**Review Comment Template for the document on indicators for the draft goals and targets of the post-2020 global biodiversity framework**

Parties and stakeholders are invited to make suggestions of indicators (currently available or under development) that may be used to measure progress towards the post-2020 framework. The draft components and elements of the monitoring framework for the post-2020 global biodiversity framework are based on updated draft goals and targets, as was requested by the second meeting of the OEWG, and presented in document <https://www.cbd.int/sbstta/sbstta-24/post2020-monitoring-en.pdf>.

Please note: there are two tables in this document, one for suggestions for indicators for the draft monitoring elements of goals, and another table for indicators for the draft monitoring elements of targets

**Instructions for providing input on indicators and completion of indicator tables (for goals and targets):**

* Please do not add columns to the tables below
* Please add rows for additional indicators related to monitoring elements for specific components from goals (table 1) and components from targets (table 2). The information of draft components and monitoring elements for goals and targets is available in document <https://www.cbd.int/sbstta/sbstta-24/post2020-monitoring-en.pdf>
* To add an indicator for specific monitoring elements, please provide the following information:
	+ Column 1: copy/paste the component of the goal (enter information in table 1) or target (enter information in table 2) from <https://www.cbd.int/sbstta/sbstta-24/post2020-monitoring-en.pdf>, which the indicator can be used for. This MUST be provided
	+ Column 2: copy/paste the specific monitoring element of the goal (enter information in table 1) or target (enter information in table 2), which the indicator can be used for from <https://www.cbd.int/sbstta/sbstta-24/post2020-monitoring-en.pdf>. This MUST be provided
	+ Column 3: the published or accepted name of the indicator. This MUST be provided
	+ Column 4: the name of the organisation(s) responsible for producing the indicator and keeping it up to date. This MUST be provided
	+ Column 5: please state whether the indicator is ready for use today (with an X) or if is still under development (Y). This MUST be provided
	+ Column 6: if you are adding a new indicator that is still under development, please indicate the year that you expect it to be available
	+ Column 7: for any existing indicator, please add the year of the last update
	+ Column 8: please provide the time series for the indicator and frequency of update (e.g. 1990-2020, available every 5 years).
	+ Column 9: please state (Y or N) whether there is a published methodology for application of the indicator at the national level
	+ Column 10: please state (Y or N) whether any new or existing indicator can be disaggregated at the national level for use by Parties
	+ Column 11: please state (Y or N) whether the indicator is aggregated from data that is collected at the national level (e.g. with data from national institutions)
	+ Column 12: please state (Y or N) whether any indicator has been used in the 4th Edition of the Global Biodiversity Outlook (GBO-4).
	+ Column 13: please state (Y or N) whether the indicator is currently included in the SDG indicator framework and provide the SDG indicator number
	+ Column 14: please state whether an indicator is used for any Multi-Lateral Environmental Agreements other than the CBD (e.g. Ramsar Convention, CMS) or is used as an indicator by IPBES, by writing the abbreviated name of the MEA or process
	+ Column 15: please enter any further information or relevant links
* Example entries have been provided in the tables below for goals and targets, please follow the same format for each indicator entry
* Inputs should be sent by e-mail to*secretariat@cbd.int*no later than 25 July 2020

**For general comments please use the template provided in page 2 below**

**Table 1. Indicators for monitoring elements of the draft goals (with example entries)**

| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** | **15** |
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| **Components of the draft Goals****(copy/paste text from** [**CBD/SBSTTA-24/post-2020-monitoring.en.pdf**](https://www.cbd.int/sbstta/sbstta-24/post2020-monitoring-en.pdf)**)** | **Goal Monitoring Elements****(copy/paste text from** [**CBD/SBSTTA-24/post-2020-monitoring.en.pdf**](https://www.cbd.int/sbstta/sbstta-24/post2020-monitoring-en.pdf)**)** | **Indicator name** | **Responsible Institution for the indicator** | **Available today (X) or under active development (Y)** | **Date of availability for indicator in development (Year)** | **Year of last update (e.g. 2019)** | **Time series and frequency of updates (e.g. 1985-2019, annually)** | **Methodology available for national use (Y/N)** | **Global indicator can be disaggregated for national use (Y/N)** | **National data aggregated to form global indicator (Y/N)** | **Used in GBO-4 (Y/N)** | **SDG indicator (Y/N)** | **Indicator used to measure other MEAs or processes (e.g. Ramsar Convention, IPBES, CMS)** | **Comments** |
| *GA1. Increased extent of natural ecosystems (terrestrial, freshwater and marine ecosystems)* | *Trends in area of forest ecosystems* | *Forest area as a percentage of total land area*  | *FAO* | *X* |  | *2020* | *1990-2015* | *Y* | *Y* | *N* | *N* | *Y* *SDG indicator 15.1.1* |  |  |
| *GA4. Increase the number and health of common species* | *Trends in species abundance* | *Living Planet Index (LPI)* | *ZSL/WWF* | *X* |  | *2020* | *1970-2020, available every 2 years* | *Y* | *Y* | *N* | *Y* | *N* | *CMS, Ramsar, IPBES* |  |
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**Table 2. Indicators for monitoring elements of the draft targets (with example entries)**

| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** | **15** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Components of the draft Targets****(copy/paste text from** [**CBD/SBSTTA-24/post-2020-monitoring.en.pdf**](https://www.cbd.int/sbstta/sbstta-24/post2020-monitoring-en.pdf)**)** | **Target Monitoring Elements****(copy/paste text from** [**CBD/SBSTTA-24/post-2020-monitoring.en.pdf**](https://www.cbd.int/sbstta/sbstta-24/post2020-monitoring-en.pdf)**)** | **Indicator name** | **Responsible Institution for the indicator** | **Available today (X) or under active development (Y)** | **Date of availability for indicator in development (Year)** | **Year of last update (e.g. 2019)** | **Time series and frequency of updates (e.g. 1985-2019, annually)** | **Methodology available for national use (Y/N)** | **Global indicator can be disaggregated for national use (Y/N)** | **National data aggregated to form global indicator (Y/N)** | **Used in GBO-4 (Y/N)** | **SDG indicator (Y/N)** | **Indicator used to measure other MEAs or processes (e.g. Ramsar Convention, IPBES, CMS)** | **Comments** |
| *T4.1. Harvest is legal, sustainable and safe for human health and biodiversity* | *Trends in proportion of biological resources harvested legally* | *Red List Index*  | *IUCN & BirdLife International* | *X* |  | *2020* | *1993-2020, updated annually* | *Y* | *Y* | *N* | *Y* | *Y**SDG indicator 15.5.1* | *CMS, IPBES, Ramsar* |  |
| *T6.4. Reduction of pollution from other sources* | *Trends in levels of pollution from sediments* | *Index of Coastal Eutrophication* | *UNEP / IOC-UNESCO* | *Y* | *2021* |  | *Every 5 years* |  |  |  |  | *Y**SDG indicator 14.1.1a* |  |  |
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| **General Comments** |
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| 0 | The zero draft indicators for benefit sharing released in November 2019 closely reflected the Nagoya Protocol Annex. However, in the current draft, these indicators have entirely disappeared. It is unclear if the reason for this removal is because no baseline data is available or if there are other reasons.As academic users we find ourselves disappointed that these scientific aspects of benefit sharing, which are critical for long-term capacity building, are not adequately represented or in the current draft and **we request that the first two non-monetary benefit sharing indicators from the zero draft be brought back into the GBF as indicators for non-monetary benefit-sharing:*** **“Number of research and development results shared”**
* **“Number of collaborations in scientific research”**

There are indeed significant technical challenges around collecting data on these indicators and they are indeed not well-suited for country-level reporting because governments are often not in direct touch with their scientists over the multi-year course of a research project and thus, often are not aware of the tangible and intangible outcomes of research projects.However, there are opportunities for global, comprehensive analyses of some of the non-monetary benefit sharing indicators that could and should be re-visited by SBSTTA. In particular, global databases of scientific publications (a proxy for “research results”) and other biological databases (proxy for “access to genetic resources”) combined with advances in bibliometric analyses (which enables geographic associations of authors involved in the research and access) make it possible to assess and quantify many aspects of the “old” (zero draft) non-monetary benefit sharing indicators.For example, scientific publications are centrally stored and indexed in large databases such as the European PubMed Central (EPMC) database. EPMC also offers a programmer interface that makes it possible to query (in an automated manner) multiple aspects of the publications in these databases including a great deal of metadata and even text data (from open-access publications) contained in these publications including the presence of species names, keywords, scientific topics, author affiliations (including geographical location of authors) and, through text mining, even possibly recognition of IRCC numbers or other unique identifiers (such as those associated with genetic resources held by collections or those associated with sequence data via accession numbers from INSDC).Thus, it would be possible, for example, to assess and answer such questions as “How many publications mentioned the keywords "biodiversity" + "endemic" + "Columbia" with authors from two different countries (e.g., Germany and Colombia) in 2018?” This information gives a powerful insight into scientific collaborations and research results shared.These types of analysis could also focus on specific endangered species, be used (using species names) for all types of biodiversity utilization or be sub-divided into different taxonomic levels (e.g., microbial, animal, plant), focused on certain endemic organisms (country-specific biodiversity), and/or associated with different key words (biotechnology, virology, taxonomy, etc).Furthermore, these analyses could possibly be extended to assess similar types of information held in patent databases. Here the zero draft indicator “Number of joint ownerships of relevant intellectual property rights” could be quantified.The Leibniz Biodiversity Research Alliance combines the competencies and resources of 20 member institutions many of which have a particular focus on biodiversity informatics including 3 large research museums as well as a large plant collection, and a highly diverse microbial resource collection. **If the two non-monetary benefits sharing indicators (listed above) were to be added back into the Monitoring Framework, the Leibniz Biodiversity Research Alliance would be willing to “champion” these indicators and engage in a pilot project with stakeholders in the next inter-sessional period to develop the necessary informatics programming needed for bibliometric and informatic assessments.** Indeed, preliminary analyses and research has been done in this area.Furthermore, we would be very interested in joining the Biodiversity Indicators Partnership (BIP) and could imagine strong synergies amongst our institutes and current BIP partners and an integrated development of non-monetary benefit sharing indicators with other BIP Partners and data streams.**Take-home message:** The quantitative assessment of some aspects of non-monetary benefit sharing is possible and can be centralized and globally reported through BIP. The GBF would benefit from capturing and assessing these benefits, understanding their direct interactions with other biodiversity targets, and identifying gaps and opportunities for capacity development. |
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