3.1, 10.1, 10.2 and 12.1) the AHSTAG also decided to show representativeness using a relevant collective measure that accounts for differences in Parties (e.g. total exclusive economic zones, total terrestrial area, total GDP, total agricultural land, total forested land and total urban population).

44. For some headline indicators where data was available from other sources (A.1, A.3, A.4, C.2, 3.1, 10.2, 18.1 and 22.1), the exact same approaches to aggregation and representativeness were used but these were clearly referenced and displayed separately from data submitted by Parties in their seventh national reports.

Table 3

Indicator specific approaches to aggregation of Party-level submissions and decisions on filling gaps in time series

<i>Indicator</i>	<i>Aggregation approach</i>	<i>Gap filling approach</i>	<i>Assumptions and justifications</i>
A.1 Red List of Ecosystems	Single overall average (arithmetic mean) RLIe value (no time series).	No gap filling, only one value per Party, where more than one value submitted Party-level average taken.	The indicator is relatively new and only a single assessment has been done to date for most ecosystems.
A.2 Extent of natural ecosystems	Single overall average (arithmetic mean) percentage of natural ecosystems value (no time series).	No gap filling, only one value per Party, where more than one value submitted Party-level average taken.	The indicator is relatively new and only a single assessment has been done to date for most Parties.
A.3 Red List of Species	Time series of overall average (arithmetic mean) of national and IUCN-derived values separately.	Where gaps exist in national submissions these are filled with linear interpolation, where earlier or later years are missing, these are filled by carrying backward or forward the overall trend in the data (linear extrapolation). For Parties with only one data point, this is not included in the time series.	National RLI assessments vary in frequency, but values are unlikely to vary widely between assessments, change is expected to be relatively continuous over time.
A.4 The proportion of populations within species with an effective population size > 500	Single overall average (arithmetic mean) proportion of populations (no time series).	No gap filling, only one value per Party, where more than one value submitted Party-level average taken.	The indicator is relatively new and only a single assessment has been done to date for those few Parties who submitted data.
B.1 Services provided by ecosystems	Time series of overall average (geometric mean) of submitted data.	Where gaps exist in national submissions these are filled with linear interpolation, where earlier or later years are missing, these are filled by carrying backward or forward the overall trend in the data (linear extrapolation). For Parties with only one data point, this is not included in the time series.	Those Parties who submitted data according to the metadata submitted time series but of various lengths. Additionally, this indicator is designed as a measure of relative change and is therefore best represented as a time series.
C.1 Monetary benefits received in accordance with applicable internationally agreed Access and Benefit-sharing instruments	Total sum of the value of monetary benefits received between 2020-2025	No gap filling	Report on monetary benefits by Parties is new for many and not done consistently or yearly and does not follow a typical trend so no gap filling is possible and only a total aggregate can be reported.
C.2 Non-monetary benefits received in accordance with applicable internationally	Report the total amount of non-monetary benefits received between 2020-2025	No gap filling	The methodology for reporting on non-monetary benefits is new and has been applied inconsistently by Parties using different types of benefits. Therefore not consistent gap filling

<i>Indicator</i>	<i>Aggregation approach</i>	<i>Gap filling approach</i>	<i>Assumptions and justifications</i>
agreed Access and Benefit-sharing instruments			approach is possible to identify a trend.
D.1 International public funding, including official development assistance for conservation and sustainable use of biodiversity and ecosystems	Calculate both the total amount per year reported by Parties reporting every year between 2020-2023 (where most data are available) and the overall amount of funding reported across all years by all Parties between 2020-2025.	No gap filling	Reporting on investment in biodiversity changes inconsistently between years and cannot be predicted, therefore no gap filling is possible. Additionally, lack of data is likely linked to low reporting rather than the absence of funding. Thus, a total funding trend can only be shown for Parties reporting consistently every year.
D.2 Domestic public funding on conservation and sustainable use of biodiversity and ecosystems			
D.3 Private funding (domestic and international) on conservation and sustainable use of biodiversity and ecosystems			
1.1 Percentage of land and seas covered by biodiversity-inclusive spatial plans	Single overall average (arithmetic mean) percentage of land and seas covered by biodiversity-inclusive spatial plans (no time series).	No gap filling, only one value per Party, where more than one value submitted Party-level average taken.	The indicator has no completed metadata and only half of Parties submitted more than two data points.
2.1 Area under restoration	Calculate the cumulative amount of area under restoration year on year	Carry forward previous year when no data is submitted by a Party for the subsequent years (running total).	This approach assumes 0 hectares when no submissions are made in early years and avoids sudden crashes when Parties do not submit in later years (i.e. at least as much as the previous year is still under restoration even if not submitted as such). This assumes that missing data is usually associated with lack of reporting rather than abrupt changes in restoration efforts.
3.1 Coverage of protected areas and other effective area-based conservation measures	Calculate the overall percentage of terrestrial and marine areas (separately) covered by protected areas and other effective area-based conservation measures every year by summing all values (in km ²) submitted by Parties and dividing by all Parties' combined terrestrial and marine areas respectively.	Where gaps exist in national submissions these are filled with linear interpolation, where earlier or later years are missing, these are filled by carrying backward or forward the data from the most recent year (not based on a linear extrapolation). For Parties with only one data point, this is not included in the time series.	This approach that assumes coverage is unlikely to vary suddenly between reported years and that Parties are continuously making efforts to increase the area covered by protected areas and other effective area-based conservation measures.

<i>Indicator</i>	<i>Aggregation approach</i>	<i>Gap filling approach</i>	<i>Assumptions and justifications</i>
5.1 Proportion of fish stocks within biologically sustainable levels	Time series of overall average (arithmetic mean) of submitted data.	Where gaps exist in national submissions these are filled with linear interpolation, where earlier or later years are missing, these are filled by carrying backward or forward the overall trend in the data (linear extrapolation). For Parties with only one data point, this is not included in the time series.	The approach assumes fishing effort and therefore stock sustainability is not changing suddenly between years.
6.1 Rate of invasive alien species establishment	Time series of overall average (arithmetic mean) of submitted data.	Where gaps exist in national submissions these are filled with linear interpolation, where earlier or later years are missing, these are filled by carrying backward or forward the overall trend in the data (linear extrapolation). For Parties with only one data point, this is not included in the time series.	The approach assumes that establishment rates do not fluctuate suddenly between years.
7.1 Index of coastal eutrophication potential	Not applicable	Not applicable	Not enough data submitted to meaningfully evaluate collective progress.
7.2 Pesticide environment concentration and/or aggregated total applied toxicity	Not applicable	Not applicable	Not enough data submitted to meaningfully evaluate collective progress.
9.1 Benefits from the sustainable use of wild species	Not applicable	Not applicable	Not enough data submitted to meaningfully evaluate collective progress.
9.2 Percentage of the population in traditional occupations	Time series of overall average (arithmetic mean) of submitted data.	Where gaps exist in national submissions these are filled with linear interpolation, where earlier or later years are missing, these are filled by carrying backward or forward the overall trend in the data (linear extrapolation). For Parties with only one data point, this is not included in the time series.	The approach assumes that participation in traditional occupations does not fluctuate suddenly between years.
10.1 Proportion of agricultural area under productive and sustainable agriculture	Time series of overall average (arithmetic mean) of submitted data.	Where gaps exist in national submissions these are filled with linear interpolation, where earlier or later years are missing, these are filled by carrying backward or forward the overall trend in the data	The approach assumes that the area under productive and sustainable agriculture does not fluctuate suddenly between years.

<i>Indicator</i>	<i>Aggregation approach</i>	<i>Gap filling approach</i>	<i>Assumptions and justifications</i>
		(linear extrapolation). For Parties with only one data point, this is not included in the time series.	
10.2 Progress towards sustainable forest management	Time series of overall average (arithmetic mean) of submitted data for each sub-indicator except for the forest area under an independently verified forest management certification scheme where a total sum per year is calculated.	Where gaps exist in national submissions these are filled with linear interpolation, where earlier or later years are missing, these are filled by carrying backward or forward the overall trend in the data (linear extrapolation). For Parties with only one data point, this is not included in the time series.	The approach assumes that each of the sub-indicators related to progress towards sustainable forest management do not fluctuate suddenly between years.
12.1 Average share of the built-up area of cities that is green/blue space for public use for all	Single overall average (arithmetic mean) share of built-up area of cities (no time series).	No gap filling, only one value per Party, where more than one value submitted Party-level average taken.	Few Parties have more than a single assessment carried out and typically only for a subset of cities.
15.1 Number of companies disclosing their biodiversity-related risks, dependencies and impacts	Calculate the cumulative number of companies disclosing year on year	Carry forward previous year when no data is submitted by a Party for subsequent years (running total).	This approach displays the total number of companies that have reported over all time on any year.
18.1 Positive incentives in place to promote biodiversity conservation and sustainable use	Calculate the cumulative number of incentives in place year on year	Carry forward previous year when no data is submitted by a Party for subsequent years (running total).	This approach assumes 0 incentives when no submissions are made in early years and avoids sudden crashes when Parties do not submit in later years (i.e. at least as many incentives are in place as in the previous year). This assumes that missing data is usually associated with lack of reporting rather than abrupt changes in incentives.
18.2 Value of subsidies and other incentives harmful to biodiversity	Total sum of the value of harmful subsidies received between 2020-2025	No gap filling	Parties are still identifying subsidies and reporting interim values and self-described minima. No meaningful trend can be determined but a total USD amount highlights all subsidies identified to date (i.e. a minimum estimate).
21.1 Indicator on biodiversity information for monitoring the global biodiversity framework	Single overall average (arithmetic mean) percentage of headline indicators with national data available (no time series).	No gap filling, only one value per Party	The indicator's metadata is incomplete, and it is being reported for the first time, therefore no time series is possible.
22.1 Land-use change and land tenure in the traditional territories of indigenous peoples	Not applicable	Not applicable	Not enough data submitted to meaningfully evaluate collective progress.

<i>Indicator</i>	<i>Aggregation approach</i>	<i>Gap filling approach</i>	<i>Assumptions and justifications</i>
and local communities			

2. Binary indicators

45. The binary indicators were analysed using the methodology developed by the AHTEG on indicators for the sixteenth meeting Conference of the Parties (COP/16/INF/3/Rev.1). This section does not reproduce the longer description that is provided in that document, but it provides a short summary of the methodology. That is, using the individual responses to all questions of each binary indicator, an algorithm was written to calculate the overall score of each Party (from 0 to 5), representing the range of outcomes from unmet to fully met. This outcome scale does not represent a quantitative measure of progress towards the binary indicators but rather an ordinal measure of progress that allows interpretation and global-level aggregation. Answer combinations are based on mutually exclusive answer sets that represent all potential answer combinations for the four possible answers to each question (i.e. “No”, “Under development”, “Partially” and “Fully”). Namely:

- (a) 5 for “Fully” only
- (b) 4 for “Partially” only, or “Partially” and “Fully”
- (c) 3 for at least one “Fully” and one or more “Under development” or “No”
- (d) 2 for at least one “Partially” and one or more “Under development” and/or “No” but no “Fully”.
- (e) 1 for “Under development” only, or “Under development” and “No”
- (f) 0 for “No” only

46. Scores were then summarised for each binary indicator by calculating the percentage of Parties in each score level, giving an overall measure of collective progress.

47. Additionally, each individual question in the binary indicators was also analysed by calculating the percentage of Parties responding using each of the four possible answers (i.e. “No”, “Under development”, “Partially” and “Fully”). Where questions had multiple choice answers, the most and least commonly selected answers were also identified.

3. All quantitative indicators

48. Many Parties submitted unique disaggregations, additional quantitative indicators (component, complementary and/or national indicators) and/or used alternative and proxy methodologies to derive their national headline indicator values, providing a rich source of additional information on progress which could not be simply aggregated into a single overall measure of progress. The methodology designed by the AHSTAG to allow for inclusion of these submissions into the global report relied on individual indicator trends to determine the overall “direction of travel” of submitted indicators relative to the Framework target they corresponded to. By focusing on the individual trends in indicator data, an overall summary of whether Parties are collectively moving toward or away from the Framework target becomes possible. Thus, to turn hundreds of unique indicators, and their disaggregation(s), into a meaningful measure of Parties’ collective direction of travel, a multi-step summary process was used:

- (a) For all indicators establish whether a positive trend is an improvement or not, relative to the Framework target, to identify enviable direction of travel
- (b) For every indicator and their disaggregation(s), if any, run a simple linear model, when two or more data points are available, to estimate the trend
- (c) For all trends determine their status following:
 - (i) Slope ≥ 1 : positive

(ii) Slope >-1 but <1 : stable

(iii) Slope ≤ -1 : decreasing

(d) Establish for each trend status (positive or decreasing) whether the indicator is improving or moving away relative to the Framework target based on step (a)

(e) For each Framework target calculate a weighted percentage of trends in each of the three directions of travel categories (“improving”, “stable” or “moving away”). Weighting is applied to correct for Parties submitting large numbers of indicators and/or disaggregations for any given Framework target

(f) Represent overall weighted percentages

49. Note that indicators were associated with their relevant Framework target depending on their type. All headline, component, and complementary indicators were associated to their respective Framework targets based on decision 16/31. However, national indicators are submitted with national targets and are therefore not automatically associated with a Framework target. Therefore, national indicators were associated to a Framework target only when their corresponding national target was reported as highly aligned to that Framework target. If no alignment was specified in the national target submission, the national indicator was associated to the corresponding Framework target.

E. Methodology used to calculate collective progress based on the self-assessment of Parties

50. In their seventh national reports, Parties are asked to indicate their current level of progress toward achieving each of their national targets. This self-assessment uses a Likert scale with the following categories:

(a) “Unknown”

(b) “No significant change”

(c) “Progress toward target but at an insufficient rate”

(d) “On track to achieve target”

(e) “Achieved”

51. When submitting national targets, Parties are encouraged to indicate the level of alignment of their national target to each associated Framework target, choosing between “low”, “medium” and “high”. To analyse how self-assessed progress towards national targets informs on progress towards Framework targets, the scores of all national targets highly aligned to a Framework target were considered. If the level of alignment of a national target was not specified, it was also included in the overall analysis of progress.

52. For each Framework target, the overall number of aligned national targets in each progress category across all Parties was calculated. Then, the proportional distribution of progress scores was calculated by producing a weighted percentage of national targets in each progress category. This weighted percentage ensured that all Parties’ national targets contributed equally to the overall self-assessment of progress for each Framework target even if some Parties had more national targets aligned to a Framework target. The weighted percentage of national targets in each progress category was then used to represent the overall distribution of progress categories per Framework target.

F. Methodology for identifying the actions and successes based on the information submitted through the national reports

53. In order to analysis the large and complex body of textual information in the seventh national reports, a systematic analysis of this material an artificial intelligence-assisted analytical pipeline was

used. This approach was designed to complement, rather than replace, expert assessment and editorial review.

54. The methodology combines structured data extraction, semantic processing, ontology-supported evidence retrieval, and large language model-assisted analysis. All outputs were reviewed and validated by Secretariat staff to ensure the quality of the global report. Artificial intelligence was not used in the drafting of the global report, it was only used to retrieve structured information from the global report.

55. During the development phase of the analytical pipeline, the Secretariat tested a range of open-source large language models. For the production runs used in the preparation of the report, a commercial AI service was employed; the specific model and provider are documented in appendix 2 to the present note.

56. The analytical pipeline was grounded in two sources of information:

(a) National reports: the structured text fields contained in national reports as submitted by Parties through the online reporting tool, constituting the primary record of information reported by Parties. For each target and each Party, relevant text fields, based on the question being asked, were retrieved programmatically from a machine-readable database derived from ORT submissions. The text fields considered in the analysis related to those addressing descriptions of actions taken, implementation progress, challenges, effectiveness assessments, national target text and actor involvement.

(b) Reference material: a curated set of reliable reference materials³ was fed into the model to provide an analytical context, this included the texts of the 23 targets of the Kunming-Montreal Global Biodiversity Framework and their associated elements, relevant decisions of the Conference of the Parties, thematic typologies covering areas such as knowledge management and means of implementation, and a machine-readable ontology of GBF goals, targets and indicator types. These resources provided a consistent interpretive framework for analysing information reported by Parties.

57. The methodology was not used to generate findings independently of Party submissions. Rather, it was used to identify, organize, synthesize and compare information reported by Parties across the reporting corpus.

58. The analysis proceeded in two sequential stages:

(a) Per-Party analysis: a structured analytical summary was generated for each Party individually, drawing exclusively on that Party's own reporting fields. This intermediate product was analogous to the structured notes that a human analyst might prepare after systematically reviewing a national report in relation to a specific analytical question.

(b) Cross-Party synthesis: the individual Party summaries were subsequently aggregated and analysed to identify common patterns, trends, challenges, successes, implementation needs and other cross-cutting observations across reporting Parties.

59. At both stages, the model was explicitly instructed to rely only on submitted report content and not to introduce external information, assumptions or assessments beyond what Parties had reported. The analytical questions and instructions used to generate each category of synthesis are reproduced verbatim in Annex I. This was used to create an AI synthesis library which the Secretariat reviewed as a starting point for developing the global report text. The Secretariat staff and subject-matter experts used the library to identify general trends, these were then checked against the original

³ The Kunming-Montreal Global Biodiversity Framework (CBD/COP/DEC/15/4) and its monitoring framework (CBD/COP/DEC/15/5); CBD/COP/DEC/15/8 and CBD/COP/DEC/16/3 on capacity-building and technical and scientific cooperation; the Knowledge Management Strategy (CBD/COP/DEC/16/9); CBD/COP/DEC/16/32 on planning, monitoring, reporting and review; the Secretariat's analysis of post-COP-15 national biodiversity strategies, action plans and national targets (CBD/SBI/6/INF/5) and supporting reference typologies on means of implementation and on technical and scientific cooperation.

reports in order to validate the information prior to inclusion in the report. Specific formulations, trends, examples and conclusions were verified against the underlying national report content.

60. The source code of the analytical pipeline will be made available through a public repository. Until that process is complete, Parties and other interested organizations wishing to examine the methodology in greater detail may contact the Secretariat.

61. The financial cost and estimated computational and environmental footprint of the analytical pipeline are documented in the Appendix 2.

G. Methodology for the selection and preparation of case studies

62. Case studies were drawn primarily from the seventh national reports submitted by Parties to the Convention on Biological Diversity. In addition, the Secretariat drew upon submissions made in response to Notification 2025-100, which invited Parties, indigenous peoples and local communities, and other stakeholders to submit case studies and information on relevant traditional knowledge, innovations, practices and technologies for the global report on collective progress in the implementation of the Kunming-Montreal Global Biodiversity Framework (KMGBF). On the basis of these sources, the Secretariat identified potential case studies, further supplemented in some instances by contributions from experts through formal submissions.

63. Candidate case studies were then assessed against a set of considerations to guide the final selection. The primary consideration was relevance to the Kunming-Montreal Global Biodiversity Framework targets. Priority was given to case studies that illustrated concrete progress towards, or offered transferable lessons for, one or more of the 23 targets of the Framework, that could be clearly linked to specific target elements, and that demonstrated a meaningful contribution to national implementation. Cases with cross-cutting relevance to multiple targets were also favoured.

64. Alongside relevance, the selection aimed to achieve geographic and thematic balance. In terms of geography, efforts were made to ensure representation across regions and country groupings. Thematically, the compilations tried to reflect the approaches being undertaken at the national level, spanning ecosystem restoration, spatial planning, sustainable use, biosafety, sustainable consumption and production, among others. Consideration was also given to case studies that meaningfully reflected the contributions and perspectives of indigenous peoples and local communities, including cases where they were active participants in the design or implementation of an initiative, and/or where traditional knowledge informed conservation or restoration approaches.

65. Case studies meeting these considerations were subsequently researched and elaborated by the Secretariat, drawing on the national reports and stakeholder submissions. Once finalized, each case study was transmitted to the relevant national focal point for review, and inclusion in the global report was contingent on the focal point's approval, ensuring both the accuracy of the material and national ownership of the final product.

H. Methodology to determine the relationship between progress towards targets and global goals

66. The outline of the global report calls for a summary of the relationship between the collective progress towards the relevant targets of the Framework and progress towards each goal. To determine which targets to include in this summary, the AHSTAG proposed to rely on national targets submitted by Parties. When submitting their national targets, Parties align them with both Framework targets and one or more of the four goals. Therefore, it is possible to identify how Parties' national targets support progress towards each of the goals. To do so, an empirical analysis of how Parties have linked Framework targets and goals was carried out in the following steps:

(a) Filter only for national targets that are highly aligned with a Framework target or have no alignment

(b) For these filtered submissions, compute the frequency of associations (i.e. number of national target submissions) linking a Framework target to a goal for each Party

(c) Calculate the proportion of submissions for each Framework target associated with each goal per Party

(d) Calculate the overall proportion of submissions for each Framework target associated with each goal, correcting for the number of Parties submitting targets

67. This methodology produces a weighted percentage of national target submissions associating each Framework target to a goal, highlighting how Parties are operationalising the Framework nationally. Using these weighted percentages, the AHSTAG then used a threshold approach to draw a link between a Framework goal and target when at least one third of Parties associated the target to a goal. To represent a balanced view of implementation across regions, these percentages were recalculated for each UN regional group and a link between a Framework goal and target was drawn when any region associated the two in at least 33 per cent of their national targets. Alternative thresholds (e.g. at 25 per cent) and approaches (e.g. at least two UN regions) were also tested but ultimately not endorsed by the AHSTAG

I. Methodology for identifying means of implementation, needs and challenges

68. The analysis of means of implementation drew on information reported by Parties through national reports. The methodology was adapted from the analysis of capacity needs in national targets and NBSAPs conducted earlier by the Secretariat in document CBD/SBI/6/INF/5 (Annex IV, Section C). The present analysis builds on this approach, extending it to the full corpus of seventh national reports and expanding the typology to more subcategories to reflect the broader scope of means of implementation under Goal D of the Framework.

69. The analysis proceeded through three main steps:

- (a) Development of an analytical typology of means of implementation (see Appendix 1);
- (b) Screening of national submissions using the typology;
- (c) Aggregation and interpretation of results to identify successes, challenges, and gaps, in line with the mandate of the global report's section on means of implementation.

Screening, aggregation and interpretation of national submissions

70. A structured keyword search was conducted using a programming language (Python) applied across the full corpus of national report submissions. The script searched through the text of each national report for an initial set of general terms including need, gap, lack of, require, challenge, constraint, capacity, support, and assistance to identify passages referring to means of implementation needs or provisions. Passages identified by the initial search were then screened against the keyword sets associated with each of the thematic subcategories in the typology (see Appendix 1). The associated text was then reviewed by the analyst and the passage was inserted under the relevant subcategory. Results were then aggregated under the four broad means of implementation categories defined under Goal D of the Framework:

- (a) financial resources;
- (b) capacity-building;
- (c) technical and scientific cooperation; and
- (d) access to and transfer of technology.

71. Following the Python-based analysis, an AI-assisted review was undertaken to cross-check the findings and identify any significant themes or gaps that may not have been captured by the keyword

approach⁴. This step was used solely for verification purposes and did not generate the primary findings.

72. Additionally, to add another layer of analysis and ensure consistency with the analysis presented in section II.B of the global report, the challenges, actions and successes reported by Parties were analyzed. Parties had reported these challenges, actions and successes against each target through the online reporting tool. This information was taken directly from the online report tool and filtered by target. Common challenges, actions and successes were identified across submissions and incorporated into both the target-by-target analysis and the relevant sections of the means of implementation analysis. This step was verified using AI to ensure that no key element was missing⁵. Where the verification identified an additional element, it was double-checked against the original submissions to confirm that it was indeed reported by Parties before being retained.

J. Methodology for the preparation of the scorecard of progress included in the global report on collective progress in the implementation of the Kunming-Montreal Global Biodiversity Framework

73. A scorecard was developed to portray an overall summary of progress for each Framework target. The scorecard aims to illustrate progress towards the targets of the Framework noting that the targets are action based (for example, the area under restoration does not capture if the restoration activity created a change in ecosystem quality or extent, but it captures the action related to restoration). The scorecard aims to capture the following main themes:

- (a) Do the national targets (planned actions) cover the ambition of the global targets;
- (b) Is implementation of the national targets on track; and
- (c) Are the indicators showing signs of progress.

74. The scorecard includes the following elements:

- (a) Coverage of scope, defined as the percentage of elements of each Framework target addressed at least to some extent by Parties' national targets.
- (b) Self-assessment of progress, defined as the percentage of national targets associated with each Framework target that Parties have reported as "on track" or "achieved".
- (c) Data use, defined as the percentage of Parties who submitted data for any quantitative indicators associated with each Framework target.
- (d) Indicators, defined individually for each indicator type as:
 - i. The status of the headline indicator relative to the objectives of the related Framework target
 - ii. The percentage of Parties scoring highly (4 or 5) for the binary indicator related to each Framework target
 - iii. The percentage of all quantitative indicators showing positive trends for each Framework target
- (e) Additionally, an overall score is included in the scorecard in the concise summary.

75. The values for the percentages described in each of the four elements defined above are derived from the respective analyses carried out earlier in the global report (see relevant methodological sections above).

⁴ See question 4 in Appendix 2 for further detail on the format and structure of the question used by the AI tool.

⁵ See question 1, 2 and 3 in Appendix 2 for further detail on the format and structure of the question used by the AI tool.

76. Using these elements, a first detailed summary table was produced summarising progress towards every element and each indicator type individually. The table summarises progress into a three-tiered ordinal scale (red, yellow, green) depending on the element.

77. For coverage of scope, self-assessment of progress, data use and all quantitative indicator trends, the scale, and its associated colour coding, reflects where the value for each target sits relative to the highest and lowest scores achieved across targets (green is assigned to values falling within the top third of the total range, yellow to the middle third, and red to the bottom third). This approach does not divide the targets into three equal categories but rather calculates the absolute mathematical range between the minimum and maximum values, dividing this numerical distance into three equally sized intervals. Unlike a standard tertile split, which would force an equal number of data points into the red, yellow, and green categories regardless of their actual scores, this range-based approach ensures that the colour distribution reflects the true variance and clustering of the data. Consequently, if values are heavily skewed, the majority of targets will accurately fall into a single colour category without being artificially distributed in three.

78. For the binary indicators, the scale, and its associated colour coding, reflects the absolute percentage of high (4 or 5) binary indicator scores. Specifically, green is assigned when 50 per cent or more of Parties score highly, yellow when between 50 and 25 per cent of Parties score highly; and red when less than 25 per cent of Parties score highly.

79. For the headline indicators the scale, and its associated colour coding, reflects progress relative to the objectives of the Framework target. Specifically, green is assigned when progress is being made, yellow when progress is mixed, red when progress is insufficient; and black when progress cannot be assessed. This assessment was carried out by Secretariat staff and AHSTAG members.

80. To verify if the scorecard was sensitive to the method used for ranking the results, a sensitivity analysis was carried out using five different classification methods:

- (a) fixed boundaries at each third;
- (b) tertiles;
- (c) statistical threshold at ± 0.5 standard deviations;
- (d) natural breaks using K means clustering; and
- (e) range-based tertiles.

81. Based on this sensitivity analysis, extreme shifts in score (from red to green or vice versa) were very rare regardless of the method. This provided assurance of the approach and the range-based tertiles were used in the final scorecard as that represents the simplest and most logical approach to summarise results without forcing artificial symmetry, over penalising low performance, while still capturing the underlying structure of the results.

82. In the concise summary, progress across the four elements was displayed by combining all individual indicator scores into a single overall indicator score and then provides an overall assessment of progress in implementation by combining all four elements. This overall assessment is also included in the first more detailed table described previously.

83. The overall indicator score conserves the three-tiered ordinal scale by averaging across all indicator scores for each Framework target. First, the ordinal scale was converted to a numeric value (green equal 100, yellow equal 50 and red equal 0). Then, the overall indicator score was calculated as an unweighted average of the individual score for each type of indicator relevant to the Framework target. In the table, the three-tiered ordinal scale is recovered using the same range-based tertiles approach as that used for the other dimensions (i.e. green is assigned to values falling within the top third of the total range, yellow to the middle third, and red to the bottom third).

84. Finally, the overall summary assessment is calculated as an equal average of two measures:

- (a) A combined coverage and progress score and
- (b) The overall indicator score, then split into a four-tiered ordinal scale.

85. The combined coverage and progress score was obtained by following the logic that realised progress towards national targets is limited by the ambition of these same national targets. Therefore, the combined coverage and progress score was defined using a four-tiered ordinal scale where, for each Framework target:

- (a) if coverage was green and progress yellow then the combined score dropped to yellow;
- (b) if coverage was green and progress red then the combined score dropped to orange;
- (c) if coverage was yellow and progress yellow then the combined score dropped to orange;
- (d) if coverage was yellow and progress red then the combined score dropped to red;
- (e) all other possible combinations were given their progress score.

86. To obtain a final score the four-tiered score of the combined coverage and progress score was converted into numeric values (green equal 100, yellow equal 50, orange equal 25 and red equal 0). Then, for each Framework target the numeric values for the combined coverage and progress score and the overall indicator score were averaged together. Finally, these average scores were split into four categories (0-25% red, 25-50% orange, 50-75% yellow, 75-100% green) to provide the overall summary assessment for each Framework target.

Appendix 1

Typology of means of implementation

1. The following typology of thematic subcategories was used. Each subcategory is associated with keywords that guide the screening of the submissions:

- (a) Technology related: tools, equipment and technological systems
 - (i) Keywords: technology, technological tools, technological systems, equipment, infrastructure, innovation, digital tools, remote sensing, GIS
- (b) Information and data: baselines, datasets, platforms and information systems
 - (i) Keywords: baseline, dataset, database, data platform, information system, data management, biodiversity indicators, data sharing, clearing-house mechanism
- (c) Scientific research: generation of new scientific knowledge to address biodiversity challenges
 - (i) Keywords: research, scientific research, research programme, scientific study, research institution, scientific knowledge, ecological research
- (d) Monitoring and surveillance: systems and methods for tracking, enforcement and evaluation of biodiversity-related actions and threats
 - (i) Keywords: monitoring system, monitoring programme, monitoring framework, monitoring and evaluation, indicator, surveillance, tracking, early warning system
- (e) Capacity-building: any mention of the phrase “capacity-building”
 - (i) Keywords: capacity-building, capacity development, institutional capacity, technical capacity, training, technical assistance
- (f) Human resources: skilled personnel/personal and retention of workforce to manage biodiversity threats and actions
 - (i) Keywords: human resources, skilled personnel, technical staff, expert, specialist, trained staff, workforce
- (g) Communication and awareness: public involvement, engagement and education to improve understanding, support and behavioural change
 - (i) Keywords: communication strategy, awareness, public awareness, outreach, environmental education, stakeholder engagement
- (h) International cooperation and knowledge transfer: international support, partnerships and knowledge sharing
 - (i) Keywords: international cooperation, international collaboration, technical cooperation, knowledge sharing, knowledge exchange, international partnership, regional cooperation
- (i) National and local cooperation and knowledge transfer: national, regional or local partnerships and collaboration mechanisms
 - (i) Keywords: national cooperation, local cooperation, inter-agency cooperation, inter-ministerial cooperation, stakeholder collaboration, multi-stakeholder partnership
- (j) Regulatory and legal frameworks: implementation, compliance and enforcement of biodiversity actions

- (i) Keywords: legislation, legal framework, regulatory framework, environmental law, regulation, compliance, enforcement
- (k) Environmental governance and policy: institutional arrangements, governance mechanisms and policy integration processes
 - (i) Keywords: governance, institutional arrangement, coordination mechanism, inter-ministerial committee, policy framework, policy integration, whole-of-government
- (l) Resource availability: financial resources and funding for biodiversity implementation
 - (i) Keywords: financial resource, funding, finance, budget allocation, resource mobilization, financial support, investment
- (m) Access to justice and information: equitable, inclusive and gender-responsive participation in decision-making
 - (i) Keywords: access to information, access to justice, public participation, participatory governance, inclusive decision-making, transparency

Appendix 2

Additional information related to artificial intelligence tools used in the preparation of the global report of collective progress in the implementation of the Kunming-Montreal Global Biodiversity Framework

1. Analytical Questions and Instructions Used in AI-Assisted Synthesis

1. This section reproduces verbatim the analytical questions and associated instructions used to guide the AI-assisted synthesis of national report content for the target-by-target summaries in Part II.B of the global report on collective progress.
2. Questions Q5 and Q6 were developed in two variants:
 - (a) an all-targets cross-cutting synthesis version and
 - (b) a supplementary per-target version; both are reproduced below.

Question 1 — Actions Taken by Parties

3. Date prepared: 2026-04-14
4. Question: What types of actions are countries taking to implement their national targets related to the selected GBF target of the Kunming-Montreal Global Biodiversity Framework?
5. Instructions:
 - (a) Only consider information related to national targets that the country has identified as contributing to the selected GBF target. Also include directly reported progress where a country reports directly against the selected GBF target rather than through a national target. Do not draw on reporting against other GBF targets.
 - (b) Focus on actions taken or underway. Do not treat aspirations, general background, problem statements, or broad intentions as actions unless the report clearly presents them as measures being implemented.
 - (c) Provide an overall summary of the types of actions taken, including analysis of the most commonly reported types. This overall summary must include:
 - (i) Illustrative examples with direct quotes or close paraphrases attributed to Party code and field (e.g. “CA – actions field” or “NG – implementation considerations”). Where a national target identifier is available in the dataset output, include it as well. Do not invent page numbers; cite Party and field instead.
 - (ii) Distinct sections for each of the following seven action categories. For each category, describe what types of actions are reported and give at least one illustrative example where available:
 - (iii) Economic and financial actions — financially incentivizing or constraining activities through economic instruments (e.g. subsidies, taxes, charges, fiscal transfers, natural capital accounting, green bonds, water funds, debt-for-nature swaps, socially responsible investment).
 - (iv) Legal and regulatory policy actions — formal rules and regulations that legally regulate, prohibit, sanction or inhibit certain activities (e.g. rights to nature, no-take zones, environmental/social standards, rights-based approaches).

- (v) Social, cultural and awareness actions — information-based instruments and voluntary/collective actions emphasizing sociocultural relationships with ecosystems (e.g. environmental education, eco-labelling, pollutant registers, biodiversity registers, awareness-raising, self-regulation, voluntary agreements, CSR, participation, IPLC collective action, voluntary certification schemes, co-management, behaviour nudges, indigenous and community conserved areas, sacred sites recognition).
- (vi) Rights-based and customary actions — actions that strengthen collective rights and customary institutions of indigenous peoples and local communities (e.g. official recognition of IPLC rights to govern lands/territories/resources, promotion of international and national human rights instruments).
- (vii) Direct conservation and sustainable use actions — direct government action to address biodiversity issues in landscapes or seascapes or for specific species, including contracted or incentivized third parties (e.g. protected area establishment, ecosystem restoration, invasive alien species control or eradication).
- (viii) Research, monitoring and data collection actions — actions to collect or manage information and data related to biodiversity conservation and sustainable use (e.g. establishing or strengthening monitoring systems, undertaking assessments and field research, developing or enhancing data management infrastructure).
- (ix) International cooperation actions — actions through which countries work together to conserve, restore or sustainably use biodiversity outside national jurisdictions (e.g. technology transfer, capacity building, financial provision, transboundary cooperation).
- (x) A markdown matrix with one row per reporting Party and one column per action category (i–vii), using: ✓ = clearly reported ~ = partially or implicitly reported X = not reported Follow the matrix with a per-Party section listing, for each Party, a concise bulleted list of its actions under each type where relevant.
- (xi) An annex with 2–3 examples that could be developed into case studies illustrating unique or replicable implementation approaches. Examples should come from diverse geographic locations and be targeted at national and international policy makers. Each example should describe: the core actions carried out; who implemented them; the resources required; the time period covered; and the Party and field from which the evidence is drawn.
- (xii) Base findings exclusively on what Parties report. Do not add context, projections or interpretations not grounded in the reported evidence.
- (xiii) Apply the following classification rules consistently across all action categories:
- (xiv) Use ✓ only where the report provides clear evidence of an implemented action in that category.
- (xv) Use ~ where the category is only partial, indirect, planned, enabling, or implied.
- (xvi) Use X where no action is reported for that category under the selected GBF target.
- (xvii) Do not classify general participation, consultation, or community engagement as rights-based/customary unless the report clearly refers to rights, customary governance, sacred sites, Indigenous/local community authority, or equivalent recognition.

- (xviii) Do not classify general regulation, permitting, or budget allocation as economic/financial unless the report clearly describes a financial mechanism, incentive, funding instrument, or economic conditionality.
- (xix) Do not classify donor support or external financing alone as international cooperation unless the report describes a cooperation mechanism, partnership, regional framework, or cross-border/international implementation arrangement.

Question 2 — Challenges and Responses

6. Date prepared: 2026-05-09

7. Question: What challenges are Parties reporting in making progress on, or taking actions towards, their national targets related to the selected GBF target of the Kunming-Montreal Global Biodiversity Framework, and how are these challenges being addressed?

8. Instructions:

(a) Only consider information in the national report related to national targets which have been identified by the Party as contributing to the selected GBF target of the Global Biodiversity Framework. Also include directly reported GBF target progress material where a Party reports directly against the selected GBF target rather than through a national target. Do not draw on reporting against other GBF targets.

(b) Prioritize the source field “key challenges encountered and different approaches that may be taken for further implementation” for each relevant national target. Use other target-linked fields, including actions, progress, effectiveness / achievements, implementation considerations, additional implementation information, and direct GBF target progress, only where they clearly help explain:

- (i) the nature of a reported challenge;
- (ii) how the Party is addressing or proposes to address that challenge;
- (iii) whether the challenge is already being mitigated through reported action, support, policy, cooperation, financing, monitoring, capacity-building, or another implementation response.
- (iv) Provide an overall summary of the challenges Parties are reporting. In this summary include:
- (v) Most Commonly Reported Challenges: a concise synthesis of the challenge types most frequently reported across Parties for the selected GBF target.
- (vi) Illustrative Examples of Challenges: illustrative examples with direct quotes or close paraphrases from the national reports. Attribute each example to the Party code, national target identifier where available, and field from which the evidence is drawn (for example, [KE-NT-03, challenges]). Do not cite page numbers; cite Party, NT-ID, and field instead.
- (vii) How Challenges Are Being Addressed: examples of approaches Parties report they are using, have used, or propose to use to address these challenges. Distinguish clearly between implemented responses, responses underway, planned approaches, and generic or aspirational statements.
- (viii) Use these exact section headings:
 - (1) Overall Summary
 - (2) Most Commonly Reported Challenges
 - (3) Illustrative Examples of Challenges

(4) How Challenges Are Being Addressed

9. Provide distinct sections summarizing reported challenge types. Use these exact headings and order. Within each section, identify the reported challenge, note how it is being addressed where reported, and cite the evidence.

(a) Financial and Resource Constraints

(b) Financial and resource constraints include insufficient, delayed, unreliable, inaccessible, or unsustained funding; lack of financial incentives; limited domestic budget allocations; dependence on external finance; and other resource limitations affecting implementation.

(c) Capacity, Human Resources and Institutional Constraints

(d) Capacity, human resources and institutional constraints include limited technical capacity, staffing shortages, weak institutional mandates, coordination gaps, unclear roles, retention problems, implementation capacity constraints, and limited enforcement or management capacity.

(e) Data, Knowledge, Monitoring and Research Gaps

(f) Data, knowledge, monitoring and research gaps include missing baselines, weak indicators, insufficient monitoring systems, limited scientific information, data fragmentation, limited traditional knowledge integration, and inadequate assessment or evaluation systems.

(g) Legal, Policy and Governance Challenges

(h) Legal, policy and governance challenges include incomplete or outdated laws, weak enforcement, unclear tenure or rights, fragmented governance, poor policy coherence, insufficient mainstreaming, regulatory gaps, and lack of formal mechanisms for implementation or accountability.

(i) Socio-Economic, Livelihood and Behavioural Challenges

(j) Socio-economic, livelihood and behavioural challenges include poverty, livelihood dependence on biodiversity, conflicts between conservation and development objectives, limited incentives for behavioural change, market pressures, lack of public awareness, and social acceptance barriers.

(k) Environmental, Ecological and Biophysical Challenges

(l) Environmental, ecological and biophysical challenges include climate change, drought, invasive alien species, pollution, habitat degradation, land-use change, ecosystem fragility, species decline, human-wildlife conflict, natural disasters, and other ecological pressures.

(m) Participation, Equity, Rights and Inclusion Challenges

(n) Participation, equity, rights and inclusion challenges include weak participation of Indigenous Peoples and Local Communities, women, youth, local communities or other actors; FPIC or rights-related gaps; inequitable benefit-sharing; conflicts over land or resources; and limited inclusion in decision-making or implementation.

(o) International Cooperation, Technology and External Support Challenges

(p) International cooperation, technology and external support challenges include gaps in technology access or transfer, limited international cooperation, dependence on donor support, lack of cross-border cooperation, and unmet needs for technical or scientific cooperation.

10. If a Party reports a challenge that does not fit cleanly into these categories, do not ignore it. Capture it in the overall summary, notable examples, cautions, and per-Party table notes as an other, unusual, or cross-cutting challenge. When a challenge overlaps categories, classify it under the most specific category but briefly note the overlap where analytically useful.

11. Include two dedicated subsections for groups of Parties specifically requested by colleagues:

(a) Challenges Reported by Least Developed Countries - Summarize the challenge patterns reported by least developed countries represented in the extracted evidence for the selected GBF target. Only discuss Parties present in the dataset for that target. Least developed countries for this analysis include: Afghanistan, Angola, Bangladesh, Benin, Burkina Faso, Burundi, Cambodia, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Djibouti, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, Senegal, Sierra Leone, Solomon Islands, Somalia, South Sudan, Sudan, Timor-Leste, Togo, Tuvalu, Uganda, United Republic of Tanzania, Yemen, and Zambia.

(b) Challenges Reported by Small Island Developing States - Summarize the challenge patterns reported by small island developing States represented in the extracted evidence for the selected GBF target. Only discuss Parties present in the dataset for that target. Small island developing States for this analysis include: Antigua and Barbuda, Bahamas, Barbados, Belize, Cabo Verde, Comoros, Cook Islands, Cuba, Dominica, Dominican Republic, Fiji, Grenada, Guinea-Bissau, Guyana, Haiti, Jamaica, Kiribati, Maldives, Marshall Islands, Mauritius, Micronesia (Federated States of), Nauru, Niue, Palau, Papua New Guinea, Samoa, Sao Tome and Principe, Seychelles, Singapore, Solomon Islands, Suriname, Timor-Leste, Tonga, Trinidad and Tobago, Tuvalu, Vanuatu, Saint Kitts and Nevis, Saint Lucia, and Saint Vincent and the Grenadines.

12. Include a table identifying, for each reporting Party, the main challenges reported for the selected GBF target and how they are being addressed where reported. Use the following symbols: ✓ = challenge clearly reported ~ = challenge partially, indirectly, or weakly reported R = response or approach to address the challenge is clearly reported P = response or approach is planned, proposed, or generic X = no challenge reported in the extracted evidence

13. Per-Party Challenges and Responses Table (Table with one row per reporting Party. Include columns for the challenge categories above, an overall challenge status, concise notes on the main reported challenges, concise notes on responses or approaches where reported, and evidence citations.)

14. Include a concise section identifying examples that may be useful for colleagues drafting target summaries. These are not full case studies unless the evidence is strong enough. Select examples that are especially clear, distinctive, policy-relevant, or useful for validating and supplementing existing draft text.

15. Notable Examples for Target Summary Drafting

16. For each example include: - Party; - reported challenge; - reported response or approach, if any; - why the example is useful for drafting; - evidence citation.

17. Include a final section on cautions and evidence gaps. Note where challenge evidence is sparse, where reports identify problems without explaining responses, where responses are planned rather than implemented, where challenge categories overlap, or where absence of evidence should not be interpreted as absence of a challenge.

18. Cautions and Evidence Gaps

19. Apply the following classification rules consistently:

(a) Use ✓ only where the report provides clear evidence of a challenge, barrier, constraint, gap, difficulty, risk, or implementation problem.

(b) Use ~ where the challenge is only partial, indirect, implied, weakly described, or embedded in a general statement.

(c) Use R only where a response, remedy, approach, measure, support mechanism, or implementation adjustment is clearly reported as being used or underway.

(d) Use P where a response is proposed, planned, aspirational, generic, or framed as something that may be taken for further implementation.

(e) Use X where no challenge is reported in the extracted evidence for the selected GBF target.

(f) Do not infer a challenge from low progress unless the report itself describes the challenge, barrier, constraint, or gap.

(g) Do not infer a response from general action language unless the report links the action to addressing a reported challenge or the connection is explicit in the source field.

(h) When a challenge could fit multiple categories, classify it under the most specific category and mention overlaps only where analytically useful.

(i) Where a reported challenge is unusual, cross-cutting, or outside the listed categories, preserve it explicitly rather than forcing it into an unsuitable category.

(j) Base findings exclusively on what Parties report. Do not add context, projections, external knowledge, or interpretations not grounded in the reported evidence.

(k) Use “Party” or “reporting Party” in the output when referring to the reporting entity. The colleagues’ prompt may use “country” informally, but the analysis should use CBD terminology consistently.

20. Cite national target evidence with the system NT-ID and field name, for example [AM-NT-02, challenges]. Cite report-level evidence with available report-level tags, for example [AM, Section V] or [AM, direct GBF target progress]. Do not cite “card challenges”, “card evidence”, “source”, “report”, or other vague labels.

21. For citation clarity, avoid combining evidence from different Parties in the same sentence or bullet unless the sentence is explicitly comparing them. Prefer separate Party-specific bullets or sentences so each claim is supported by citations from the same Party named in that claim.

22. Do not add manual numbering to headings or subheadings. The report generator applies stable numbering automatically.

Question 3 — Successes

23. Date prepared: 2026-05-13

24. Question: What successes are Parties reporting in the implementation of their national targets related to the selected GBF target of the Kunming-Montreal Global Biodiversity Framework?

25. Instructions:

(a) Only consider information in the national report related to national targets which have been identified by the Party as contributing to the selected GBF target of the Global Biodiversity Framework. Also include directly reported GBF target progress material where a Party reports directly against the selected GBF target rather than through a national target. Do not draw on reporting against other GBF targets.

(b) Prioritize the source fields “progress”, “effectiveness / achievements”, and “level of progress” for each relevant national target. Use “actions” and other target-linked fields only where they clearly provide evidence of an achieved or clearly underway success or outcome. Do not treat aspirational statements, general policy commitments, or descriptions of ongoing processes as successes unless the report explicitly confirms an achievement or positive result.

(c) Provide an overall summary of the successes reported. In this summary include:

(d) **Most Commonly Reported Successes:** a concise synthesis of the types of successes most frequently reported across Parties for the selected GBF target. Distinguish clearly between successes with measurable, quantified outcomes and those described in qualitative or aspirational terms only.

(e) **Illustrative Examples of Successes:** illustrative examples with direct quotes or close paraphrases from the national reports. Attribute each example to the Party code, national target identifier where available, and the field from which the evidence is drawn (for example, [KE-NT-03, progress]). Do not cite page numbers; cite Party, NT-ID, and field instead.

26. **Caution on Aspirational Reporting:** note where reported successes are presented as completed achievements versus ongoing progress versus aspirational framing. Parties frequently describe plans, policies, and processes that are not yet completed; these should not be treated as confirmed successes.

27. Use these exact section headings:

- (a) Overall Summary
- (b) Most Commonly Reported Successes
- (c) Illustrative Examples of Successes
- (d) Caution on Aspirational Reporting

(e) Include a table identifying, for each reporting Party, the main successes reported for the selected GBF target. Use the following symbols: ✓ = success clearly reported M = measurable, quantified result reported (use alongside ✓ where both apply) ~ = partial, early-stage, or aspirational progress only X = no success reported in the extracted evidence

28. **Per-Party Successes Table**

(a) (Table with one row per reporting Party. Columns: Party code, overall success status, measurable results (yes/partial/no), concise notes on main reported successes, evidence citations. Do not add any footnotes, explanatory notes, or meta-comments below the table.)

(b) Include a brief section comparing reported successes in this synthesis with the types of actions described under Q1 for the same GBF target. Q1 analyses actions taken under seven categories: (i) economic and financial; (ii) legal and regulatory; (iii) social, cultural and awareness; (iv) rights-based and customary; (v) direct conservation and sustainable use; (vi) research, monitoring and data collection; (vii) international cooperation. Based on the successes synthesized here, note:

- (i) which action types appear most commonly associated with reported successes for this target;
- (ii) where significant action may be reported under Q1 categories but no corresponding success evidence appears in this synthesis — noting whether that gap likely reflects reporting patterns or actual implementation gaps;
- (iii) any patterns specific to this GBF target (e.g. a target where legal/regulatory actions dominate but measurable outcomes are rarely confirmed). Keep this section analytical and concise; do not repeat case-study details already covered above.

29. **Relationship to Reported Actions**

30. Include an annex with examples that could be developed into or used as case studies to illustrate reported successes. Examples should come from diverse geographic locations and be targeted at national and international policy makers. They should showcase successes that may be replicable in other contexts. For each example include:

- (a) Party;

- (b) national target(s) aligned to this GBF target;
- (c) core action or mechanism that generated the reported success;
- (d) who implemented or led the action;
- (e) resources, institutional arrangements, or time period if reported;
- (f) why the example may be replicable or instructive for international policy making;
- (g) evidence citations.

31. Possible Case-Study Examples

32. Include a final section on cautions and evidence gaps. Note where success evidence is sparse, where reported progress is difficult to verify from the national report alone, where progress claims are formulaic or unsubstantiated, where no success is reported despite significant action being identified under Q1, and where the absence of reported success should not be interpreted as the absence of achievement on the ground.

33. Cautions and Evidence Gaps

- (a) Apply the following classification rules consistently:
- (b) Use ✓ only where the report provides clear evidence of an achieved or clearly underway success — a policy adopted, a target met or on track, a mechanism functioning, or an outcome confirmed.
- (c) Use M alongside ✓ only where the Party reports quantified results: hectares, numbers, percentages, funding amounts, species outcomes, or other measurable indicators of progress. M is the only symbol that may appear alongside ✓. Do not use M where the only quantified results are process or administrative measures (e.g. number of plans approved, acres legally demarcated, percentage of districts mapped) if the Party itself rates overall progress as insufficient or below target — in such cases the quantified figure describes effort or coverage, not a confirmed conservation outcome, and M should be withheld.
- (d) Use ~ alone (never combined with ✓) where the Party reports ongoing progress, partial implementation, or early-stage results without confirming achievement; or where the language is aspirational or conditional. If any success is confirmed, use ✓ — not ~. Partial measurability is captured in the Measurable Results column, not by combining symbols in the Overall Success Status column.
- (e) Use X where no success is reported in the extracted evidence for the selected GBF target.
- (f) Do not treat a stated intention, planned action, or general policy direction as a success unless the report confirms it has been implemented and is producing results.
- (g) Do not treat the completion of a planning document (e.g. a strategy, NBSAP, or action plan) as a conservation success unless the report also confirms that implementation is underway and producing results.
- (h) Do not infer success from a high level-of-progress rating alone unless the report provides substantive qualitative or quantitative evidence to support it.
- (i) Base findings exclusively on what Parties report. Do not add context, projections, external knowledge, or interpretations not grounded in the reported evidence.
- (j) Use “Party” or “reporting Party” in the output when referring to the reporting entity. The colleagues’ prompt may use “country” informally, but the analysis should use CBD terminology consistently.

(k) Cite national target evidence with the system NT-ID and field name, for example [AM-NT-02, progress]. Cite report-level evidence with available report-level tags, for example [AM, Section V] or [AM, direct GBF target progress]. Do not cite “card successes”, “card evidence”, “source”, “report”, or other vague labels.

(l) For citation clarity, avoid combining evidence from different Parties in the same sentence or bullet unless the sentence is explicitly comparing them. Prefer separate Party-specific bullets or sentences so each claim is supported by citations from the same Party named in that claim.

(m) Do not add manual numbering to headings or subheadings. The report generator applies stable numbering automatically.

(n) The final answer must be clean report text. Do not include visible self-corrections, drafting notes, “Correcting:” statements, apologies, or commentary about how the answer was produced. Resolve any internal correction before writing the final text.

Question 4 — Means of Implementation: Needs and Provisions

34. Date prepared: 2026-04-20

35. Question: What means of implementation do countries report they need to improve the implementation of their national targets related to the selected GBF target of the Kunming-Montreal Global Biodiversity Framework? The analysis should also extract information on the existing provisions/measures already in place, and the specific needs, roles, and considerations related to Indigenous Peoples and Local Communities.

36. Instructions:

(a) Only consider information in the national report related to national targets which have been identified by the country as contributing to the selected GBF target of the Global Biodiversity Framework. Also include directly reported means-of-implementation material where a country reports directly against the selected GBF target rather than through a national target. Do not draw on reporting against other GBF targets.

(b) Provide an overall summary of the means of implementation that countries are reporting they need to more effectively take action for the conservation and sustainable use of biodiversity and the fair and equitable sharing of benefits from the access and use of genetic resources. Means of implementation refers to the enabling conditions, capacities, and tools required to turn biodiversity commitments, policies, and targets into effective action and outcomes. The broader categories of means of implementation are financial resources, capacity-building, technical and scientific cooperation, and access to and transfer of technology. In this summary include:

- (i) Most Identified Required Means of Implementation: a concise summary of the most identified required means of implementation.
- (ii) Illustrative Examples: illustrative examples with direct quotes or close paraphrases from the national reports in this summary. Attribute each example to the Party code, national target identifier, and field from which the evidence is drawn (e.g. “KE — KE-NT-03 — implementation considerations”). Do not cite page numbers; cite Party, NT-ID, and field instead.
- (iii) Needs, Provisions, and IPLC Considerations by Category: for each category of means of implementation, clearly distinguish between:
 - (1) reported needs/gaps (what the country says it lacks, requires, or identifies as a constraint);
 - (2) existing provisions/measures already in place (what is already done or received);

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- (3) any references to Indigenous Peoples and Local Communities (IPLCs), including specific needs, contributions, or rights-based considerations.
 - (iv) Distinct sections summarizing the required means of implementation identified by countries according to the following categories. Use these exact section headings. Within each section, distinguish between reported needs, existing provisions, and IPLC references as per instruction 2c:
 - (1) Overall Summary
 - (2) Most Identified Required Means of Implementation
 - (3) Illustrative Examples
 - (4) Needs, Provisions, and IPLC Considerations by Category
 - (5) Technology Needs - Technology needs include tools, equipment and technological systems to conserve, sustainably use, and equitably manage biodiversity over the long term.
 - (6) Information and Data Needs - Information and data needs include data, datasets and baselines and information related to biodiversity and its direct and indirect drivers of loss which are needed to conserve, sustainably use, and equitably manage biodiversity over the long term. This also includes platforms and systems for collecting, managing and storing information which are not available in the country or which need to be further developed or strengthened.
 - (7) Scientific Research Needs - Scientific research needs include needs related to the generation of new scientific knowledge to address gaps in biodiversity knowledge in order to better conserve, sustainably use, and equitably manage biodiversity over the long term.
 - (8) Monitoring Needs - Monitoring needs include systems and methods for the evaluation of the effectiveness of biodiversity related actions, and the threats biodiversity is facing, in order to better conserve, sustainably use, and equitably manage biodiversity over the long term.
 - (9) Capacity-Building and Development Needs - Capacity-building and development needs include needs related to strengthening the abilities of individuals, institutions, and countries to conserve, sustainably use, and equitably manage biodiversity over the long term.
 - (10) Human Resources Needs - Human resources needs include hiring skilled personnel, the retention of the current workforce, and the training of employees in order to be able to better conserve, sustainably use, and manage biodiversity over the long term.
 - (11) Communication and Awareness Needs - Communication and awareness needs include needs related to increasing peoples knowledge about biodiversity, building public and political support for action, and encouraging necessary behavioural change in order to better conserve, sustainably use, and manage biodiversity over the long term.
 - (12) Knowledge Transfer Needs - Knowledge transfer needs include needs associated with the sharing and application of scientific, policy, and traditional knowledge to improve biodiversity conservation and sustainable use.

- (13) National and Local Cooperation Needs - National and local cooperation needs include needs related to collaboration and coordination among actors within a country, including across national, sub-national, and local levels, to conserve, sustainably use, and manage biodiversity effectively.
 - (14) International Cooperation Needs - International cooperation needs include needs related to collaboration among countries and partners to conserve biodiversity, use it sustainably, and share benefits fairly through shared commitments, resources, knowledge, and joint action.
 - (15) Regulatory and Legal Frameworks Needs - Regulatory and legal frameworks needs include needs related to the development or strengthening of laws, regulations, policies, and institutional rules that govern how biodiversity is conserved, used, accessed, restored, and protected within a country.
 - (16) Environmental Governance and Policy Needs - Environmental governance and policy needs include needs related to strengthening or improving how issues related to the conservation and sustainable use of biodiversity and the access to genetic resources are governed and how decisions on these issues are made, implemented, coordinated and enforced.
 - (17) Financial Resource Needs - Financial resource needs include needs related to improving the availability of financial resources to support the conservation and sustainable use of biodiversity as well as the fair and equitable access to genetic resources, as well as needs related to the reliability, timeliness and accessibility of these financial resources.
 - (18) Access to Justice and Information Needs - Access to justice and information needs include needs to ensure that biodiversity information is available to people, communities, organizations, and government ministries in order to allow them to take effective actions to conserve, sustainably use and access biodiversity and to ensure that their rights are being respected. This also includes strengthening legal systems to ensure that people, communities, organizations, and governments have access to legal recourse in situations where their rights have not been respected.
- (v) Categorize the above sections into four broader categories of means of implementation: financial resources; capacity-building; technical and scientific cooperation; access to and transfer of technology. Present this as a summary table after the fourteen sections, grouping sections as follows:
- (1) Financial resources: Financial Resource Needs
 - (2) Capacity-building: Capacity-Building and Development Needs, Human Resources Needs, Communication and Awareness Needs, National and Local Cooperation Needs, Regulatory and Legal Frameworks Needs, Environmental Governance and Policy Needs, Access to Justice and Information Needs
 - (3) Technical and scientific cooperation: Scientific Research Needs, Knowledge Transfer Needs, International Cooperation Needs
 - (4) Access to and transfer of technology: Technology Needs, Information and Data Needs, Monitoring Needs For example, references to “lack of monitoring systems” would be coded under Monitoring Needs and subsequently aggregated under the category “access to and transfer of technology”.

37. Aggregation by Broad MoI Category

38. (Summary table as per instruction 2e above, with one row per broad category, listing the most commonly reported subcategory needs and the Parties most frequently citing gaps in that area.)

39. Indigenous Peoples and Local Communities (IPLCs): provide a distinct synthesis of how IPLCs are reflected in national reports related to the selected GBF target, including:

- (a) Specific needs identified for IPLCs;
- (b) Existing provisions supporting IPLCs (e.g. legal recognition, co-management, funding, inclusion mechanisms);
- (c) References to traditional knowledge, customary use, rights (e.g. FPIC), and benefit-sharing;
- (d) Any gaps or barriers affecting IPLC participation or access to means of implementation.
- (e) Indigenous Peoples and Local Communities
- (f) Specific Needs Identified for IPLCs
- (g) Existing Provisions Supporting IPLCs
- (h) Traditional Knowledge, Customary Use, Rights, and Benefit-Sharing
- (i) Gaps and Barriers Affecting IPLC Participation
- (j) Include a table which identifies, for each country, whether it has reported needs related to each of the fourteen types of means of implementation above. In this table include a concise bulleted list of the specific means of implementation the country says is required. Use the following symbols: ✓ = need clearly reported ~ = need partially or implicitly reported P = provision reported without a stated need B = both a need and a provision reported X = not reported

40. Per-Party MoI Summary Table

41. (Table with one row per reporting Party and one column per section, followed by a per-Party bulleted list of specific reported MoI needs and provisions.)

42. Apply the following classification rules consistently:

- (a) Use ✓ only where the report provides clear evidence of a stated need or gap in that category.
- (b) Use ~ where the need is partial, indirect, implicit, or inferred from context.
- (c) Use P where the Party reports a provision but does not identify a gap in that category.
- (d) Use B where both a need and a provision are reported for the same category.
- (e) Use X where no means-of-implementation content is reported for that category under the selected GBF target.

43. Do not classify general aspirations or ambitions as needs unless the report explicitly frames them as gaps or requirements.

44. Do not classify donor support or external financing received as a need — classify it as P (provision) unless the Party also states a residual gap.

45. Traditional knowledge and IPLC references should be captured in both the relevant thematic section and in the Indigenous Peoples and Local Communities section.

46. Base findings exclusively on what Parties report. Do not add context, projections, or interpretations not grounded in the reported evidence.

Question 5 — Cross-Cutting Issues: Sections C, I, J and K

47. All-Targets Synthesis

48. Date prepared: 2026-05-03

49. Question: What cross-cutting issues are countries considering in the implementation of their national targets, with particular attention to Sections C, I, J and K of the Kunming-Montreal Global Biodiversity Framework?

50. Instructions:

(a) Consider information reported across national targets and directly reported GBF-target progress entries. The purpose of this run is cross-cutting synthesis across the whole Framework, so do not restrict the analysis to a single GBF target. Base findings exclusively on what Parties report in their Seventh National Reports.

51. This question is answered in two stages:

(a) Per-Party extraction stage: when analysing one Party, apply this question only to that Party's own national report data. Identify how that Party reports issues related to Sections C, I, J and K across all of its national targets and any directly reported GBF-target progress entries. Do not compare with other Parties at this stage.

(b) Global synthesis stage: after the per-Party extractions are complete, synthesize patterns across Parties. Identify common, distinctive, weakly reported, and strongly evidenced Section C/I/J/K issues across the reporting Parties.

52. The purpose of this analysis is to summarize how the elements of Sections C, I, J and K of the Kunming-Montreal Global Biodiversity Framework are reflected in Parties' reported actions, implementation arrangements, support needs, reporting practices, communication efforts, and cross-cutting considerations.

53. Use the following working definitions for the four GBF sections:

(a) Section C - Considerations for implementation. This includes: contributions, rights, knowledge, innovations, worldviews, values and practices of Indigenous Peoples and Local Communities; FPIC or approval and involvement; different value systems including rights of nature or Mother Earth where recognized; whole-of-government and whole-of-society approaches; national circumstances, priorities and capabilities; collective effort; right to development; human rights-based approaches; the right to a clean, healthy and sustainable environment; gender equality and empowerment of women and girls; balanced implementation of the Convention's three objectives and its Protocols; consistency with international agreements; and intergenerational equity.

(b) Section I - Implementation and support mechanisms and enabling conditions. This includes: financial resources; cooperation and collaboration; capacity-building and development; technical and scientific cooperation; access to and transfer of technology; enabling policy, institutional and support mechanisms under the Convention and its Protocols.

(c) Section J - Responsibility and transparency. This includes: planning, monitoring, reporting and review; NBSAPs and national targets as vehicles for implementation; use of indicators and national reports; global review and collective progress; voluntary peer review or country review; information on non-state actor commitments; transparency of support provided and received; facilitative and non-punitive review mechanisms; and avoiding undue burden on Parties.

(d) Section K - Communication, education, awareness and uptake. This includes: communication, education and awareness on biodiversity and the GBF; uptake by all actors; behavioural change and sustainable lifestyles; awareness of diverse values and traditional knowledge; targeted communication adapted to different actors; platforms, partnerships and action

agendas; media, civil society, educational institutions and academia; formal, non-formal and informal biodiversity education; and awareness of science, technology and innovation.

54. Provide the final global synthesis using the following exact headings and order:

- (a) Overall Summary
- (b) Summarize the main cross-cutting patterns across Parties. Identify which Section C/I/J/K issues are most commonly reported, which are less frequently or weakly reported, and how these issues appear in implementation practice. Include direct quotes or close paraphrases attributed to Party code, national target identifier where available, and field name. Do not invent page numbers; cite Party, NT-ID where available, and field instead.
- (c) Section C - Implementation Considerations
- (d) Summarize how Parties report Section C implementation considerations. Use these sub-headings:
 - (i) Indigenous Peoples and Local Communities, Traditional Knowledge, FPIC and Customary Governance
 - (ii) Human Rights-Based Approaches, Rights of Nature, Equity and Intergenerational Equity
 - (iii) Gender Equality, Women and Girls, Youth and Inclusion
 - (iv) Whole-of-Government, Whole-of-Society and Multi-Actor Implementation
 - (v) National Circumstances, Priorities, Capabilities and Right to Development
 - (vi) International Agreements, Protocols and Balanced Implementation of CBD Objectives
- (e) Section I - Implementation and Support Mechanisms
- (f) Summarize how Parties report enabling conditions and support mechanisms.
- (g) Distinguish between support needs/gaps and support already in place. Use these sub-headings:
 - (i) Financial Resources
 - (ii) Capacity-Building and Development
 - (iii) Technical and Scientific Cooperation
 - (iv) Access to and Transfer of Technology
 - (v) Institutional, Policy and Governance Enabling Conditions
- (h) Section J - Responsibility and Transparency
- (i) Summarize how Parties report responsibility, transparency, planning, monitoring, reporting and review. Use these sub-headings:
 - (i) NBSAPs, National Targets and Planning Systems
 - (ii) Indicators, Monitoring, Reporting and Review
 - (iii) Transparency of Support Provided and Received
 - (iv) Voluntary Review, Peer Learning and Adaptive Implementation
 - (v) Non-State Actor Commitments and Accountability
- (j) Section K - Communication, Education, Awareness and Uptake

- (k) Summarize how Parties report communication, education, awareness and uptake of the Framework. Use these sub-headings:
 - (i) Communication and Awareness-Raising
 - (ii) Formal, Non-Formal and Informal Education
 - (iii) Platforms, Partnerships, Media and Knowledge Sharing
 - (iv) Behavioural Change, Sustainable Lifestyles and Uptake by All Actors
 - (v) Science, Technology and Innovation Awareness
- (l) Cross-Cutting Matrix by Party
- (m) Include a markdown table with one row per reporting Party and one column for each of the following areas:
 - (i) C-IPLC-rights-knowledge
 - (ii) C-equity-gender-youth
 - (iii) C-whole-government-society
 - (iv) I-finance-capacity-technology-cooperation
 - (v) J-monitoring-reporting-transparency
 - (vi) K-communication-education-awareness
 - (vii) Use these symbols consistently:
 - (n) ✓ = clearly reported
 - (o) = partially, indirectly, or implicitly reported P = provision or mechanism reported, but no clear implementation gap or action described X = not reported in the extracted evidence
- (p) After the table, include concise per-Party bullets only for Parties with notable or distinctive examples. Do not attempt long per-Party narratives for every Party unless evidence is substantial and distinctive.
- (q) Notable Examples for Possible Case Studies
- (r) Provide 3-5 featured examples that could be developed into case studies for national and international policy makers. These should be the strongest cross-cutting or most policy-relevant examples, selected from diverse regions and across different Sections C/I/J/K. Do not try to provide 3-5 examples per GBF section in this featured list. For each featured example, include:
 - (s) Party
 - (t) GBF section(s) illustrated
 - (u) Core reported action or mechanism
 - (v) Who is involved
 - (w) Support, resources or enabling conditions where reported
 - (x) Why it may be replicable or policy-relevant
 - (y) Evidence citation using Party, NT-ID where available, and field
 - (z) After the selected case studies, add this sub-heading:
 - (aa) Other Noticeable Examples

(bb) List additional examples that are noticeable but were not selected as the main 3-5 featured case studies. This section is intended as a working evidence bank for colleagues drafting the report, so it should be more comprehensive than the featured case-study list while remaining concise.

(cc) Group the additional examples under these exact sub-headings:

(dd) Section C - Other Noticeable Examples

(ee) Section I - Other Noticeable Examples

(ff) Section J - Other Noticeable Examples

(gg) Section K - Other Noticeable Examples

(hh) Under each sub-heading, use a concise markdown table with these columns:

(ii) Party | GBF section(s) | Brief example | Why noticeable | Evidence |

(jj) Keep each row short. Include only examples with enough evidence to be useful for colleagues drafting the report. Aim for 5-10 rows per section where the evidence supports it; fewer is acceptable where reporting is sparse. Give particular attention to Section C responses and reported implementation challenges, because colleagues specifically need this material for target summaries. Use the Party code in the Party column so the HTML report can link it to the Party page.

(kk) Classification rules:

(i) Use ✓ only where the report provides clear evidence that the cross-cutting issue is addressed through a reported action, mechanism, provision, policy, implementation arrangement, or stated support need.

(ii) Use ~ where the issue is only mentioned indirectly, weakly, as context, or as a planned/enabling element.

(iii) Use P where a mechanism or provision exists but the report does not clearly describe implementation action, need, gap or effect.

(iv) Use X where the issue is not reported in the extracted evidence.

(v) Do not classify general stakeholder consultation as IPLC rights, FPIC or customary governance unless Indigenous Peoples and Local Communities, traditional knowledge, customary governance, FPIC/approval and involvement, rights, benefit-sharing or equivalent language is explicitly reported.

(vi) Do not classify a general communication activity as Section K education unless the report clearly refers to learning, education, curriculum, formal/non-formal/informal education, training for public awareness, or knowledge uptake.

(vii) Do not classify any support received as a need unless the Party also identifies a residual gap, requirement, constraint or unmet need.

(viii) Where the evidence is sparse or ambiguous, say so rather than over-classifying.

(ll) Evidence and citation rules:

(i) Use direct quotes or close paraphrases from the extracted national report fields.

(ii) Attribute each example to Party code, national target identifier where available, and field name.

(iii) Do not cite page numbers, because the analysis is based on structured ORT data rather than paginated PDF reports.

(iv) Do not add external information, assumptions, or policy interpretation not grounded in the reported evidence.

(mm) Terminology rules:

- (i) Use “Party” or “reporting Party” in the output when referring to the reporting entity. The colleagues’ prompt may use “country” informally, but the analysis should use CBD terminology consistently.
- (ii) Use “Parties” for aggregate statements, tables and summaries. Use “country” only when quoting or closely paraphrasing source text that uses that word, or when referring to national/sub-national implementation within a Party.
- (iii) Do not infer that all CBD Parties are represented. Refer only to the reporting Parties present in the dataset.
- (iv) When the dataset uses a non-state regional reporting entity code such as EU, treat it as a reporting Party/entity in the table and avoid forcing it into “country” language.

55. Per-Target Supplement

56. Question: For the selected GBF target, how are Parties reporting elements of Sections C, I, J and K of the Kunming-Montreal Global Biodiversity Framework in relation to implementation of their aligned national targets?

57. Purpose: This is a supplementary per-target Q5 prompt. It complements the existing all-targets Q5 synthesis. It should not try to replace the all-targets Q5 report; it should produce target-specific summaries showing how Sections C, I, J and K appear in evidence mapped to each GBF target.

58. Scope:

(a) Only consider information related to national targets identified by the Party as contributing to the selected GBF target, plus direct GBF target progress evidence when present.

(b) Use report-level evidence only when it clearly illuminates implementation of the selected target.

(c) Do not treat the selected GBF target as a separate thematic question. The question is still about Sections C, I, J and K, but constrained to target-aligned evidence.

59. Output requirements:

- (a) Provide a concise overall summary for the selected GBF target.
- (b) Organize the synthesis into the following sections:
- (c) Section C - Implementation Considerations;
- (d) Section I - Implementation and Support Mechanisms;
- (e) Section J - Responsibility and Transparency;
- (f) Section K - Communication, Education, Awareness and Uptake;
- (g) Cross-cutting matrix by Party;
- (h) Notable examples and possible case-study material;
- (i) Cautions and evidence gaps.

60. For each section, distinguish:

- (a) explicit evidence;
- (b) partial, indirect, weak or formulaic evidence;
- (c) provisions or mechanisms in place;
- (d) needs, gaps or barriers.

61. Include illustrative examples with direct quotations or close paraphrases from the source data, using NT-ID and field citations.
62. Include a Party-by-Party cross-cutting matrix showing which Section C/I/J/K elements are reported for the selected GBF target. Use these symbols consistently and apply them to every cell — never leave a cell blank or write “not in scope”, “not applicable”, or similar phrases: ✓ = clearly reported (explicit evidence in the extracted data)
63. ~ = partially, indirectly, or implicitly reported (weak, formulaic, or aspirational evidence) P = provision or mechanism in place, but no demonstrated implementation outcome, need, or gap reported X = not captured in the extracted evidence for this target Use ✓ only where the report provides clear evidence of an operational mechanism, reported action, or confirmed provision. Use ~ for planned elements, generic commitments, or mentions without substance. Use X when the Party’s evidence carries no signal for that element.
64. Keep the report shorter than the all-targets Q5 synthesis. This is a per-target supplement for colleagues drafting target summaries.
65. Citation and terminology rules:
 - (a) Use “Party” or “reporting Party” rather than “country” in analytical text.
 - (b) Cite national target evidence with the system NT-ID and field name, for example [AM-NT-02, progress].
 - (c) Cite report-level evidence with available report-level tags, for example [AM, Section V], [AM, Section IV- Goal A], or [AM, direct GBF target progress].
 - (d) Do not cite “card provisions”, “card needs-gaps”, “source”, “report” or other vague labels.
 - (e) Do not classify general stakeholder consultation as IPLC, FPIC or customary governance unless Indigenous Peoples and Local Communities, traditional knowledge, customary governance, FPIC, rights, benefit-sharing or equivalent language is explicitly reported.
 - (f) Do not classify a general communication activity as education unless learning, education, curriculum, formal, non-formal or informal education, training for public awareness, or knowledge uptake is clearly reported.

Question 6 — Contributions to GBF Goals A–D

66. All-Targets Synthesis
67. Date prepared: 2026-05-15
68. Question: How are countries reporting that the actions they are taking to reach their national targets contribute to the four goals of the Kunming-Montreal Global Biodiversity Framework?
69. Instructions:
 - (a) Consider the goal-alignment and goal-contribution information reported by Parties across all their national targets and directly reported GBF-target progress entries. The purpose of this run is cross-cutting synthesis across all four Goals A–D, so do not restrict the analysis to a single GBF target. Base findings exclusively on what Parties report in their Seventh National Reports.
70. This question is answered in two stages:
 - (a) Per-Party extraction stage: when analysing one Party, apply this question only to that Party’s own national report data. Identify how that Party explicitly reports the contribution of its national targets and actions to Goals A, B, C and D. The primary evidence is in the Goal A/B/C/D progress blocks injected at the end of each Party’s evidence section (sourced from Section IV of the national report — one block per Goal). Supplement this with the per-national-target

degreeOfAlignmentInfo field, which explains how each NT aligns with specific GBF goals and target elements. Do not compare with other Parties at this stage.

(b) Global synthesis stage: after the per-Party extractions are complete, synthesize patterns across Parties. Identify which Goals are most prominently reported, which are weakly or rarely addressed, and what kinds of actions and mechanisms Parties most commonly link to each Goal.

(c) The four 2050 goals are defined in Section G of the Kunming-Montreal Global Biodiversity Framework (provided as context). Use these definitions to anchor the analysis:

- (i) Goal A — Ecosystem integrity and resilience, halting human-induced extinctions, maintaining genetic diversity.
- (ii) Goal B — Sustainable use and management of biodiversity; nature's contributions to people valued, maintained and enhanced.
- (iii) Goal C — Fair and equitable sharing of benefits from the utilization of genetic resources and associated traditional knowledge.
- (iv) Goal D — Adequate and equitably accessible means of implementation; closing the \$700 billion biodiversity finance gap; aligning financial flows.

71. Provide the final global synthesis using the following exact headings and order:

(a) Overall Summary

(b) Summarize the main patterns across Parties. Identify which Goals are most commonly reported and evidenced, which are less frequently or weakly reported, and what kinds of actions and mechanisms Parties most commonly link to each Goal. Note any structural patterns — e.g., whether Goal A dominates because it aligns most closely with conventional conservation targets, whether Goal C is reported primarily by megadiverse or ABS-active Parties, whether Goal D is reported mainly as a need rather than a contribution. Include direct quotes or close paraphrases attributed to Party code, national target identifier where available, and field name. Do not invent page numbers; cite Party, NT-ID where available, and field instead.

(c) Goal A — Ecosystem Integrity, Extinctions, Genetic Diversity

(d) Summarize how Parties report contributions to Goal A. Distinguish between: - Direct conservation and restoration actions (protected areas, ecosystem restoration, species recovery) - Policy, legal and regulatory frameworks supporting ecosystem integrity - Monitoring and data actions supporting extinction risk reduction - Actions explicitly addressing genetic diversity

(e) Use sub-headings where evidence is sufficient to warrant them. Note where contributions are clearly evidenced versus implicitly claimed.

(f) Goal B — Sustainable Use and Nature's Contributions to People

(g) Summarize how Parties report contributions to Goal B. Distinguish between: - Sustainable use policies and practices (fisheries, forestry, agriculture, land use) - Nature-based solutions and ecosystem services valuation - Biodiversity mainstreaming into sector policies - Indigenous and local community sustainable use practices

(h) Use sub-headings where evidence is sufficient. Note where contributions are clearly evidenced versus implicitly claimed.

(i) Goal C — Benefit-Sharing from Genetic Resources

(j) Summarize how Parties report contributions to Goal C. Focus on: - ABS frameworks and Nagoya Protocol implementation - Benefit-sharing arrangements and traditional knowledge protection - IPLC roles in genetic resource governance - Gaps and weaknesses in Goal C reporting

(k) Note that Goal C is often weakly reported — be explicit about the evidence level across Parties.

(l) Goal D — Means of Implementation and Finance

(m) Summarize how Parties report contributions to Goal D. Distinguish between: - Reported financing flows and biodiversity finance mobilization - Capacity-building provided or received - Technical and scientific cooperation - Reported finance gaps versus finance already mobilized - Alignment of financial flows with the GBF

(n) Note whether Parties report Goal D primarily as a need (recipient perspective) or as a contribution (provider/mobilization perspective).

(o) Per-Party Goal Alignment Matrix

(p) Include a markdown table with one row per reporting Party and one column for each Goal:

(i) Party | Goal A | Goal B | Goal C | Goal D |

(ii) Use these symbols consistently:

(iii) ✓ = clearly reported contribution — explicit goal linkage with evidenced action or outcome

(iv) = partially or implicitly reported — goal mentioned or inferable but not clearly evidenced X = not reported in the extracted evidence

(q) After the table, include concise per-Party bullets only for Parties with distinctive or notably strong goal contributions. Do not attempt long per-Party narratives for every Party.

(r) Notable Examples for Possible Case Studies

(s) Provide 3–5 featured examples that could be developed into case studies for national and international policy makers. Select from diverse regions and across different Goals. For each featured example, include:

(i) Party

(ii) Goal(s) illustrated

(iii) Core reported action or contribution

(iv) Who is involved

(v) Support, resources or enabling conditions where reported

(vi) Why it may be replicable or policy-relevant

(vii) Evidence citation using Party, NT-ID where available, and field

(viii) After the selected case studies, add this sub-heading:

(ix) Other Noticeable Examples

(x) List additional examples that are noticeable but were not selected as the main 3–5 featured case studies. Group under these exact sub-headings:

(1) Goal A — Other Noticeable Examples

(2) Goal B — Other Noticeable Examples

(3) Goal C — Other Noticeable Examples

(4) Goal D — Other Noticeable Examples

(xi) Under each sub-heading, use a concise markdown table with these columns:

- (1) Party | Brief example | Why noticeable | Evidence |

Keep each row short. Aim for 5–10 rows per Goal where the evidence supports it; fewer is acceptable where reporting is sparse. Use the Party code in the Party column.

(xii) Classification rules:

- (1) Use ✓ only where the Party explicitly links a reported action, policy, mechanism, outcome or contribution to a specific Goal, or where the goalInfo/degreeOfAlignmentInfo field provides clear evidence of goal-level contribution.
- (2) Use ~ where a contribution to a Goal is inferable from reported actions but the Party does not explicitly articulate the goal-level link.
- (3) Use X where no evidence of contribution to a Goal is present in the extracted data.
- (4) Do not classify generic biodiversity actions as Goal A contributions unless ecosystem integrity, species extinction risk, or genetic diversity is explicitly addressed.
- (5) Do not classify capacity or finance needs as Goal D contributions unless the Party explicitly reports resources mobilized, cooperation provided, or finance aligned — needs alone are not contributions.
- (6) Where evidence is sparse or ambiguous, say so rather than over-classifying.

(xiii) Evidence and citation rules:

- (1) Use direct quotes or close paraphrases from the extracted national report fields.
- (2) Attribute each example to Party code, national target identifier where available, and field name.
- (3) Do not cite page numbers, because the analysis is based on structured ORT data rather than paginated PDF reports.
- (4) Do not add external information, assumptions, or policy interpretation not grounded in the reported evidence.

(xiv) Terminology rules:

- (1) Use “Party” or “reporting Party” in the output. Use “country” only when quoting or closely paraphrasing source text that uses that word.
- (2) Use “Parties” for aggregate statements, tables and summaries.

Do not infer that all CBD Parties are represented. Refer only to the reporting Parties present in the dataset.

When the dataset uses a non-state regional reporting entity code such as EU, treat it as a reporting Party/entity in the table and avoid forcing it into “country” language.

72. Per-Target Supplement

73. Question: For the selected GBF target, how are Parties reporting that their aligned national targets contribute to the four goals of the Kunming-Montreal Global Biodiversity Framework (Goals A, B, C and D)?

74. Purpose: This is a supplementary per-target Q6 prompt. It complements the existing all-targets Q6 synthesis. It should not try to replace the all-targets Q6 report; it should produce target-specific summaries showing how Goal A–D contributions appear in evidence mapped to each GBF target.

75. Scope:

(a) Only consider information related to national targets identified by the Party as contributing to the selected GBF target, plus direct GBF target progress evidence when present.

(b) The primary evidence is in the Goal A/B/C/D progress blocks (sourced from Section IV of the national report). Supplement with the per-national-target `degreeOfAlignmentInfo` field where it explicitly addresses Goal-level contributions.

(c) Use report-level goal progress blocks only when they clearly illuminate contributions linked to the selected target.

(d) Do not treat the selected GBF target as a separate thematic question. The question is about Goal A–D contributions, but constrained to target-aligned evidence.

76. Output requirements:

(a) Provide a concise overall summary for the selected GBF target, noting which Goals are most and least evidenced across the reporting Parties.

77. Organize the synthesis into the following sections:

(a) Goal A — Ecosystem Integrity, Extinctions, Genetic Diversity;

(b) Goal B — Sustainable Use and Nature’s Contributions to People;

(c) Goal C — Benefit-Sharing from Genetic Resources;

(d) Goal D — Means of Implementation and Finance;

78. Per-Party Goal Alignment Matrix;

79. Notable examples and possible case-study material;

80. Cautions and evidence gaps.

81. For each Goal section, distinguish:

(a) clearly evidenced contributions (explicit goal linkage with reported action or outcome);

(b) partial, indirect or implicit contributions (goal inferable but not explicitly articulated);

(c) needs or gaps (Party reports the Goal dimension as absent or insufficient rather than as a contribution).

(d) Include illustrative examples with direct quotations or close paraphrases from the source data, using NT-ID and field citations.

(e) Include a Per-Party Goal Alignment Matrix. Use these symbols consistently and apply them to every cell — never leave a cell blank or write “not in scope”, “not applicable”, or similar phrases: ✓ = clearly reported contribution — explicit goal linkage with evidenced action or outcome

(f) ~ = partially or implicitly reported — goal mentioned or inferable but not clearly evidenced X = not captured in the extracted evidence for this target Use ✓ only where the Party explicitly links a reported action, policy, mechanism, or outcome to a specific Goal, or where the `goalInfo/degreeOfAlignmentInfo` field provides clear evidence. Use ~ where contribution is inferable but not explicitly articulated. Use X when the Party’s evidence carries no signal for that Goal — do not write “not in scope” or similar. Before finalizing: verify that every symbol in the global Per-Party Goal Alignment Matrix matches the symbol assigned to the same Party and Goal in the corresponding

per-party analysis section. Resolve any discrepancy before writing the final report — do not leave the global matrix and per-party sections contradicting each other.

(g) Keep the report shorter than the all-targets Q6 synthesis. This is a per-target supplement for colleagues drafting target summaries.

82. Classification rules:

(a) Do not classify generic biodiversity actions as Goal A contributions unless ecosystem integrity, species extinction risk, or genetic diversity is explicitly addressed.

(b) Do not classify capacity or finance needs as Goal D contributions unless the Party explicitly reports resources mobilized, cooperation provided, or finance aligned — needs alone are not contributions.

(c) Where evidence is sparse or ambiguous, say so rather than over-classifying.

83. Citation and terminology rules:

(a) Use “Party” or “reporting Party” rather than “country” in analytical text.

(b) Cite national target evidence with the system NT-ID and field name, for example [AM-NT-02, progress].

(c) Cite report-level goal progress with available tags, for example [AM, Section IV - Goal A] or [AM, Section IV - Goal D].

(d) Do not cite “card provisions”, “card needs-gaps”, “source”, “report” or other vague labels.

(e) Do not infer goal contributions not grounded in the reported evidence.

Question 7 — Contributions of Actors Other Than National Governments

84. Date prepared: 2026-05-05

85. Question: How are Parties reporting that actors other than national governments have been involved in actions taken to implement their national targets related to the selected GBF target of the Kunming-Montreal Global Biodiversity Framework?

86. Instructions:

(a) Only consider information in the national report related to national targets which have been identified by the Party as contributing to the selected GBF target of the Global Biodiversity Framework. Also include directly reported GBF target progress material where a Party reports directly against the selected GBF target rather than through a national target. Do not draw on reporting against other GBF targets.

(b) Actors other than national governments are groups, institutions, communities, organizations, sectors or people who are not national government ministries or national government agencies. These include, where reported:

(i) subnational governments, cities and other local authorities;

(ii) intergovernmental organizations and international partners;

(iii) non-governmental organizations and civil society organizations;

(iv) women and girls;

(v) youth, children, adolescents, young persons, school-aged people, young adults and future generations;

- (vi) Indigenous Peoples and Local Communities, native peoples, traditional communities, first nations, tribal peoples, customary institutions and local resource users;
 - (vii) business, private sector and finance actors;
 - (viii) scientific community, academia, experts and research institutions;
 - (ix) faith-based organizations;
 - (x) representatives of biodiversity-dependent sectors, producers and resource users;
 - (xi) citizens, the public, stakeholders and observers.
- (c) Provide an overall summary of how actors other than national governments are involved in reported actions. In this summary include:
- (i) Most Commonly Reported Actor Categories: a concise summary of the actor categories most commonly reported.
 - (ii) Typical Roles Played by Actors Other Than National Governments: a concise summary of the roles these actors play, for example implementation delivery, co-management, governance, consultation, monitoring, knowledge provision, financing, capacity-building, awareness-raising, enforcement support, or accountability.
 - (iii) Illustrative Examples: illustrative examples with direct quotes or close paraphrases from the national reports. Attribute each example to the Party code, national target identifier, and field from which the evidence is drawn (e.g. “KE — KE-NT-03 — implementation considerations”). Do not cite page numbers; cite Party, NT-ID, and field instead.
 - (iv) Strength of Evidence: clearly distinguish between:
 - (1) clear implementation involvement, where the actor category has a reported role in action, delivery, governance, financing, monitoring, knowledge provision, co-management, accountability, or implementation;
 - (2) partial or weak involvement, where the actor category is mentioned but the role is planned, generic, consultative only, indirect, or formulaic;
 - (3) not reported in the extracted evidence, where the actor category is not found in the extracted evidence for the selected GBF target. Do not write that an absence is “reported” unless the Party explicitly says that no such actor involvement exists.
- (d) Use these exact section headings:
- (i) Overall Summary
 - (ii) Most Commonly Reported Actor Categories
 - (iii) Typical Roles Played by Actors Other Than National Governments
 - (iv) Illustrative Examples
 - (v) Strength of Evidence
 - (vi) Provide distinct sections summarizing how each actor category has been involved. Use these exact headings and order. Within each section, identify the reported role, distinguish clear implementation involvement from weak or formulaic mentions, and cite the evidence.

- (vii) Youth - Youth includes young people, children, future generations, adolescents, young persons, school-aged people, young adults and youngsters.
 - (viii) Women and Girls - Women and girls includes women, girls, women's groups, gender-focused organizations, women's cooperatives and references to women's empowerment where linked to implementation.
 - (ix) Indigenous Peoples and Local Communities - Indigenous Peoples and Local Communities includes native communities, native peoples, Indigenous communities, Indigenous Peoples, first nations, aboriginal people, tribal peoples, traditional populations, traditional communities, customary institutions, IPLCs and local resource users.
 - (x) Subnational Governments, Cities and Local Authorities - Subnational governments, cities and local authorities include provinces, states, regions, municipalities, city governments, local councils, local authorities and decentralized government bodies below the national level.
 - (xi) NGOs and Civil Society - NGOs and civil society include non-governmental organizations, civil society organizations, community-based organizations, foundations, associations and non-profit actors.
 - (xii) Business and Finance Actors - Business and finance actors include private sector entities, companies, financial institutions, investors, banks, producers operating as businesses, industry associations and corporate sustainability initiatives.
 - (xiii) Scientific Community and Academia - Scientific community and academia include universities, research institutions, scientists, experts, technical institutes, museums, botanical gardens and knowledge institutions.
 - (xiv) Sectoral Actors, Producers and Resource Users - Sectoral actors, producers and resource users include farmers, fishers, foresters, pastoralists, hunters, landowners, tourism operators, water users and other biodiversity-dependent or biodiversity-impacting sectors when they are not acting as national government agencies.
 - (xv) Citizens and the Public - Citizens and the public include citizens, households, consumers, the general public, volunteers, schools, students where not already captured under youth, and public awareness participants.
 - (xvi) Intergovernmental Organizations and International Partners - Intergovernmental organizations and international partners include United Nations entities, regional organizations, multilateral funds, bilateral cooperation agencies, international NGOs and other international implementation partners.
 - (xvii) Other Actors - Other actors includes faith-based organizations, observers, stakeholder groups or actor categories that do not fit the categories above. Use this section only when evidence does not fit better elsewhere.
- (e) Include a table which identifies, for each Party, whether it has involved actors other than national governments in actions related to the selected GBF target. Use the following symbols: ✓ = clear actor involvement in implementation is reported
- (f) ~ = partial, planned, generic, consultative-only, indirect, or formulaic actor mention is reported X = not reported in the extracted evidence
- (g) Per-Party Actor Involvement Table
- (h) (Table with one row per reporting Party. Include columns for the actor categories above, an overall actor-involvement status, concise bullets on what actors do, and evidence citations.)

(i) Include an annex with examples which could be developed into or used as case studies to illustrate how actors other than national governments have been involved in actions taken by Parties. The examples should come from diverse geographic locations. The case studies are for national and international policy makers. They should showcase approaches that may be replicable and that may help inform international policy making. For each example include:

- (i) Party;
- (ii) actor category;
- (iii) core action or mechanism;
- (iv) who implemented or participated;
- (v) resources, institutional arrangements, or time period if reported;
- (vi) why the example may be replicable;
- (vii) evidence citations.

(viii) Possible Case-Study Examples

- (ix) Include a final section on cautions and evidence gaps. Note where evidence is sparse, where reports provide only generic stakeholder lists, where actor roles are unclear, or where actor categories are mentioned without implementation detail.

(j) Cautions and Evidence Gaps

- (i) Apply the following classification rules consistently:
- (ii) Use ✓ only where the report provides clear evidence that the actor category has a role in implementation, delivery, governance, financing, monitoring, knowledge provision, co-management, accountability, awareness-raising, or another concrete implementation function.
- (iii) Use ~ where the actor category is mentioned but the role is partial, indirect, planned, consultative only, generic, or formulaic.
- (iv) Use X where no actor involvement is found in the extracted evidence for that category under the selected GBF target. Describe this as “not reported in the extracted evidence”, not as a reported absence, unless the Party explicitly states that no such actor involvement exists.
- (v) Do not classify a generic stakeholder list as implementation involvement unless a role is described.
- (vi) Do not classify national ministries, national agencies, national authorities or central government bodies as actors other than national governments.
- (vii) Do not infer actor involvement from the policy area. For example, do not assume farmers are involved in an agriculture measure unless the report says so.
- (viii) Where an actor category appears only as a recipient of information, consultation or awareness-raising, classify it as ~ unless the report also describes a concrete implementation role.
- (ix) Where an actor category appears as a rights-holder, knowledge-holder, co-manager, financier, implementer, monitoring partner or accountability actor, classify it as ✓ when the role is reported clearly.
- (x) Base findings exclusively on what Parties report. Do not add context, projections, external knowledge or interpretations not grounded in the reported evidence.

- (xi) Use “Party” or “reporting Party” in the output when referring to the reporting entity. The colleagues’ prompt may use “country” informally, but the analysis should use CBD terminology consistently.
- (xii) Cite national target evidence with the system NT-ID and field name, for example [AM-NT-02, implementation considerations]. Cite report-level evidence with available report-level tags, for example [AM, Section V] or [AM, direct GBF target progress]. Do not cite “card provisions”, “card needs-gaps”, “source”, “report” or other vague labels.
- (xiii) The final answer must be clean report text. Do not include visible self-corrections, drafting notes, “Correcting:” statements, apologies, or commentary about how the answer was produced. Resolve any internal correction before writing the final text.
- (xiv) For citation clarity, avoid combining evidence from different Parties in the same sentence or bullet unless the sentence is explicitly comparing them. Prefer separate Party-specific bullets or sentences so each claim is supported by citations from the same Party named in that claim.
- (xv) Do not add manual numbering to headings or subheadings. The report generator applies stable numbering automatically.

2. Technical Description of the Analytical Pipeline

Overview

87. The analytical pipeline used to generate the AI-assisted sections of the global report was developed by the Secretariat to convert the corpus of seventh national reports (NR7) submitted through the Online Reporting Tool (ORT) into a structured, machine-queryable evidence base, and to support AI-assisted synthesis over that evidence base.

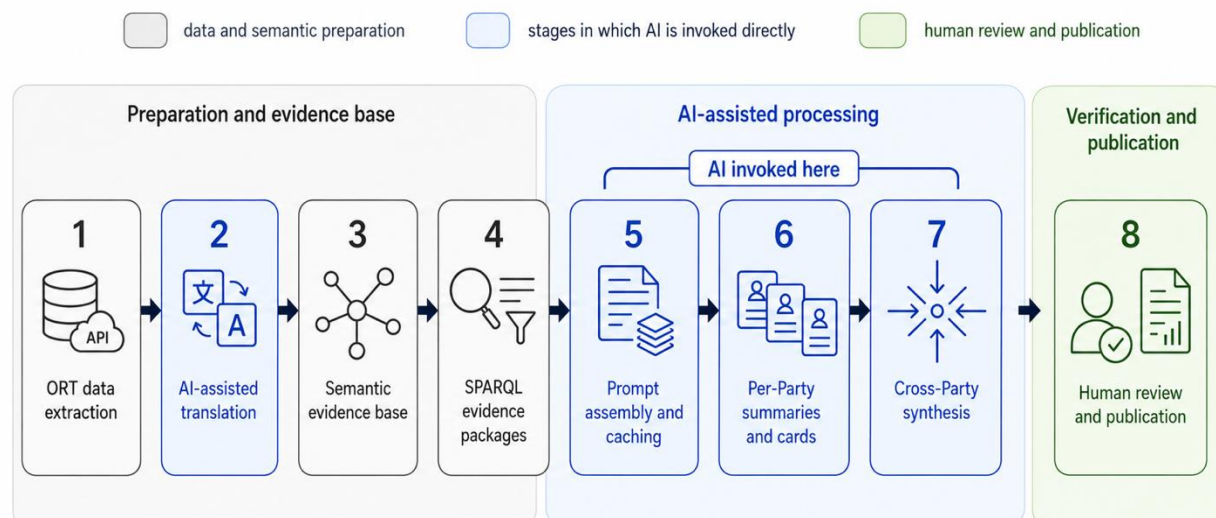
88. The pipeline can be understood as a structured retrieval-and-synthesis architecture. The language model was not given unstructured access to the full reporting corpus and was not used as an independent source of information. Instead, the corpus was first converted into a machine-queryable evidence base. For each analytical task, the system retrieved a defined package of relevant evidence and provided it to the model together with the applicable analytical question, instructions and normative context.

89. The basic unit of analysis was a combination of one reporting Party, one GBF target where applicable, and one analytical question. This design allowed the pipeline to generate Party-specific outputs before cross-Party synthesis was undertaken, reducing the risk of cross-Party misattribution and supporting traceability from aggregate findings back to source fields in the ORT.

90. The pipeline operates in eight sequential stages, illustrated in the figure below. The figure distinguishes between data and semantic preparation, stages in which AI was invoked directly, and human review and publication.

Analytical pipeline workflow

Simplified layered view of the analytical pipeline described in Annex II



Stage 1 — ORT data extraction

91. National report data were fetched programmatically from the CBD Online Reporting Tool API. The pipeline retrieved the main seventh national report submission, national target records, indicator data and target mapping records for each reporting Party.

92. The discovery step queried the ORT API for current seventh national report submissions and synchronized the list of reporting Parties. New submissions were added, retracted submissions were removed, and subsequent runs were incremental by default, re-fetching only missing or updated files. Parties were fetched in small batches, with short delays between calls, to avoid overloading the API.

Stage 2 — AI-assisted translation

93. National reports submitted in languages other than English were translated before semantic transformation and analytical processing. Translation was performed using the same commercial AI service used for analysis, with a lower-cost model selected for this task, or optionally using a locally running open-source model during testing.

94. Translated text was stored in a shared translation cache keyed by source language and content hash, avoiding re-translation of unchanged fields in subsequent runs. The translated text was used for analytical processing, while the original submitted text remained available as the authoritative source for verification where needed.

Stage 3 — Semantic evidence base

95. The extracted and translated data were transformed into RDF/Turtle format and loaded into an Apache Fuseki SPARQL triplestore. The transformation applied the KMGBF Ontology, which provides machine-readable definitions of GBF goals, targets and indicator types, including headline, binary, component and complementary indicators.

96. A bridge ontology linked national targets to the GBF targets with which Parties had aligned them. This semantic layer allowed the pipeline to retrieve evidence according to Party-reported alignments to the Framework, rather than relying on keyword matching or free-text search.

Stage 4 — SPARQL evidence packages

97. For each analytical question, reporting Party and GBF target where applicable, the pipeline assembled a structured evidence package by querying the triplestore via SPARQL. The queries selected the source fields most relevant to the question being answered, such as actions, progress, challenges, effectiveness assessments, implementation considerations, actor references, indicator data and target alignment information.

98. National targets were filtered by their reported alignment to the selected GBF target using the target mapping layer. This provided a structured retrieval step before model invocation, ensuring that the model analysed a bounded evidence package rather than searching or inferring across the corpus independently.

Stage 5 — Prompt assembly and caching

99. Each model call was assembled from two main components: a shared analytical context block and a Party-specific evidence block. The shared context included relevant GBF target text, COP decisions, thematic typologies and ontology-derived context. The Party-specific block contained the evidence retrieved through SPARQL for the relevant Party, target and analytical question.

100. The pipeline used complementary caching mechanisms to reduce cost, support reproducibility, enable fault tolerance and allow incremental re-runs. These included provider-level prompt caching for shared context, local caching of completed per-Party analyses, and section-level caching for cross-Party synthesis outputs. During development, an automatic routing mode was also tested; production runs for the global report used fixed analytical question files.

Stage 6 — Per-Party analytical summaries and cards

101. For each Party, target and analytical question, the model generated a structured analytical summary based only on that Party's evidence package and the applicable analytical instructions. The model was explicitly instructed not to introduce information not present in the submitted report.

102. Each call produced two outputs: a prose analysis following the output format defined in the analytical question, and a compact structured card containing key classifications and source references. The card format was defined for each question type and was used to support later aggregation across Parties.

103. Both outputs were written to the Party analysis cache after each successful call, allowing partial runs to be resumed and making it possible to pass the complete set of cards to the synthesis stage without repeating completed model calls.

Stage 7 — Cross-Party synthesis and programmatic aggregation

104. Once the per-Party cards were available, they were passed to the cross-Party synthesis stage. The synthesis model received the structured cards as its primary input, rather than the full prose analyses, keeping synthesis prompts compact and focused.

105. Synthesis was performed section by section, with one call per report section or analytical subsection. Where outputs required Party-by-Party matrices or classification tables, these were constructed programmatically from structured card fields wherever possible. The synthesis model was responsible for narrative text, including patterns, examples and analytical commentary, and was instructed not to introduce information not present in the cards.

Stage 8 — Output generation, verification and publication

106. Synthesis outputs were saved as Markdown. An internal review website was generated from the same Markdown files, enabling Secretariat staff to browse outputs by target, question and Party, and to access verbatim ORT text through a SPARQL-based search interface for manual verification.

107. AI-assisted outputs were not inserted into the global report without review. Secretariat staff and subject-matter experts reviewed, edited and verified the material before inclusion. Where

evidence was insufficient, ambiguous or unsuitable for inclusion, outputs were revised, qualified or omitted.

108. Controls to reduce unsupported generation

109. Several design features were used to reduce the risk of unsupported generation, sometimes referred to as AI hallucination, and to strengthen traceability.

110. First, evidence retrieval was performed before model invocation. The model analysed structured evidence packages assembled from ORT-derived data through SPARQL queries, rather than searching the reporting corpus directly.

111. Second, the first analytical stage was conducted separately for each Party, target and analytical question. This reduced the risk of information from one Party being attributed to another.

112. Third, the prompts explicitly instructed the model not to introduce external information, assumptions, projections or assessments beyond what Parties had reported. The analytical questions reproduced in Annex I included classification rules, citation requirements and terminology rules designed to constrain interpretation and standardize outputs.

113. Fourth, structured cards were generated alongside prose outputs. Where possible, cross-Party matrices and classification tables were constructed from these structured fields rather than generated solely as free-form narrative text.

114. Fifth, all outputs were subject to human review and verification before use in the report.

3. Models used

Model	Role	Context window used
Claude Sonnet 4.6 (Anthropic)	Main analysis and synthesis	Up to 200k tokens (standard runs); up to 1M tokens (large synthesis)
Claude Haiku 4.5 (Anthropic)	Routing (–auto mode) and translation	Up to 200k tokens
Claude Opus 4.6 (Anthropic)	Early development testing only	Up to 200k tokens

Scale of the work

Metric	Value
Reporting Parties processed	123
GBF targets covered per question	23 (per-target questions); all targets (cross-cutting questions)
Analytical questions applied	7 (Q1–Q7, with per-target variants for Q5 and Q6)
Total tokens processed	~584 million
Development and production period	14 March – 8 June 2026

4. Financial Cost and Estimated Computational and Environmental Footprint

115. This section documents the financial cost of the AI-assisted analytical pipeline and provides estimates of the associated computational and environmental footprint. The figures cover the full development and production period (14 March – 8 June 2026) and include iterative development, prompt refinement, test runs, and all production runs.

116. Estimates of energy, carbon, and water consumption are derived from the billing data using published academic benchmarks. Precise per-inference energy and water figures are not publicly disclosed by the AI service provider; the ranges presented below reflect the current state of available estimates and carry significant uncertainty.

Financial cost

Total API cost: USD 1,854

Period	Cost (USD)
March 2026 (development and first test runs)	143.85
April 2026 (Q1 main production runs)	584.54
May 2026 (Q2, Q3, Q4, Q5, Q6 production)	803.20
June 2026 (Q7 and finalisation)	322.50
Total	1,854.09

Model	Role	Cost (USD)	Share
Claude Sonnet 4.6	Main analysis and synthesis	1,827.90	98.6%
Claude Haiku 4.5	Routing and translation	25.78	1.4%
Claude Opus 4.6	Early testing	0.41	<0.1%

Token volumes

117. A total of approximately 584 million tokens were processed over the full period. Token volumes were derived from billing data using Anthropic's published pricing for each token type.

Token type	Volume	Cost (USD)
Sonnet — non-cached input	291 million	872.94
Sonnet — cache writes	67 million	249.92
Sonnet — cache reads	168 million	50.45
Sonnet — output generated	44 million	654.59
Haiku — input and output	15 million	25.78

118. Efficiency of prompt caching: The 168 million cache-read tokens cost USD 50 under Anthropic's caching pricing. Without caching, those same tokens would have cost USD 504 at standard input pricing — a saving of approximately USD 454 (25% of total spend). This efficiency was achieved by writing the shared GBF context (target texts, COP decisions, reference typologies) to the prompt cache once per run and re-reading it for every subsequent Party call, rather than re-sending the full context with each call.

119. Estimated energy consumption

120. Energy estimates were derived by applying published per-token inference energy benchmarks (Luccioni et al., 2023, Power Hungry Processing: Watts Driving the Cost of AI Deployment) to the total effective compute-equivalent token volume. Cache-read tokens were weighted at approximately 10% of full-compute equivalent, reflecting the reduced computational load of reading from a key-

value cache rather than performing a full attention forward pass. The resulting effective compute-equivalent token volume is approximately 433 million tokens.

Scenario	kWh per 1,000 effective tokens	Estimated total energy
Conservative	0.001	~430 kWh
Central estimate	0.002	~865 kWh
Upper bound	0.003	~1,300 kWh

121. These are order-of-magnitude estimates; actual energy consumption depends on hardware generation, data centre efficiency, and load-balancing factors not publicly disclosed by the provider.

122. Estimated carbon footprint

123. Carbon estimates depend significantly on the energy mix of the data centres used. The commercial AI service used for this project operates on cloud infrastructure with renewable energy commitments. Two methodological approaches are presented:

Approach	Assumption	Central estimate (865 kWh)
Market-based (renewable energy commitments)	~30 g CO ₂ eq/kWh, reflecting provider's renewable energy procurement	~26 kg CO ₂ eq
Location-based (US grid average)	~400 g CO ₂ eq/kWh, without renewable adjustment	~346 kg CO ₂ eq

124. The Secretariat has not verified the energy source attribution for these specific transactions. The market-based figure is presented as the more plausible estimate given the provider's published sustainability commitments; the location-based figure represents the upper bound under conservative assumptions.

125. Estimated water consumption

126. Data centre cooling systems consume fresh water. Estimates are based on published water usage effectiveness (WUE) figures for cloud computing infrastructure, which range from 0.18 L/kWh (AWS best-reported efficiency for water-cooled facilities) to approximately 1.0 L/kWh (industry average).

Scenario	WUE6 (L/kWh)	Central estimate (865 kWh)
Low (efficient cooling)	0.187	~156 litres
Central	0.5	~430 litres
High (industry average)	1.0	~865 litres

127. As with energy and carbon, these are estimates based on published sector averages rather than facility-specific measurements.

⁶ Li, P., Yang, J., Islam, M. A., & Ren, S. (2023). Making AI Less "Thirsty": Uncovering and Addressing the Secret Water Footprint of AI Models. arXiv:2304.03271. <https://arxiv.org/abs/2304.03271>

⁷ Amazon Web Services (2023). AWS 2022 Sustainability Report. AWS reports its global water usage effectiveness (WUE) in annual sustainability disclosures; the 0.18 figure reflects best-reported efficiency for water-cooled facilities. The AWS WUE is published at: <https://sustainability.aboutamazon.com/environment/water>

Summary and caveats

Metric	Central estimate	Range
Total financial cost	USD 1,854	—
Total tokens processed	~584 million	—
Estimated energy	~865 kWh	430–1,300 kWh
Estimated carbon	~26–346 kg CO ₂ eq	Depends on energy mix methodology
Estimated water	~430 litres	156–865 litres

128. The figures in this section of the document are presented in the interest of transparency and to support comparable reporting by others who may adopt similar approaches. The Secretariat acknowledges that more precise accounting would require facility-level energy and water data from the AI service provider, which are not currently publicly available for individual API customers. Open-source large language models deployed on known hardware would enable more rigorous footprint accounting and are an area the Secretariat intends to explore in future reporting cycles.