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The Biodiversity Finance Initiative

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The Global Biodiversity Expenditure Taxonomy

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GLOBAL BIODIVERSITY EXPENDITURE (GLOBE)
A PUBLIC SECTOR TAXONOMY FOR BIODIVERSITY

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The Global Biodiversity Expenditure Taxonomy

In May 2024, my organization, the Office of Natural Resources and Environmental Policy and Planning (ONEP), co-hosted the Workshop on GLOBE Taxonomy in collaboration with UNDP's Biodiversity Finance Initiative in Thailand. This event brought together over 80 experts to discuss biodiversity attribution rates in two critical areas: the green economy and sustainable use. Participants represented a diverse array of sectors, including the central bank, public institutions, business, environmental protection, health, science, education, and sub-national governments. I believe this workshop marks a significant first step for Thailand in integrating GLOBE into the fiscal budgeting and spending practices of government agencies.

As the urgency of biodiversity conservation intensifies, the responsibility for funding these vital efforts largely falls on the public sector. Global estimates indicate that more than half of biodiversity funding originates from public entities, a trend that is expected to persist. This highlights the crucial role governments play in protecting our planet's rich biological heritage. Between 2015 and 2017, a coalition of 80 countries demonstrated a strong commitment to biodiversity, investing an average of USD 67 billion annually in conservation and sustainable use initiatives. This substantial investment, primarily derived from national reports to the Convention on Biological Diversity (CBD), the Classifications of the Functions of Government (COFOG), and UNDP's Biodiversity Finance Initiative (BIOFIN), underscores the importance of domestic public expenditures in the global biodiversity funding landscape.

Research conducted by BIOFIN across 41 participating countries has provided critical insights into the relationship between public biodiversity expenditures and their effectiveness. The findings reveal that while public investments in biodiversity generally increase with GDP, wealthier nations often allocate a smaller percentage of their resources to biodiversity compared to their less affluent counterparts. Furthermore, compelling evidence indicates that targeted funding for biodiversity protection is directly correlated with a reduction in the number of threatened species and the overall rate of biodiversity loss. Conversely, factors such as population growth and poor governance are associated with decreased financial support for biodiversity, exacerbating the challenges faced by threatened species—an issue that is particularly relevant in my country.

These findings emphasize the need to connect biodiversity budget expenditures to tangible outcomes. They also highlight potential avenues for innovative financing solutions that can enhance biodiversity protection and management. By prioritizing investments and mobilizing additional resources, countries can better navigate the complexities of biodiversity conservation. In Thailand, the Biodiversity Expenditure Review (BER) and the

Biodiversity Finance Plan (BFP) have provided valuable insights into the funding landscape and outlined steps to close the financing gap of USD 1 billion needed to achieve our National Biodiversity Strategy and Action Plan (NBSAP). Core biodiversity agencies, including the Department of National Parks, Wildlife and Plant Conservation, the Department of Marine and Coastal Resources, the Royal Forest Department, and the Department of Water Resources play pivotal roles, alongside other contributing agencies such as ONEP and the Biodiversity-based Development Economy Development Office (BEDO). Analysing budget allocations has shed light on the types of activities funded, offering a clearer picture of our financial commitments to biodiversity.

The introduction of the Global Biodiversity Expenditure Taxonomy for the public sector is a significant advancement in refining our understanding of biodiversity expenditures. This comprehensive framework catalogues a wide range of biodiversity-positive actions and aligns with our NBSAP and the Global Biodiversity Framework (GBF). The taxonomy's biodiversity attribution rates will facilitate future Biodiversity Expenditure Review exercises, enabling more consistent reporting on biodiversity expenditures.

Thailand is honoured to contribute as an expert group in testing the GLOBE framework, which aims to enhance attribution rates for categories that challenge the balance between biodiversity conservation and economic development. The collaborative efforts during this testing phase have yielded valuable insights and key takeaways that will inform our future approach. The GLOBE framework holds promise beyond its immediate applications. It offers a standardized methodology that can be utilized by various stakeholders to enhance their understanding and management of biodiversity expenditures. By fostering comparisons across countries using a common methodology, we can establish a shared language around biodiversity and its financial implications.

As we reflect on our journey with GLOBE, we take pride in our role in its development. We encourage other BIOFIN countries to revisit their BERs and those currently developing their Biodiversity Finance Plans (BFPs) to adopt GLOBE as a benchmark for high-quality biodiversity expenditure reviews. Together, we can pave the way toward a more sustainable future, ensuring that our rich biodiversity is preserved for generations to come.

PRASERT SIRINAPAPON
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Ministry of Natural Resources and Environment of Thailand

A. Background and rationale for the Global Biodiversity Expenditure (GLOBE) Taxonomy

An expenditure review is a standard diagnostic tool to help understand how much money is spent in a specific sector or on a specific theme, whether budgets and expenditures are aligned with national policy priorities, and what the expenditures have achieved. The BIOFIN methodology uses the following definition of biodiversity expenditure: **any expenditure whose purpose is to have a positive impact, or to reduce or eliminate pressures on biodiversity.** Biodiversity expenditure analysisis at the core of the Biodiversity Expenditure Review (BER) methodology. This methodology is one of BIOFIN's primary contributions to biodiversity finance which adapts existing public expenditure analysis currently used in other sectors such as health, education and climate. The Global Biodiversity Expenditure (GLOBE) taxonomy aims to support the BER process for public expenditures, by providing further guidance related to the categories and attribution rates.

In alignment with the Rio markers, GLOBE, in particular the assignment of attribution rates, also adheres to the principle of *causa finalis*, i.e. it is focused more on intent than on impact, the former of which can be proven by laws and policy pronouncements. While recognizing the role of the private sector and other non-government stakeholders in achieving biodiversity targets, the GLOBE Taxonomy focuses on the public sector.

BIOFIN's GLOBE Taxonomy is a comprehensive listing of biodiversity expenditures that addresses existing global and national frameworks, and that provides standards for appropriate attribution.

The main elements of the GLOBE Taxonomy are: (i) nine Primary Biodiversity Categories (level 1) and their subcategories; (ii) broken down into expenditure programmes (level 3) with definition and examples; (iii) biodiversity attribution rates (BARs) and (iv) alignments with other frameworks.

Table 1. How the GLOBE Taxonomy relates to the objectives and cross-cutting issues of the Convention of Biological Diversity

Convention of Biological Diversity objective	Corresponding Primary Biodiversity Category or subcategory
Conservation	7 Protected areas and other conservation measures 8 Restoration 3.01 Invasive Alien Species
Sustainable Use	4 Green Economy
	9 Sustainable Use
Access and Benefit-sharing	1 Access and Benefit-sharing

The nine Primary Biodiversity Categories ensure that all three objectives of the Convention of Biological Diversity (CBD) are covered (see Table 1). In addition, GLOBE covers cross-cutting themes relevant to the CBD such as:
- overarching governance under Category 5: Biodiversity planning and finance
- communication, education and public awareness (CEPA) under Category 2: Biodiversity awareness and knowledge;
- topics related to the Cartagena Protocol on Biosafety to the

Convention on Biological Diversity under subcategory 3.02 Genetically modified organisms/living modified organisms (GMOs/LMOs);
- otherwise unaddressed driver of pollution with a specific Primary Biodiversity Category.

In Section N, there is also an overview of how each of the Kunming-Montreal Global Biodiversity Framework (GBF) Targets relates to the Sustainable Development Goals (SDGs) and Primary Biodiversity Categories.

[1] Based on the nine BIOFIN Categories used within the Biodiversity Expenditure Review.

The methodology for building GLOBE

1 Development of the biodiversity expenditure classification system
The first step was the review of existing BERs to assess whether expenditure lines can be standardized and used to populate GLOBE. The next step was to supplement the existing expenditure lines by conducting research on actions that would contribute to the achievement of the GBF. Since the nine Biodiversity Categories were maintained to enable comparison with previous BER processes, the Taxonomy was mainly developed using a top-down approach through a simple hierarchy (see the discussion on primary categories and sub-categories), but providing as much detail as possible to cover potential actions or expenditures across varying country applications.

Adhering to general principles of taxonomy construction, potential overlaps among Primary Biodiversity Categories and/or their sub-categories were avoided. "Overarching" categories, such as Biodiversity awareness and knowledge, and Biodiversity finance and planning, contain entries that could also be logically found in the other Primary Biodiversity Categories. These overarching aspects were only repeated in other categories if the BARs are different. For example, "Lifelong learning, technical training and capacity building" is repeated in several Categories and their subcategories, as the content of the trainings differ, and thus the biodiversity intention differs as well. In such cases, both within the Taxonomy and in the Category guidance below (Sections D – L), cross-references to the relevant other subcategories or entries are stated.

2 Determination of attribution rates
Another feature of the taxonomy is the determination of attribution rates to signify the level of biodiversity intent, i.e., *causa finalis*, rather than the impact. The Organisation for Economic Co-operation and Development (OECD) Rio markers was used and modified to conform to levels of biodiversity intent and provide a more granular estimation of biodiversity expenditures. An expert system was used to determine the rates first by using a virtual workshop and then supplemented by a series of country/subregional workshops. Experts consisted of BIOFIN country teams, subject matter experts, and public finance experts familiar with budgeting processes. Final attribution rates are mainly based on consensual agreements among experts.

3 Assignment of governmental functions
GLOBE enables a comparison of biodiversity expenditures across countries, irrespective of how different the institutions are, using the Classification of the Functions of Government (COFOG) system. Attribution rates for each expenditure line are associated with COFOG functions instead of specific names of government agencies. This feature allows comparability and flexibility for countries to identify one or more agencies that perform COFOG functions. It also assures some form of stability, especially for changing institutional frameworks across countries.

COFOG was developed by the OECD and published by the United Nations Statistical Division (UNSD) and is regarded as the appropriate basis to examine the structure of government expenditure. Since COFOG was not intended to characterize biodiversity functions of government per se, the options for assigning biodiversity-relevant expenditures were developed as part of the GLOBE Guidance. Section P presents all of the 10 major COFOG divisions and respective groups together with examples of biodiversity expenditures.

B. GLOBE in the universe of biodiversity reporting and other taxonomies

There are several approaches to analyse both public and private biodiversity finance flows through classification and categorization. However, there is a knowledge gap to understand the full spending on biodiversity (understood in broader terms), which the BER of the BIOFIN Methodology aims to address. GLOBE is a tool aimed at supporting these efforts for the public sector. GLOBE is inspired by already existing tools, while addressing identified gaps.

Classification approaches of public expenditures: Classification of Environmental Purposes (CEP), Classification of the Functions of Government (COFOG) and the GLOBE Taxonomy

To classify biodiversity expenditure, there are two main approaches:

- Classification of Environmental Purposes (CEP) – the former Classification of Environmental Protection Activities

and Expenditure (CEPA) and Classification of Resource Management Activities (CrEMA), used for the United Nations System of Environmental-Economic Accounting (SEEA); and
- Classification of the Functions of Government (COFOG).

Both approaches have a biodiversity category included, however, both focus on a different definition of what a biodiversity expenditure entails (see Table 2/Figure 1 for comparison). There are options of linking the SEEA approach and the BER process (supported by GLOBE). This has been done by Mexico, where the national statistical institute not only focuses on the biodiversity division of CEPA but takes several other relevant divisions into account. More details on this example can be found in the BIOFIN Workbook.

In GLOBE, COFOG serves as a tool to standardize the function of ministries (see Subsection C 3) by taking into account all the COFOG government divisions, rather than only the Environmental Protection Division.
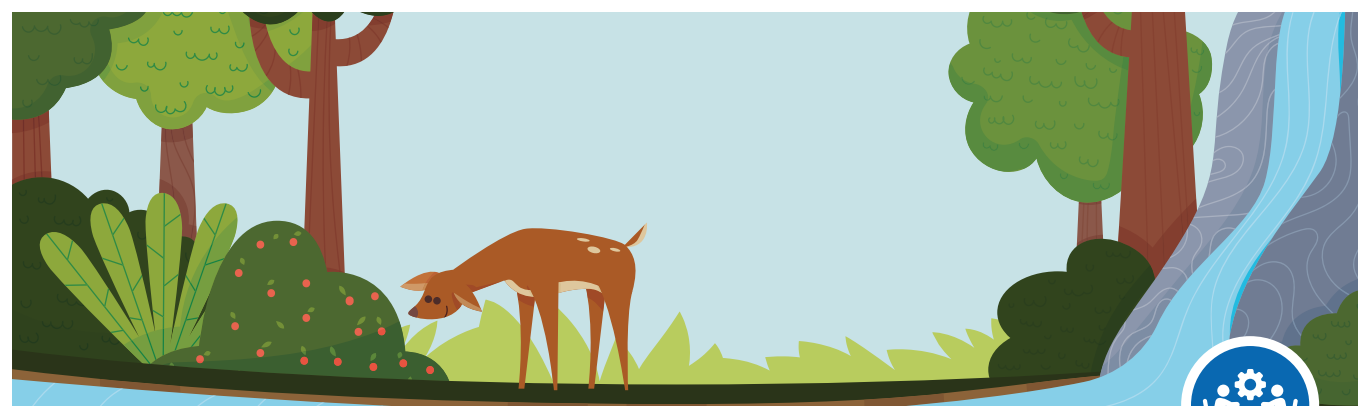
Table 2. Comparison of GLOBE, the Classification of Environmental Purposes (CEP) and the Classification of the Functions of Government (COFOG).

GLOBE	CEP	COFOG
1 **Access and Benefit-sharing**	01 Air and climate	01 General public services
2 **Biodiversity awareness and knowledge**	02 Energy	02 Defence
3 **Biosafety**	03 Wastewater and water resources	03 Public order and safety
4 **Green economy**	04 Waste, materials recovery and savings	04 Economic affairs (general economic, commercial, and labour affairs)
5 **Biodiversity planning and finance**	05 **Soil, surface and groundwater, biodiversity and forest**	05 **Environmental protection**
6 **Pollution management**	06 Noise and radiation	06 Housing and community amenities
7 **Protected areas and other conservation measures**	07 Research and development	07 Health
8 **Restoration**	08 Cross-cutting and other environmental purposes	08 Recreation, culture and religion
9 **Sustainable Use**		09 Education
		10 Social protection

Rating biodiversity flows: Rio Markers & GLOBE

Beyond identifying the flows that purely focus on biodiversity, there are many more public expenditures that have biodiversity as a co-benefit or additional objective. The Rio markers were introduced in 1998 to account for these secondary purposes of flows from developing countries towards the objectives of the Rio Conventions. While they originally aimed to understand the mainstreaming of the Rio objectives into development finance, they have evolved into a quantification tool. GLOBE uses the same approach as the Rio Markers for its biodiversity attribution rates but is more detailed. All information on these rates is provided in subsection C 4 Concept: Biodiversity attribution rates.

Sustainable and/or green taxonomies, and GLOBE

In recent years, the number of sustainable and/or green taxonomies has grown significantly, and many more countries are currently developing their own version. While there are differences among them, they mostly focus on aligning financial flows and investment to defined goals (e.g. climate change) by identifying when an activity can be defined as "green". Many of these taxonomies use the International Standard Industrial Classification (ISIC) or the national versions of the ISIC to classify the activities. Then, for each ISIC code, they define technical criteria to be fulfilled, so that those activities can be classified as 'green'. Several taxonomies also define "Do not (significant) harm DN(S)H" criteria for other goals (e.g. pollution, biodiversity, social issues).

GLOBE in contrast, explicitly does not focus on private sector flows but rather on the public sector whose activities often cannot be classified with an ISIC code. Existing sustainable finance and green finance taxonomies and GLOBE are therefore parallel tools characterizing different financial flows.

C. Guidance on how to use GLOBE

GLOBE consists of two parts:

1. This document, the GLOBE Guidance, which provides an overview of the following:

   o How to find the expenditure programme within the taxonomy – subsection C2;
   o COFOG functions (How do they relate to every country?) – subsection C3;
   o Biodiversity Attribution Rates (What do they stand for?) – subsection C4;
   o The nine Primary Biodiversity Categories with their subcategory (How do we address the different biodiversity driver loss or protect biodiversity?) – sections D–L. Specific links to the nine categories are provided in the appropriate section.
   o The alignments between the GBF, the Aichi Biodiversity Targets and the SDGs with the nine Primary Biodiversity Categories – sections N and O;
   o An overview of the COFOG divisions and its groups, as well as examples of biodiversity expenditures – section P;
   o Suggestion for additional readings if required – section Q

2. An Excel document, the actual Taxonomy.
   The first sheet consists of an overview of all nine Primary Biodiversity Categories and their subcategories with links to the location in the Category sheets. These Category sheets display the following details for each of the nine Primary Biodiversity Categories:

   o The Primary Biodiversity Category and subcategory (Levels 1 and 2);
   o The Expenditure programme (Level 3) with definitions and/or examples, including concrete expenditure lines as necessary;
   o The Biodiversity Attribution Rate differentiated by divided into government functions [%]: 1%, 5%, 25%, 50%, 75%, 100%
      -> Section C 4 "Biodiversity attribution rates"; and
   o Alignments with the new GBF, the former Aichi Biodiversity Targets and the SDGs.

   The final Excel sheets provide a glossary of several terms (marked with an * in the other sheets) and an overview of how the Kunming-Montreal GBF targets, Aichi Biodiversity Targets and the SDGs relate to each other; this information can be also found in Sections N and O. The Glossary contains definitions of terms used in the nine primary categories here https://docs.google.com/spreadsheets/d/1Gl2yzmJLj7x9v2zc8QnfD_HFK7-lUaUJ/edit?gid=16234395#gid=16234395.

1. Step-by-step guide on how to apply GLOBE to support the Public Biodiversity Expenditure Review

GLOBE is a tool that supports any country conducting a public BER, independent of the methodology they use for this review. However, for countries using the BIOFIN methodology, the entry points for GLOBE within the BER are outlined further below. The overall steps for applying GLOBE are as follows:

1 Identify the relevant public institutions with biodiversity expenditure
For countries using the BIOFIN methodology, all public institutions identified by the Policy and Institutional Review (PIR) contributing to biodiversity spending, whether directly or indirectly, are automatically included in the BER process. The PIR includes a comprehensive analysis of the policies, plans and programmes of these institutions with biodiversity spending that can be referenced in the BER.)

2 If not already adequately provided by the PIR, obtain the mandate, policies and budget information as detailed as possible for each of the identified institutions.

3 Screen the budget and ignore all the budget lines that are not relevant for to biodiversity. If unclear, then keep them.

4 For each budget line, identify the relevant row within the taxonomy, i.e. where there is close matching between the government agency budget line with the corresponding row in GLOBE. Check the section "Primary Biodiversity Category" to facilitate matching. When more detailed budget lines are available, use the 3rd level of the taxonomy for the match between GLOBE and the budget; however, if information is scarce and no further information can be obtained, then use the subcategories.

-> subsection C2 "Identifying the appropriate expenditure programme".

5 Select the attribution rate: Identify the COFOG function associated with the budget line and refer to the attribution rate for this function. The Biodiversity Attribution Rate(s) are provided in the row and differentiated by COFOG function, or clear other criteria, whenever relevant. Note that one agency can have more than one COFOG function, so ensure that the agency budget line and the COFOG function match in order to apply the attribution rate –
-> Subsection C 3 COFOG.

6 Final check: In cases where the attribution rates in GLOBE deviates from national circumstances, make the necessary adjustment and send feedback to the BIOFIN GLOBE team for future revisions of GLOBE.

While the main objective of GLOBE is to support the public Biodiversity Expenditure Review, it can be also useful for other processes, as follows:

- Financial Needs Assessment: The list of expenditure programmes can inspire, or be the basis for, the Financial Needs Assessment by providing concrete steps of what governments can do for each of the Categories and subcategories.
- Planning tool: Countries can easily identify areas of gaps, for example, if there is no expenditure for a certain subcategory, it is most likely that the country is currently not focusing on it. The gap analysis can be the basis to initiate work in these formerly neglected areas.
- National Biodiversity Strategies and Action Plan (NBSAP) update: GLOBE can support identify actions and programmes to reflect the new GBF in the NBSAP process
- Debt instruments for the country: GLOBE my can serve as criteria for biodiversity-focused debt instruments, for example, by using specific lines for key performance indicators

Other expenditure reviews: NGOs and other private sector entities may adapt the classification system and be guided by the list of biodiversity expenditures to inform their own programme planning with or without use of attribution rates.

GLOBE and the BIOFIN public Biodiversity Expenditure Review (BER) Methodology

GLOBE supports the countries using the BIOFIN methodology in identifying the expenditures supporting biodiversity, tagging the expenditure – if desired – with the GBF and/or the SDGs, and finally providing guidance on the attribution of Biodiversity attribution rates. An overview of the BER process and the entry points for GLOBE are provided in Figure 1.

Figure 1: Relation between BER & GLOBE

BER Methodology (public component only)

Step 4.1 Preparations
Define the scope of the analysis, identify key stakeholders (including the "client" for the BER), develop a stakeholder consultation plan, identify key data sources, and develop a data management system.

Step 4.2 Define the main parameters
4.2A. Clarify the definition of "biodiversity expenditures"
4.2B. Establish a classification and tagging system to map biodiversity budget expenditures with relevant national and international biodiversity goals.
4.2C. Establish a system for the attribution of primary and secondary expenditures.

Step 4.3 Data Collection
Identify and collect data from public, private, donors and civil society organizations and other data sources.

Step 4.4 Data analysis
4.4A. Apply the attribution rate and estimate biodiversity spending for the agency
4.4B Biodiversity spending in the national context
4.4C Identify relationship between budgets, allocation and expenditures and BD revenues.

Step 4.5 Projecting future expenditures
Analyse likely major future trends in biodiversity expenditures for each priority organization, taking into consideration key assumptions (such as predicted inflation, GDP growth, etc.) that could affect future expenditures.

GLOBE Methodology

GLOBE provides:
- 4.2A: Definition and examples
- 4.2B: Classification within nine Primary Biodiversity Categories and subcategories
- 4.2B: Alignment with Kunming-Montreal Global Biodiversity Framework (GBF) Targets and the Sustainable Development Goals (SDGs), thus allowing users to tag their expenditures with GBF, potentially national targets and the SDGs
- 4.2C: Concept of Biodiversity Attribution Rates, with a definition, examples and a decision tree

GLOBE supports the process of attributing biodiversity attribution rates (BARs), thus the review of spending patterns.

Once data are collected, GLOBE can support in using the defined parameters of the BER with the GLOBE steps 3 to 6. Here, a few key principles from the BER methodology should be kept in mind:

- **Avoid double counting**
  This is achieved by applying the BER process to the main source of funds in the case of government to civil society organization transfers and the final public entity for government to government transfers.

- **Only use relevant budget**
  For example, in case budget data are not very detailed and/or only a subcomponent of a budget line has a biodiversity context, the whole amount of the budget cannot be used to derive the biodiversity expenditure. If there is no way of obtaining the budget data, the BER chapter outlines several options to receive further information about the programme, such as interviews or surveys. These options can be also used to judge or estimate the percentage of the budget that can be considered relevant for biodiversity. In case the expenditure is mostly related to personnel cost, an option could be to estimate the percentage of time spent for the biodiversity component and apply this percentage to the budget, before assigning the biodiversity expenditure rate (BAR).

  See, for example, agriculture-related expenditure that has a small expenditure component on biodiversity-relevant capacity-building for the agroforestry sector. If the agroforestry component can be singled out, the BAR from GLOBE can be directly applied. Otherwise, the significance of this agroforestry part can be estimated, and only part of the budget will be considered.

2. Identifying the appropriate expenditure programme in GLOBE (Step 4)

There are a total of nine different Categories representing all types of government biodiversity expenditures. For detailed guidance on what each Category and subcategory entails, see sections D–L. These sections also list all relevant targets from the GBF, the former Aichi Biodiversity Targets and the SDGs. Refer to Section N "Overview of Global Biodiversity Framework targets and Primary Biodiversity Categories" for a schematic overview of how all the targets are related to the nine Categories. In the Annex, the full list of the GBF targets is provided with their full text.

The nine Primary Biodiversity Categories are as follows:
1. Access and Benefit-sharing
2. Biodiversity awareness and knowledge
3. Biosafety
4. Green Economy and Biodiversity
5. Biodiversity planning and finance
6. Pollution Management
7. Protected areas and other conservation measures
8. Restoration
9. Sustainable Use and Biodiversity

A full catalogue of all nine Biodiversity Categories can be found here:
https://docs.google.com/spreadsheets/d/1Gl2yzmJLj7x9v2zc8QnfD_HFK7-lUaUJ/edit?gid=16234395#gid=16234395

Identifying the appropriate Primary Category and subcategory

After understanding the nature of the government expenditures resulting from PIR and from other supplementary data collection methods to establish the mandates, programmes, and/or projects of each government agency, the next step is to associate budget lines with GLOBE categories. To facilitate the identification of the corresponding Category and subcategory, in continuation there are two options: an overview based on the expenditure aim and a decision tree. Additionally, Section N shows GBF targets corresponding to the GLOBE categories. The taxonomy worksheet itself contains tags to the SDGs, the GBF and Aichi Biodiversity Targets, which can facilitate the matching.

Overview – By main aim

- **Address drivers of biodiversity loss:**
  ○ Invasive Alien Species –> Category 3 Biosafety (in particular subcategory 3.01 Invasive Alien Species)
  ○ Pollution -> Category 6 Pollution
  ○ Land Use Change -> Category 9 Sustainable Use (in particular subcategories 9.02 Sustainable agriculture, 9.05 Sustainable forestry, 9.08 Sustainable rangelands and 9.09 Sustainable wildlife)
  ○ Climate Change -> Category 4 Green Economy (in particular, subcategories 4.01 Green supply chain, 4.02 Sustainable extractive industries and 4.06 Sustainable transportation),
  ○ Overexploitation -> Categories 4 Green Economy and 9 Sustainable Use
  ○ Harmful subsidies and other incentives -> legislation in Category 5 Biodiversity planning and finance; implementation of incentives is also listed for each subcategory

- **Directly benefitting biodiversity:**

  ○ Conservation and protection -> Category 7 Protected areas and other conservation measure
  ○ Restoration -> Category 8 Restoration

- **Access to, and sharing of biodiversity benefits**
  -> Category 1 Access and Benefit-sharing (ABS)

- **Creating enabling conditions beneficial for biodiversity**
  ○ Raising awareness, training, education or research -> Category 2 Biodiversity awareness and knowledge
  ○ Overall coordination among or within agencies, planning and general laws -> Category 5 "Biodiversity planning and finance".

- **Measures whose implementation define whether biodiversity is fostered or harmed, or identify where harm to biodiversity can be avoided compared to other options of implementation:**
  ○ Research, trade and use of modified organisms -> 3 Biosafety (in particular 3.02 GMO/LMO)
  ○ Use of natural resources -> 9 Sustainable Use
  ○ Productive and extractive activities -> 4 Green Economy

Alternatively, Figure 2 provides questions that can guide the identification of the corresponding category.

Figure 2. Identifying the appropriate Primary Biodiversity Category
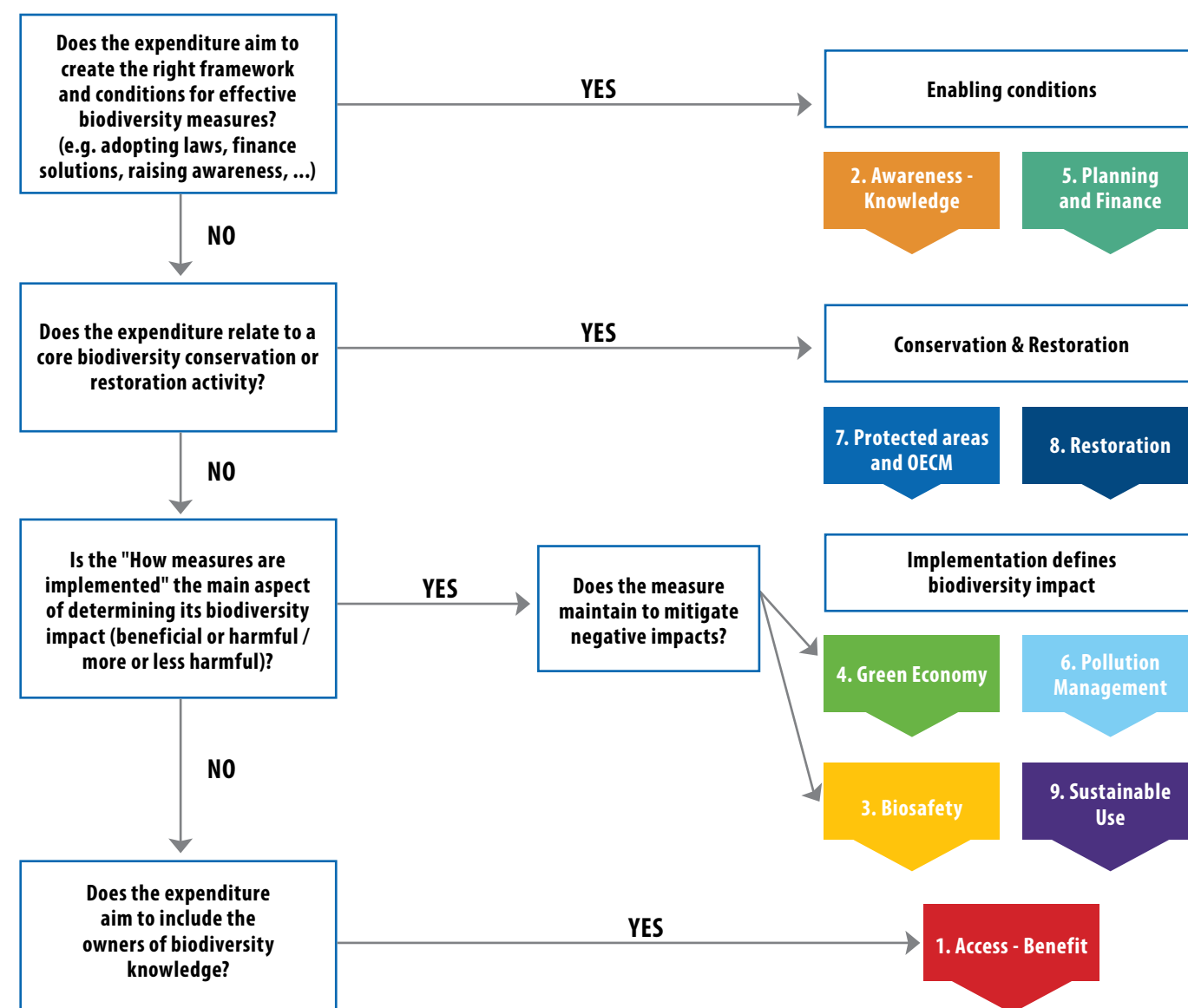
Agencies with more expansive mandates may be associated with more than one GLOBE category. Similarly, one GLOBE category may be associated with several government agencies. Some Primary Biodiversity Categories can contain expenditures that also be associated with other Categories (e.g. measures within Restoration and Sustainable Use or within Green Economy and Pollution Management). Further details on what is included or excluded can be found in the sections of the relevant Primary Biodiversity Category. While it is recommended to follow the classification of GLOBE to ensure consistency and avoid double counting, the country context might justify classifying an expenditure within a different Category or subcategory.

3. Classification of the Functions of Government (COFOG) to select the Biodiversity Attribution Rate (Step 5)

There are many different government agencies that spend money on biodiversity, not all of which necessarily have a biodiversity intention or mandate. For example, the Ministry of Agriculture mainly plays an economic function of food production, but it may also be one of the main spenders on biodiversity action. While the Ministry might also focus on grain production, it may also focus on ensuring the maintenance of different genetic varieties by investing in gene banks and conservation. A fisheries agency will also strive for greater fish production but ensure the protection of species and habitats.

To capture these nuances, GLOBE uses biodiversity attribution rates to capture the biodiversity intention of relevant government functions. Although all countries fulfil the same functions for its citizens, how they are organized varies significantly and their organizational structure might change over time (e.g. becoming more or less centralized, restructuring ministries after elections). Therefore, rather than focus on government agency in one country, the GLOBE Taxonomy uses the internationally recognized Classification of the Functions of Government (COFOG) functions. This should enable each user of GLOBE to 'translate' their own structure and to identify the right biodiversity attribution rate depending on the institution executing the budget line.

By using the COFOG, the aim is to harmonize the differences between and within countries, and make the public biodiversity expenditure comparable over time and across countries and regions. Several budget lines in GLOBE cover all COFOG functions. This highlights again that biodiversity is not limited to the responsibility of the Ministry of the Environment, but rather cross-cutting that only can be achieved by a broad alliance of institutions.

The ten broad objectives of any level of government are as follows:
1. General public services
2. Defence
3. Public order and safety
4. Economic affairs
5. including agriculture, forestry, fishing and hunting
6. Environmental protection
7. i.e. waste management and protection)
8. Housing and community amenities
9. Health
10. Recreation, culture and religion
11. Education
12. Social protection

For an overview of COFOG, including some concrete biodiversity examples, see Section P, or https://docs.google.com/spreadsheets/d/1Gl2yzmJLj7x9v2zc8QnfD_HFK7-lUaUJ/edit?gid=16234395#gid=16234395. Since COFOG was not developed with a focus on biodiversity in particular, the taxonomy at times refers to the groups (2nd level) rather than the divisions (e.g. for specific economic affairs or environmental protection).

Additional guidance to facilitate the identification of the corresponding function:

- General public services: This division is not a placeholder for other functions, but refers to the general legal, executive and fiscal function of the government (e.g. adopting laws). It does NOT include the payment of employees who are fulfilling other functions. It is NOT the placeholder if, in a given country, one of the COFOG functions does not have its dedicated ministry or institute. It is also NOT to be used for all expenditures of regional or local public actors, which must also be classified by the specific function they fulfil.
- For decentralized countries: Functions must be assigned for each level at which the budget is analysed (e.g. provincial, municipal). It does not need a dedicated ministry or institute to classify as a specific function, but rather it is the role the person/ program/ department of the analysed expenditure is fulfilling.
- Tourism: This falls under "Other economic affairs" and not under "Recreation, culture and religion".
- Research: Depending on the type of research, it is classified within the field of study and not "General public services", for example, research on endemic species would be part of under the "environmental protection" function.
- Economic affairs such as agriculture or forestry:
- If a country has a dedicated ministry or department for any of these functions, this does not indicate that the entire government institution is responsible for the "agriculture" or "forestry" function. In most cases, the functions will be partially economic (i.e. can be classified within "Economic affairs"), social (e.g. supporting livelihoods, potentially "Housing and community amenities") and environmental (i.e. most likely Protection" function).
- Ministries/institutions focusing on rural development: Most COFOG functions are potential options, depending on the programme. A programme on sustainable livelihoods might be economic, environment, housing, health, depending on the exact scope.

4. Concept: Biodiversity Attribution Rates (BAR)

While there are a few budget lines that are only dedicated to biodiversity, there are many more expenditure programmes that focus on other areas while still aiming to contribute to biodiversity to a certain extent. The BARs in this taxonomy follow a similar approach as that of the Rio markers: They focus on the purpose (or intention, objective) of a certain expenditure, rather than the impact that it assumingly ha. A biodiversity objective is defined as follows:

> The purpose of the expenditure is to *Increase, Protect, and Restore* biodiversity; *Prevent* biodiversity loss; or *Address the drivers* that contribute to biodiversity loss, or impede biodiversity gains, including lack of awareness and enabling conditions in policy and institutions.

The impact of an expenditure is, in most cases, if ever, not known beforehand and depends on many circumstances beyond the control of the government and other actors. Therefore, the rates do not consider impact or implementation, but rather the intention: What was the objective of spending this money on this action? The scoring approach thus mirrors the Rio markers; however, the BARs go into further detail, not limited to the three categories "not targeted – 0"; "significant -1" and "principal – 2". In many cases, the purpose of a public expenditure might not be principal (BAR = 100), but more or less significant before being not relevant. The Taxonomy only focuses on expenditures that have at least a minuscule biodiversity purpose; all expenditures without a biodiversity purpose are not listed.

The intention should be clearly stated in the expenditure itself , or if no information is available, it should be directly derived from documents describing the budget programmes or the mandate of the institution responsible for that particular activity. The biodiversity motivation/intention thus clearly justifies the need for the expenditure and explains why the underlying action is designed in this way .

In many cases, expenditures do not have biodiversity as the main or primary objective (Biodiversity Attribution Rate of 100); however, they do recognize biodiversity intention more or less significantly. To capture the nuances of the biodiversity intention, there are the following Biodiversity Attribution Rates: 75% (Quite significant), 50% (Significant), 25 % (Moderate), 5% (Low) and 1% (Miniscule). All those ratings different from 100 percent applies for expenditure whose purpose does not completely align with the Biodiversity objective, but for whose biodiversity is - to different degree- still relevant. For example, a rating of 25 percent indicates that the expenditure's Biodiversity objective (i.e. *Increase, Protect, and Restore* biodiversity; *Prevent* biodiversity loss; or *Address the drivers* that contribute to biodiversity loss, or impede biodiversity gains, including lack of awareness and enabling conditions in policy and institutions) is relatively weak. The programme might recognize the biodiversity benefits as result of the expenditure without changing the nature of the measures. The design of the action is significantly shaped by other objectives but allows for some unintended but recognized (e.g. written mandate) biodiversity benefits. For more details on each level, see Table 3.

While GLOBE provides recommended attribution rates for each expenditure line, it is important to understand the underlying mechanism, because there might be national and/or regional differences in the attribution rate.

Table 3. Definition of biodiversity attribution rates

BD Objective: The purpose of the expenditure is to *Increase, Protect, and Restore* biodiversity; Prevent biodiversity loss; or *Address the drivers* that contribute to biodiversity loss, or impede biodiversity gains, including lack of awareness and enabling conditions in policy and institutions.

100% (Primary)	The purpose of the expenditure is completely aligned with the biodiversity (**BD**) objective. Where multiple objectives occur along with / exit in parallel with biodiversity, the attribution of 100% is retained for as long as the intention of the other objectives (climate, health, human development) completely aligns with biodiversity or does not diminish or compromise the attainment of the BD objective.
75 % (Quite significant)	The **BD objective** remains an important part of the expenditure, but the articulation is more indirect and/or other objectives precede the biodiversity objective.
50% (Significant)	The **BD objective** is unclear as a policy objective and/or other objectives are more prominent than biodiversity.
25 % (Moderate)	The **BD objective** is considerably weaker in terms of policy articulation compared to other objectives and framed as an unintended impact.
5% (Low)	The **BD objective** is almost non-existent in policy articulation and framed as an unintended impact.
1% (Miniscule)	The main objective of the action is to promote purposes other than biodiversity, however there is some minimal link to the **BD objective**.

The CBD defines biodiversity as:
"Biological diversity" means the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.

For cases in which GLOBE is overly detailed, or countries want to check whether the GLOBEproposed Biodiversity attribution rate corresponds to national circumstances, the following decision tree could be useful (Figure 2).

Figure 3. Decision tree
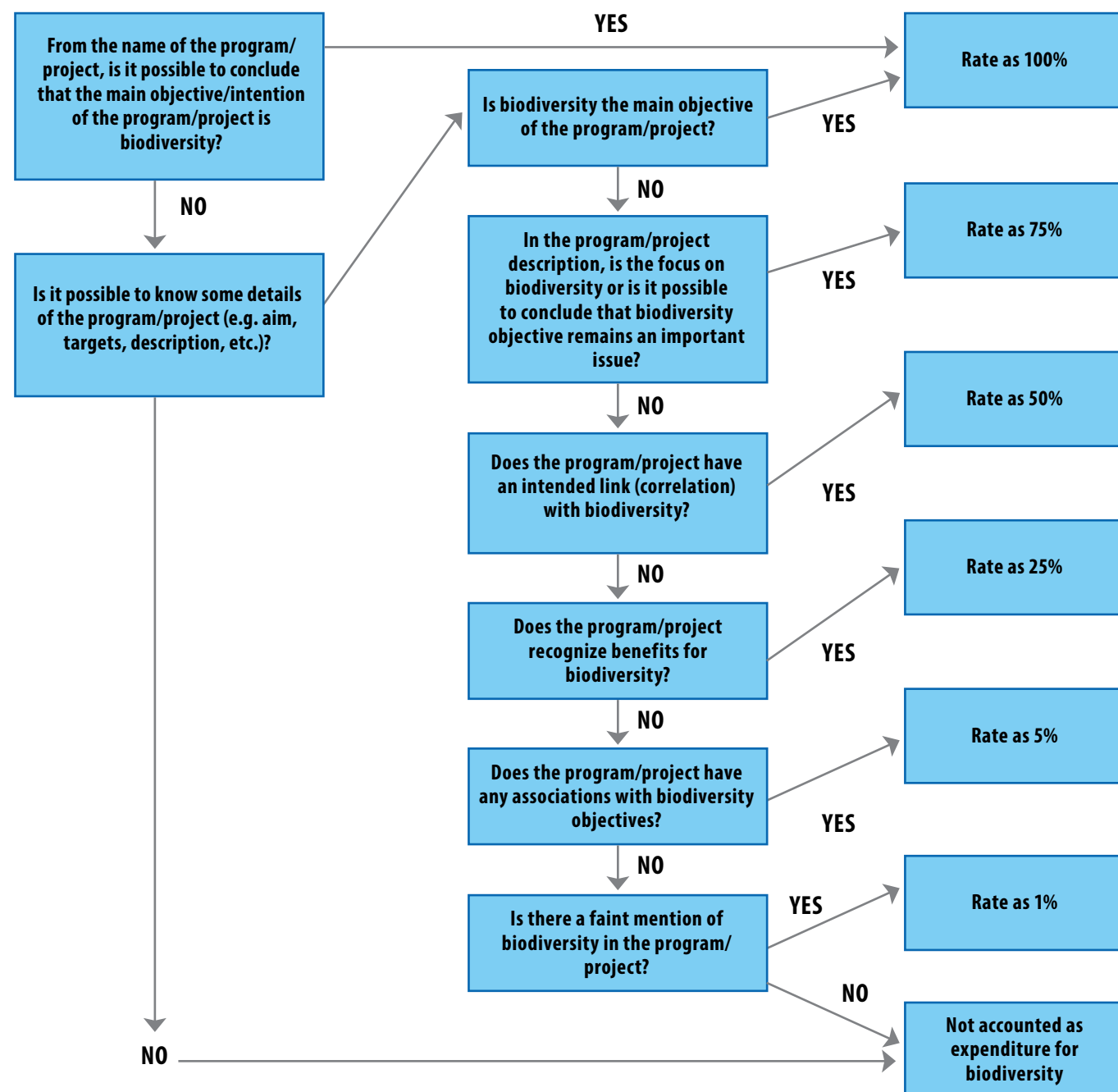
Biodiversity attribution rates and the precision of the Biodiversity Expenditure Review
Similar expenditure processes that opt to use the simpler Rio markers are very well justified. There are two reasons for which a granular estimate of biodiversity expenditure is recommended: (i) a more precise estimate serves as a useful basis for planning and budgeting (in tandem with financial needs assessment) and for assigning higher biodiversity spending for programmes where negative impacts on biodiversity can be avoided; and (ii) this would allow to develop mainstreaming programmes around the BER results, i.e. some agencies might be encouraged to allocate more for biodiversity upon appreciation of the results.

D. Primary Biodiversity Category:
1. Access and Benefit-sharing (ABS)

Access and Benefit-sharing (ABS) refers to the way in which genetic resources and/or associated traditional knowledge held by Indigenous Peoples and local communities may be accessed, and how the benefits that result from their use are shared between the people or countries using the resources (users) and the people or countries that provide them (providers).

ABS is one of the objectives of the CBD and therefore an obligation for all parties. The Convention contains some general provisions regarding the facilitation of access to genetic resources via a prior informed consent process and agreed terms and conditions for access, use and benefit-sharing. Additionally, many countries also joined the Nagoya Protocol. The Protocol encourages the Parties to direct benefits from access to and utilization of genetic resources towards the conservation of biological diversity and the sustainable use of its components. It is also hoped that these benefits will help vulnerable populations that depend on genetic resources to use them sustainably.

Genetic resources can be put to commercial or non-commercial use. In commercial use, companies can use genetic resources to develop specialty enzymes, enhanced genes, or small molecules. These can be used in crop protection, drug development, the production of specialized chemicals, or in industrial processing. However, ABS remains a challenge for countries, such as the disbursement of financial returns to IPLCs, unregulated/unauthorized use of genetic material, excessive red tape in securing permits for research and the bioprospecting process, compliance with free and informed consent, and the transfer of technical knowledge and technology to provider countries.

Main areas of focus under "ABS"

1. **Bioprospecting/Screening for biodiversity areas and establishing permitting processes**
   This entails regulating the screening for biodiversity areas and resources for commercial use and all processes that allow this research.

2. **Contractual arrangements**
   Contractual arrangements between the genetic resource (knowledge) provider and user, the provider and the state, as well as the user and the state ensure: legal certainty and transparency on access to genetic resources; the involvement of the local population; provisions for research; and understanding how the financial and non-financial benefit of the genetic resource use is shared. The compliance of the arrangements needs to be supported.

3. **Benefit-sharing mechanism**
   Mechanisms committed to channel a fair share of the benefits for the use of genetic resources, whether monetary or non-monetary, back to the providers of these resources. Benefit-sharing mechanisms can be monetary or non-monetary,

and include but are not limited to: up-front, one-time or milestone payments; a share of royalties and/or licence fees or other income or contributions to biodiversity funds (collaboration for) research or its funding, joint ventures or joint ownership of intellectual property rights; the provision of venture capital, capacity-building/training and other contributions to education; transfer of technology or knowledge; and financial support to national/regional institutions.

4. **Nagoya Protocol**
   This subcategory focuses on the institutional structures of the Protocol, and expenditures related explicitly to the ratification and Nagoya-specific processes (e.g. designation of a national focal point, the ABS clearing house mechanism), in addition to capacity-building and awareness raising. Implementation of all ABS-related legislation falls within the other subcategories.

Alignment with the Global Biodiversity Framework

ABS is closely aligned with:
- **Goal C**
  The monetary and non-monetary benefits from the utilization of genetic resources, and digital sequence information on genetic resources, and of traditional knowledge associated with genetic resources, as applicable, are shared fairly and equitably, including, as appropriate with Indigenous Peoples and local communities, and substantially increased by 2050, while ensuring traditional knowledge associated with genetic resources is appropriately protected, thereby contributing to the conservation and sustainable use of biodiversity, in accordance with internationally agreed access and benefit-sharing instruments.

- **Target 13 – Access and Benefit-sharing from genetic resources.**

ABS is also related to:
- **Target 9 – Benefits for people by sustainable use of wild species**
- **Target 21 – Access and sharing of data, information and knowledge**
- **Target 22 – Representation and participation in decision-making and access to justice.**

References to relevant conventions and agreements

The Primary Biodiversity Category ABSreferences the following **Aichi Biodiversity Targets**:

- **Target 16: Access and Benefit-sharing from genetic resources**
- **Target 18: Traditional Knowledge respected**

The Primary Biodiversity Category ABS relates to the **SDGs**:
- **15.6:** Fair, equitable sharing of benefits from genetic resources
- **1a: Mobilization of resources** (relating to benefit-sharing).

Other alignments:
ABS is affected by the following policies or international agreements:

- **Nagoya Protocol**

Link to Category 1: ABS
https://docs.google.com/spreadsheets/d/1Gl2yzmJLj7x9v2zc8QnfD_HFK7-lUaUJ/edit?gid=16234395#gid=16234395

E. Primary Biodiversity Category: 2. Biodiversity awareness and knowledge

The Biodiversity awareness and knowledge Category includes a wide range of different topics, all related to the other categories and subcategories as described in the GLOBE Taxonomy. The objective of this category is to ensure easy and timely access to quality data and information to support all efforts in halting biodiversity loss or in maintaining or increasing current biodiversity levels. In terms of knowledge generation, it includes formal and non-formal education, such as technical training, biodiversity communication and scientific research, as well as Indigenous and local communities' knowledge. It also includes the CBD clearing-house mechanism for sharing data in a transparent and accessible manner for everyone.

Main areas of focus under "Biodiversity awareness and knowledge"

1. **Formal biodiversity education**
   Formal education consists in learning in an organized and structured environment within the educational system, from primary school through higher education and including specialized programmes and institutions for full-time technical and professional training. This area includes general biodiversity topics and more specific ones such as biodiversity finance.

   Note: All education offers outside of pre-schools, schools and universities, or that go beyond vocational training are part of non-formal education.

2. **Non-formal and informal biodiversity education, including technical training**
   Non-formal education — planned and structured programmes and processes of personal and social education outside the formal educational system (including by institutions without a purely educational focus), is designed to improve a range of skills and competencies. Informal education is the process whereby every individual acquires attitudes, values, skills and knowledge from daily experience,

such as from family, friends, peers and the media. This area includes all levels of opportunities for on-the-job learning, community-based learning, intergenerational dialogues, participation at conferences and events and the transmission of South-South or Triangular knowledge and learning. This subcategory includes both general biodiversity topics and more specific ones such as biodiversity finance.

Note: All educational offers in schools and universities, as well as vocational training are classified under 2.01 Formal education.

3. **Biodiversity awareness and communication**
   Public awareness brings the issues relating to biodiversity to the attention of key groups who have the power to influence outcomes. Awareness is an agenda-setting and marketing exercise helping people understand biodiversity and why it is an important issue, as well as the aspirations for the biodiversity targets and what is being done and can be done to achieve them.

   Communication aims to inform different audiences and target groups of the meaning of biodiversity (causes of loss, solutions, conservation needs, biodiversity finance, governance, etc.) by providing information through various means. According to an instrumental approach, governments use communication with other instruments to support biodiversity conservation to address economic constraints and to motivate action. Governments also use one-way communication to inform audiences about policies and legislation.

4. **Biodiversity scientific research**
   Research comprises all work undertaken to increase the stock of knowledge and statistical data and their usage. Here, biodiversity scientific research refers to all types of research (very basic to concrete application, including a digital approach and valuation of biodiversity) by civil, private, public or scholar actors.

5. **Indigenous Peoples' and local communities' knowledge**
   This comprises knowledge, innovations and practices of Indigenous Peoples and local communities around the world, developed from experience gained over the centuries and adapted to the local culture and environment. It tends to be collectively owned and takes the form of stories, songs, folklore, proverbs, cultural values, beliefs, rituals, community laws, local language and agricultural practices, including on the development of plant species and animal breeds. Traditional knowledge is mainly practical, particularly in such fields as agriculture, fisheries, health, horticulture and forestry. This area includes the documentation and analysis of traditional knowledge to enhance education and research and raise awareness on knowledge source.

6. **CBD clearing house mechanism**
   The mission of the CBD clearing house mechanism is to contribute significantly to the implementation of the CBD through effective information services and other appropriate means to promote and facilitate scientific and technical cooperation, knowledge sharing and information exchange, and to establish a fully operational network of Parties and partners.

Alignment with the Global Biodiversity Framework and the Convention on Biological Diversity

Biodiversity awareness and knowledge are closely aligned with:
- **Target 21 – Access and sharing of data, information and knowledge**
- **Section K – Communication, education, awareness and uptake**
- **Article 8(j) of the Convention.**

The Primary Biodiversity Category, especially the subcategory "Biodiversity scientific research", also contributes to several targets, in particular:
- **Target 1 – Spatial planning**
- **Target 14 – Integration of Biodiversity and its values**
- **Target 16 – Sustainable consumption**
- **Target 20 – Technology, innovation, scientific research and monitoring.**

References to relevant conventions and agreements

Many of the existing National Biodiversity Strategies and Action Plans are structured around the 2020 **Aichi Biodiversity Targets**. The most important provisions to the Category "Biodiversity awareness and knowledge" are still relevant today, as follows:
- **Target 1 – Increase Awareness**
- **Target 2 - Integration of Biodiversity Values**
- **Target 4 - Sustainable Production and Consumption**
- **Target 18 - Traditional Knowledge respected**
- **Target 19 - Sharing information and knowledge.**

The Primary Biodiversity Category "Biodiversity awareness and knowledge" relates to the following **SDGs**:
- **4.7 – Education for sustainable development**
- **12.2 – Sustainable use of natural resources**
- **12.8 – Access to information and ensure awareness**
- **1.4 – Access to economic resources and ownership**
- **15.9 – Integration of ecosystem and biodiversity values in planning and strategies**
- **16.7 – Inclusive and representative decision-making**
- **17.6 – International cooperation and access to science, technology, innovation and knowledge**
- **17.18 – Capacity-building for developing countries for data generation.**

Other alignments:
The Primary Biodiversity Category "Biodiversity awareness and knowledge" is affected by various types of international agreements related to all aspects of biodiversity, since the category is a cross-cutting category, relevant for all conventions, frameworks or initiatives.

As regards education, the following framework focuses on developing and expanding educational activities for biodiversity, among other topics:

- **Education for Sustainable Development, 2020.**

Link to Category 2: Biodiversity awareness and knowledge
https://docs.google.com/spreadsheets/d/1Gl2yzmJLj7x-9v2zc8QnfD_HFK7-lUaUJ/edit?gid=16234395#gid=16234395

F. Primary Biodiversity Category: 3. Biosafety

The Primary Biodiversity Category "Biosafety" includes two sub-categories:

(1) Prevention, containment, and eradication of invasive alien species
(2) Safe handling, transport and use of living/genetically modified organisms (LMOs/GMOs) resulting from modern biotechnology that may have adverse effects on biological diversity

IAS have been known to cause biodiversity loss by taking over native populations of flora or fauna through fast reproduction and competition for food, water and space, predation, habitat alteration, diseases and parasitic infestations. Studies have shown that IAS could alter the evolution of native species by competitive exclusion, niche displacement, predation and ultimate extinction. Species are introduced deliberately through, for example, fish farming, pet trade, horticulture and biocontrol, or unintentionally through, for example, land and water transportation, travel and scientific research. Global trade has increased the risk of transporting invasive alien species. Release of ballast water, for example, has been proven to be one of the main causes for introduction of IAS in the marine environment.

Note: While domestic animals such as cats or dogs are not commonly defined as IAS, they might still have a similar negative impact on wildlife, and the measures against them are mostly overlapping. Thus, a country can classify their expenditures related to reducing biodiversity harms by domestic animals within the IAS subcategory, providing that the purpose is documented.

GMOs/LMOs has the potential to positively or negatively affect biodiversity and human health. Risks associated with the adoption of GMO and LMO technology are land use changes that include conversion of forest land. A shift to GMO crops, which are claimed to be more productive and therefore profitable, contributes to the decline in the use of native crop species; in addition, when particular aspects of the ecosystem are altered by interbreeding or selection mechanisms, the impact may be felt beyond specific species but at the ecosystem level. Genetically modified fish species for aquaculture run the risk of escapes, colonization of existing native populations, and altering habitats. Finally, GMO crops can potentially become invasives themselves.

Note: Measures involving citizens (e.g. citizen science to collect data) could be classified under Category 2 "Biodiversity awareness and knowledge".

Main areas of focus under "Biosafety"

1. **Invasive Alien Species (IAS)**
   This area includes the identification and prioritization of (potential) IAS and their entry points, the regular assessment of their current status, measures that prevent their entry, spread and establishment, their removal, eradication or at least their containment to certain areas, as well as cross-cutting activities such as awareness raising, training, regional cooperation and the adoption relevant legislation.

2. **Genetically modified organisms (GMO) / Living modified organisms (LMO)**
   GMOs/LMOs have many potential benefits, but potentially cause harm as well. Thus, this area requires research and collaboration, as well as the establishment of relevant policies and regulations to advance research and usage without exposing biodiversity to danger. It also requires training, capacity-building, awareness raising and the monitoring of the GMO/LMO procedures in place.

Alignment with the Global Biodiversity Framework

The Primary Biodiversity Category Biosafety is closely aligned with:
- **Target 6 - Invasive Alien Species**
- **Target 17 – Biosafety measures**

The use of genetic resources for GMOs/LMOs also relates to:
- **Target 16 – Access and Benefit Sharing (ABS) from Genetic Resources**

References to relevant conventions and agreements

The Primary Biodiversity Category Biosafety references the following **Aichi Biodiversity Targets**:
- **Target 9 - Invasive Alien Species**
- **Target 1 - Increase Awareness**

The Primary Biodiversity Category "Biosafety" relates closely to the **SDGs**:
- **2.5 - Genetic diversity of plants and animals**
- **15.8 – Combat invasive alien species.**

Other alignments

The Category Biosafety is affected by the following policies or international agreements:

As regards GMOs/LMOs:
- **Cartagena Protocol on Biosafety.**
-
As regards IAS:
- **Agreement on the Application of Sanitary and Phytosanitary Measures**
- **Convention on International Trade in Endangered**

- **Species of Wild Fauna and Flora (CITES)**
- **Convention on Migratory Species of Wild Animals (CMS, or the Bonn Convention), adopted in 1979**
  IAS are considered a threat to migratory species and are addressed in Articles III, 4c and V5 of the Convention.
- **Convention on Wetlands (Ramsar Convention), adopted in 1971**
  Conference of the Parties (COP) 7 resolution VII/14 addresses threats of invasive species to wetland ecosystems.
- **International Convention for the Control and Management of Ship's Ballast Water and Sediments**
- **United Nations Convention on the Law of the Sea (UNCLOS)**
- **United Nations Convention on the Law of Non-Navigational Uses of International Watercourses.**

Link to Category 3: Biosafety
https://docs.google.com/spreadsheets/
d/1Gl2yzmJLj7x9v2zc8QnfD_HFK7-lUaUJ/
edit?gid=16234395#gid=16234395

G. Primary Biodiversity Category: 4. Green Economy and Biodiversity

The UN Environment Programme (UNEP) has defined green economy as "one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities". Simply put, a green economy can be considered one that is low in carbon, resource-efficient and socially inclusive.

Note: For this category, it is particularly important to identify the biodiversity objective in the expenditure programme. If measures (e.g. related to cleaner production) merely focus on climate change mitigation, they should not be taken into consideration unless the objective of the programme clearly also mentions biodiversity intentions (i.e. linked to one of the GBF targets). Additional probing might be necessary to ascertain the biodiversity element of certain expenditures, as in the case of reforestation, which may have both climate and biodiversity components. In the latter, when the programme clearly specifies the use of indigenous and diverse tree species with a biodiversity purpose, then it can be considered a biodiversity expenditure. Still, it must be emphasized that under no circumstances should the biodiversity attribution rate be applied to a whole department, let alone an agency level (only to relevant budget lines). Similarly, measures related to offset biodiversity harm caused by any activity should not be considered a biodiversity-friendly expenditure, since the only intent and result is a net zero for biodiversity.[2] Legislation that requires compensation and offsetting measures from companies can be included in subcategory 5.02 "Other relevant laws, policies, plans" under Category 5 Biodiversity planning and finance.

Green Economy vs Sustainable Use
Another Primary Biodiversity Category, Sustainable Use, might seem related to the Green Economy Category because both refer to resource utilization. While the subcategories under the Sustainable Use Category indicate the use of productive areas and/or species, such as agriculture, forestry and fisheries, the Green Economy Category provides a framework for transforming and adapting green principles to existing industries such as extractives, energy, transport, and human settlements. The Green Economy Category refers to long-term economic growth through green jobs in areas such as recycling, poverty reduction, the elimination of fossil fuel subsidies and green taxes, and energy efficiency.

Green Economy vs. Pollution Management
All measures related to pollution avoidance or reductions are listed under Category 6 Pollution Management.

Environmental Impact Assessments
Whereas Strategic Environmental Assessments, which measure impact on the environment due to changes in law, are part of Category 5 Biodiversity planning and finance, Impact Assessments, which are related to a specific economic activity are classified under the relevant subcategory within the "Green Economy" Category.

Main areas of focus under "Green Economy"

1. **Green supply chain**
   A green supply chain integrates environmentally responsible practices related to sourcing, designing products, manufacturing, packaging, managing logistics, end-of-life product management, improving efficiency as well as reducing emissions, used resources and waste.

2. **Extractive industries**
   Extractive industries recover raw materials from the earth, process them, and turn them into products and services for use by consumers. These raw materials may be fossil fuels, minerals or aggregates (e.g. sand, gravel and clay). For some countries, the sector is critical for domestic resource mobilization, and profits could be channelled to biodiversity-friendly investments. Countries should ensure that the impact on biodiversity is avoided or minimized as much as possible.

3. **Sustainable consumption**
   Sustainable consumption can be further divided into Food & Nutrition; Construction & Housing; Mobility, Working and Office (including communication); Leisure & Tourism; and Textile & Clothing; the first three have the most impact on biodiversity (70–80 percent of all quantifiable environmental impacts). The aim is to reduce the negative impact on biodiversity by improving the ecological footprint, reducing per capita consumption, and avoiding waste and overexploitation.

4. **Sustainable energy**
   The refers to production with sources that can be used repeatedly without being depleted, decreasing overall energy need by changing to alternatives, and increasing energy efficiency.

5. **Sustainable tourism**
   Sustainable tourism is defined by UNEP and the United Nations World Tourism Organization as "tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities". Governments are involved in tourism in a variety of capacities such as: marketing and promotion; border security; the regulation of markets such as aviation; planning regulations; the control or management of tourism attractions such as national parks; skills development; and funding of road development.
   Note: This excludes tourism activities in PAs and territories and areas conserved by Indigenous Peoples and local communities, see 7.01.10 and 19.

6. **Sustainable transportation**
   Sustainable transportation aims to reduce negative impacts by reducing the reliance on natural resources, providing environmentally friendly alternatives (e.g. biking, walking) and increasing public transport. The negative impacts are mostly related to emissions and pollution; however, infrastructure may also cause the destruction of habitats and fragmentation.

7. **Sustainable urban and rural areas**
   This refers to housing, access to transport systems and green spaces, settlement planning, the protection of natural and cultural heritage, as well as disaster risk management. Here, biodiversity values need to be integrated at the planning and implementation stages, and when existing infrastructure needs to be improved to increase urban or rural biodiversity.

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[2] While offset and compensation measures can be part of a resource mobilization strategy (as indicated in Target 19 of the GBF), the aim of this taxonomy is to list all expenditures whose purpose is to have a positive impact biodiversity. However, having offsets or compensation measures start from the acknowledgment of harm to biodiversity that has to be restored to the starting point; hence, considering the expenditure holistically, there is no positive biodiversity intention.

Figure 4. Finding the right subcategory within Green Economy (if biodiversity-relevant)
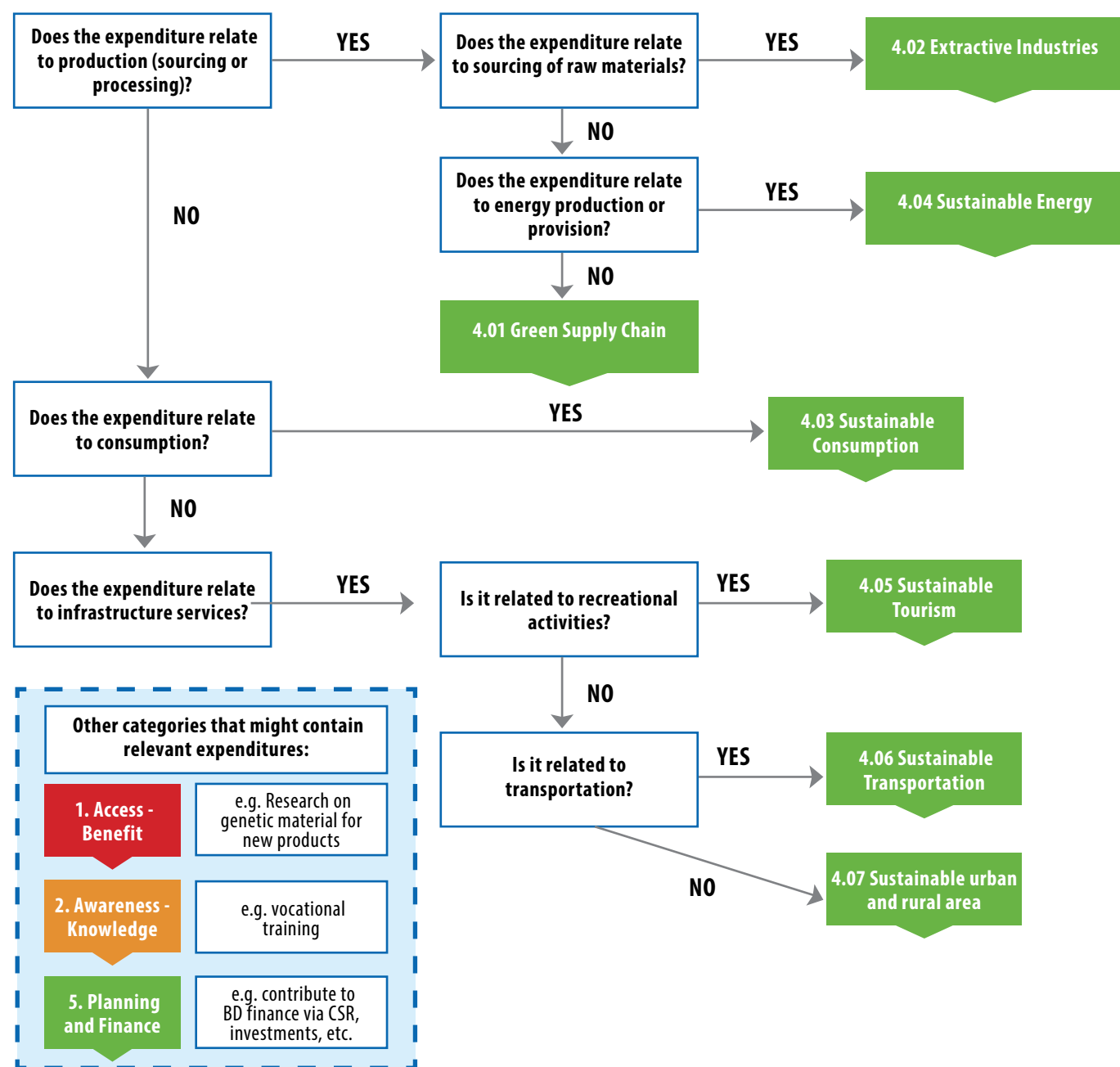
Alignment with the Global Biodiversity Framework

The Green economy Category is closely aligned with:

- **Target 15 – Business and financial institutions**
  (a) Monitor, assess and transparently disclose risks and impacts
  (b) Provision of information to consumers
  (c) Report on ABS, increase positive impacts, reduce biodiversity-related risks, and promote actions to ensure sustainable patterns of production.

- **Target 16 – Sustainable consumption**

Depending on measures taken in order to green the economy or the area, this also relates to:

- **Target 7 – Reduce pollution risk and impact**
- **Target 12 – Urban biodiversity**
- **Target 21 – Access and sharing of data, information and knowledge**

References to relevant conventions and agreements

The Primary Biodiversity Category "Green economy" references the following **Aichi Biodiversity Targets**:

- **Target 1 – Increase awareness**
- **Target 4 – Sustainable production and consumption**
- **Target 8 – Pollution reduced.**
- **Target 19 – Sharing information and knowledge**

The Primary Biodiversity Category Green Economy relates closely to the **SDGs**:

- **4.7 – Education for sustainable development**
- **8.4 – Resource efficiency for consumption and production**
- **9.4 – Sustainable industry**
- **12.2 – Sustainable use of natural resources.**

Link to Category 4 : Green Economy
https://docs.google.com/spreadsheets/
d/1Gl2yzmJLj7x9v2zc8QnfD_HFK7-lUaUJ/
edit?gid=16234395#gid=16234395

H. Primary Biodiversity Category: 5. Biodiversity planning and finance

This category refers to national, state or local planning, policy, finance, legal, coordination and enforcement actions that are crosscutting in nature that cover multiple biodiversity categories or general issues, such as biodiversity planning and policy.

Every country has a different political setting and understanding of policy, plans, programmes, etc. There may be differences in how binding the legal instruments are, and how they are decided and implemented. In some specific cases, the term 'plan' is also used when it is a strategy or a set of measures.

Note: All steps related to create and process legislation, including any adaptation necessary to achieve better biodiversity outcomes are included in subcategories 5.01 (Biodiversity laws, policies and plans) and 5.02 (Other relevant laws, policies and plans). However, all activities related to actual implementation such as the creation of public entities, provision of incentives and control over implementation, as well as (science-based) monitoring and evaluation of progress towards achieving the aimed objectives are classified under the relevant subcategory, not in subcategories 5.01 or 5.02. For any environmental assessment, prior to the introduction of legislation , see subcategory 5.05 Strategic Environmental Assessment (SEA), for environmental assessments related to specific projects see the relevant subcategory for the project (e.g. if related to sustainable urban infrastructure, see within 4 Green Economy 4.07 Sustainable urban and rural areas).

Main areas of focus under "Biodiversity planning and finance"

1. **Biodiversity laws, policies plans**
   This area consists of legal action at every level of government (national, state or local) whose main objective is to address biodiversity directly, such as to conserve/restore biodiversity (e.g. establishment of new Protected Areas), or to address the causes for biodiversity loss (e.g. incentives for public, private, civil actors). This also includes the criminal persecution for breaching these laws. Implementation or execution of the law is included in the relevant subcategories.

2. **Other relevant laws, policies, plans**
   Again, this area consists of all types of legal action at every level of government that only addresses biodiversity

indirectly due to their focus on non-biodiversity sectors. The legislation can be relevant by, for example, including biodiversity (safeguards) in laws focusing on other topics (e.g. green economy) or by increasing policy coherence. Hence, this subcategory is particularly relevant for mainstreaming activities and a whole-of-government approach.

3. **Biodiversity coordination and management**
   This area refers to coordination with different stakeholders and rightsholders at the local, national or international level, where the state participates or provides a framework/platform for other actors to coordinate among themselves.

4. **Biodiversity finance**
   This area includes all types of measures that can increase domestic and international finance flows, by introducing new instruments and mechanisms, improving the spending of currently available funds and by providing legal frameworks for non-public actors.

5. **Strategic Environmental Assessment (SEA) Framework**
   Defined by UNEP as a "formal, systematic process to analyse and address the environmental effects of policies, plans and programmes and other strategic initiatives", the SEA Framework is usually applied at an early stage of decision-making. Other aspects (e.g. social considerations) can be included during the analysis.
   Note: The environmental impact assessment (EIA), the assessment conducted before specific projects (rather than laws), is classified under the relevant subcategories of the projects to be developed, hence generally under Category 4 "Green economy".

6. **Spatial planning**
   This area refers to the spatial planning of any territory in a rational way, by coordinating the different interests (production, livelihood, biodiversity conservation, historical/cultural value, recreation, etc.) and sectoral policies.
   Note: All types of spatial planning activities are included here, except for delineation and zoning in Protected Areas or Indigenous and communities conserved areas, which is part of 7.01 Management and expansion of protected areas.

7. **Multilateral Environment Agreement**
   This consists of all of the actions and steps that a government must take in order to fulfil its obligation as party of environmental agreements. Agreement-specific implementation is assessed in the relevant Primary Biodiversity Categories.
   Note: The implementation of biodiversity activities that arise from the environment agreements falls within the relevant categories. The Nagoya Protocol has its own subcategory 1.04 under Category 1 "Access and Benefit-sharing".

8. **Access to resources, information and decision-making, including Free, Prior and Informed Consent (FPIC) consultations**
   This area refers to financial and non-financial resources directed to all right- and stakeholders, in particular to IPLCs, women and youth, as well as access to complete and accurate information, and involving them as key partners or main actors in decision-making, including the right to free, prior and informed consent.

Alignment with the Global Biodiversity Framework

"Biodiversity planning and finance" is closely aligned with:
- **Target 1 – Spatial planning**
- **Target 14 – Integration of biodiversity and its values**
- **Target 18 – Harmful incentives**
- **Target 19 – Resource mobilization.**

It also relates to the following targets:
- **Target 15 – Business and financial institutions**
- **Target 16 – Sustainable consumption**
- **Target 20 – Technology, innovation, scientific research and monitoring**
- **Target 21 – Access and sharing of data, information and knowledge.**

References to relevant conventions and agreements

The Primary Biodiversity Category Biodiversity planning and finance references the following **Aichi Biodiversity Targets**:
- **Target 2 – Integration of Biodiversity values**
- **Target 3 – Phase out harmful incentives**
- **Target 4 – Sustainable production and consumption**
- **Target 20 – Mobilizing resources from all sources.**

The Primary Biodiversity Category "Biodiversity planning and finance" relates to the following **SDGs**:
- **1a – Mobilization of resources**
- **1.4 – Access to economic resources and ownership**
- **10b – Development assistance**
- **12.2 – Sustainable use of natural resources**
- **14.6 – Prohibit harmful fishery subsidies**
- **15.9 – Integration of ecosystem and biodiversity values in planning and strategies**
- **17.3 - Additional financial resources.**

Other alignments

The Primary Biodiversity Category "Biodiversity planning and finance" is affected by various types of international agreements related to any aspect of biodiversity, since within this category, governments should make sure to implement and enforce relevant law, as agreed within the convention, initiative and alliance. As identified by the CBD, the most prominent are as follows:

- **Convention on Biological Diversity (CBD), adopted in 1992**
- **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), adopted in 1973**
- **Convention on the Conservation of Migratory Species of Wild Animals (CMS, or Bonn Convention), adopted in 1979**
- **The International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), adopted in 2001**
- **Convention on Wetlands (Ramsar Convention), adopted in 1971**
- **World Heritage Convention (WHC), adopted in 1972**
- **International Plant Protection Convention (IPPC).**

Link to Category 5: Biodiversity planning and finance
https://docs.google.com/spreadsheets/d/1Gl2yzmJLj7x9v2zc8QnfD_HFK7-lUaUJ/edit?gid=16234395#gid=16234395

I. Primary Biodiversity Category: 6. Pollution Management

"Pollution" is the introduction of harmful materials (i.e. pollutants) into the environment at a faster rate than can be dispersed, diluted, decomposed, recycled, or stored in some harmless form. It can be natural (e.g. Vulcan ashes) or human-made, and in any form (solid, liquid, or gas, but also energy). Pollution management consists of pollution prevention at the source (most preferred option), reduction, reuse, recycling, treatment or disposal (less preferred option).

Biodiversity-relevant government action within Pollution Management therefore mainly consists in reducing one of the drivers of biodiversity loss rather than create positive effects for biodiversity. Pollution can have direct and indirect impacts: it can be directly fatal such as by suffocation, toxic reactions, entanglements) or more indirectly, by causing confusion (e.g. in the day/night routine, orientation systems) or by reducing the resilience of species (e.g. weaker shells, less nutritious food).

Therefore, pollution reduction or elimination generally has a positive impact on biodiversity. In order to be considered a biodiversity-positive expenditure, the purpose of this expenditure should be also directly linked to biodiversity (rather than only being associated with human health or other objectives).

Pollution reduction vs. Sustainable Use" Category
Pollution reduction within this Category/within Pollution Management overlaps with certain pollution control measures in the "Sustainable use" Category, such as the promotion of sustainable agriculture. If the written objective is to reduce negative impacts, it should be included here; if it is to improve biodiversity or reduce biodiversity loss drivers directly linked to the production system, it should be under the "Sustainable Use". For example, measures related to pest management can be only found in 9.02 Sustainable agriculture, and not in 6.01 Soil and water.

Note: For this pollution category, it is particularly important to identify the biodiversity objective of the expenditure programme. Measures should only be considered if the objective clearly states a biodiversity objective (e.g. to reduce the pollution level below a harmful level of ecosystem functions). An inherent biodiversity objective can only be assumed in case of measures related to reducing excess nutrients loss (nitrogen and phosphorus), pesticides and highly hazardous chemicals as mentioned in target 8 of the GBF. In case of CO2 (air pollution) reduction, a biodiversity purpose must be directly stated.

Main areas of focus under "Pollution management"

1. **Soil and water**
   Reduced/avoided pollution to protect and remediate soil, groundwater and surface water (excluding waste management)
   This area refers to measures and activities aimed at the prevention of pollutant infiltration, cleaning up of soils and water bodies, and the protection of soil from erosion and other physical degradation as well as from salinization.

Monitoring and control of soil and groundwater pollution is included.
Note: If there are direct links to a production system under Sustainable use, then the expenditure should be classified under the "Sustainable use" Category.

2. **Air and atmosphere**
   Reduced/avoided pollution to protect ambient air and climate (excluding waste management)
   Where there are clear stated biodiversity objectives, this area refers to activities aimed at the reduction of emissions into the ambient air or ambient concentrations of air pollutants, as well as measures and activities aimed at the control of emissions of greenhouse gases and gases that adversely affect the stratospheric ozone layer.

3. **Waste management**
   Reduced/avoided pollution by managing all types of waste, including wastewater
   This area refers to activities and measures aimed at the prevention of the generation of waste and the reduction of its harmful effects on the environment, including from wastewater. It includes the collection and treatment of waste, especially recycling and composting. It also includes monitoring and regulation activities, the collection and treatment of low-level radioactive waste, street cleaning and the collection of public litter. Excluded are activities related to protection of groundwater (see 6.01 Protection and remediation of soil, groundwater and surface water) and air (see 6.02 Protection of ambient air and climate).

4. **Coastal and marine pollution debris management:**
   Reduced or avoided coastal and marine pollution debris through activities tackling land- and sea-based sources, focusing in particular on plastics
   Note: If there are direct links to a production system under Sustainable use, then the expenditure should be classified there

5. **Other pollution management measures**
   Reduced/avoided pollution in the form of light, noise, vibration, temperature, radiation, Persistent Organic Pollutants (POPs), pharmaceutical pollution, Polychlorinated biphenyl (PCB) oils, heavy metals and the necessary supportive actions in the form of research, monitoring, awareness raising and capacity building.
   This refers to all measures and activities aiming to reduce any other form of pollution not yet covered in the other subcategories.

6. **Enabling activities related to all types of pollution**
   These consist in general activities related to awareness raising, capacity building and data generation for all types of pollution, provided that these activities have clear biodiversity objectives.

Alignment with the Global Biodiversity Framework

Pollution and its management are closely aligned with:
- **Target 7 – Reduce pollution risk and impact.**

In order to successfully reduce pollution, the following targets are relevant:

- **14 – Integration of Biodiversity and its values**
- **20 – Technology, innovation, scientific research and monitoring**
- **21 – Access and sharing of data, information and knowledge.**

Pollution reduction can also contribute to:
- **8 – Climate change**
- **19 – Resource mobilization.**

References to relevant conventions and agreements

The Primary Biodiversity Category "Pollution Management" references the following Aichi Biodiversity Targets:
- **Target 8 – Pollution reduced.**

An effective pollution management also contributes significantly to:
- **Target 10 – Ecosystems vulnerable to climate change.**

The Primary Biodiversity Category "Pollution management" relates to the following SDGs:
- **SDG 6.3 – Improved water quality**
- **SDG 14.1 – Reduce marine pollution**
- **SDG 14.3 - Minimize ocean acidification**
- **SDG 17.18 – Capacity-building for developing countries for data generation.**

Other alignments

The Category "Pollution Management" covers most of the activities in the "Environmental protection" category used by the United Nations System of Environmental-Economic Accounting (SEEA) Central Framework excluding 6, Protection of biodiversity and landscapes and 8.6, Research on species, among others[3]. It overlaps with certain pollution control measures in the Sustainable Use category, such as the promotion of sustainable agriculture. If the written objective of an expenditure is to reduce negative impacts, it should be included here; if it is to improve biodiversity in production systems, it should be classified under "Sustainable use".

Pollution Management is affected by the following policies or international agreements, initiatives and alliances:

- **United Nations Convention on the Law of the Sea (UNCLOS)**
- **Convention on Long-range Transboundary Air Pollution (CLRTAP) of United Nations Economic Commission for Europe (UNECE)**
- **Climate and Clean Air Coalition to Reduce Short-lived Climate Pollutants**
- **Global Methane Initiative**
- **United Nations Treaty on Plastic Pollution**
- **International Convention for the Control and Management of Ships' Ballast Water and Sediments**

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[3] With the restructuring of CEPA and CrEMA into CEP, the categories are currently adjusted, regrouped and reordered as well. However, many countries will probably use the previously used categories for some more time.

- **Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matter (London Convention + Protocol)**
- **International Convention for the Prevention of Pollution of the Sea by Oil**
- **International Convention for the Prevention of Pollution from Ships (MARPOL)**
- **Basel Convention (Hazardous Wastes)**
- **Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade**
- **Stockholm Convention on Persistent Organic Pollutants (POPs)**
- **International Convention on Oil Pollution Preparedness, Response and Cooperation (OPRC)**
- **Minamata Convention on Mercury**
- **Stockholm Convention**
- **Many different regional action plans, especially with regard to marine litter**

In addition, the United Nations' Global Programme of Action (GPA) for the Protection of the Marine Environment from Land-based Activities aims to support countries and the protect the marine environment at a global scale.

Link to Category 6: Pollution
https://docs.google.com/spreadsheets/d/1Gl2yzmJLj7x9v2zc8QnfD_HFK7-lUaUJ/edit?gid=16234395#gid=16234395

J. Primary Biodiversity Category: 7. Protected areas and other conservation measures

This category consists in in situ and ex situ measures to protect and safeguard biodiversity at the genetic, species and ecosystem levels. The effort can be area-based through PAs and their expansion and connection or through buffer zones; however, this also entails applying other conservation measures, for example, focusing on specific species, in particular, migratory species, or establishing other effective conservation measures.

Main areas of focus under "PA & other conservation measures"

1. **Management and expansion of protected areas (PAs)**
   including Indigenous and communities conserved areas (ICCA)
   A PA is a geographically defined area that is designated or regulated and managed to achieve specific conservation objectives. It includes all International Union for Conservation of Nature (IUCN) Categories (Ia–VI), as well as defined indigenous and community conserved areas. The expansion of PAs entails the analysis of potential areas, identifying the best management policy while considering the local circumstances (ecological and social), securing land titles and the legal designation of the area.
   Note: Species-specific conservation management falls within the subcategory 7.04 "Conservation of species". All measures related to invasive alien species management or restoration

are classified under the other respective categories (3 "Biosafety"; 8 "Restoration").

2. **Management of areas outside of Protected Areas**
   This area concerns all activities undertaken to manage, protect and develop areas *outside* of the PA regime such as transboundary areas, biodiversity corridors, Key Biodiversity Areas (KBAs), landscapes and seascapes to achieve the long-term conservation of nature with associated ecosystem services and cultural values.
   This also includes all actions of public institution and ministries, as well as a framework and support for individuals, communities, non-public institutions and businesses to maintain, enhance and restore ecological flows, species movement and dynamic processes across intact and fragmented environments outside of PAs.
   Note: If an area is a designated or recognized as an "other effective area-based conservation measure" (OECM), refer to the subcategory 7.03 "Other effective area-based conservation measures".
   While this subcategory includes prevention measures related to natural disasters for uninhabited areas, general measures referring to invasive alien species management, restoration and pollution management, etc. are considered in other Primary Biodiversity Categories.

3. **Other effective area-based conservation measures**
   According to the CBD, OECMs comprise geographically defined areas other than a PA, which is governed and managed in ways that achieve positive and sustained long-term outcomes for the in situ conservation of biodiversity, with associated ecosystem functions and services, and where applicable, cultural, spiritual, socio-economic, and other locally relevant values. The main difference between a PA and an OECM-designated area is that the PA's primary objective is conservation (even when it becomes ineffective, it does not lose its PA status), whereas conservation might not be the primary objective of an OECM-designated area, yet it does deliver effective in-situ conservation of biodiversity.
   Note: Measures can overlap with measures in the Sustainable Use Category. If the measures are more focused on the production system (e.g. food or timber), they should be classified under the "Sustainable use" Category; if the measures are more focused on conservation, they should be included here.

4. **Conservation of species**
   Related to the targeted protection of species, in particular wildlife and migratory species, within or outside of protected and conserved areas. This includes reducing threats such as overconsumption, trade and poaching, climate change, displacement, reduced habitats and IAS, as well as conservation measures in situ and ex situ.
   Note: If conversation is not the main objective of the programme, for example, it focuses on measures for species, but mainly for food production or other usages, see the relevant subcategory within 9 "Sustainable use", such as 9.01 "Agrobiodiversity" (for crops, pollinators, livestock and related species, for example, on-farm conservation) or 9.09 "Sustainable wildlife".

How to find the appropriate subcategory within PAs and other conservation measures

Figure 5. Finding the right subcategory within Protected Areas (PA) and other Conservation Measures
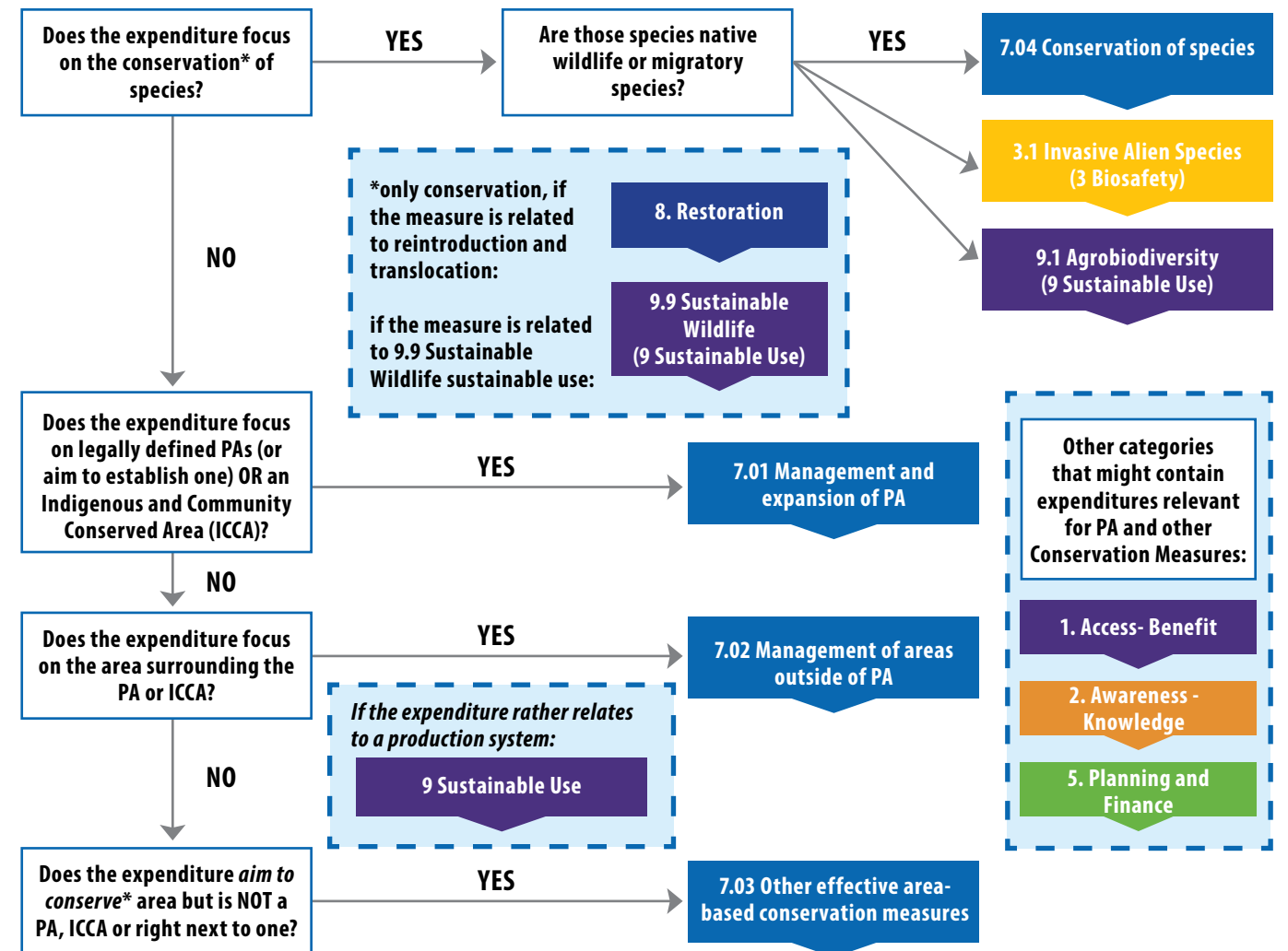
Alignment with the Global Biodiversity Framework

Conservation of ecosystem and species is clearly referenced in the GBF:
- **Target 3 – Area conservation**
- **Target 4 – Reduce extinction of threatened species and minimize human-wildlife conflict**

Other targets of the GBF can contribute to ensuring the success of PA & other conservation measures:
- **Target 1 – Spatial planning**
- **Target 5 – Sustainable use of wild species**
- **Target 8 – Climate change**
- **Target 9 – Benefits for people by sustainable use of wild species**
- **Target 19 – Resource mobilization**

   (a) Increasing total biodiversity related international financial resources […];
   (b) Significantly increasing domestic resource mobilization […];

   (c) Leveraging private finance, promoting blended finance, implementing strategies
   (d) Stimulating innovative schemes such as payment for ecosystem services, green bonds, biodiversity offsets and credits, benefit-sharing mechanisms, with environmental and social safeguards;
   (e) Optimizing co-benefits and synergies of finance targeting the biodiversity and climate crises;
   (f) Enhancing the role of collective actions, including by IPLCs, Mother Earth-centric actions and non-market-based approaches including community-based natural resource management and civil society cooperation and solidarity aimed at the conservation of biodiversity;
   (g) Enhancing the effectiveness, efficiency and transparency of resource provision and use

- **Target 21 – Access and sharing of data, information and knowledge.**

References to relevant conventions and agreements

Many of the existing National Biodiversity Strategies and Action Plans are structured around the **Aichi Biodiversity Targets**. The most important provisions to the Category "Protected areas" are still relevant today, as follows:

- **Target 11 – Protected areas and other effective area-based conservation measures**
- **Target 12 – Reducing risk of extinction**
- **Target 5 – Habitat loss halved or reduced**
- **Target 6 – Sustainable management of aquatic living resources**
- **Target 10 – Ecosystems vulnerable to climate change**
- **Target 13 – Safeguarding genetic diversity.**

The Primary Biodiversity Category "PA & other conservation measures" relates to the following **SDGs**:

- **11.4 – Protect cultural and natural heritage**
- **14 – Life below water**
    14.2 – Protect marine and coastal ecosystem
    14.3 – Minimize ocean acidification
    14.4 – Sustainable fishing
    14.5 – 10% conservation of marine and coastal areas
    14.b – Access for small-scale fishers
    14.c – Conservation and sustainable use of oceans and their resources
- **15 – Life on land**
    15.1 - Conservation, restoration and sustainable use of freshwater ecosystems
    15.4 – Conservation of mountain ecosystems
    15.5 – Reduce degradation of natural habitats and prevent biodiversity loss
    15.7 – Prevent poaching and trafficking of protected species
- **17 – Partnerships for the goals**
    17.3 – Additional financial resources
    17.6 – International cooperation and access to science, technology, innovation and knowledge
    17.18 – Capacity-building for developing countries for data generation
- **1a – Mobilization of resources**
- **1.4 – Access to economic resources and ownership.**

Other alignments

PA & other conservation measuresis affected by the following policies or international agreements:

- **Convention on Wetlands (Ramsar), adopted in 1971**
- **Convention on Migratory Species**
- **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)**
- **United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses**
- **United Nations Convention on the Law of the Sea (UNCLOS)**
- **Global Strategy for Plant Conservation.**

Link to Category 7 : Protected areas and other conservation measures
https://docs.google.com/spreadsheets/
d/1Gl2yzmJLj7x9v2zc8QnfD_HFK7-lUaUJ/
edit?gid=16234395#gid=16234395

K. Primary Biodiversity Category: 8. Restoration

Ecosystem restoration refers to assisting in the recovery of ecosystems that have been degraded or destroyed, as well as conserving the ecosystems that are still intact. It should **result in a net gain for biodiversity** (i.e. not limited to compensation or to off-setting measures) and rehabilitate the ecosystem functions and services. Restoration efforts are recognized to support the achievement of all Rio Conventions – CBD, United Nations Convention to Combat Desertification (UNCCD) and the United Nations Framework Convention on Climate Change (UNFCCC), as well as the SDGs.

Restoration vs Sustainable Use
Several expenditures under the "Restoration" Category and the "Sustainable use" Category might be similar in terms of the activities carried out. Here, the classification should depend on the aim of the expenditure or the respective programme, such as to remediate past damage or ensure productive use in the long term. In case of doubt, it is easier to classify the expenditure as "Sustainable use".

Main areas of focus under "Restoration"

1. **Reintroduction and translocation of species**
    Reintroduction generally refers to the introduction into the wild of species from captive stock, whereas translocation refers to the capture, transport and release or introduction of species, habitats or other ecological material (e.g. soil) from one location to another.

2. **Site redevelopment and engineering**
    Efforts should first be directed at preventing degradation and then repairing any damage caused previously.

    Notes: Prevention measures mostly overlap with measures in Sustainable Use (e.g. overgrazing, overfishing and other forms of overexploitation) or Categories such as Pollution (overall contamination) and Invasive alien species. This subcategory focuses on the first steps to initiate restoration (assessing, planning and starting the intervention) in order to remediate the damage.

3. **Site management**
    Ongoing management or maintenance of restoration sites after the restoration activity has been achieved to ensure the continuity of the initiated trajectory or status quo.

It is important to meaningfully include all rightsholders and stakeholders, such as IPLCs, women and youth, as well as other under-represented groups during the restoration activities by guaranteeing them access to information and resources, provide capacity-building and integrate their knowledge while implementing inclusive and transparent governance mechanisms.

Restoration should not replace, but rather, should support biodiversity conservation. It should consider the ecological, cultural and socio-economic context, as well as the dynamics of larger land- or seascapes around or adjacent to the area to be restored. Countries should therefore use tools relevant for spatial planning, integrate restoration considerations into a wide field of laws, and support enabling factors as relevant research, education and awareness raising. The success of employed measures should be monitored and evaluated, and corrective action should be taken whenever necessary.

Alignment with the Global Biodiversity Framework

Alignment with the Global Biodiversity Framework
- **Target 2 – Restoration.**

Restoration is, however, also closely linked to other targets, either because they help to reach the desired level of restoration, or because restoration will help to reach them:

- **Target 1 – Spatial planning**
- **Target 4 – Reduce extinction of threatened species and minimize human-wildlife conflict**
- **Target 8 – Climate change**
- **Target 18 – Harmful incentives**
- **Target 21 – Access and sharing of data, information and knowledge.**

References to relevant conventions and agreements

Many of the existing National Biodiversity Strategies and Action Plans are structured around the Aichi Biodiversity Targets. The most important provisions to the Category "Restoration" are still relevant today, as follows:

- **Target 15 – Ecosystem restoration and resilience**
- **Target 5 – Habitat loss halved or reduced**
- **Target 12 – Reducing risk of extinction**
- **Target 19 – Sharing information and knowledge.**

The Primary Biodiversity Category "Restoration" relates to the following SDGs:
- **6.6 – Protect and restore water-related ecosystems**
- **14.2 – Protect marine and coastal ecosystems**
- **15 – Life on land**
    15.1 – Conservation, restoration and sustainable use of freshwater ecosystems
    15.2 – Sustainable management and restoration of forests
    15.3 – Combat desertification and restoration of land and soil
    15.5 – Reduce degradation of natural habitats and prevent biodiversity loss
    15.7 – Prevent poaching and trafficking of protected species

Other alignments

Restoration is affected by the following policies or international agreements:

- Resolution 73/284 (03/2019) of the United Nations General Assembly to declare 2021–2030 as the United Nations Decade on Ecosystem Restoration https://daccess-ods.un.org/tmp/5870124.10163879.html
- United Nations Convention to Combat Desertification (UNCCD), established in 1994, addresses desertification and the effects of drought.

Link to Category 8 : Restoration
https://docs.google.com/spreadsheets/
d/1Gl2yzmJLj7x9v2zc8QnfD_HFK7-lUaUJ/
edit?gid=16234395#gid=16234395

L. Primary Biodiversity Category: 9. Sustainable Use and Biodiversity

"Sustainable use" refers to "the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations".

The "Sustainable use" vs. the "Green economy" Category
The "Sustainable use" Category is distinguished from the "Green Economy" Category by its focus on ecosystem services, primarily production and the underlying support services. However, there are also actions tending more towards sustainable consumption such as traceability requirements and certification that also drive production processes. Activities are targeted towards improving biodiversity outcomes in coordination with other co-benefits related to natural resource use.

"Sustainable use" vs. "Other effective area-based conservation measures"
Several measures within subcategories here can overlap with measures in the subcategory 7.03 Other effective area-based conservation measures. If the measures are more focused on the production system (e.g. food, timber) they should be classified under the Sustainable Use Category; if the measures are more directed on conservation, they should be included here.

Sustainable Use does not cover:
- activities related to sustainable consumption or industry consumption (see Category 4 Green Economy and the relevant subcategories);
- measures related to GMOs (see Category 3,"Biosafety", subcategory, 3.02 "GMOs");
- spatial planning (see Category 5, "Biodiversity planning and finance", subcategory 5.06, "Spatial planning");
- research to identify and improve current practices (see Category 2, "Biodiversity awareness and knowledge, subcategory 2.04, "Biodiversity scientific research");
- evaluation of the measures (see Category 5, "Biodiversity planning and finance", subcategory 5.03, "Biodiversity coordination and management").

Main areas of focus under "Sustainable Use"

1. **Agrobiodiversity**
    Agrobiodiversity is the result of natural selection processes and the careful selection and inventive developments of farmers, herders and fishers over millennia. For many, food and livelihood security depend on the sustained

management of various biological resources that are important for food and agriculture. Agricultural biodiversity, also known as agrobiodiversity, i.e. the genetic resources for food and agriculture, includes:

a. harvested crop varieties, livestock breeds, fish species and non-domesticated (wild) resources within field, forest, rangeland including tree products, wild animals hunted for food and in aquatic ecosystems (e.g. wild fish);

b. non-harvested species in production ecosystems that support food provision, including soil micro-biota, pollinators and other insects such as bees, butterflies, earthworms and greenflies; and

c. non-harvested species in the wider environment that support food production ecosystems (agricultural, pastoral, forest and aquatic ecosystems).

Note: For all species not subject to breeding or multigenerational selection, refer to subcategory 9.09 "Sustainable wildlife".
For all expenditures related to genetically modified organisms (GMOs), see subcategory 3.02 under Category 3 "Biosafety".

2. Sustainable agriculture
Sustainable agriculture seeks to combine environmental protection, production and related income as well as social equity (i.e. increased livelihood) in the food production system. Practices from farmers combine and include a focus on organic production and measures to improve soil health and improve resource efficiency (e.g. saving on water use, changing irrigation methods, reducing farming emissions) while reducing erosion, commercial pesticide use and other pollution. It can comprise a wide range of practices based on traditional and local knowledge, or the use of innovative approaches such as robots or artificial intelligence in urban and rural farming, as well as production other than food (e.g. fibre, biofuel).

Note: This definition does not include GMOs as part of sustainable agriculture (see Category 3 "Biosafety"). Where measures are planned by government or third parties, IPLCs should be involved in planning and implementation, and all benefits should be shared fairly (see Category 5 "Biodiversity planning and finance–> subcategory 5.06 "Spatial planning").

3. Sustainable aquaculture
includes mariculture

Aquaculture is defined by the Ocean Foundation as *"the controlled cultivation or farming of fish, shellfish, and aquatic plants. The purpose is to create a source of aquatic-sourced food and commercial products in a way that will increase availability while reducing environmental harm and protecting various aquatic species".* At present, in open pens, environmental issues cannot be avoided (e.g. faecal waste, introduction of non-native species, excess of food or antibiotic inputs, disease transfer), so any related expenditure is not considered withinGLOBE.

4. Sustainable fisheries
Fishing is defined as the removal from their habitats of aquatic animals (vertebrates and invertebrates) that spend their full life cycle in water (e.g. fish, some marine mammals,

shellfish, shrimps, squids, corals). Fishing most often results in the death of the aquatic animal, but not necessarily. Hence, fishing is divided into lethal and non-lethal. . "Lethal fishing" is commonly defined of fishing that leads to the killing of the animal, such as in traditional commercial fisheries. "Non-lethal fishing" is defined as the temporary or permanent capture of live animals from their habitat without intended mortality, such as in aquarium fish trade or catch and release. However, unintended mortality may occur in non-lethal fishing. The killing of species that spend part of their life cycle in terrestrial environments (e.g. walrus, sea turtles) is included in the definition of hunting (see 9.09 Sustainable wildlife). The shift to sustainable fisheries includes measures to combat overfishing, ensuring habitat protection and the use of non-aggressive fishing devices, among others.

5. Sustainable forestry
Sustainable forestry combines environmental protection, production and related income as well as social equity (i.e. increased livelihood). This entails considering the needs of wildlife and its forest ecosystem with its abiotic components such as soil and water. Sustainable forestry therefore includes all types of human intervention in forests that safeguard biodiversity, such as avoiding erosion, reducing the risk of fire, and ensuring the survival of certain species while benefiting from the forest products and services. Logging or harvesting of other forest products is practised within ecological limits, either selectively or by clear cutting small areas as appropriate for the local conditions while including IPLCs and sharing benefits fairly. The government can provide the appropriate framework through relevant legislation and the persecution of any law violation, or the management of public forests accordingly.

Note: For food production within forests (e.g. agroforestry), refer to subcategory 9.02, "Sustainable agriculture". To avoid pollution For pollution avoidance (e.g. pesticides or waste), refer to Category 6 Pollution.

6. Sustainable freshwater
Includes all measures that reduces the overuse of freshwater resources (e.g. for drink water supply or agriculture), or other threats to the freshwater ecosystem as pollution (e.g. by industry or agriculture sector and habitated areas), climate change, invasive al-ien species and obstacles (especially dams), as well as tools that allow for better report-ing and monitoring. Indigenous people and local communities living close by the fresh-water or traditionally using it should be included and considered when measurements are planned and implemented.

7. Sustainable marine and coastal management
Sustainable marine and coastal management combines environmental protection, production and related income, as well as social equity (i.e. increased livelihood). This area encompasses all measures concerning the marine and coastal ecosystems, except for aquaculture (see subcategory 3) and fishery (see subcategory 4), for example, energy generation, shipping, mining and tourism. The key tools to ensure the sustainability of any activity are prior environmental impact assessments, an integrated marine spatial planning or integrated coastal zone management, and the inclusion of and ownership by IPLCs.

8. Sustainable rangelands
Sustainable rangeland management combines environmental protection (for wildlife, different habitats and watersheds), production and related income (especially by livestock, freshwater) as well as social equity (i.e. increased livelihood). This entails considering the needs of wildlife and its related ecosystem (e.g. grassland, shrubland, wetland) with its abiotic components such as soil and water. Sustainable rangelands therefore include all types of human intervention in rangelands that safeguard biodiversity, such as avoiding erosion and reduced risk of fire, while benefitting from the rangeland products and services (e.g. agriculture, livestock, freshwater regulation and provision) within the ecological limits while including IPLCs equitably. Government can provide the right framework by relevant legislation, persecution of any law violation or by managing public rangelands accordingly.

Note: For food production within forests (e.g. agroforestry), refer to subcategory 9.02 Sustainable agriculture. For pollution avoidance (e.g. pesticides or waste), refer to Category 6 Pollution.

9. Sustainable wildlife

This refers to the sustainable management of wildlife. Organisms captive or living in the wild that have not been subjected to breeding in order to alter them from their native state, i.e. through multigenerational selection for particular traits, as well as living, non-domesticated animals. This does not imply a complete lack of human management and recognizes various intermediate states between wild and domesticated.

The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) differentiates between extractive (fishing, gathering, logging and terrestrial animal harvesting) and nön-extractive use practices. Wild species can be used for ceremonies, rituals, or decorative or aesthetic uses, or for energy, food-feed, learning-education, materials construction, medicine hygiene, recreation, and others.

Note: Measures related to the conservation of species are under Category 7 "Protected areas and other conservation measures". For non-extractive use for tourism, see subcategory 4.05.03 "Sustainable tourism".

Figure 6. Finding the right subcategory within Sustainable Use (if biodiversity -relevant)
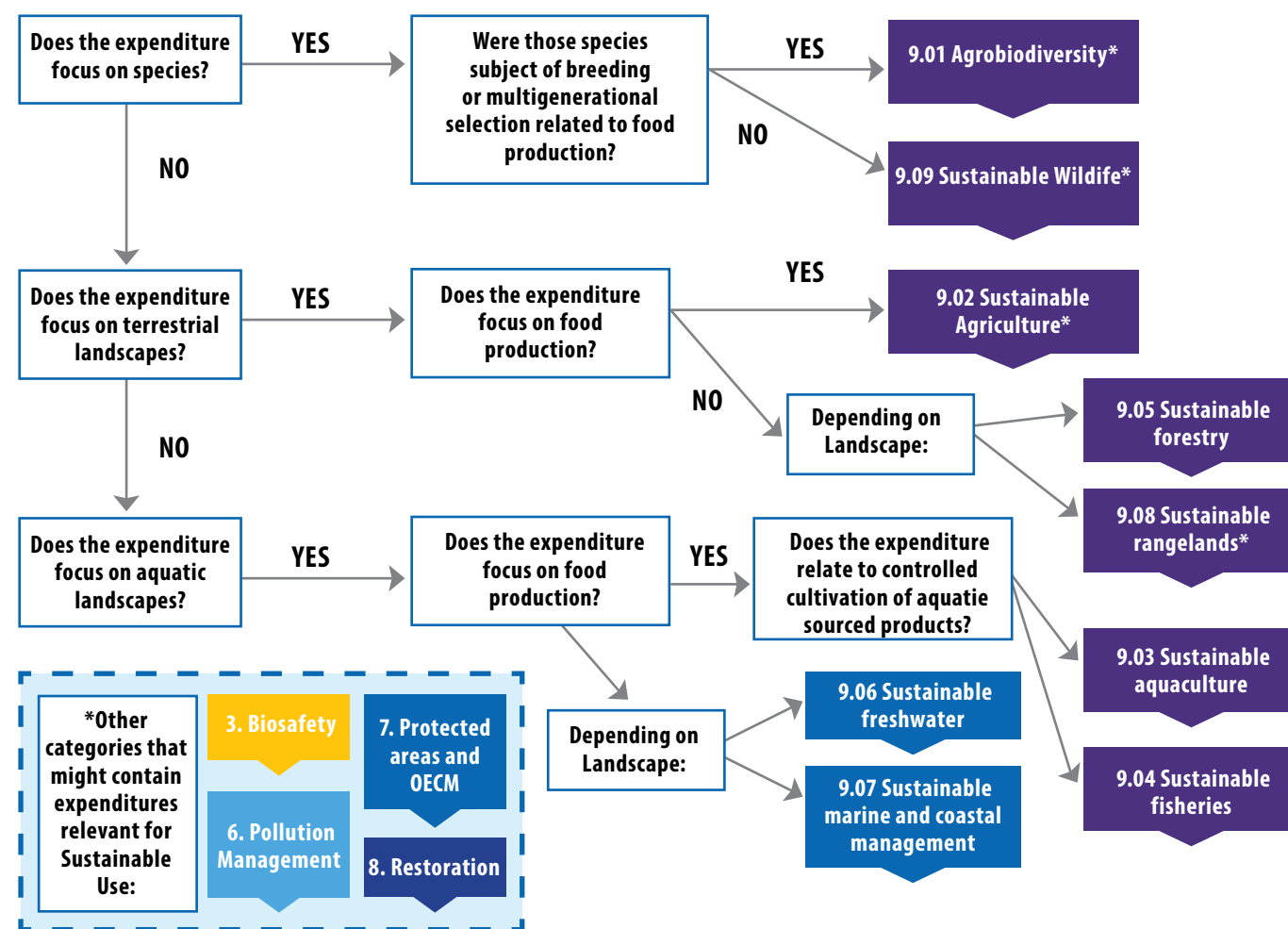
Alignment with the Global Biodiversity Framework

Alignment with the Global Biodiversity Framework
- **Target 10 – Sustainable agriculture, aquaculture, fisheries and forestry**
- **Target 5 – Sustainable use of wild species.**

The sustainable and productive use of resources can also contribute to the following targets:
- **Target 2 – Restoration**
- **Target 4 – Reduce extinction of threatened species and minimize human-wildlife conflict.**
- **Target 6 – Invasive alien species**
- **Target 7 – Reduce pollution risk and impact**
- **Target 9 – Benefits for people by sustainable use of wild species.**

By achieving the following targets, sustainable use can be transformed:
- **Target 14 – Integration of biodiversity and its values**
- **Target 15 – Business and financial institutions**
  (a) Monitor, assess and transparently disclose risks and impacts
  (b) Provision of information to consumers
  (c) Report on ABS, increase positive impacts, reduce biodiversity-related risks and promote actions to ensure sustainable patterns of production.
- **Target 18 – Harmful incentives**

References to relevant conventions and agreements

Many of the existing National Biodiversity Strategies and Action Plans are structured around the **Aichi Biodiversity Targets**. The most important provisions to the Category "Sustainable use", are still relevant today, as follows:
- **Target 6 – Sustainable management of aquatic living resources**
- **Target 7 – Sustainable agriculture, aquaculture and forestry.**

Other targets that relate to the "Sustainable use" Category (either contributing to realize Sustainable Use or with Sustainable Use enabling to achieve them) :
- **Target 2 - Integration of biodiversity values**
- **Target 3 - Phase out harmful incentives**
- **Target 4 - Sustainable production and consumption**
- **Target 5 - Habitat loss halved or reduced**
- **Target 8 - Pollution reduced**
- **Target 9 - Invasive alien species**
- **Target 12 - Reducing risk of extinction**
- **Target 13 - Safeguarding genetic diversity**

The Primary Biodiversity Category "Sustainable use" relates to the following **SDGs**:
- **SDG 2.4 – Sustainable food production and resilient agriculture practices**
- **SDG 2.5 – Genetic diversity of plants and animals**
- **SDG 6.3 – Improved water quality**
- **SDG 6.6 – Protect and restore water-related ecosystems**
- **SDG 12.2 – Sustainable use of natural resources**

- **SDG 14 – Life below water**
  14.b – Access for small-scale fishers
  14.c - Conservation and sustainable use of oceans and their resources
  14.1 - Reduce marine pollution
  14.2 - Protect marine and coastal ecosystems
  14.4 - Sustainable fishing
  14.6 - Prohibit harmful fishery subsidies
  14.7 - Increase benefit from marine resources to SIDS and LDCs.
- **SDG 15 – Life on land**
  15.2 – Sustainable management and restoration of forests
  15.5 – Reduce degradation of natural habitats and prevent biodiversity loss
  15.7 – Prevent poaching and trafficking of protected species
  15.8 – Combat invasive alien species
  15.9 – Integration of ecosystem and biodiversity values in planning and strategies.

Other alignments:

The Primary Biodiversity Category "Sustainable use" is affected by the following policies or international agreements, initiatives and alliances:

- **United Nations Convention to Combat Desertification (UNCCD)**
- **The Convention on Wetlands of International Importance (the Ramsar Convention),**
- **International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA)**
- **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)**
- **Convention on the Conservation of Migratory Species of Wild Animals (CMS)**
- **United Nations Convention on the Law of the Sea (UNCLOS)**
- **Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas**
- **International Convention for the Prevention of Pollution from Ships (MARPOL)**
- **Convention on the Protection of the Underwater Cultural Heritage of the UNESCO**
- **Code of Conduct for Responsible Fisheries (CCRF)**
- **Declaration of the International Conference on Responsible Fisheries**
- **Resolution MEPC.304 (72) Initial IMO strategy on reduction of GHG emissions from ships adopted in 2018**
- **Resolution MEPC.345 (78) Amendments to the International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk (IBC Code), adopted in 2022**
- **United Nations Decade of Ocean Science for Sustainable Development (2021–2030).**

In addition, the United Nations Global Programme of Action (GPA) for the Protection of the Marine Environment from Land-Based Activities supports countries and protects the marine environment at a global scale.

Link to Category 9 : Sustainable Use
https://docs.google.com/spreadsheets/d/1Gl2yzmJLj7x9v2zc8QnfD_HFK7-lUaUJ/edit?gid=16234395#gid=16234395

M. Overview of the Kunming-Montreal Global Biodiversity Framework (GBF) and Aichi targets, selected SDGs and Primary Biodiversity Categories

GBF GBF)} Target	GBF Title	Aichi Target	Aichi Target Title	SDG	SDG Target Title	Primary Biodiversity Category
1	Spatial planning			15 .3	Combat desertification and restoration of land and soil	2 Biodiversity awareness and knowledge
				15.9	Integration of ecosystem and biodiversity values in planning and strategies	
2	Restoration	5	Habitat loss halved or reduced	14.2	Protect marine and coastal ecosystem	8 Restoration
				15.2	Sustainable management and restoration of forests	
				15.5	Reduce degradation of natural habitats and prevent biodiversity loss	
2 + 8	2 Restoration + 8 Climate Change	15	Ecosystem restoration and resilience	6.6	Protect and restore water-related ecosystems	7 PA & other conservation measures 8 Restoration
				15.1	Conservation, restoration and sustainable use of freshwater ecosystems	
				15.3	Combat desertification and restoration of land and soil	
3	Area conservation	11	Protected areas and other effective area- based conservation measures	11.4	Protect cultural and natural heritage	7 Protected areas and other conservation measures –
				14.2	Protect marine and coastal ecosystem	
				14.5	10% conservation of marine and coastal areas	

GBF GBF)} Target	GBF Title	Aichi Target	Aichi Target Title	SDG	SDG Target Title	Primary Biodiversity Category
4	Reduce extinction of threatened species and minimize human-wildlife conflict	12	Reducing risk of extinction	14.2	Protect marine and coastal ecosystem	8 Restoration
				15.5	Reduce degradation of natural habitats and prevent biodiversity loss	
				15.7	Prevent poaching and trafficking of protected species	
5	Sustainable use of wild species	6	Sustainable management of aquatic living resources	14.2	Education for sustainable development	9 Sustainable Use
				14.4	Sustainable fishing	
				14.6	Prohibit harmful fishery subsidies	
				14b	Access for small-scale fishers	
				14c	Conservation and sustainable use of oceans and their resources	
6	Invasive Alien Species	9	Invasive Alien Species	15.8	Combat invasive alien species	3 Biosafety
7	Reduce pollution risk and impact	8	Pollution reduced	6.3	Improved water quality, with 6.3.1 "Proportion of domestic and industrial wastewater flows safely treated	6 Pollution Management
				14.1	Reduce marine pollution	
8	Climate Change	10	Ecosystems vulnerable to climate change	13	Urgent action to combat climate change and its impacts	6 Pollution Management 7 PA & other conservation measures
				14.2	Education for sustainable development	
				14.3	Minimize ocean acidification	

GBF GBF)} Target	GBF Title	Aichi Target	Aichi Target Title	SDG	SDG Target Title	Primary Biodiversity Category
9	Benefits for people by sustainable use of wild species	13	Safeguarding genetic diversity	2.5	Genetic diversity of plants and animals	1 Access and Benefit-sharing
10	Sustainable agriculture, aquaculture, fisheries and forestry	7	Sustainable agriculture, aquaculture and forestry	2.4	Sustainable food production and resilient agriculture practices	9 Sustainable Use
				12.2	Sustainable use of natural resources	
				14.7	Increase benefit from marine resources to SIDS and LDC	
11	Nature's contribution to people	14	Ecosystems services	6.6	Protect and restore water-related ecosystems	7 PA & other conservation measures 8 Restoration 9 Sustainable Use
				12.2	Sustainable use of natural resources	
				15.4	Conservation of mountain ecosystems	
12	Urban biodiversity			11.1	Access for all to adequate, safe and affordable housing and basic services and upgrade slums	4 Green Economy
				11.3	Inclusive and sustainable urbanization	
				11b	Cities adopting and implementing integrated policies for resource efficiency, mitigation and adaptation to climate change, resilience to disasters	
				11c	Building sustainable and resilient buildings utilizing local materials	
13	Access and Benefit-sharing (ABS) from genetic resources	16	Nagoya Protocol in force	2.5	Genetic diversity of plants and animals	1 Access and bBenefit-sharing
				15.6	Fair, equitable sharing of benefits from genetic resources	

GBF GBF} Target	GBF Title	Aichi Target	Aichi Target Title	SDG	SDG Target Title	Primary Biodiversity Category
14	Integration of biodiversity and its values	2	Fair, equitable sharing of benefits from genetic resources	15.9	Integration of ecosystem and biodiversity values in planning and strategies	5 Biodiversity planning and fFinance
15	Business and financial institutions	4	Sustainable production and consumption	8.4	Resource efficiency for consumption and production	4 Green Economy 5 Biodiversity planning and finance 9 Sustainable Use
				9.4	Sustainable industry	
				12.2	Sustainable use of natural resources	
16	Sustainable consumption					
17	Biosafety measures	--	--	--		3 Biosafety
18	Harmful (and positive) incentives	3	Phase out harmful incentives	14.6	Prohibit harmful fishery subsidies	5 Biodiversity planning and finance 8 Restoration
19	Resource mobilization	20	Mobilizing resources from all sources	1a	Mobilization of resources	1 Access and bBenefit-sharing
				10b	Official development assistance	
				17.3	Additional financial resources	
20	Technology, innovation, scientific research and monitoring			9.5	Enhance scientific research	2 Biodiversity awareness and knowledge
				9b	Support domestic technology development, research and innovation in developing countries	
				9c	Increase access to information and communications technology	
				14a	Increase scientific knowledge, develop research capacity and transfer marine technology	

GBF GBF} Target	GBF Title	Aichi Target	Aichi Target Title	SDG	SDG Target Title	Primary Biodiversity Category
21	Access and sharing of data, information and knowledge	18 Traditional knowledge respected	Traditional knowledge respected	1.4 Access to economic resources and ownership		1 Access and Benefit-sharing 2 Biodiversity awareness and knowledge
				16.7 Inclusive and representative decision-making		
		19 information and knowledge	Sharing information and knowledge	17.6 International cooperation and access to science, technology, innovation and knowledge		
				17.18 Capacity-building for developing countries for data generation		
22	Representation and participation in decision-making and access to justice and information			1.4	Access to economic resources and ownership	1 Access and Benefit sharing
				16.7	Inclusive and representative decision-making	
				17.6	International cooperation and access to science, technology, innovation and knowledge	
23	Gender equality	--	--	4.1	Gender equal free, equitable and quality primary and secondary education	
				4.3	Equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university	
				5.1	End all forms of discrimination against all women and girls everywhere	
		17	National Biodiversity Strategies and Action Plans (NBSAPs)	15.9	Integration of ecosystem and biodiversity values in planning and strategies	5 Planning and Finance
		1	Increase awareness	4.7	Education for sustainable development	2 Biodiversity awareness and knowledge
				12.8	Access to information and ensure awareness	

N. Overview of Biodiversity subcategories and Kunming-Montreal Global Biodiversity Framework targets

Biodiversity subcategories	Kunming-Montreal Global Biodiversity Framework target
1. Access and Benefit-sharing (ABS)	
1.01 Screening for biodiversity areas and establishing permitting processes	13 – Access and Benefit-sharing (ABS) from genetic resources
1.02 Contractual arrangements	13 – Access and Benefit-sharing (ABS) from genetic resources
1.03 Benefit-sharing mechanism	13 – Access and Benefit-sharing (ABS) from genetic resources
1.05 Nagoya Protocol (ratified/enforced)	13 – Access and Benefit-sharing (ABS) from genetic resources
1.06 Access to resources, information and decision-making	9 – Benefits for people by sustainable use of wild species 13 – Access and Benefit-sharing (ABS) from genetic resources 21 – Access and sharing of data, information and knowledge 22 – Representation and participation in decision-making and access to justice and information
2. Biodiversity awareness and knowledge	
2.01 Formal biodiversity education	21 – Access and sharing of data, information and knowledge Partially: 20 – Technology, innovation, scientific research and monitoring
2.02 Non-formal biodiversity education, including technical training	21 – Access and sharing of data, information and knowledge Partially: 20 – Technology, innovation, scientific research and monitoring
2.03 Biodiversity awareness and communication	21 – Access and sharing of data, information and knowledge
2.04 Biodiversity scientific research	1 – Spatial planning 20 – Technology, innovation, scientific research and monitoring 21 –Access and sharing of data, information and knowledge
2.05 Indigenous Peoples' and local communities' knowledge	21 – Access and sharing of data, information and knowledge
2.06 CBD clearing-house mechanism	21 – Access and sharing of data, information and knowledge
3. Biosafety	
3.01 Genetically modified organisms (GMOs)	17 – Biosafety measures
3.02 Invasive Alien Species (IAS)	6 – Invasive Alien Species

Biodiversity subcategories	Kunming-Montreal Global Biodiversity Framework target
4. Green Economy	
4.01 Green supply chain	15 – Business and financial institutions 16 – sustainable consumption
4.02 Sustainable extractive industries	15 – Business and financial institutions 16 – Sustainable consumption
4.03 Sustainable consumption	16 – Sustainable consumption Partially: 7 – Reduce pollution risk and impact
4.04 Sustainable energy	? 8 – Climate change
4.05 Sustainable tourism	15 – Business and financial institutions 16 – Sustainable consumption Partially: 7 – Reduce pollution risk and impact
4.06 Sustainable transportation	? 12 – Urban biodiversity
4.07 Sustainable urban and rural areas	12 – Urban biodiversity
5. Biodiversity planning and finance	
5.01 Biodiversity laws, policies, plans	14 – Integration of biodiversity and its values 15 – Business and financial institutions 16 – Sustainable consumption
5.02 Other relevant laws, policies, plans	1 – Spatial planning 14 – Integration of biodiversity and its values 15 – Business and financial institutions 16 – Sustainable consumption
5.03 Biodiversity coordination and management	All
5.04 Biodiversity finance	19 – Resource mobilization Partially: 15 – Business and financial institutions 18 – Harmful incentives
5.05 Strategic Environmental Assessment (SEA) Framework	1 – Spatial planning 14 – Integration of biodiversity and its values
5.06 Spatial planning	1 – Spatial planning 12 – Urban biodiversity
5.07 Multilateral Environment Agreement (MEA)	Various

Biodiversity subcategories	Kunming-Montreal Global Biodiversity Framework target
6. Pollution Management	
6.01 Soil and water	7 – Reduce pollution risk and impact
6.02 Air and atmosphere	7 – Reduce pollution risk and impact
6.03 Waste management	7 – Reduce pollution risk and impact
6.04 Coastal and marine pollution debris management	7 - Reduce pollution risk and impact
6.05 Other pollution management measures	7 - Reduce pollution risk and impact
7. Protected areas and other conservation measures	
7.01 Management and expansion of PAs	3 – Area conservation Partially: 1 – Spatial planning 9 – Benefits for people by sustainable use of wild species 19 – Resource mobilization
7.02 Management of areas outside of PAs	3 – Area conservation Partially: 1 – Spatial planning 8 – Climate Change 9 - Benefits for people by sustainable use of wild species 19 – Resource mobilization
7.03 Other effective area-based conservation measures (OECMs)	1 – Spatial planning
7.04 Conservation of species	4 – Reduce extinction of threatened species and minimize human-wildlife conflict 5 – Sustainable use of wild species
8. Restoration	
8.01 Reintroduction and translocation of species	4 – Reduce extinction of threatened species and minimize human–wildlife conflict
8.02 Site redevelopment and engineering	2 – Restoration
8.03 Site management	2 – Restoration

Biodiversity subcategories	Kunming-Montreal Global Biodiversity Framework target
9. Sustainable Use	
9.01 Agrobiodiversity	1 – Spatial planning 4 – Reduce extinction risk and human–wildlife conflict 5 – Sustainable use of wild species 10 – Sustainable agriculture, aquaculture, fisheries and forestry 14 – Integration of Biodiversity and its values 18 – Harmful (and positive) incentives 21 – Access and sharing of data, information and knowledge
9.02 Sustainable agriculture	2 – Restoration 10 – Sustainable agriculture, aquaculture, fisheries and forestry
9.03 Sustainable aquaculture	10 – Sustainable agriculture, aquaculture, fisheries and forestry Partially also: 2 – Restoration 4 – Reduce extinction of threatened species and minimize human–wildlife conflict 5 – Sustainable use of wild species 7 – Reduce pollution risk and impact
9.04 Sustainable fisheries	10 – Sustainable agriculture, aquaculture, fisheries and forestry Partially also: 4 – Reduce extinction of threatened species and minimize human–wildlife conflict 5 – Sustainable use of wild species 7 – Reduce pollution risk and impact 9 – Benefits for people by sustainable use of wild species
9.05 Sustainable forestry	10 – Sustainable agriculture, aquaculture, fisheries and forestry Partially also: 2 – Restoration 9 – Benefits for people by sustainable use of wild species
9.06 Sustainable land management (UNCCD and multiple uses)	10 – Sustainable agriculture, aquaculture, fisheries and forestry Partially also: 2 – Restoration 9 – Benefits for people by sustainable use of wild species
9.07 Sustainable marine and coastal management	10 – Sustainable agriculture, aquaculture, fisheries and forestry Partially also: 2 – Restoration 4 – Reduce extinction of threatened species and minimize human–wildlife conflict 5 – Sustainable use of wild species 7 – Reduce pollution risk and impact
9.08 Sustainable rangelands	10 – Sustainable agriculture, aquaculture, fisheries and forestry Partially also: 2 – Restoration 9 – Benefits for people by sustainable use of wild species
9.09 Sustainable wildlife	4 – Reduce extinction of threatened species and minimize human–wildlife conflict 5 – Sustainable use of wild species

P. Classification of the Functions of Government (COFOG)

Table 4. Division and groups of functions of government

Functions of government (division)	Sub-items (groups) as used in the GLOBE Taxonomy	Examples of biodiversity-related government services
01 General public services	Executive and legislative organs	• General policy directions related to biodiversity (BD)
	Financial and fiscal affairs	• Development/approval of laws including accession to international conventions and budgets
		• Budget deliberations and approval
		• Development/approval of development plans/investment plans
	External affairs; foreign economic aid; general services; basic research; research and development (R&D) related to general public services; general public services not elsewhere classified (NEC); public debt transactions, transfers of a general character between different levels of government	• Public budgeting (budget allocation for BD) including management of public debt (bonds)
		• Taxation and fees related to BD
		• Contributions to international organizations, for example, IUCN membership
		• Participation in international conventions and negotiations
		• Preparation and monitoring of national development plans integrating BD, and the SDG) etc.
		• Basic research on ecosystems, species, genetics with no particular application or use
		• Preparation/underwriting of BD-labelled bonds and other debt instruments
		• Transfers between governance units covering general parameters such as internal revenue allocations but excludes transfers with specific purpose in mind, such as Ecological Fiscal Transfers
02 Defence	Military defence; civil defence; foreign military aid, research and development related to defence; defence NEC.	• Protection against human-made and/or natural disasters
		• Collaboration with other agencies on addressing human-made and/or natural disasters
03 Public order and safety	Police services; fire-protection services; law courts; prisons; research and development related to public order and safety; public order and safety NEC.	• Control of offshore and ocean fishing, but also including inshore fishing
		• Special police forces towards wildlife trafficking
		• Collaboration with other government offices to implement BD laws
		• Border control including quarantine for invasive species
		• Police laboratories
		• Management of forest fires
		• Protected area patrol and monitoring against encroachment (communities into protected areas)
		• General administration of justice including laws on maintaining biodiversity, imposition of fines and penalties including community service
		• Contribute to jurisprudence, i.e. interpretation of laws on biodiversity

Government function (division)	Sub-items (groups) as used within GLOBE	Examples of biodiversity (BD)-related Government services
04 Economic affairs (General economic, commercial, and labour affairs)	General economic, commercial and labour affairs	• Economic policies – incentives/subsidies favouring certain commodities
		• Import/export policy favouring certain commodities
		• Banking supervision
		• Public private partnerships
		• Patents and trademarks relevant to bioprospecting.
	Agriculture	• Conservation, reclamation or expansion of arable land
		• Agrarian reform and land settlement; supervision and regulation of the agricultural industry
		• Flood control, irrigation and drainage systems
		• Programmes or schemes to stabilize or improve farm prices and farm incomes;
		• Extension services or veterinary services
		• Pest control services, crop inspection services and crop grading services; compensation, grants, loans or subsidies to farmers in connection with agricultural activities, including payments for restricting or encouraging output of a particular crop or for allowing land to remain uncultivated.
	Forestry	• Conservation, extension and rationalized exploitation of forest reserves *(Note: Partially conservation)*
		• Supervision and regulation of forest operations and issuance of tree-felling licences
		• Operation or support of reforestation work, pest and disease control, forest firefighting and fire prevention services and extension services to forest operators
		• Statistics on forestry affairs and services; grants, loans or subsidies to support commercial forest activities.
		• Includes: forest crops in addition to timber.
	Fishing and Hunting	This class covers both commercial fishing and hunting, and fishing and hunting for sport. The fishing and hunting affairs and services listed below refer to activities that take place outside natural parks and reserves:
		• administration of fishing and hunting affairs and services; protection, propagation and rationalized exploitation of fish and wildlife stocks;
		• supervision and regulation of freshwater fishing, coastal fishing, ocean fishing, fish farming, wildlife hunting and issuance of fishing and hunting licences;
		• operation or support of fish hatcheries, extension services, stocking or culling activities, etc.;
		• production and dissemination of general information, technical documentation and statistics on fishing and hunting affairs and services;
		• grants, loans or subsidies to support commercial fishing and hunting activities, including the construction or operation of fish hatcheries.
		• Excludes: Control of offshore and ocean fishing (03.10); Administration, operation or support of natural parks and reserves (05.40).
	Fuel and energy	
	Mining, manufacturing, and construction	
	Transport	
	Other economic affairs: communication; other industries including distributive trades, storage and warehousing (CS), hotels and restaurants, tourism, and multi-purpose development projects; R&D related to economic affairs; economic affairs NEC	

Government function (division)	Sub-items (groups) as used within GLOBE	Examples of biodiversity (BD)-related Government services
05 Environmental protection	05 Environmental protection	
	Protection (protection of biodiversity and landscape; R&D related to environmental protection; environmental protection NEC).	
06 Housing and community amenities	Housing development; community development; water supply; street lighting; R&D related to housing and community amenities; housing and community amenities NEC	• Acquisition of land • Development of housing and community standards • Water supply
07 Health	Medical products, appliances and equipment; outpatient services; hospital services; public health services; R&D related to health; health NEC	• Administration and operation of government agencies engaged in applied research and experimental development related to health, as well as grants, loans and subsidies to support applied research and experimental development related to health by non-government bodies such as research institutes and universities. – application to use of biodiversity resources
08 Recreation, culture and religion	Recreational and sporting services; cultural services; broadcasting and publishing services; religious and other community services, R&D related to recreation, culture and religion; recreation; culture and religion NEC	• Operation or support of facilities for recreational pursuits (parks, beaches, camping grounds and associated lodging places furnished on a non-commercial basis, swimming pools, public baths for washing, etc. • Zoological and botanical gardens, aquaria, arboreta, etc.
09 Education	Pre-primary, primary, secondary and tertiary education, post-secondary non-tertiary education, education non definable by level, subsidiary services to education, R&D; NEC	
10 Social protection	Sickness and disability; old age; survivors; family and children; unemployment; housing; R&D; social protection and social exclusion NEC	• Provision of social protection in the form of cash benefits and benefits in kind to persons who are socially excluded or at risk of social exclusion (e.g. persons who are destitute, low-income earners, immigrants, Indigenous People, refugees, alcohol and substance abusers, victims of criminal violence, etc) related to BD; • Social protection schemes – cash benefits, such as income support and other cash payments related to BD

Source:
https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Classification_of_the_functions_of_government_(COFOG)

Q. Additional readings and information

- **Access and Benefit-sharing (ABS):**
  - Nagoya Protocol
  - Sector-specific implementation of ABS: *www.cbd.int/abs/policy-brief/default.shtml*
  - Chege Kamau, E. (2019). Implementation of the Nagoya Protocol. Case studies and critical themes (e.g. due diligence, Digital Sequence Information (DSI); agricultural breeding) *www.bfn.de/sites/default/files/BfN/service/Dokumente/skripten/ skript564.pdf*

- **Biosafety:**
  - Invasive Alien Species (Fact sheet): *www.cbd.int/undb/media/factsheets/undb-factsheet-ias-en.pdf*
  - Global Register of Introduced and Invasive Species developed by the Invasive Species Specialist Group (ISSG) of the Species Survival Commission of the International Union for Conservation of Nature (IUCN): *http://griis.org/download*
  - GMO and LMO potential effects: *https://www.iucn.org/sites/dev/files/import/downloads/ip_ gmo_09_2007_1_.pdf*

- **Biodiversity awareness and knowledge:**
  - Integrated Spatial Planning Workbook: *www.undp.org/publications/integrated-spatial-planning-workbook*
  - Safeguarding Traditional Knowledge: How to better recognise and include traditional knowledge in biodiversity conservation (UN Environment Programme – World Conservation Monitoring Centre UNEP-WCMC): *https://cobracollective.org/wp-content/uploads/2021/07/TK-Policy- Brief_Final.pdf*
  - E-Module, 'Traditional Knowledge: its importance and relevance for conservation and development': *https://traditionalknowledge.unep-wcmc.org*
  - Global Youth Biodiversity Network (GYBN) Transformative Education (Policy brief): *https://www.gybn.org/policy*

- **Restoration**
  - Standards of Practice to Guide Ecosystem Restoration (draft): *https://unenvironment.widen.net/s/fkcvlkl526/standards-of-practice- ecosystem-restoration_global-consultation-final-03oct2022*
  - Becoming #GenerationRestoration: Ecosystem restoration for people, nature and climate. (UN Decade Launch Report): *https://wedocs.unep.org/bitstream/handle/20.500.11822/36251/ERPNC. pdf*

- **Sustainable use**
  - Overview of aquaculture (compilation of several links): *https://oceanfdn.org/sustainable-aquaculture/*
  - For Sustainable fishing, see the FAO guidelines: *https://www.cbd.int/doc/meetings/mar/cbwsoi-seasi-01/other/cbwsoi- seasi-01-fao-guide-mpa-fisheries-en.pdf* Sustainable Forest Management Resources, including a toolbox for forest management: *https://www.fao.org/sustainable-forests-management/en*
  - For governance and management of freshwater (with a focus on examples from New Zealand): *https://www.ecologyandsociety.org/vol23/iss2/art44*
  - For sustainable rangeland management: Criteria and Indicators by the Sustainable Rangeland Roundtable: *www.fs.usda.gov/rm/pubs_other/rmrs_2010_mitchell_j001.pdf*
  - Overview of aquaculture (compilation of several links): *https://oceanfdn.org/sustainable-aquaculture/*
  - Sustainable Forest Management Resources, including a toolbox for forest management: *https://www.fao.org/sustainable-forests-management/en*
  - For governance and management of freshwater (with a focus on examples from New Zealand): *https://www.ecologyandsociety.org/vol23/iss2/art44*
  - For sustainable rangeland management: Criteria and Indicators by the Sustainable Rangeland Roundtable *https://www.fs.usda.gov/rm/pubs_other/rmrs_2010_mitchell_j001. pdf*

ANNEX

1. The Global Biodiversity Framework – Targets and other selected items

GBF No.	Short name	Description
1	Spatial planning	Ensure that all areas are under participatory, integrated and biodiversity-inclusive spatial planning and/or effective management processes addressing land and sea use change, to bring the loss of areas of high biodiversity importance, including ecosystems of high ecological integrity, close to zero by 2030, while respecting the rights of Indigenous Peoples and local communities.
2	Restoration	Ensure that by 2030 at least 30 percent of areas of degraded terrestrial, inland water, and coastal and marine ecosystems are under effective restoration in order to enhance biodiversity and ecosystem functions and services, ecological integrity and connectivity.
3	Area conservation	Ensure and enable that by 2030 at least 30 percent of terrestrial, inland water, and of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem functions and services, are effectively conserved and managed through ecologically representative, well-connected and equitably governed systems of protected areas and other effective area-based conservation measures, recognizing indigenous and traditional territories, where applicable, and integrated into wider landscapes, seascapes and the ocean while ensuring that any sustainable use, where appropriate in such areas, is fully consistent with conservation outcomes, recognizing and respecting the rights of indigenous peoples and local communities, including over their traditional territories.
4	Reduce extinction of threatened species and minimize human-wildlife conflict	Ensure urgent management actions to halt human-induced extinction of known threatened species and for the recovery and conservation of species, in particular threatened species, to significantly reduce extinction risk, as well as to maintain and restore the genetic diversity within and between populations of native, wild and domesticated species to maintain their adaptive potential, including through in situ and ex situ conservation and sustainable management practices, and effectively manage human-wildlife interactions to minimize human-wildlife conflict for coexistence.
5	Sustainable use of wild species	Ensure that the use, harvesting and trade of wild species is sustainable, safe and legal, preventing overexploitation, minimizing impacts on non-target species and ecosystems, and reducing the risk of pathogen spill-over, applying the ecosystem approach , while respecting and protecting customary sustainable use by indigenous peoples and local communities .

GBF No.	Short name	Description
6	Invasive Alien Species	Eliminate, minimize, reduce and or mitigate the impacts of invasive alien species on biodiversity and ecosystem services by identifying and managing pathways of the introduction of alien species, preventing the introduction and establishment of priority invasive alien species, reducing the rates of introduction and establishment of other known or potential invasive alien species by at least 50 percent, by 2030, eradicating or controlling invasive alien species, especially in priority sites, such as islands.
7	Reduce pollution risk and impact	Reduce pollution risks and the negative impact of pollution from all sources, by 2030, to levels that are not harmful to biodiversity and ecosystem functions and services, considering cumulative effects, including: reducing excess nutrients lost to the environment by at least half including through more efficient nutrient cycling and use; reducing the overall risk from pesticides and highly hazardous chemicals by at least half including through integrated pest management, based on science, taking into account food security and livelihoods; and also preventing, reducing, and working towards eliminating plastic pollution.
8	Climate Cchange	Minimize the impact of climate change and ocean acidification on biodiversity and increase its resilience through mitigation, adaptation, and disaster risk reduction actions, including through nature-based solution and/or ecosystem-based approaches, while minimizing negative and fostering positive impacts of climate action on biodiversity.
9	Benefits for people by sustainable use of wild species	Ensure that the management and use of wild species are sustainable, thereby providing social, economic and environmental benefits for people, especially those in vulnerable situations and those most dependent on biodiversity, including through sustainable biodiversity-based activities, products and services that enhance biodiversity, and protecting and encouraging customary sustainable use by indigenous peoples and local communities.
10	Sustainable agriculture, aquaculture, fisheries and forestry	Ensure that areas under agriculture, aquaculture, fisheries and forestry are managed sustainably, in particular through the sustainable use of biodiversity, including through a substantial increase of the application of biodiversity friendly practices, such as sustainable intensification, agroecological and other innovative approaches contributing to the resilience and long-term efficiency and productivity of these production systems and to food security, conserving and restoring biodiversity and maintaining nature's contributions to people, including ecosystem functions and services.
11	Nature's contribution to people	Restore, maintain and enhance nature's contributions to people, including ecosystem functions and services, such as regulation of air, water, and climate, soil health, pollination and reduction of disease risk, as well as protection from natural hazards and disasters, through nature-based solutions and/or ecosystem-based approaches for the benefit of all people and nature.

GBF No.	Short name	Description
12	Urban biodiversity	Significantly increase the area and quality and connectivity of, access to, and benefits from green and blue spaces in urban and densely populated areas sustainably, by mainstreaming the conservation and sustainable use of biodiversity, and ensure biodiversity-inclusive urban planning, enhancing native biodiversity, ecological connectivity and integrity, and improving human health and well-being and connection to nature and contributing to inclusive and sustainable urbanization and the provision of ecosystem functions and services.
13	Access and Benefit-sharing (ABS) from genetic resources	Take effective legal, policy, administrative and capacity-building measures at all levels, as appropriate, to ensure the fair and equitable sharing of benefits that arise from the utilization of genetic resources and from digital sequence information on genetic resources, as well as traditional knowledge associated with genetic resources, and facilitating appropriate access to genetic resources, and by 2030 facilitating a significant increase of the benefits shared, in accordance with applicable international access and benefit-sharing instruments.
14	Integration of biodiversity and its values	Ensure the full integration of biodiversity and its multiple values into policies, regulations, planning and development processes, poverty eradication strategies, strategic environmental assessments, environmental impact assessments and, as appropriate, national accounting, within and across all levels of government and across all sectors, in particular those with significant impacts on biodiversity, progressively aligning all relevant public and private activities, fiscal and financial flows with the goals and targets of this framework.
15	Business and financial institutions	Take legal, administrative or policy measures to encourage and enable business, and in particular to ensure that large and transnational companies and financial institutions: (a) Regularly monitor, assess, and transparently disclose their risks, dependencies and impacts on biodiversity, including with requirements for all large as well as transnational companies and financial institutions along their operations, supply and value chains and portfolios; (b) Provide information needed to consumers to promote sustainable consumption patterns; (c) Report on compliance with access and benefit-sharing regulations and measures, as applicable; in order to progressively reduce negative impacts on biodiversity, increase positive impacts, reduce biodiversity-related risks to business and financial institutions, and promote actions to ensure sustainable patterns of production.
16	Sustainable consumption	Ensure that people are encouraged and enabled to make sustainable consumption choices including by establishing supportive policy, legislative or regulatory frameworks, improving education and access to relevant and accurate information and alternatives, and by 2030, reduce the global footprint of consumption in an equitable manner, including through halving global food waste, significantly reducing overconsumption and substantially reducing waste generation, in order for all people to live well in harmony with Mother Earth.

GBF No.	Short name	Description
17	Biosafety measures	Establish, strengthen capacity for, and implement in all countries in biosafety measures as set out in Article 8(g) of the Convention on Biological Diversity and measures for the handling of biotechnology and distribution of its benefits as set out in Article 19 of the Convention.
18	Harmful (and positive) incentives	Identify by 2025, and eliminate, phase out or reform incentives, including subsidies, harmful for biodiversity, in a proportionate, just, fair, effective and equitable way, while substantially and progressively reducing them by at least 500 billion United States dollars per year by 2030, starting with the most harmful incentives, and scale up positive incentives for the conservation and sustainable use of biodiversity.
19	Resource mobilization	Substantially and progressively increase the level of financial resources from all sources, in an effective, timely and easily accessible manner, including domestic, international, public and private resources, in accordance with Article 20 of the Convention, to implement national biodiversity strategies and action plans, by 2030 mobilizing at least 200 billion United States dollars per year, including by: (a) Increasing total biodiversity related international financial resources from developed countries, including official development assistance, and from countries that voluntarily assume obligations of developed country Parties, to developing countries, in particular the least developed countries and small island developing States, as well as countries with economies in transition, to at least US$ 20 billion per year by 2025, and to at least US$30 billion per year by 2030; (b) Significantly increasing domestic resource mobilization, facilitated by the preparation and implementation of national biodiversity finance plans or similar instruments according to national needs, priorities and circumstances; (c) Leveraging private finance, promoting blended finance, implementing strategies for raising new and additional resources, and encouraging the private sector to invest in biodiversity, including through impact funds and other instruments; (d) Stimulating innovative schemes such as payment for ecosystem services, green bonds, biodiversity offsets and credits, benefit-sharing mechanisms, with environmental and social safeguards; (e) Optimizing co-benefits and synergies of finance targeting the biodiversity and climate crises; (f) Enhancing the role of collective actions, including by indigenous peoples and local communities, Mother Earth-centric actions and non-market-based approaches including community-based natural resource management and civil society cooperation and solidarity aimed at the conservation of biodiversity; (g) Enhancing the effectiveness, efficiency and transparency of resource provision and use.

GBF No.	Short name	Description
20	Technology, innovation, scientific research and monitoring	Strengthen capacity-building and development, access to and transfer of technology, and promote development of and access to innovation and technical and scientific cooperation, including through South-South, North-South and triangular cooperation, to meet the needs for effective implementation, particularly in developing countries, fostering joint technology development and joint scientific research programmes for the conservation and sustainable use of biodiversity and strengthening scientific research and monitoring capacities, commensurate with the ambition of the goals and targets of the framework.
21	Access and sharing of data, information and knowledge	Ensure that the best available data, information and knowledge, are accessible to decision makers, practitioners and the public to guide effective and equitable governance, integrated and participatory management of biodiversity, and to strengthen communication, awareness-raising, education, monitoring, research and knowledge management and, also in this context, traditional knowledge, innovations, practices and technologies of indigenous peoples and local communities should only be accessed with their free, prior and informed consent, in accordance with national legislation.
22	Representation and participation in decision-making and access to justice and information	Ensure the full, equitable, inclusive, effective and gender-responsive representation and participation in decision-making, and access to justice and information related to biodiversity by indigenous peoples and local communities, respecting their cultures and their rights over lands, territories, resources and traditional knowledge, as well as by women and girls, children and youth, and persons with disabilities and ensure the full protection of environmental human rights defenders.
23	Gender equality	Ensure gender equality in the implementation of the framework through a gender-responsive approach where all women and girls have equal opportunity and capacity to contribute to the three objectives of the Convention, including by recognizing their equal rights and access to land and natural resources and their full, equitable, meaningful and informed participation and leadership at all levels of action, engagement, policy and decision-making related to biodiversity.
Section C	Considerations for the implementation of the Kunming-Montreal Global Biodiversity Framework	Among others: • Contribution and rights of indigenous peoples and local communities • Human rights-based approach • Fulfilment of the three objectives of the Convention and its Protocols, and their balanced implementation • Consistency with international agreements or instruments • Principles of the Rio Declaration • Ecosystem approach • Intergenerational equity • Formal and informal education

2. Aichi – Targets

Aichi Target	Short name	Description
1	Increase awareness	By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably
2	Integration of biodiversity values	By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.
3	Phase out harmful incentives	By 2020, at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socioeconomic condition.
4	Sustainable production and consumption	By 2020, at the latest, governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits.
5	Habitat loss halved or reduced	By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.
6	Sustainable management of aquatic living resources	By 2020, all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem-based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems , and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.
7	Sustainable agriculture, aquaculture and forestry	By 2020, areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.
8	Pollution reduced	By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.
9	Invasive alien species	By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.
10	Ecosystems vulnerable to climate change	By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.

Aichi Target	Short name	Description
11	Protected areas and other effective area- based conservation measures	By 2020, at least 17 percent of terrestrial and inland water, and 10 percent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.
12	Reducing risk of extinction	By 2020, the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.
13	Safeguarding genetic diversity	By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socioeconomically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.
14	Ecosystems services	By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.
15	Ecosystem restoration and resilience	By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 percent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.
16	Nagoya Protocol in force	By 2015, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national legislation.
17	National Biodiversity Strategies and Action Plans (NBSAPs)	By 2015, each Party has developed, adopted as a policy instrument and has commenced implementing, an effective, participatory and updated national biodiversity strategy and action plan.
18	Traditional knowledge respected	By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.
19	Sharing information and knowledge	By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.
20	Mobilizing resources from all sources	By 2020, at the latest, the mobilization of financial resources for effectively implementing the Strategic Plan for Biodiversity 2011-2020 from all sources, and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilization, should increase substantially from the current levels.

3. The Sustainable Development Goals (SDGs) – relevant Targets

SDG	Short name	Description
1a	Mobilization of resources	Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least developed countries, to implement programmes and policies to end poverty in all its dimensions.
1.4	Access to economic resources and ownership	By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance.
2.4	Sustainable food production and resilient agriculture practices	By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.
2.5	Genetic diversity of plants and animals	By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed.
4.1	Gender equal free, equitable and quality primary and secondary education	By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes.
4.3	Equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university	By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university.
4.7	Education for sustainable development	By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.
5.1	End all forms of discrimination against all women and girls everywhere	End all forms of discrimination against all women and girls everywhere.

SDG	Short name	Description
6.3	Improved water quality, with 6.3.1 "Proportion of domestic and industrial wastewater flows safely treated"	By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.
6.6	Protect and restore water-related ecosystems	By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes.
8.4	Resource efficiency for consumption and production	Improve progressively, through 2030, global resource efficiency in consumption and production, and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programmes on sustainable consumption and production, with developed countries taking the lead.
9.4	Sustainable industry	By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.
9.5	Enhance scientific research	Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people, and public and private research and development spending.
9b	Support domestic technology development, research and innovation in developing countries	Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities.
9c	Increase access to information and communications technology	Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020.
10b	Official development assistance	Encourage official development assistance and financial flows, including foreign direct investment, to States where the need is greatest, in particular least developed countries, African countries, small island developing States and landlocked developing countries, in accordance with their national plans and programmes.
11.1	Access for all to adequate, safe and affordable housing and basic services and upgrade slums	By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums

SDG	Short name	Description
11.3	Inclusive and sustainable urbanization	By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries.
11b	Cities adopting and implementing integrated policies for resource efficiency, mitigation and adaptation to climate change, resilience to disasters.	By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015–2030, holistic disaster risk management at all levels.
11c	Building sustainable and resilient buildings utilizing local materials	Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials.
11.4	Protect cultural and natural heritage	Strengthen efforts to protect and safeguard the world's cultural and natural heritage.
12.2	Sustainable use of natural resources	By 2030, achieve the sustainable management and efficient use of natural resources.
12.8	Access to information and ensure awareness	By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature.
13	Urgent action to combat climate change and its impacts	
14.1	Reduce marine pollution	By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution.
14.2	Protect marine and coastal ecosystem	By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans.
14.3	Minimize ocean acidification	Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels.

SDG	Short name	Description
14.4	Sustainable fishing	By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics.
14.5	10% conservation of marine and coastal areas	By 2020, conserve at least 10 percent of coastal and marine areas, consistent with national and international law, and based on the best available scientific information.
14.6	Prohibit harmful fishery subsidies	By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation.
14.7	Increase Benefit from marine resources to SIDS and LDC	By 2030, increase the economic benefits to Small Island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism.
14b	Access for small-scale fishers	Provide access of small-scale artisanal fishers to marine resources and markets.
14c	Conservation and sustainable use of oceans and their resources	Ensure the full implementation of international law, as reflected in United Nations Convention on the Law of the Sea (UNCLOS) for states parties to it, including, where applicable, existing regional and international regimes for the conservation and sustainable use of oceans and their resources by their parties.
15.1	Conservation, restoration and sustainable use of freshwater ecosystems	By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements.
15.2	Sustainable management and restoration of forests	By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally.
15.3	Combat desertification and restoration of land and soil	By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world.
15.4	Conservation of mountain ecosystems	By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development.

SDG	Short name	Description
15.5	Reduce degradation of natural habitats and prevent biodiversity loss	Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species.
15.6	Fair, equitable sharing of benefits from genetic resources	Promote fair and equitable sharing of the benefits arising from the utilization of genetic resources and promote appropriate access to such resources, as internationally agreed.
15.7	Prevent poaching and trafficking of protected species	Take urgent action to end poaching and trafficking of protected species of flora and fauna, and address both demand and supply of illegal wildlife products.
15.8	Combat invasive alien species	By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species.
15.9	Integration of ecosystem and biodiversity values in planning and strategies	By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts.
16.7	Inclusive and representative decision-making	Ensure responsive, inclusive, participatory and representative decision-making at all levels.
17.3	Additional financial resources	Mobilize additional financial resources for developing countries from multiple sources.
17.6	International cooperation and access to science, technology, innovation and knowledge	Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism.
17.18	Capacity-building for developing countries for data generation	By 2020, enhance capacity-building support to developing countries, including for least developed countries and small island developing States, to significantly increase the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts.

4. International agreements and conventions relevant to biodiversity

Agreements and conventions directly focusing on biodiversity:

- **Convention on Biological Diversity (CBD), adopted in 1992**
  The objectives of the CBD are the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising from commercial and other utilization of genetic resources. The agreement covers all ecosystems, species and genetic resources.
  https://cbd.intconvention

- **Nagoya Protocol, adopted in 2010**
  The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (ABS) to the CBD is a supplementary agreement to the CBD. It provides a transparent legal framework for the effective implementation of the objective of a fair and equitable sharing of benefits arising from the use of genetic resources.
  https://www.cbd.int/abs

- **Cartagena Protocol on Biosafety, adopted in 2000**
  As a supplementary agreement to the CBD, the Protocol focuses on ensuring the safe use of living modified organisms (LMOs) obtained through modern biotechnology and protecting biological diversity from their potential adverse effects.
  https://bch.cbd.int/protocol

- **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), adopted in 1973**
  The CITES aims to ensure that international trade in specimens of wild animals and plants does not threaten their survival. Through its three appendices, the Convention accords varying degrees of protection to more than 30,000 plant and animal species.
  https://cites.org/eng

- **Convention on the Conservation of Migratory Species of Wild Animals (CMS, or the Bonn Convention), adopted in 1979**
  The CMS aims to conserve terrestrial, marine and avian migratory species. Parties to the CMS work together to conserve migratory species and their habitats by providing strict protection for the most endangered migratory species, by concluding regional multilateral agreements for the conservation and management of specific species or categories of species, and by undertaking cooperative research and conservation activities.
  https://www.cms.int

- **Convention on Wetlands (Ramsar Convention), adopted in 1971**
  The Ramsar Convention provides the framework for national action and international cooperation whose mission is "the conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world".
  https://www.ramsar.org

- **Global Strategy for Plant Conservation (GSPC), currently under revision**
  The Global Strategy consists of a set of complementary actions related to plant conservation to support the implementation of the Kunming-Montreal Global Biodiversity Framework
  www.cbd.int/gspc

- **High Seas Treaty (also Biodiversity Beyond National Jurisdiction Agreement, or BBNJ Agreement), adopted in 2023**
  The Treaty is an implementing agreement under the United Nations Convention on the Law of the Sea and focuses on the conservation and sustainable use of marine biological diversity in areas beyond national jurisdiction, by addressing the marine genetic resources and their digital sequence information, including the fair and equitable sharing of benefits, area-based management tools including marine protected areas, environmental impact assessments and capacity-building, and the transfer of marine technology.

- **International Plant Protection Convention (IPPC) adopted in 1951**
  The IPPC aims to protect world plant resources, including cultivated and wild plants, by preventing the introduction and spread of plant pests and promoting the appropriate measures for their control. The Convention provides the mechanisms to develop the International Standards for Phytosanitary Measures (ISPMs), and to help countries to implement the ISPMs and the other obligations under the IPPC, by facilitating the national capacity development, national reporting and dispute settlement.
  www.ippc.int/en

- **International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), adopted in 2001**
  The objectives of the Treaty are the conservation and sustainable use of plant genetic resources for food and agriculture, and the fair and equitable sharing of the benefits arising out of their use, in harmony with the Convention on Biological Diversity, for sustainable agriculture and food security. The Treaty covers all plant genetic resources for food and agriculture, while its Multilateral System of ABS covers a specific list of 64 crops and forages. The Treaty also includes provisions on Farmers' Rights.
  www.fao.org/plant-treaty/en

- **World Heritage Convention (WHC), adopted in 1972**
  The primary mission of the WHC is to identify and conserve the world's cultural and natural heritage by drawing up a list of sites whose outstanding values should be preserved for all humanity, and to ensure their protection through closer cooperation among nations.

Agreements and conventions related to biodiversity or addressing a biodiversity loss driver:

- **Aarhus Convention, signed in 1998**
  Also called the United Nations Economic Commission for Europe (UNECE) Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, the Aarhus Convention is a legally binding global instrument for environmental democracy, putting into practice Principle 10 of the Rio Declaration on Environment and Development, focusing on linking human rights and environmental rights, and recognizing the obligation towards future generations and the role of stakeholders, as well as government accountability.
  https://unece.org/environment-policy/public-participation/aarhus-convention/introduction

- **Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement), signed in 1994**
  There is no specific alien species content in the Agreement, but it provides an international legal basis for all sanitary and phytosanitary measures that affect international trade. The focus is on pests, diseases, and sanitary and phytosanitary issues, many of which are alien species.

- **Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas (The Compliance Agreement), published in 1995**
  The Compliance Agreement promotes compliance with international conservation and management measures by fishing vessels on the high seas. It was adopted within the framework of the Food and Agriculture Organization of the United Nations (FAO) under Article XIV of FAO's Constitution. This Code sets out principles and international standards of behaviour for responsible practices with a view to ensuring the effective conservation, management of living aquatic resources, with due respect for the ecosystem and biodiversity.

- **The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention), adopted in 1989**
  The Convention aims to protect human health and the environment against the adverse effects resulting from the generation, transboundary movements and management of hazardous wastes and other wastes. The Basel Convention regulates the transboundary movements of hazardous wastes and other wastes, and obliges its Parties to ensure that such wastes are managed and disposed of in an environmentally sound manner. The Convention covers toxic, poisonous, explosive, corrosive, flammable, ecotoxic and infectious wastes.

- **Declaration of the International Conference on Responsible Fisheries, 1992**
  "States, to promote the objectives of responsible fishing, should foster international cooperation in the development of effective mechanisms for joint research, information exchange and transfer of relevant technology and know-how".

- **Climate and Clean Air Coalition to Reduce Short-lived Climate Pollutants (CCAC), founded in 2012**
  The CCAC aims to catalyse rapid reductions in short-lived climate pollutants to protect human health, agriculture and the environment.
  https://www.ccacoalition.org

- **Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matter (London Protocol), adopted in 1972 and updated in 1996**
  The London Protocol is one of the first global conventions to protect the marine environment from human activities and has been in force since 1975. Its objective is to promote the effective control of all sources of marine pollution and to take all practicable steps to prevent pollution of the sea by dumping of wastes and other matters. In 1996, the London Protocol was agreed to further modernize the Convention and, eventually, replace it. Under the Protocol, all dumping is prohibited, except possibly for acceptable wastes on the "reverse list". The Protocol entered into force on 24 March 2006, and there are currently 53 Parties to the Protocol.

- **Convention on the Protection of the Underwater Cultural Heritage of United Nations Educational, Scientific and Cultural Organization (UNESCO), adopted in 2001**
Recognizing that underwater cultural heritage is largely undervalued, the 2001 Convention provides a common legally binding framework for States Parties on how to better identify, research and protect their underwater heritage while ensuring its preservation and sustainability. The Convention urges States to take all appropriate measures to protect underwater heritage.

- **Code of Conduct for Responsible Fisheries (CCRF), 1995**
CCRF sets out international principles and standards of behaviour to ensure effective conservation, management, and development of both marine and freshwater living aquatic resources. It accounts for the impact of fishing on ecosystems, the impact of ecosystems on fisheries, and the need to conserve biodiversity. The CCRF is voluntary, although parts of it are based on relevant international laws.

- **Convention on Long-range Transboundary Air Pollution (CLRTAP), adopted 1979**
As the first regional environmental convention, CLRTAP has been instrumental in the reduction of key harmful pollutants in both Europe and North America. The Convention has been extended by eight Protocols, which are focused on setting strict reduction targets for releases of pollution for the protection of human and environmental health. Each of these Protocols targets pollutants such as sulphur, nitrogen oxide, persistent organic pollutants, volatile organic compounds, ammonia and toxic heavy metals.
https://unece.org/sites/default/files/2021-05/1979%20CLRTAP.e.pdf

- **Education for Sustainable Development, adopted in 2020**
This is a framework that builds on the Global Action Programme (GAP) in order to advance and contribute to the achievement of the Sustainable Development Goals (SDGs) via education, focusing on advancing policy, transforming learning environments, building the capacities of educators, empowering and mobilizing youth, and accelerating local-level action.
https://unesdoc.unesco.org/ark:/48223/pf0000374802

- **Escazú Agreement, adopted 2018**
Also called the Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean, the Escazú Agreement focuses on human rights and environmental protection, and is the first international agreement to recognize the role of environmental defenders.
https://www.cepal.org/en/escazuagreement

- **Global Methane Initiative (GMI), launched in 2004**
The GMI is an international public-private initiative that advances cost-effective, near-term methane abatement and recovery and use of methane as a valuable energy source in three sectors: biogas (including agriculture, municipal solid waste, and wastewater), coal mines, and oil and gas systems. Focusing collective efforts on methane emission sources is a cost-effective approach to reduce greenhouse gas emissions and increase energy security, enhance economic growth, and improve air quality and worker safety.
https://www.globalmethane.org

- **International Convention for the Prevention of Pollution from Ships (MARPOL), adopted 1973**
The main international convention aiming to prevent and minimize pollution from ships to the marine environment from operational or accidental causes. The Convention has six technical annexes covering oil, noxious liquid substances in bulk, harmful substances carried by the sea in packaged form, sewage from ships, garbage from ships, and air pollution from ships.
www.imo.org/en/about/Conventions/Pages/International-Convention-for-the-Prevention-of-Pollution-from-Ships-(MARPOL).aspx

- **International Convention for the Prevention of Pollution of the Sea by Oil (OILPOL), adopted 1954**
Administered and promoted by the International Maritime Organization (IMO) since 1959, OILPOL was updated in 1962, 1969 and 1971 (OILPOL 71). OILPOL was subsumed by the International Convention for the Prevention of Pollution from Ships (MARPOL) in 1973.

- **International Convention on Oil Pollution Preparedness, Response and Cooperation (OPRC) 1990**
OPRC 1990 is the international instrument that provides a framework designed to facilitate international cooperation and mutual assistance in preparing for and responding to major oil pollution incidents.

- **International Convention for the Control and Management of Ship's Ballast Water and Sediments (BWM), adopted in 2004**
The BWM aims to prevent the spread of harmful aquatic organisms from one region to another by establishing standards and procedures for the management and control of ships' ballast water and sediments. Support for implementation of the Convention is provided by GEF UNDP IMO GloBallast Partnerships Programme
https://archive.iwlearn.net/globallast.imo.org/index.html

- **Minamata Convention on Mercury, adopted in 2013**
The Minamata Convention on Mercury is an international treaty designed to protect human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds. The treaty was a result of three years of meeting and negotiating, after which its text was approved by delegates representing almost 140 countries on 19 January 2013 in Geneva, and adopted and signed on 10 October 2013 at a diplomatic conference held in Kumamoto, Japan.

- **Resolution MEPC.304(72) Initial IMO strategy on the reduction of GHG emissions from ships, adopted in 2018**
The strategy represents the continuation of IMO's work on addressing GHG emissions from international shipping.which is The work includes Assembly Resolution A.963(23) on IMO policies and practices related to the reduction of greenhouse gas emissions from ships, adopted on 5 December 2003, urging the Marine Environment Protection Committee to identify and develop the mechanisms needed to limit or reduce greenhouse gas emissions from international shipping.

- **Resolution MEPC.345(78) Amendments to the international code for the construction and equipment of ships carrying dangerous chemicals in bulk (IBC Code), adopted in 2022**
The Marine Environment Protection Committee determines that the amendments to the IBC Code shall be deemed to have been accepted on 1 January 2024 unless, prior to that date, not less than one third of the Parties or Parties the combined merchant fleets of which constitute not less than 50 percent of the gross tonnage of the world's merchant fleet have communicated to the Organization their objection to the amendments.

- **Resolution 73/284 (03/2019) of the United Nations General Assembly to declare 2021–2030 as the United Nations Decade on Ecosystem Restoration**
The decade 2021–2030 was proclaimed as the United Nations Decade on Ecosystem Restoration, within existing structures and available resources, with the aim of supporting and scaling up efforts to prevent, halt and reverse the degradation of ecosystems worldwide and raise awareness of the importance of successful ecosystem restoration.

- **Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous, 1998**
The Rotterdam Convention entered into force in 2004. It aims to promote shared responsibility and cooperation among Parties in addressing the international trade of certain hazardous chemicals, in order to protect human health and the environment from potential harm. The agreement establishes a prior informed consent (ICC) procedure for the import of hazardous chemicals.

- **Stockholm Convention on Persistent Organic Pollutants (POPs) 2001**
Stockholm Convention on Persistent Organic Pollutants is an international environmental treaty, signed on 22 May 2001 in Stockholm and effective from 17 May 2004, that aims to eliminate or restrict the production and use of POPs.

- **United Nations Convention to Combat Desertification (UNCCD), established in 1994**
The Convention, the only convention stemming from a direct recommendation of the Rio Conference's Agenda 21, was adopted in Paris, France on 17 June 1994 and entered into force in December 1996. It is the only internationally legally binding framework set up to address the problem of desertification. The Convention is based on the principles of participation, partnership and decentralization—the backbone of good governance and sustainable development. It has 197 parties, making it near universal in reach.

- **United Nations Convention on the Law of Non-Navigational Uses of International Watercourses (UN Watercourses Convention), adopted in 1997**
The UN Watercourses Convention is an international treaty, adopted by the United Nations on 21 May 1997, pertaining to the uses and conservation of all waters that cross international boundaries, including both surface and groundwater. "Mindful of increasing demands for water and the impact of human behaviour", the United Nations drafted the document to help conserve and manage water resources for present and future generations. The Convention is based on the 1992 United Nations Economic Commission for Europe (UNECE) Water Convention.
https://unece.org/environment-policy/water/un-watercourses-convention

- **United Nations Convention on the Law of the Sea (UNCLOS) 1982**
UNCLOS, also called the Law of the Sea Convention or the Law of the Sea Treaty, is an international agreement that establishes a legal framework for all marine and maritime activities. The Convention resulted from the third United Nations Conference on the Law of the Sea (UNCLOS III), which took place between 1973 and 1982.
https://legal.un.org/avl/ha/uncls/uncls.html

- **UN Treaty on Plastic Pollution (forthcoming)**
In February 2022, at the resumed fifth session of the United Nations Environment Assembly (UNEA-5.2), a historic resolution (5/14) was adopted to develop an international legally binding instrument on plastic pollution, including in the marine environment, with the ambition to complete the negotiations by end of 2024. The instrument is to be based on a comprehensive approach that addresses the full life cycle of plastic.

- **United Nations Decade of Ocean Science for Sustainable Development (2021–2030)**
The main aim of the UN Decade of Ocean Science for Sustainable Development is to support efforts to reverse the cycle of decline in ocean health and create improved conditions for the sustainable development of the ocean. The Decade will encourage the science community, the policymakers, the private sector and civil society to think beyond business as usual and aspire towards real change.
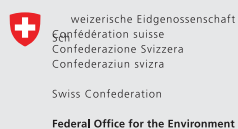
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