IN-DEPTH ANALYSIS

Requested by the ENVI Committee



Issues at stake at the COP 15 Conference to the Convention on Biological Diversity





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In-depth analysis for the ENVI Committee

Abstract

This study aims at providing background information on the history and functioning of the UN Convention on Biological Diversity and its Protocols. It also gives an overview on recent developments and main topics to be discussed at COP15. Special emphasis is put on the development of the Post-2020 Global Biodiversity Framework.

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CONTENTS

<u>LIS</u>	T OF A	ABBREVIATIONS	6
LIS	T OF 1	<u>TABLES</u>	6
EXI	CUTI	VE SUMMARY	9
<u>1.</u>	INTE	RODUCTION TO THE CONVENTION ON BIOLOGICAL DIVERSITY	11
	<u>1.1.</u>	<u>Historical overview</u>	11
	<u>1.2.</u>	Main developments of the CBD	11
		1.2.1. Strategic Plans	11
		1.2.2. The Protocols	12
	<u>1.3.</u>	Milestones reached	12
	<u>1.4.</u>	The negotiation process	14
		1.4.1. Subsidiary bodies and working groups	14
		1.4.2. Open-Ended working groups	14
		1.4.3. Expert-, advisory-, and liaison-groups	15
		1.4.4. Compliance Committees	15
		1.4.5. Main actors	16
	<u>1.5.</u>	Main challenges	16
	<u>1.6.</u>	The EU Biodiversity Strategy	17
<u>2.</u>	THE	OUTCOMES OF THE CBD COP 14 IN SHARM EL-SHEIKH, EGYPT (2018)	19
	<u>2.1.</u>	CBD (COP14)	19
		2.1.1. The 2050 Vison for Biodiversity & the process for the preparation of the Global Biodiversity Framework	Post-2020 19
		2.1.2. Capacity building and technical and scientific cooperation	19
		2.1.3. Synthetic Biology	20
		2.1.4. Digital sequence information	20
		2.1.5. Marine and costal biodiversity	21
		2.1.6. Mainstreaming of biodiversity	21
		2.1.7. Health and biodiversity	22
		2.1.8. Decisions relating to Indigenous Peoples and Local Communities	22
	<u>2.2.</u>	Cartagena Protocol on Biosafety (COP/MOP9)	23
		2.2.1. Follow-up to the Strategic Plan for Biodiversity 2011-2020 and the Strat	egic Plan
		for the Cartagena Protocol on Biosafety 2011-2020	23
		2.2.2. Capacity-building	24
		2.2.3. Risk assessment and risk management	24

		2.2.4. Socio-economic considerations	24
		2.2.5. Assessment and review of effectiveness of the Cartagena Protocol	25
	<u>2.3.</u>	Nagoya Protocol on Access and Benefit-sharing (COP/MOP3)	25
		2.3.1. Follow-up to the Strategic Plan for Biodiversity 2011-2020	25
		2.3.2. Capacity-building and capacity development	26
		2.3.3. Digital sequence information	26
		2.3.4. Global multilateral benefit-sharing mechanism	26
		2.3.5. Specialised international access and benefit sharing instruments	27
<u>3.</u>	THE	PROGRESS SINCE COP 14	28
	<u>3.1.</u>	<u>Intersessional activities</u>	28
		3.1.1. Intersessional activities of the CBD	28
		3.1.2. Intersessional activities of the Cartagena Protocol on Biosafety	28
		3.1.3. Intersessional activities of the Nagoya Protocol on Access and Benefit-sharing	29
	<u>3.2.</u>	The post-2020 Global Biodiversity Framework	29
		3.2.1. Description and timeline of the process	29
		3.2.2. Overview on informal meetings	30
		3.2.3. Content of draft documents	31
		3.2.4. OEWG Meetings	32
	<u>3.3.</u>	Meetings of the subsidiary bodies	33
		3.3.1. SBSTTA 23	34
		3.3.2. SBSTTA 24	34
		3.3.3. <u>SBI 3</u>	35
	<u>3.4.</u>	State of the discussion before COP15	36
		3.4.1. The Post2020 GBF	36
		3.4.2. <u>Technical issues</u>	36
		3.4.3. <u>Implementation related issues</u>	36
<u>4.</u>	KEY	ISSUES FOR NEGOTIATIONS AT COP15, COP-MOP10, COP-MOP4	38
	<u>4.1.</u>	Extraordinary COP and COP-MOPs	38
	<u>4.2.</u>	Part 1 of COP 15, COP-MOP 10, and COP-MOP 4	39
	<u>4.3.</u>	<u>COP 15 - CBD</u>	39
		4.3.1. The Post2020 GBF	39
		4.3.2. Resource mobilisation	39
		4.3.3. Capacity building/ -development	40
		4.3.4. Marine and coastal biodiversity	40
		4.3.5. Synthetic biology	40
		4.3.6. <u>Digital sequence information</u>	41

	<u>4.4.</u>	COP-MOP 10 - Cartagena Protocol on Biosafety	41
		4.4.1. Implementation plan	41
		4.4.2. Capacity building action plan	42
		4.4.3. Risk assessment and risk management	42
		4.4.4. Assessment and review	42
		4.4.5. Socio economic aspects	43
	<u>4.5.</u>	COP-MOP 4 - Nagoya Protocol on Access and Benefit-sharing	43
		4.5.1. Global multilateral benefit sharing mechanism	43
		4.5.2. Specialized international access and benefit-sharing instruments	43
		4.5.3. Capacity building and development	43
<u>5.</u>	THE	EUROPEAN UNION'S POSITION	44
	<u>5.1.</u>	<u>COP 15 - CBD</u>	44
		5.1.1. Post2020 Global Biodiversity Framework	44
		5.1.2. <u>Digital Sequence Information</u>	44
		5.1.3. Other Issues	45
	<u>5.2.</u>	COP-MOP 10 - Cartagena Protocol on Biosafety	45
	<u>5.3.</u>	COP-MOP 4 - Nagoya Protocol on Access and Benefit-sharing	46
<u>6.</u>	THE	EUROPEAN PARLIAMENT'S RESOLUTION ON THE EU BIODIVERSITY STRATEGY	47
<u>7.</u>	THE	ROLE OF DIFFERENT GROUPS AND STAKEHOLDERS	48
	<u>7.1.</u>	Observers and organisations	48
	<u>7.2.</u>	Regional groups and Parties to the CBD	48
<u>8.</u>	OVE	RVIEW ON RELATED PROCESSES AND PUBLICATIONS	50
	<u>8.1.</u>	IPBES & the Global Assessment Report on Biodiversity and Ecosystem Services	50
	<u>8.2.</u>	The Dasgupta Review	51
	<u>8.3.</u>	<u>IUCN</u>	52
	SUN	MARY AND OUTLOOK	53
	REFI	ERENCES	54

LIST OF TABLES

Table 1: Schedule of Meetings related to the development of the Post-2020 Global biodiversity			
framework from 2019 to 2022	30		
Table 2: Meeting schedule of SBI and SBSTTA from 2019 to 2022	34		
Table 3: Meeting schedule of COP 15, COP-MOP 10, and COP-MOP 4 from 2020 to 2022	38		

LIST OF ABBREVIATIONS

ABS Access and Benefit Sharing

AHTEG Ad Hoc Technical Expert Group

CBD Convention on Biological Diversity

CEE Group of Central and Eastern European States

CITES Convention on International Trade in Endangered Species of Wild Fauna and

Flora

Convention on the Conservation of Migratory Species of Wild Animals

COP Conference of the Parties

COP-MOP Conference of the Parties serving as the Meeting of the Parties to the Protocol

CP Cartagena Protocol on Biosafety to the Convention on Biological Diversity

DSI Digital Sequence Information

EBSA Ecologically or biologically significant marine area

FAO Food and Agriculture Organisation of the United Nations

GBF Global Biodiversity Framework

GBO Global Biodiversity Outlook

GEF Global Environment Facility

GMO Genetically Modified Organism

IAC Informal Advisory Committee

IAG Informal Advisory Group

IPBES Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem

Services

IPCC International Plant Protection Convention

IPLCs Indigenous Peoples and Local Communities

IUCN International Union for Conservation of Nature

ITPGRFA International Treaty on Plant Genetic Resources for Food and Agriculture

IWC International Whaling Commission

LMO Living Modified Organism

NBSAPs National Biodiversity Strategies and Action Plans

NGO Non Governmental Organisation

NP Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable

Sharing of Benefits Arising from their Utilization to the Convention on Biological

Diversity

OEWG Open-Ended Working Group

SBI Subsidiary Body on Implementation

SBSTTA Subsidiary Body on Scientific, Technical and Technological Advice

SCBD Secretariat to the Convention on Biological Diversity

SDGs Sustainable Development Goals

UN United Nations

UNEP UN Environment Programme

UNCCD United Nations Convention to Combat Desertification

UNFCCC United Nations Framework Convention on Climate Change

8

WEOG Group of Western European and other States

EXECUTIVE SUMMARY

The UN Convention on Biological Diversity, together with the other Rio-Conventions, builds the core of global environmental policy. However, in contrast to the UN Convention to Combat Desertification and the UN Framework Convention on Climate Change it covers a wide range of different political, scientific and technical topics. Biodiversity is facing various threats caused directly or indirectly by human activities. On the other hand, humankind depends on biodiversity and the CBD reflects this fact by also aiming at the sustainable use of biodiversity.

The National Biodiversity Strategies and Action Plans (NBSAPs) are a key element for the implementation of the CBD, where the Parties to the Convention lay down their goals, and measures to reach them. On a global level, the overarching documents, laying down goals and targets to reach the 2050 Vision of a world "Living in harmony with nature", are the Strategic Plans for the CBD. So far two Strategic Plans have been adopted. Part of the second plan were the 20 Aichi Biodiversity Targets - specific targets for different areas relevant for the conservation and sustainable use of biodiversity. However, despite all efforts, neither the targets set in the first nor the ones of the second Strategic Plan could be reached. This fact and the time limit of the second Strategic Plan (2020) made it necessary to establish a process to develop a new framework – the Post-2020 Global Biodiversity Framework, to be decided at COP 15.

The aim of this process was quite clear, i.e. to develop an ambitious framework containing easy to communicate, simple and measureable targets. The process started immediately after COP 14 and five Open Ended Working Group Meetings were scheduled, where Parties outlined and negotiated different parts of the framework text, the last one of these meetings taking place right before COP 15. In this process, many consultations, briefings and webinars, were held with stakeholders and major groups like IPLCs or youth to provide input. The discussions revealed that, despite common views on several issues, the remaining differences were substantial. These differences are mainly the degree of ambition, the view on sustainable use of biodiversity and the formulation of goals, milestones and targets regarding the level of detail to be included. All these viewpoints are reflected in the draft document to be submitted to COP 15 which needs to resolve the open issues and negotiate a compromise text, which can be agreed on by all Parties.

COP 15 also has a number of other technical issues on its agenda, e.g. marine biodiversity, invasive alien species, biodiversity and climate change, or synthetic biology. Besides these technical topics, issues related to the implementation of the CBD, like resource mobilization, capacity building, or reporting, will be discussed.

The concurrent meetings of the Protocols, COP-MOP 10 of the Cartagena Protocol on Biosafety and COP-MOP 4 of the Nagoya Protocol on Liability and Redress will also decide on issues like an Implementation Plan for the Cartagena Protocol or the possible establishment of a multilateral global benefit sharing mechanism for the Nagoya Protocol.

Though an agreement on the Post-2020 Global Biodiversity Framework is absolutely necessary for the further work of the CBD and its implementation on a national and global level, it will be important that discussions, negotiations, and decisions on technical issues or implementation-oriented topics are not postponed, in order to keep the processes running, and to enable further work on the conservation and sustainable use of biodiversity.

Main issues at COP 15

Without any doubt the Post-2020 GBF will be the paramount topic at COP15, limiting time for discussions on other topics, as there are still many open issues. The text of the framework before the fifth meeting of the OEWG contains more than 1 500 brackets, meaning parts of the text where so far no agreement has been reached. It can be expected that most of the open issues need to be negotiated at COP 15 and it is not unlikely that some of the main points of controversy will only be resolved at the high-level segment.

Digital sequence information (DSI) allows to develop products and gain benefits from them, without actually using the physical genetic resource, but only the sequence information coded in the genome. The use of the actual genetic resource is covered by the Nagoya Protocol. Conflicting interests between developing countries, who want to have DSI included in the access and benefit sharing mechanism and developed countries who want to have open access to the data for research, are dominating the discussions.

Besides the Post-2020 GBF, resource mobilization is one of the most complex issues up for negotiation at COP15. A new strategy, which is closely linked to the Post-2020 GBF is needed. Given that different financing institutions, international and national responsibilities, and discussions on a global biodiversity fund are to be taken into account, it will be challenging to reach an agreement.

A new long term strategic framework for capacity building and development, which should be valid for the CBD and its Protocols and supplemented by specific action plans for the three instruments, will be proposed and decided upon.

Regulating marine and coastal biodiversity, as well as the assignment of EBSAs, is an area of ongoing dispute between Parties. As many of them have a high economic interest in benefits from fisheries and/or tourism and regard any multilateral agreement as questioning their national sovereignty, a general agreement is hard to reach. Several proposals are made in the draft decisions, which will be discussed at COP 15.

Synthetic biology covers new developments in biotechnology and is closely linked to the topic of risk assessment and risk management of living modified organisms dealt with under the Cartagena Protocol. An agreement on the establishment of a process for a regular horizon scanning mechanism for providing information on the most recent technical developments in synthetic biology should be reached.

Under the Cartagena Protocol the main issues are the decision on an Implementation Plan for the Protocol, and – linked to it – a Capacity building Action Plan. Other issues are the further development of risk assessment guidance documents, the final evaluation of the former strategy plan, dealt with under "assessment and review", and socio economic aspects of living modified organisms.

Negotiations under the Nagoya Protocol will deal with the possible establishment of a global multilateral benefit sharing mechanism, specialized international access and benefit-sharing instruments, and capacity building and development.

1. INTRODUCTION TO THE CONVENTION ON BIOLOGICAL DIVERSITY

1.1. Historical overview

The Convention on Biological Diversity (CBD) is one of the three so called "Rio Conventions" resulting from the United Nations Conference on Environment and Development (also known as the "Earth Summit") that took place in Rio de Janeiro in 1992. Those Conventions are the United Nations Framework Convention on Climate Change (UNFCCC), the CBD, and the United Nations Convention to Combat Desertification (UNCCD).

All three conventions are linked and contribute to the Agenda 21 for sustainable development (UN 1993), one of the outcomes of the Earth Summit, as well as its follow-up agreement, the Agenda 30 (UNGA 2015) with its Sustainable Development Goals (SDGs). The Joint Liaison Group, established in 2001, aims at enhancing coordination and cooperation among the three Rio Conventions and to develop synergies (see also chapter 1.4.3).

The CBD was adopted in 1992 by the Intergovernmental Negotiating Committee for a Convention on Biological Diversity and opened for signature at the Earth Summit. It entered into force in 1993 (SCBD 2021a). The three main objectives of the Convention are:

- the conservation of biological diversity;
- the sustainable use of the components of biological diversity; and
- the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources (UN 1992a).

The UNFCCC was adopted in 1992 by the Intergovernmental Negotiating Committee for a Framework Convention on Climate Change and opened for signature at the Earth Summit. It entered into force two years later in 1994 (UNFCCC Secretariat 2021). The objective of the UNFCCC is to stabilise greenhouse gas concentrations. Some of the underlying principles of the Convention are the protection of the climate system for present and future generations, that precautionary measures should be taken amongst others to prevent or minimise the causes of climate change, and that sustainable development should be promoted (UN 1992b).

The UNCCD was adopted in 1994 by the Intergovernmental Negotiating Committee for the Elaboration of an International Convention to Combat Desertification. This Committee was established by the UN General Assembly based on a respective request at the Earth Summit (UN 1993). The Convention entered into force in 1996 (UNCCD Secretariat 2021). Objectives are to combat desertification, mitigate effects of drought and contribute to sustainable development in affected areas (UN 1994).

1.2. Main developments of the CBD

The CBD entered into force in 1993. 196 states have ratified, acceded to, approved or accepted the Convention and are thus Parties to the Convention and legally bound by the treaty. Current non-Parties are the Holy See and the United States of America (SCBD 2021b).

1.2.1. Strategic Plans

The first Strategic Plan for the Convention on Biological Diversity was adopted in 2002 with the 2010 Biodiversity Target to "achieve by 2010 a significant reduction of the current rate of biodiversity loss at

the global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on earth" (SCBD 2002). This target was not met, as stated by the Global Biodiversity Outlook (GBO) 3 in 2010. Biodiversity continued to decline in all three areas: genes, species and ecosystems (SCBD 2010a).

As follow-up, taking into account the results of GBO 3, an updated Strategic Plan for Biodiversity 2011-2020 was adopted in 2010, with its 2050 Vision of a world "Living in harmony with nature": "By 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people" (SCBD 2010b). This plan also included the 20 Aichi Biodiversity Targets.

However, by 2020 none of the 20 targets have been met, and only six were partially achieved as stated by the GBO 5 (SCBD 2020a).

In order to still reach the 2050 vision, Parties decided in 2018 at COP 14 (SCBD 2018a) to develop a so called "Post-2020 Global Biodiversity Framework (GBF)". The GBF is negotiated in the Ad Hoc Open ended Working Group (OEWG) on the Post-2020 Global Biodiversity Framework (see also chapter 1.4). In addition, the Subsidiary Body on Implementation (SBI) and the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) provided recommendations (see also chapter 3.2) to the OEWG. The goal of the negotiations is to adopt the GBF at CBD COP 15.

1.2.2. The Protocols

In 2000, the Parties to the CBD adopted the first supplementary agreement to the Convention, the Cartagena Protocol on Biosafety to the Convention on Biological Diversity (CP). It entered into force three years later in 2003 and has currently (as of April 2022) 173 Parties (SCBD 2021b). The aim of the Protocol is to protect biodiversity from adverse effects of living modified organisms (LMOs) produced by modern biotechnology (SCBD 2000a). The term genetically modified organism (GMO), as applied in the EU, is not used in the context of the Protocol.

The second supplementary agreement was adopted by the Parties of the CBD in 2010: the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity (in short: Nagoya Protocol on Access and Benefit Sharing (NP)). Its scope includes also traditional knowledge associated with genetic resources (SCBD 2011a). The Protocol entered into force in 2014 and has currently (as of April 2022) 133 Parties (SCBD 2021b).

In the same year, the Parties to the CP adopted the Nagoya – Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety. It applies to damage caused by the transboundary movement of LMOs (SCBD 2011b). The Supplementary Protocol entered into force in 2018 and has currently (as of April 2022) 49 Parties (SCBD 2021b).

1.3. Milestones reached

Several mechanism have been established under the CBD to facilitate its implementation. Those are the National Biodiversity Strategies and Action Plans (NBSAPs), national reports, financial resources and mechanism, cooperation and partnerships, the clearing-house mechanisms or the LifeWeb for financing protected areas (SCBD 2012a).

NBSAPs are the main instrument for the implementation of the CBD and have to be developed by Parties according to Article 6 of the Convention. With those strategies and plans, considerations regarding the conservation and sustainable use of biodiversity are integrated into national policies

and decision making. They reflect how Parties plan to fulfil the objectives of the CBD. The NBSAPs should also have reflected the Strategic Plan for Biodiversity 2011-2020 with the Aichi Biodiversity Targets. In addition, conservation and sustainable use of biodiversity should also be integrated into relevant sectoral or cross-sectoral plans, programmes and policies ("mainstreaming"). Of the 196 Parties of the Convention, 193 have developed at least one NBSAP (as of May 2022). They are accessible at the SCBD website online (SCBD 2021c).

As described in chapter 1.2.1, the Aichi Biodiversity Targets were adopted in 2010 (SCBD 2020b). With the 20 targets, the following five strategic goals should have been be met by 2020:

- address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society (four targets);
- reduce the direct pressures on biodiversity and promote sustainable use (six targets);
- improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity (three targets);
- enhance the benefits to all from biodiversity and ecosystem services (three targets); and
- enhance implementation through participatory planning, knowledge management and capacity building (four targets).

Parties have to report on the measures they have taken to implement the objectives of the CBD as well as on the effectiveness of those measures. Information is provided in the national reports (according to Article 26 of the Convention). Those reports are available online (SCBD 2021c). The 6th national reports had to be provided by Parties by the end of 2018. Information contained therein provided the basis for the final review of progress in the implementation of the Strategic Plan for Biodiversity 2011-2020 and towards the Aichi Biodiversity Targets (see chapter 1.2.1).

In 1995 at COP 2, Parties decided to periodically prepare reports on the status of biodiversity - the Global Biodiversity Outlooks (GBO). They provide a summary on data regarding status and trends in biodiversity as well as conclusions for the implementation of the CBD. Five GBOs have been prepared so far, the latest being released in 2020 (see chapter 1.2.1). The information basis for the GBOs include amongst others the national reports of the Parties as well as assessments by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services – IPBES (see also chapter 6.1).

In order to achieve the objectives of the CBD, financial resources are required. Although all Parties should provide financial support to their national activities depending on respective capabilities, developed country Parties should provide new and additional financial resources. This should support developing country Parties in implementing measures to meet the objectives of the CBD (Articles 20 and 21 of the CBD). Voluntary funding by Parties is required, e.g., for enabling delegates from developing countries to participate in the meetings (AHTEGs, SBI, SBSTTA, ...).

A specific financial mechanism was established at COP 1 in 1995. It is operated by the Global Environment Facility - GEF (SCBD 2020c). GEF is a multilateral trust fund that serves as financial mechanism for five international environmental conventions, including the CBD. Its main governing bodies are the GEF Council and the GEF Assembly (GEF 2022). Recipients of GEF support are developing countries as well as countries with economies in transition. The projects funded are proposed and managed via 18 GEF Agencies (including, e.g., FAO, UNEP or IUCN).

Another priority for the implementation of the CBD objectives (and the objectives of its Protocols) is capacity building and development. Respective support to Parties is coordinated and facilitated by the Secretariat of the Convention on Biological Diversity (SCBD 2021d). In 2016, Parties adopted the

short-term action plan for capacity building 2017-2020 with the aim to enhance and support capacity building not only for the implementation of the CBD and the Aichi Biodiversity Targets, but also for the implementation of its Protocols. The plan also included several cross-cutting capacity-building support activities, e.g., the development of tools to enable Parties and IPLCs to communicate their capacity-building needs through the clearing-house mechanism, to maintain the SCBD e-learning platform, or the establishment of partnerships with education and training institutions and networks (SCBD 2016). A list of capacity building activities supported under the short-term action plan is provided on the SCBD website (SCBD 2020d). Currently, a long-term strategic framework for capacity-building beyond 2020 is under development. This framework will be aligned to the Post-2020 GBF (see also chapter 2.1.2).

1.4. The negotiation process

The governing body of the CBD is the Conference of the Parties (COP). It takes decisions at its ordinary meetings which are held every two years. Decisions at COP, where only Parties have the right to vote, should be reached by consensus. Certain decisions can be taken by majority or a two-thirds majority (SCBD 2000b).

Decisions reached by COP are the result of a complex negotiation process which involves a number of other bodies that were established under the CBD over the years (e.g. subsidiary bodies, committees and working groups). The matters to be considered by those bodies are defined by COP in the terms of reference of the respective decisions.

In the following, a short description of the main bodies is provided. This description is not exhaustive, however, the bodies and groups referred to by the most relevant decisions of COP 14, COP-MOP 9, and COP-MOP 3 in 2018 (see chapter 2) and those which were installed to prepare COP15, COP-MOP10, and COP-MOP4 are covered.

1.4.1. Subsidiary bodies and working groups

The Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) was established under Article 25 of the CBD. It is an open-ended body providing advice to the COP (e.g., concerning the implementation of the CBD), but also to other subsidiary bodies. It consists of government representatives of Parties, and observers from non-Parties and other relevant organisations.

The second subsidiary body, the Subsidiary Body on Implementation (SBI) was established in 2014 aiming at improving the functions and processes of the CBD. It is, amongst others, concerned with the review of progress in the implementation of the CBD.

Both bodies meet in the intersessional period, working according to their respective modus operandi, and provide their recommendation to the following COP. In 2021 the first part of the 24th meeting of SBSTTA (SBSTTA 24) and the first part of the 3rd meeting of SBI (SBI 3) took place in a virtual format. In March 2022 both bodies resumed and finalised their work in face-to-face meetings in Geneva, Switzerland.

1.4.2. Open-Ended working groups

Ad Hoc Open ended Working Groups can be established to work on specific issues according to their respective mandate. The time period is limited, but can be prolonged by the COP. Current Working Groups are, e.g., the Ad Hoc Open ended Working Group on Protected Areas, the Ad Hoc Open ended Working Group on Article 8(j) and Related Provisions (established in 1998, enhancing the

involvement of indigenous peoples and local communities - IPLCs), or the Ad Hoc Open ended Working Group on the Post-2020 Biodiversity Framework.

1.4.3. Expert-, advisory-, and liaison-groups

Ad Hoc Technical Expert Groups (AHTEG) can be established by the Parties to work on specific scientific issues for a certain period according to the respective mandate provided. Participants comprise usually experts nominated by governments and representatives of other organisations. They prepare the work of the subsidiary bodies, the COP, or the COP-MOPs, respectively. Examples are the AHTEG on Digital Sequence Information on Genetic Resources, the AHTEG on Synthetic Biology, the AHTEG on Risk Assessment or the AHTEG on Socio-economic considerations.

The Informal Advisory Group (IAG) on Mainstreaming of Biodiversity was established by COP 14 in order to provide advice on a long-term strategic approach (SCBD 2018b).

The Informal Advisory Committee on Capacity-building for the Implementation of the Nagoya Protocol was established by COP MOP 1 of the Nagoya Protocol (SCBD 2014). It provides advice regarding the assessment of effectiveness of the strategic framework for capacity-building in the context of the effective implementation of the Nagoya Protocol.

The Liaison Group of Biodiversity-related Conventions is formed by the secretariats of the respective conventions. Its aim is to enhance coherence and cooperation in their implementation. This includes information exchange, coordination and synergistic activities (SCBD 2020e). The group consists of the following members: Convention concerning the Protection of the World Cultural and Natural Heritage, Convention on Biological Diversity (CBD), Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), Convention on the Conservation of Migratory Species of Wild Animals (CMS), Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention), International Plant Protection Convention (IPCC), International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), International Whaling Commission (IWC).

The Joint Liaison Group between the three Rio Conventions (CBD, UNFCCC, UNCCD) is formed by the respective Executive Secretaries, members of the secretariats and officers of the scientific subsidiary bodies of the Conventions (SCBD 2017a). The aim is to enhance coordination and cooperation between the conventions.

Other Liaison Groups are the Liaison Group on the Cartagena Protocol on Biosafety (formerly Liaison Group on Capacity-Building for Biosafety) or the Inter-Liaison Group on Biodiversity and Health.

1.4.4. Compliance Committees

The Compliance Committee of the Cartagena Protocol was established by COP MOP 1 of the Cartagena Protocol in 2004. It consists of 15 members, three from each of the five UN regional groups. They work according to the rules of procedure as decided upon by COP MOP 2 (SCBD 2022).

The Compliance Committee under the Nagoya Protocol was established by the COP MOP 1 of the Nagoya Protocol. It has also 15 members (three members of each of the five UN regional groups), but in addition two members from IPLCs with observer status. They work according to the rules of procedures established by COP MOP 2 (SCBD 2020f).

The committee members usually meet once a year to discuss non-compliance issues, mainly cases of Parties which have failed to fulfil their reporting obligations. The role of the committees is not limited to bringing these non-compliance cases to the respective COP/MOP and proposing

measures, but also to assist Parties in fulfilling their obligations. In the past, the Compliance Committee of the Cartagena Protocol was also involved in the valuation of the strategic plan 2010-2020.

1.4.5. Main actors

Main actors in the negotiation process are, besides the Parties themselves, regional groups (Group of African States, Group of Asia-Pacific States, Group of Central and Eastern European States -CEE, Group of Latin American and Caribbean States - GRULAC, Group of Western European and other States - WEOG). However, also observers from non-Parties, Major Groups (as defined in Agenda 21, UN 1993) and other stakeholders are involved in various bodies and experts groups. In the negotiations, they can provide their views, but proposals made by observers have to be supported by Parties in order to be taken up. The nine Major Groups are the following: Women, Children and Youth, Indigenous Peoples, Non-Governmental Organisations, Local Authorities, Workers and Trade Unions, Business and Industry, Scientific and Technological Community, Farmers.

1.5. Main challenges

The implementation of the strategic plans developed under the CBD would be crucial in order to reach the objectives of the Convention. However, neither the 2010 Biodiversity Targets nor the 20 Aichi Biodiversity Targets have been met. Despite all the efforts since the adoption of the first strategic plan in 2002, biodiversity is still declining. In order to still meet the 2050 vision of a world "living in harmony with nature", strengthened efforts are needed. Thus, the development of the Post-2020 GBF and its effective implementation are crucial.

Difficulties in the implementation are associated, amongst others, with the thematic complexity of the CBD, its mechanisms, and financial aspects.

The CBD is a complex Convention as regards the various topics it comprises. Reflecting biodiversity in the various ecosystems, seven thematic programmes of work have been established: agricultural biodiversity, dry and sub-humid lands biodiversity, forest biodiversity, inland waters biodiversity, island biodiversity, marine and coastal biodiversity, and mountain biodiversity. In addition, the CBD is working on a variety of cross-cutting issues, including amongst others capacity building, climate change and biodiversity, health and biodiversity, invasive alien species, protected areas, sustainable wildlife management, or traditional knowledge, innovations and practices (SCBD 2021e). Many of those issues are very technical (e.g., synthetic biology) or are politically sensitive (e.g., marine issues or digital sequence information). This adds to the complexity of the negotiations within the CBD.

At COP, decisions are taken by consensus. This principle hinders ambitious goals and often decisions taken reflect the lowest common ground among Parties. Parties' views on how to reach the objectives of the CBD differ and are influenced by national interests.

The interplay between the CBD and its Protocols also adds to the complexity regarding decision making. Not all Parties to the CBD are also Parties to the Cartagena Protocol and the Nagoya Protocol. Although, Parties to the Protocols adopt separate decisions concerning the respective thematic issues and objectives, several decisions refer to CBD decisions, e.g., and thus efforts have to be taken to ensure consistency.

The implementation of the objectives of the Convention is closely connected to financial challenges, limitations in funding and the dependence on voluntary contributions (e.g., to conduct studies or allow the participation of representatives of developing countries in meetings). Voluntary contributions include the funding of specific working group meetings by Parties or national funds

like the Japan Biodiversity Fund (established by the Government of Japan during its COP presidency 2010) or the Kunming Biodiversity Fund (announced by the Government of China in 2021).

Financial aspects as well as capacity building and development are especially important topics for developing countries and countries with economies in transition. Thus, the development of the long-term strategic framework for capacity building beyond 2020 that will be aligned to the Post-2020 GBF is vital for the implementation of the framework and the objectives of the CBD.

1.6. The EU Biodiversity Strategy

As there is a close link between international and EU policies on the environment, many of the issues discussed under the CBD are also included in the EU Biodiversity Strategy 2030 of the European Union (European Commission 2020). Many targets still under development on a global level, which will be reflected in the Post-2020 Global Biodiversity Framework, are already set at EU level.

In the EU "Biodiversity Strategy 2030 - Bringing nature back into our lives", the European Commission recognizes the value of biodiversity for human well-being and the current unfavourable state of biodiversity on an EU as well as on an international level.

The strategy contains a number of key commitments with a timeframe until 2030 regarding nature protection and restoration such as

- Legally protect a minimum of 30% of the EU's land area and 30% of the EU's sea area, one third of it should be under strict protection;
- Effectively manage all protected areas, defining clear conservation objectives and measures, and monitoring them appropriately;
- Significant areas of degraded and carbon-rich ecosystems should be restored; habitats and species should show no deterioration in conservation trends and status; and at least 30% reach favourable conservation status;
- The risk and use of chemical pesticides is reduced by 50% and the use of more hazardous pesticides is reduced by 50%;
- At least 25% of agricultural land is under organic farming management and at least 10% of agricultural area is under high-diversity landscape features;
- The negative impacts on sensitive species and habitats, including on the seabed through fishing and extraction activities, are substantially reduced to achieve good environmental status; and
- The by-catch of species is eliminated or reduced to a level that allows species recovery and conservation.

Besides setting targets on a European level, the Biodiversity Strategy 2030 has a strong international component, as protecting biodiversity is seen as a global challenge. Besides trade agreements, the EU neighborhood policy, and funding opportunities for developing countries, the CBD is seen as a major instrument to halt biodiversity loss.

The EU, therefore, works with like-minded partners in a high-ambition coalition on biodiversity to agree on an ambitious new global framework for post-2020 at COP15. In the EU Biodiversity Strategy 2030, the European Commission proposes elements to be included in the Post-2020 GBF. Some of them are outlined below:

- Overarching global goals for biodiversity for 2050 with the ambition that all of the world's ecosystems are restored, resilient, and adequately protected by 2050;
- Ambitious global 2030 targets in line with EU commitments in this strategy addressing the drivers of biodiversity loss;
- A much stronger implementation, monitoring and review process. Parties should revise their National Biodiversity Strategies and Action Plans, or as a minimum, submit national commitments for the most important targets;
- An enabling framework across areas such as finance, capacity, research, innovation and technology;
- Fair and equitable sharing of the benefits from the use of genetic resources linked to biodiversity; and
- A principle of equality. This includes respect for the rights and the full and effective participation of indigenous peoples and local communities, and participation of all stakeholders, including women, youth, civil society, local authorities, the private sector, academia and scientific institutions.

The Biodiversity Strategy also includes an Action Plan outlining concrete activities to be undertaken in order to reach the targets set in the document. These 39 actions include studies, the establishment of a Biodiversity Knowledge Centre, revising existing legislation (e.g. on the sustainable use of pesticides), or the development of guidance and strategies (e.g. on pollinators, organic farming or soil protection).

Even though much still has to be done, many of these actions are already accomplished or are under development, making the European Union a forerunner concerning the protection and restoration of biodiversity. Its Biodiversity Strategy 2030 and the Action Plan being ambitious, and linking the targets to concrete actions to be undertaken in a given timeframe, could serve as a best practice example for implementing biodiversity related measures on a national level.

2. THE OUTCOMES OF THE CBD COP 14 IN SHARM EL-SHEIKH, EGYPT (2018)

2.1. **CBD** (COP14)

31 items were on the agenda of COP 14 held in Sharm El-Sheikh, Egypt in 2018 and Parties to the CBD adopted 38 decisions, including decisions related to the thematic programmes of work of the CBD (marine and costal biodiversity) as well as decisions on cross- cutting issues like the Aichi Biodiversity Targets, biodiversity & health, invasive alien species or protected areas. Other decisions are related to the Strategic Plan for Biodiversity 2011-2020 and the Post-2020 Global Biodiversity Framework. Comprehensive information on the procedures, discussions and outcomes (incl. all decisions) is provided in the report of COP 14 (SCBD 2019a).

The most relevant topics, i.e., topics that are also on the agenda of COP 15 and those that were addressed in the respective European Parliament resolution of 16 January 2020 (EP 2020), and key issues of the respective decisions are described in the following. This includes, amongst others, synthetic biodiversity, mainstreaming biodiversity or the Post-2020 GBF. Some of the topics were also discussed at SBI 3 (issues related to the Post-2020 GBF, capacity building) and SBSTTA 24 (e.g., synthetic biology, health and biodiversity).

2.1.1. The 2050 Vision for Biodiversity & the process for the preparation of the Post-2020 Global Biodiversity Framework

In decision 14/2 "Scenarios for the 2050 Vision for Biodiversity", Parties welcomed conclusions of SBSTTA regarding scenarios for the 2050 Vision for Biodiversity "Living in harmony with nature". SBSTTA concluded, e.g., that current trends show continued loss of biodiversity or that a coherent approach is needed on biodiversity and climate change. The conclusions are annexed to the decision which also refers to other reports of relevance for the discussion on the long-term strategic direction to the 2050 Vision and the development of the Post-2020 GBF.

Parties at COP 14 also adopted decision 14/34 "Comprehensive and participatory process for the preparation of the Post-2020 global biodiversity framework". This decision was also referred to by Parties at COP-MOP 9 of the Cartagena Protocol and COP-MOP 3 of the Nagoya Protocol (see chapters 2.2.1 and 2.3.1). The Post-2020 GBF is supposed to be adopted by COP 15 and endorsed by COP-MOP 10 and COP-MOP 4 of the Protocols. Details on the preparatory process are contained in the annex to the decision, which includes, e.g., guiding principles, the organisation of work, as well as information on the consultation process, documentation, and key information sources. With this decision, Parties also established the Open-ended Working Group on the Post-2020 GBF and its cochairs. Several bodies were requested by COP 14 to contribute to the development of the framework and support the Open-ended Working Group. This includes SBSTTA, SBI and the Ad Hoc Open-ended Working Group on Article 8(j) and Related Provisions.

More details on the development or the Post-2020 GBF and its current state can be found in chapter 3.2.

2.1.2. Capacity building and technical and scientific cooperation

Decision 14/24 adopted by COP 14 contains issues regarding capacity-building as well as technical and scientific cooperation.

At COP 13, Parties to the CBD adopted a short-term action plan (2017-2020) to enhance and support capacity-building for the implementation of the Convention and its Protocols. This plan is supposed to be superseded by a "long-term strategic framework for capacity-building beyond 2020". This framework should support the achievement of the goals and targets of the Post-2020 GBF and thus be aligned accordingly. It shall also match the capacity-building work under the Protocols.

In order to support the development of the framework, COP 14 requested the Executive Secretary amongst others to commission a study, which should provide the information basis (this study is also referred to by the Parties of the Protocols, see chapters 2.2.2 and 2.3.2). Following consultative workshops and online discussions, a draft long-term strategic framework is to be submitted by the Secretariat to SBI 3 and subsequently to COP 15. The process includes the contributions from various groups including the Liaison Group on Capacity-Building for Biosafety, the Informal Advisory Committee on Capacity-building for the Implementation of the Nagoya Protocol and the Liaison Group of Biodiversity-related Conventions.

In the same decision, Parties decided to consider the establishment of an Informal Advisory Committee on technical and scientific cooperation at COP 15. This committee should provide advice to the Secretariat, e.g., on practical measures and tools to promote technical and scientific cooperation (until 2020, advice was provided by the Informal Advisory Committee on the Clearinghouse Mechanism). In addition, the Executive Secretary was requested to provide a progress report regarding technical and scientific cooperation to SBI 3 and COP 15 as well as proposals for a process to review and renew technical and scientific cooperation programmes.

2.1.3. Synthetic Biology

In decision 14/19 on synthetic biology, Parties agreed that a broad and regular horizon scanning, monitoring and assessment of the most recent technological developments in synthetic biology is needed. Accordingly, the AHTEG on Synthetic Biology was extended in order to develop options on how to carry out this process. The terms of reference also include a number of other tasks, e.g., considerations regarding living organisms developed through synthetic biology that would not be covered by the definition of LMO according to the Cartagena Protocol, the preparation of a report on synthetic biology applications in early stages of research and development and a stock-taking of applications of genome editing in synthetic biology. The work of the AHTEG should be supported by a respective Open-ended Online Forum. A report on the work of the AHTEG and its outcomes is to be submitted to SBSTTA 24 which is requested to make a respective recommendation to COP 15.

Parties also discussed organisms containing engineered gene drives and recognised that they could have potential adverse effects. Respective risk assessment guidance may be useful (see also chapter 2.2.3 and the respective discussions under the Cartagena Protocol). A precautionary approach should be applied and such organisms should only considered for release into the environment when a risk assessment has been carried out, risk management measures are in place and, where appropriate, the consent of IPLCs has been obtained.

At COP 14, Parties also discussed whether synthetic biology meets the criteria for a new and emerging issue of the CBD. Based on respective considerations by the AHTEG and SBSTTA, the discussion is expected to continue at COP 15.

2.1.4. Digital sequence information

Digital sequence information on genetic resources (DSI) is a topic that was discussed by Parties to the CBD at COP 14, but also under the Nagoya Protocol at COP-MOP 3 (see also chapter 2.3.3).

At COP 14, Parties recognised that further work is needed to provide conceptual clarity on DSI. In addition, it was noted that different views exist regarding the benefit-sharing from the use of DSI. Thus, a process was agreed upon, which should resolve the issue. According to decision 14/20, Parties, IPLCs and others are invited to provide views and information on relevant issues, e.g., regarding the clarification of the concept of DSI, its scope and relevant terminology, or whether domestic measures on access and benefit-sharing cover DSI. The Executive Secretary was requested to commission several studies, e.g., on the concept and scope of DSI and on developments in the field of traceability of digital information, subject to the availability of resources. In addition, an AHTEG on DSI was established that is supposed to develop, amongst others, options for operational terms and identify key areas for capacity-building.

The outcomes of the AHTEG are to be submitted to the open-ended working group on the post-2020 global biodiversity framework which shall provide a recommendation to COP 15 on how to address DSI in the Post-2020 GBF.

2.1.5. Marine and costal biodiversity

At COP 14, two decisions related to marine and costal biodiversity were adopted by Parties: decision 14/9 "Marine and coastal biodiversity: ecologically or biologically significant marine areas" and 14/10 "Other matters related to marine and coastal biodiversity".

Ecologically or biologically significant marine areas (EBSAs), to which the first decision refers to, are special areas that support the healthy functioning of oceans and respective services. Criteria for their identification were adopted by COP 9 in 2008. Since 2010, the Executive Secretary organised regional workshops to facilitate the description of EBSAs by applying those criteria. Prior to COP 14, two workshops took place: one for describing EBSAs in the Black Sea and Caspian Sea in 2017 and one regarding the Baltic Sea in 2018. At COP 14, Parties requested that the respective summary reports (provided as Annex to decision 14/9) are included in the EBSA repository.

In the same decision, Parties requested the Executive Secretary to identify options for modifying the description of EBSAs, for describing new areas, and for strengthening the scientific credibility and transparency of the EFSA process, subject to the availability of resources. This task should also take into account information provided in Annex II to the decision. The options identified are to be submitted to SBSTTA which will submit a recommendation to COP.

In decision 14/10 on "Other matters related to marine and coastal biodiversity", Parties addressed a variety of issues. Parties are urged amongst others to avoid, minimise and mitigate plastic pollution and to address biodiversity in cold-water areas (referring also to the Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean). The Executive Secretary was requested to inform the United Nations Environment Assembly's Ad Hoc Open-Ended Expert Group on Marine Litter and contribute to its work. The Executive Secretary was also requested to continue to compile information regarding the impacts of anthropogenic underwater noise and experiences with the application of marine spatial planning.

2.1.6. Mainstreaming of biodiversity

Mainstreaming of biodiversity means that biodiversity and its services are taken into account in policies and practices of sectors that both rely on biodiversity and have an impact on it. Decision 14/3 on "Mainstreaming of biodiversity in the energy and mining, infrastructure, manufacturing and processing sectors", adopted by COP 14, refers to several such sectors. Mainstreaming is seen as critical for achieving the Strategic Plan for Biodiversity and the 2050 Vision and shall be one of the key elements of the Post-2020 GBF. Thus, Parties at COP 14 decided to establish a respective long-

term strategic approach. Annex I of the decision defines areas for its development. The Executive Secretary should amongst others further develop the long-term approach, review the effectiveness of different mainstreaming practices, analyse which approaches are used by Parties, identify capacity-building and training needs and identify guidelines, methodologies and tools related to biodiversity mainstreaming.

Parties also decided to establish an Informal Advisory Group on Mainstreaming of Biodiversity. According to the terms of reference, this Group will consist of experts of relevant fields and provide advice on the development of the long-term strategic approach to mainstreaming of biodiversity and on all related aspects. This includes ways to integrate mainstreaming into the Post-2020 GBF.

The proposal and report on progress on the actions identified in decision 14/3 is to be submitted to SBI 3 and the recommendation developed by SBI is to be submitted to COP 15.

2.1.7. Health and biodiversity

Health is one of the sectors with high relevance for mainstreaming biodiversity. Decision 14/4, adopted by COP 14, includes a variety of aspects to further work on this topic. Amongst others, Parties welcomed the guidance on integrating biodiversity considerations into one health approaches (SCBD 2017b) and encouraged its use. "One health" is an approach examining interconnections among human and environmental/ecosystem health. The aim of the Guidance is to assist in developing respective policies, programmes or research.

COP 14 also requested the Executive Secretary, subject to the availability of resources, to undertake several tasks. These include the development of progress measurement tools on biodiversity and health, the development of messaging approaches on that subject and the development of a draft global action plan to mainstream biodiversity and health into, e.g., national policies. The Inter-Liaison Group on Biodiversity and Health was invited to contribute. The Executive Secretary was requested to deliver a report to SBSTTA 23 and SBI 3.

2.1.8. Decisions relating to Indigenous Peoples and Local Communities

COP 14 adopted several decisions related to Article 8(j) of the CBD and Indigenous Peoples and Local Communities (IPLCs). Article 8 (j) of the CBD relates to the contribution of IPLCs to in-situ conservation and knowledge, innovations and practices relevant for the conservation and sustainable use of biodiversity.

In decision 14/13, COP 14 adopted a voluntary glossary of relevant key terms and concepts within the context of Article 8(j) and related provisions. Examples included are traditional knowledge, sacred site, cultural heritage impact assessment, cultural heritage, or free, prior and informed consent.

In decision 14/14 on "Other matters related to Article 8(j) and related provisions", Parties, amongst others, decided that "contributions of the traditional knowledge, innovations and practices of indigenous peoples and local communities, and cultural diversity to the Post-2020 global biodiversity framework" should be discussed at the 11th meeting of the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions.

In decision 14/17 on "Integration of Article 8(j) and provisions related to indigenous peoples and local communities in the work of the Convention and its Protocols", COP 14 decided, amongst others, to complete the current programme of work on Article 8(j) and related provisions no later than COP 15 and to consider the development of a respective integrated programme of work within the Post-

2020 GBF. Possible elements should be discussed in an online forum. A summary prepared by the Executive Secretary should be submitted to the Ad Hoc Open-ended Working Group on Article 8(j) and Related Provisions. A proposal for possible future work should be developed by this group and submitted to SBI 3.

At COP 13, the Executive Secretary was requested to develop elements of methodological guidance, concerning the contributions of IPLCs to the achievement of the objectives of the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets. A list of elements is annexed to the respective decision 14/16 and was taken note of by COP 14.

In decisions 14/12, Parties adopted the "Rutzolijirisaxik Voluntary Guidelines for the Repatriation of Traditional Knowledge of IPLCs Relevant for the Conservation and Sustainable Use of Biological Diversity". Experiences gained, best practices or good examples should be made available through the Traditional Knowledge Information Portal and the clearing-house mechanism. This should contribute to reporting progress in the implementation of Article 8(j) and related provisions to SBI and the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions.

2.2. Cartagena Protocol on Biosafety (COP/MOP9)

Parties at COP-MOP 9 in 2018 discussed 22 agenda items and adopted 16 decisions. Those include decisions on a variety of key protocol issues like risk assessment and risk management, transit and contained use of LMOs, or monitoring and reporting. Other topics were enhancing integration under the Convention and its Protocols with respect to biosafety-related provisions or the Nagoya – Kuala Lumpur Supplementary Protocol on Liability and Redress. The decisions as well as all information related to this conference (incl. participating states, election of president and substitution officers) are provided in the report of COP-MOP 9 (SCBD 2018c).

In the following, the most relevant outcomes are described, focussing on issues that are also on the agenda of COP-MOP 10. Some are also discussed at SBI 3 (e.g. assessment and review of effectiveness or issues related to the Post-2020 GBF) and SBSTTA 24 (e.g. risk assessment and risk management of LMOs), respectively.

2.2.1. Follow-up to the Strategic Plan for Biodiversity 2011-2020 and the Strategic Plan for the Cartagena Protocol on Biosafety 2011-2020

In 2010, COP-MOP 5 adopted the Strategic Plan for the Cartagena Protocol on Biosafety for the period 2011-2020 (SCBD 2010c). As adopted by COP-MOP 9 in decision 9/7, this Plan is supposed to be superseded by a specific Implementation Plan for the Cartagena Protocol on Biosafety post-2020. This Implementation Plan should be complementary and closely linked to the Post-2020 GBF. Following its preparation by the Executive Secretary the plan should be discussed in an online forum and be reviewed by Parties and the Liaison Group on the Cartagena Protocol whose mandate was expanded accordingly. COP-MOP 9 also requested SBI 3 to review the draft Implementation Plan and submit a respective recommendation to COP-MOP 10.

Regarding the process for the development of the Post-2020 GBF, COP-MOP 9 also referred to the discussions under the CBD and welcomed decision 14/34 of COP 14 (see chapter 2.1.1). Parties decided that the framework should also include biosafety, and a respective draft biosafety component should be developed by the above mentioned Liaison Group. It was also noted that biosafety experts should be involved in the development of the Post-2020 GBF.

2.2.2. Capacity-building

At COP-MOP 6 in 2012, Parties adopted the Framework and Action Plan for Capacity-Building for the Effective Implementation of the Cartagena Protocol on Biosafety (2012-2020) (SCBD 2012b). Regarding its follow up, Parties at COP-MOP 9 not only discussed the development of the long-term strategic framework for capacity-building beyond 2020 of the CBD but also the need for a specific Action Plan for Capacity-Building for the Cartagena Protocol and its Supplementary Protocol. According to decision 9/3, the specific Action Plan should be aligned to the specific follow-up to the Strategic Plan for the Cartagena Protocol on Biosafety (see chapter 2.2.1). The decision also includes an indicative schedule for its development. This includes, amongst others, the input of the Liaison Group on the Cartagena Protocol on Biosafety which was requested to contribute to the development of the specific Action Plan and review the final draft. The draft action plan is to be considered by SBI 3 and the final decision to be taken by COP-MOP 10.

Regarding the long-term strategic framework for capacity-building beyond 2020, COP-MOP 9 refers to decision 14/24 of COP 14 of the CBD (see chapter 2.1.2). That decision includes the request for a study that should provide an information basis for the development of the long-term strategic framework for capacity-building beyond 2020. In that respect, COP-MOP 9 requested that issues of relevance for the Cartagena Protocol are considered therein. In addition, the Liaison Group was requested to contribute to this framework and the participation of biosafety experts during the consultations should be ensured.

2.2.3. Risk assessment and risk management

Parties at COP-MOP 9 discussed the potential need for additional risk assessment guidance for certain LMOs as well as issues related to synthetic biology and new developments in modern biotechnology (including genome editing).

In the respective decision 9/13 adopted by COP-MOP 9, Parties decided to establish an AHTEG on Risk Assessment which should provide a recommendation regarding further guidance needed for LM fish and LMOs containing engineered gene drives. To facilitate this work, two studies on the respective issues should be commissioned and then discussed in an online forum. Taking into account the information provided in the studies as well as the outcomes of the AHTEG on Synthetic Biology, the AHTEG on Risk Assessment shall submit a report to SBSTTA 24. The Subsidiary Body will prepare a respective recommendation to COP-MOP 10.

In addition, it was decided to establish a process for the identification of specific risk assessment issues that may need further guidance. In that respect, several criteria where defined that need to be, e.g., that it must fall within the scope and objectives of the Cartagena Protocol or that it is associated with specific technical or methodological challenges.

2.2.4. Socio-economic considerations

According to Article 26 of the Cartagena Protocol, Parties have the possibility to take socio-economic considerations resulting from the impact of LMOs into account in decision making. Within the scope of the Strategic Plan for the Cartagena Protocol on Biosafety (2011-2020), a guidance was developed that could be used by Parties on a voluntary basis. The guidance also includes an operational definition of socio-economic considerations: "Socio-economic considerations in the context of Article 26 of the Cartagena Protocol may, depending on national or regional circumstances and on national measures to implement the Protocol, cover economic, social, cultural/traditional/religious/ethical

aspects, as well as ecological and health-related aspects, if they are not already covered by risk assessment procedures under Article 15 of the Protocol".

This guidance was taken note of by COP-MOP 9 in decision 9/14. In addition, it was decided to supplement the guidance with methodologies and practical experiences and thus extend the AHTEG on Socio-economic Considerations. To facilitate their work, Parties, other governments, relevant organisations and stakeholders were invited to provide experiences in using the guidance as well as methodologies to take socio-economic aspects into account. Based on the report of the AHTEG, COP-MOP 10 is supposed to take a decision on the supplemented guidance.

2.2.5. Assessment and review of effectiveness of the Cartagena Protocol

According to Article 35, the effectiveness of the Cartagena Protocol has to be evaluated every five years. This includes the assessment of its procedures and annexes. In the respective decision 9/6, Parties decided to combine the fourth assessment and review with the final evaluation of the Strategic Plan for the Cartagena Protocol for the period 2011-2020.

For the fourth assessment and review, Parties requested the Executive Secretary to analyse and synthesize relevant information regarding the implementation of the Cartagena Protocol. This included, amongst others, data provided in the fourth national reports and through the Biosafety Clearing House, or experience from capacity building projects. The baseline for the evaluation was decided to be the second national reporting cycle and the data provided then. The Liaison Group on the Cartagena Protocol on Biosafety and the Compliance Committee were requested to contribute to the fourth assessment and review and to submit their conclusions to SBI 3 which send respective recommendations to COP-MOP 10.

2.3. Nagoya Protocol on Access and Benefit-sharing (COP/MOP3)

At COP-MOP 3 in 2018, 22 agenda items were discussed by the Parties to the NP and 16 decisions adopted. The decisions covered several key protocol issues like the Access and Benefit-sharing Clearing-House, digital sequence information on genetic resources, or capacity-building and development. Another topic was the preparation for the follow-up to the Strategic Plan for Biodiversity 2011-2020. The decisions, together with all information related to the conference (incl. organisational matters), are provided in the report of COP-MOP 3 (SCBD 2019b).

In the following, the most relevant outcomes of COP-MOP 3 are described. The focus lies on those issues being also on the agenda of COP-MOP4, some also discussed at SBI 3 (e.g. the global multilateral benefit-sharing mechanism).

2.3.1. Follow-up to the Strategic Plan for Biodiversity 2011-2020

In Decision 3/15 on "Preparation for the follow-up to the Strategic Plan for Biodiversity 2011-2020", COP-MOP 3 refers to the discussions regarding the Post-2020 GBF by COP 14 of the CBD on that topic and the respective decision 14/34 (see chapter 2.1.1) which was welcomed. In addition, the outcomes of the first assessment and review of effectiveness of the Nagoya Protocol should be considered in the development of that framework as well as findings on compliance issues as contained in a respective report by the Compliance Committee (SCBD 2018d). This Committee is also requested to consider how compliance with the Nagoya Protocol can be supported within the Post-2020 GBF.

2.3.2. Capacity-building and capacity development

Decision 3/5 on "Measures to assist in capacity-building and capacity development (Article 22)" adopted by COP-MOP 3 covers in part A matters regarding the strategic framework for capacity building and development for the implementation of the Nagoya Protocol (as adopted by Parties at COP-MOP 1) and in part B the long-term strategic framework for capacity-building beyond 2020.

In part A, the mandate of the Informal Advisory Committee on Capacity-building for the Implementation of the Nagoya Protocol was extended until COP-MOP 4. This Committee consists of fifteen experts and provides advice to the Executive Secretary, e.g., regarding the need for guidelines and training materials or regarding coordination among capacity building activities. COP-MOP 3 also decided to evaluate the strategic framework for capacity-building and development (short and medium term 2014-2020) and requested input by the Informal Advisory Committee.

The evaluation, to be carried out by the Executive Secretary, will be based on a review of available documentation including information published in the interim national reports and the ABS Clearing-House, an online survey as well as interviews. The outcome of this review will provide input to a revised strategic framework for capacity-building and development beyond 2020, if deemed necessary. The evaluation report is to be submitted to SBI 3 for a respective review. In the following SBI 3 is to submit its recommendation to COP-MOP 4. An effective approach to capacity-building should be ensured, consistent with the post- 2020 global biodiversity framework.

In part B regarding the long-term strategic framework for capacity-building beyond 2020, COP-MOP 3 also refers to the respective decision 14/24 of COP 14 of the CBD (see chapter 2.1.2). Parties requested that the study that should provide an information basis for the development of the long-term strategic framework for capacity-building beyond 2020 includes also issues of relevance for the Nagoya Protocol. Regarding the development of the draft framework, the above mentioned Informal Advisory Committee is requested to contribute. Subject to the availability of resources, the draft framework is to be submitted by the Executive Secretary to SBI 3 and subsequently to COP-MOP 4.

2.3.3. Digital sequence information

Digital sequence information (DSI) was discussed by COP 14 of the CBD as well by COP-MOP 3 of the Nagoya Protocol. In order to ensure consistency, Parties to the Nagoya Protocol welcomed the respective decision 14/20 as adopted by COP 14 (see also chapter 2.1.4). In addition, the outcome of the work of the Open-ended Intersessional Working Group on the Post-2020 Global Biodiversity Framework, which is supposed to also consider the work of the AHTEG on DSI, is to be submitted to COP-MOP 4 for their consideration according to decision 2/12 of COP-MOP 3.

2.3.4. Global multilateral benefit-sharing mechanism

According to Article 10 of the NP, Parties shall consider the need for (as well as the modalities of) a global multilateral benefit-sharing mechanism. This mechanism should address benefits derived from the use of genetic resources as well as from associated traditional knowledge in transboundary situation when it is not possible to grant or obtain prior informed consent. Benefits should be used to support the conservation of biodiversity and its sustainable use. This issue was not decided upon during the negotiations of the Protocol itself and thus has been discussed by Parties ever since. Respective information as well as experience with the implementation of the NP was collected to inform the discussions.

At COP-MOP 3, Parties considered in decision 3/13 that more information is needed on specific examples that would require a global multilateral benefit-sharing mechanism, e.g., cases where prior

informed consent is not possible and which could not be addressed by a bilateral approach. This information should be provided by Parties, other governments, IPLCs and as well as by relevant stakeholders and organisations. In addition, the Executive Secretary was asked to commission a study to identify respective cases, subject to the availability of resources. In the following, the compiled information should be considered by SBI 3 which was asked to provide a recommendation on how to address the identified cases for further consideration by COP-MOP 4.

2.3.5. Specialised international access and benefit sharing instruments

Article 4 of the Nagoya Protocol concerns its relationship with international agreements and instruments. The NP is the instrument of the CBD that implements its access and benefits-sharing provisions. However, it does not apply for Parties to a specialised international access and benefitsharing instrument if this instrument is consistent with and not contrary to the objectives of the CBD and the NP (NP Article 4, paragraph 4). In that case the NP applies only for specific genetic resources and purposes not covered by the specialised instrument.

Since the NP contains no further information on what would constitute such a specialised international access and benefit sharing instrument, a study on criteria for identifying such instruments and the possible process for its recognition was conducted (SCBD 2018e). In 2018, Parties to the NP did not agree on criteria but took note of the study in its decision 3/14. Parties and other Governments were invited to provide views on the potential criteria as well as information on how such specialised instruments are addressed in their countries. COP-MOP 3 also decided that a respective compilation will be provided to SBI 3, which will make a recommendation to COP-MOP 4. In the following the potential criteria will be further discussed by COP-MOP 4.

3. THE PROGRESS SINCE COP 14

3.1. Intersessional activities

Since COP 14, COP-MOP 9, and COP-MOP 3, respectively, many so-called "intersessional" meetings, trainings, and briefing seminars took place. Of the more than 150 activities, about one third was dedicated to the development of the Post-2020 GBF. Due to the Covid19 pandemic, the meetings took place in various online formats from March 2020 to March 2022.

The following sub-chapters focus on formal and technical meetings. Activities related to the development of the Post-2020 GBF and to meetings of the subsidiary bodies are summarised in chapters 3.2 and 3.3., respectively. A list of all meetings taking place under the CBD umbrella, including the protocols can be found on the CBD website (https://www.cbd.int/meetings/).

3.1.1. Intersessional activities of the CBD

One mayor event in the intersessional period was the publication of the GBO 5 (SCBD 2020a), which contained an evaluation of the progress made in reaching the Aichi Biodiversity Targets. This evaluation was also meant to provide a basis for discussion on the development of the Post-2020 GBF. The GBO 5 clearly showed that only six out of the twenty targets have been partially achieved, and none of them completely. Though there has been some progress in public awareness of and funding for biodiversity, many areas covered by the targets did not show any positive or even a negative development. The reasons for these results and possible ways forward were also discussed at some of the intersessional meetings on the technical level as well as the policy level.

Several meetings dealt with gender aspects and IPLCs (Art 8j of the CBD), aiming at better integration of traditional knowledge into the discussion or at a better understanding how gender issues can be better taken into account when designing biodiversity initiatives.

On the technical side, there were several AHTEGs on Synthetic Biology, Digital Sequence Information, and Invasive Alien Species, where experts discussed definitions, modes of risk assessment, possibilities to regulate and to mitigate negative effects on biodiversity. All these groups prepared reports and recommendations for the COP.

Many meetings were dealing with one of the most important topics: marine biodiversity. There were several meetings in different formats (IAGs, expert workshops, online discussions) related to Ecologically or Biological significant Marine Areas (EBSAs), Marine and Coastal Ecosystems, and the Sustainable Ocean Initiative, aiming at developing guidelines on how to design protected Marine areas and to train staff working in the countries and regions in this field.

Meetings of the IAC on the Clearing-House Mechanism and the International Day for Biodiversity took place on an annual basis.

3.1.2. Intersessional activities of the Cartagena Protocol on Biosafety

The 4th national report which was due by 1st October 2019 should serve as a tool to evaluate the overall achievements by Parties in fulfilling the objectives defined in the Strategic Plan of the Cartagena Protocol 2010-2020 (SCBD 2011c). The evaluation to be carried out by the Compliance Committee at its 16th and 17th meeting and by the Liaison Group at its 13th and 14th meeting was based on a low number of submitted reports (approx. 60%), and therefore lacked significance. This was pointed out both by the Liaison Group and the Compliance Committee.

The Liaison Group also discussed in its meetings the draft implementation plan and the capacity building action plan and gave considerable input for the further development of these documents.

There were also two meetings of AHTEGs, one on Risk assessment and Risk Management of LMOs and the other one on socio economic considerations, both aimed at further developing and finalising guidance documents for the Parties.

To enable Parties to fulfil their obligations under the Protocol, there were several workshops and trainings on the Biosafety Clearing House, Risk Assessment and Detection of LMOs, carried out for different regional groups.

3.1.3. Intersessional activities of the Nagoya Protocol on Access and Benefit-sharing

There was one meeting each of the Compliance Committee and the IACs on the Access and Benefit sharing Clearing House and on Capacity Building for the Implementation of the Protocol.

The Compliance Committee discussed the interim national reports, which showed some progress towards the implementation of the Protocol and discussed the format of the national reports, which will be decided upon by COP-MOP4.

The IACs both reviewed the progress made in the respective areas and discussed further steps necessary, e.g., technical set-up for the clearing house or an evaluation of the long-term strategic framework for Capacity building, respectively.

3.2. The post-2020 Global Biodiversity Framework

3.2.1. Description and timeline of the process

COP 14 established in its decision CBD 14/34 (SCBD 2019a) a process for the development of a Post-2020 Global Biodiversity Framework, and elected two co-chairs to lead this process. The COP also established an Open Ended Working Group to allow for an intense involvement of Parties, Non-Parties and observers.

The original program of work did foresee regional workshops for all UN regions, two meetings of the OEWG, where drafts of the framework should be discussed and a final round of discussion of the already advanced documents at SBI 3 and SBSTTA 24. The final documents and recommendations by the subsidiary bodies should than have been submitted to the COP 15 in Kunming, China, in autumn 2020.

However, after the regional workshops and the two meetings of the OEWG took place, the process was disrupted by the global Covid19 pandemic. Work got delayed and the meetings of the subsidiary bodies could only be organised in a virtual format. However, as there are no provisions in the rules of procedure for decision making using such formats, no final decisions were taken.

Finally the discussions were resumed at SBI 3 and SBSTTA 24, as well at an additional OEWG, taking place in Geneva in March 2022. These meetings showed clearly that there were still many unresolved issues and that further work was needed. Therefore two additional OEWG meetings were scheduled, OEWG 4 in June 2022 and OEWG 5 in December 2022 right before COP 15. A special workshop on the development of the monitoring framework for the Post-2020 GBF also took place in June 2022. Table 1 gives an overview on the preparatory meetings related to the Post-2020 GBF.

Table 1: Schedule of Meetings related to the development of the Post-2020 Global biodiversity framework from 2019 to 2022

Meeting	Meeting remarks	Date	Location/Format	Remarks
Regional consultations	All five UN-regions covered	January to May 2019	Various locations, one in each region	Preparation for the Post-2020 GBF
OEWG 1		August 2019	Nairobi, Kenya	Input to Post- 2020 GBF
OEWG 2		April 2020	Rome, Italy	Discussion of zero draft
OEWG 3	Part 1	August to September 2021	virtual	Discussion of draft 1, DSI
OEWG 3	Part 2	March 2022	Geneva, Switzerland hybrid	Discussion of draft 1, DSI
OEWG 4		June 2022	Nairobi, Kenya	Discussion of draft 1, DSI
Informal Group		September 2022	Montreal, Canada	Expert meeting to clean up and streamline text of GBF
OEWG 5		December 2022	Montreal, Canada hybrid	Finalization of Documents for COP 15
Monitoring framework	Expert workshop	June/July 2022	Bonn, Germany	Discussion on indicators

Source: Authors own elaboration

In principle, the process for the development of the Post-2020 GBF is led by the two co-chairs, assisted by the Secretariat of the CBD. Parties were asked to provide input during the regional workshops at the very beginning of the development of the Framework. Based on these inputs, the co-chairs prepared a draft document, which was further elaborated during the OEWG meetings and through rounds of written comments. In the face-to-face-meetings of OEWG 3 and 4, the negotiations took place in different contact groups, dealing with different sections of the document. These contact groups were chaired by two so-called "co-leads" and were open to all Parties, Non-Parties and observers. The co-leads of these contact groups are responsible for preparing a compromise text for the different goals and targets assigned to them. The co-chairs will then compile these documents and submit them to COP 15 for further negotiation and adoption.

3.2.2. Overview on informal meetings

Five regional consultations, one for each UN-region, were organised from end of January to mid of May 2019, with the aim to discuss different issues related to the Post-2020 GBF. The co-chairs

prepared a discussion paper based on a first round of written inputs by Parties and stakeholders as a starting point for the discussion. Though the agenda for the different meetings was adapted to the specific region it took place, the main issues were:

- Possibilities for a new structure of the Post-2020 GBF;
- What is meant by an "ambitious" Post-2020 GBF?;
- Is the 2050 Vision for Biodiversity still valid?;
- How should Biodiversity Targets be formulated, and what should their relation to the Aichi Biodiversity Targets be? What does "SMART" targets mean in practical terms?; and
- How should indicators be defined, and what should the measure?.

Other issues, but with less importance at this point of discussion, were the relationship between the Convention and the Protocols, communication and outreach, mainstreaming, resource mobilization and some others.

There were several proposals on the structure of the Post-2020 GBF, which mostly build on a similar hierarchical principle, with a vision, mission, goals and targets, though there were differences in their framing and nomenclature they used. However, there was great support for keeping the 2050 Vision of "Living in Harmony with Nature" as the guiding principle. The targets should be SMART – Specific, Measurable, Achievable, Reasonable, and Time-bound, which also means that they should be simple and easy to communicate. Regarding their relation to the Aichi Biodiversity Targets, there were two main ways of thinking: On the one hand many participants said that as the Aichi Biodiversity Targets didn't work, a completely new system is needed, while on the other hand others supported a further development of the Aichi Biodiversity Targets, but not a complete new system. Indicators were seen as the main instrument for reviewing the success of a future Post-2020 GBF. These indicators should be included in a monitoring framework, which needs to either be developed in parallel to the Post-2020 GBF or shortly after it has been adopted.

There was a high number of other informal meetings in the course of the development of the Post-2020 GBF. Many of them were briefing webinars on different thematic issues covered by the framework, such as gender aspects, mainstreaming, or technical issues related to the targets. Others were simply briefing webinars for the regions by the co-chairs on the progress made in the development of the Post-2020 GBF.

A final informal meeting was set up by OEWG4 with a mandate to discuss on an expert level the resulting text from the meeting and to make proposals to clean up and streamlining the text of the GBF. In September 2022, the group met in Montreal, Canada, and made some progress and removed approximately half of the more than 1.800 brackets in the text, i.e., they proposed compromise text for passages which were still under negotiation. This version will serve as the basis for discussion at OEWG5.

3.2.3. Content of draft documents

The zero draft of the Post-2020 GBF (SCBD 2020g) was elaborated by the co-chairs assisted by the SCBD based on written inputs by Parties, the regional consultations, and discussions at the first meeting of the OEWG. This draft was published in January 2020 with the goal to inform the second meeting of the OEWG. The document already contained the structure of the Post-2020 GBF and also provided first goals and targets. The overall structure (Vision – Mission – five Goals – twenty Action Targets) is quite similar compared to the Strategic Plan 2010 - 2020 and the Aichi Biodiversity Targets, but also contained information on enabling conditions and implementation support mechanisms.

One major difference to the Strategic Plan 2010 - 2020 is that many of the goals and action targets do contain numerical values (percentages or absolute numbers). Besides discussions on the scientific and political value of the goals and targets, the assignment of these values caused heavy debates at the following meetings.

Following the discussions at the second meeting of the OEWG in April 2020, the co-chairs updated the zero draft (SCBD 2020h) in order to submit this updated draft framework to SBSTTA 24 and SBI 3 for further discussion. The structure of the framework was revised to contain the unchanged overall 2050 Vision and four 2050 Goals. The mission accompanied by eight milestones grouped around the four goals has a timeline until 2030. The targets where discussed and as a follow-up to these discussion regrouped and reworded. However the basic concept, i.e., make them SMART and define numerical targets, wherever possible, was kept. The monitoring framework (SCBD 2020i), containing a first proposal for monitoring goals and indicators was not discussed at the meeting, but forwarded to SBSTTA 24 and OEWG3.

Based on the updated zero draft and the discussions at the virtual meetings of SBI 3 and SBSTTA 24 the co-chairs prepared a first draft of the Post-2020 GBF (SCBD 2021f). This first draft was supplemented by three documents: the monitoring framework with headline indicators, a glossary with a definition of terms used in the framework, and supporting technical information on each draft goal and target. The framework itself was extended by adding an additional milestone and an additional action target, which was developed by splitting the target 1 of the zero draft. The targets themselves were reformulated and the numerical values were deleted in many cases. This document was then submitted to the physical meetings of the OEWG 3, SBSTTA 24 and SBI 3.

The draft of the monitoring framework is still at a quite early stage with only few indicators developed so far. One reason for this is that as the indicators need to be based on the targets and they have not been agreed on, indicators cannot be developed. Another reason is that many Parties, especially from developing countries, do not want to have an agreement on a monitoring framework already at COP15, but postpone an agreement to a later stage.

3.2.4. OEWG Meetings

The first two meetings of the OEWG on the Post2020 GBF were mainly aimed at discussing the general direction and refining the principle structure of the framework, the goals and targets, without getting into detailed discussions on the text. Though differing views were already expressed by the Parties, the co-chairs did not reflect that in the updated zero draft and draft one of the framework.

The first discussion on the text itself was held in August and September 2021, though only in a virtual format due to the Covid19 pandemic. For easier discussion, several contact groups were established, dealing with the goals, and groups of targets. A separate contact group was established for negotiating a draft recommendation for COP15 on Digital Sequence Information (DSI). All these contact groups were chaired by two co-leads. As this was the first possibility for Parties, Non-Parties and observers to actually table their proposals for amendments of the texts, there were many different, and – as expected – sometimes contradictory inputs. Unfortunately the virtual format did not allow for thorough discussions, due to time constraints and difficulties to participate for several developing countries. In addition, especially for the Asia-Pacific region, active participation was hindered by time differences, with negotiations taking place from midnight to the very early morning in their time zones.

The result of these discussions was summarized by the co-leads in preparation of the second part of the meeting, which took place in Geneva, Switzerland in March 2022. Although Parties were asked not to repeat statements and issues already raised at the virtual session, many of them reiterated their views, and therefore the discussion was in part very detailed, and at least for some targets, it proved to be quite difficult. However, the third meeting of the working group made progress, but did not manage to reach agreements on the text of the framework. Most of text remained in brackets, i.e., no final agreement on it was reached at the meeting. The OEWG agreed nevertheless that the developed text on the mission, goals and certain targets of the framework should be the basis for further negotiations, and that an additional meeting was necessary (SCBD 2022b). This meeting was held in June 2022 in Nairobi.

Regarding DSI, the positions were quite divided, mainly between developed and developing countries. While the developed countries opt for a free exchange of such information, in order to enable free research, developing countries see such information equal to physical genetic material and ask for a global benefit sharing mechanism. This divide is also reflected in the draft recommendation for COP15 prepared by the meeting, in which basically the whole text, including the proposals for a definition of DSI, remains in brackets (SCBD 2022c) and therefore needs to be renegotiated. During the negotiations some Parties, among them several African countries, made it clear that for them an agreement on DSI is a prerequisite for an agreement on the Post2020 GBF.

At the fourth meeting of the OEWG, not much progress was made, neither on the framework nor on the recommendation on DSI. As a result there are different proposals for new wording of the mission, alternative texts for goals, and many different additions and amendments with regard to the targets compared to the original text. It also needs to be noted, that due to these additions and amendments, the original aim of developing simple targets that are easy to communicate, got somehow abandoned. Many targets are rather complex and some of them even contain lists of bullet points (SCBD 2022d).

A final attempt to develop a compromise on DSI and the Post2020 GBF, and to agree to a text with as few brackets as possible, will be made at the fifth meeting of the OEWG in December 2022, in Montreal, right before COP15. However, even though the informal group made some progress in finding compromise text, chances are low, that the texts as they currently stand, can be cleaned up during the 3 days of the meeting, and that the discussions on these topics will dominate COP15.

3.3. Meetings of the subsidiary bodies

Due to the Covid19 pandemic, many of the meetings of the subsidiary bodies took place in online formats, and therefore had only informal character (Table2). However, great attempts were made by SCBD to facilitate discussions and to enable Parties to reach an agreement on recommendations for COP15. The subsidiary bodies dealt with a number of technical issues and aspects related to implementation but also played a considerable role in the preparation of the Post2020 GBF, SBSTTA dealing with the monitoring framework and SBI with related documents, especially with the Strategic Framework and the Action Plan for Capacity Development.

Table 2: Meeting schedule of SBI and SBSTTA from 2019 to 2022

Meeting	Meeting remarks	Date	Location/Format	Remarks
SBSTTA 23		November 2019	Montreal, Canada	Discussion on technical issues
SBSTTA 24	Preparatory meeting	February 2021	virtual	
SBSTTA 24 SBI 3	Special virtual session for SBSTTA 24 and SBI 3 on biodiversity, One Health and COVID-19	December 2020	virtual	
SBSTTA 24 SBI3	Special virtual sessions for SBSTTA 24 and SBI 3	September 2020	virtual	Input to Post- 2020 GBF and other issues
SBSTTA 24		March 2022	Geneva Switzerland hybrid	Decisions on recommendations to COP 15
SBI 3	Preparatory meeting	March 2021	virtual	Input to Post- 2020 GBF and other issues
SBI 3		March 2022 2021	Geneva Switzerland hybrid	Decisions on recommendations to COP 15

Source: Authors own elaboration

3.3.1. SBSTTA 23

SBSTTA 23 took place in November 2019 in Montreal, Canada, and discussed mainly issues related to the Post2020 GBF, with the goal to provide the co-chairs with technical input on the framework itself, technical and scientific cooperation in support of the framework, and possible elements of work on the links between nature and culture and how these could be reflected in the Post2020 GBF. Other recommendations decided by the SBSTTA were on biodiversity and climate change, sustainable wildlife management, and new and emerging issues relating to the conservation and sustainable use of biological diversity, where the issue of synthetic biology was briefly discussed, and referred to COP15 for a decision on its classification as new and emerging issue. In addition the results of the Regional Workshop to Facilitate the Description of Ecologically or Biologically Significant Marine Areas in the North-East Atlantic Ocean was presented, where a large number these areas were identified and classified, according to the already existing criteria (SCBD 2019c).

3.3.2. SBSTTA 24

SBSTTA 24 was split into three parts: a special virtual meeting, a virtual preparatory meeting and finally a face-to-face meeting in Geneva, in March 2022.

SBSTTA 24 elaborated several recommendations to COP15. These include a recommendation on the proposed monitoring framework for the post-2020 global biodiversity framework and nine other recommendations addressing: the fifth edition of the Global Biodiversity Outlook; the

Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services; synthetic biology; soil biodiversity; biodiversity and health; and invasive alien species. Though recommendations on the conservation and sustainable use of marine and coastal biodiversity; and ecologically or biologically significant marine areas were agreed upon, these need to been seen as a first draft, since, due to time constraints, the consideration of these two items were not finalized. The SBSTTA also prepared a recommendation to COP-MOP10 of the Cartagena Protocol on risk assessment and risk management (SCBD 2022e).

Regarding the monitoring framework for the Post2020 GBF, a list containing milestones and indicators was drafted and discussed. However, it became clear, that this issue needs to be discussed in more detail, once the Post2020 GBF has been adopted by the Parties. Therefore it was also recommended by the SBSTTA to establish an AHTEG for this purpose.

AHTEGs are also proposed for discussing the issues on synthetic biology (under the CBD) and the issue of risk assessment and risk management (under the Cartagena Protocol) further. While the focus regarding synthetic biology is on a process for horizon scanning, the AHTEG on risk assessment and risk management should work on a guidance document dealing with engineered gene drives.

As mentioned above, the discussion concerning marine issues could not be finalized and need further consideration by the COP or need to be submitted to the respective working groups in the next intersessional period. However, the recommendation by SBSTTA already includes a number of proposals on the description and modification of descriptions of already existing ecologically or biologically significant marine areas. It also lays down responsibilities and proposals for an EBSA repository.

3.3.3. SBI 3

Like SBSTTA 24, SBI 3 was split into three parts: a special virtual meeting, a virtual preparatory meeting and finally a face-to-face meeting in Geneva, in March2022. These meetings were either held back-to-back or concurrently with the SBSTTA 24 meetings.

SBI 3 adopted a number of recommendations. These included thirteen recommendations to the COP, two recommendations to the COP-MOP of the Cartagena Protocol, three recommendations to the COP-MOP the Nagoya Protocol, and one recommendation to all three bodies (SCBD 2022f).

Some of the recommendations dealt with the assessment and review of the progress made and the effectiveness of the current strategic plans. Others dealt with the financial mechanism, resource mobilization, cooperation or communication, as well as gender issues or mainstreaming.

The most important issues relate to the future work within and the implementation of the Convention and its Protocols. This is on the one hand a framework for a communications strategy to support the implementation of the post-2020 global biodiversity framework and on the other hand a plan of action on subnational governments, cities and other local authorities for biodiversity (2021-2030). In addition, the long-term strategic framework for capacity-building and development and the related action plan have been discussed by SBI. The agreement on these documents was already reached to large extent, though some issues, like the establishment of mechanisms for the implementation of the framework, need to be resolved by the COP.

For the Cartagena Protocol, an Implementation Plan (closely linked to the Post-2020 GBF) and a capacity building and development action plan have been elaborated and discussed by SBI. Also here, Parties agreed on most of the text. Some issues, like how to address the actors for capacity building and development need further discussion at COP-MOP10.

For the Nagoya Protocol, the global multilateral benefit-sharing mechanism was at the centre of discussion. As expected, many open issues remained, among them the establishment of an AHTEG to identify options for modes of participation, sharing of benefits and governance as well as options for cooperation. Most likely, this issue will be in the focus of the discussions at COP-MOP 3.

3.4. State of the discussion before COP15

3.4.1. The Post-2020 GBF

Though the basic concept and structure of the Post-2020 GBF has been accepted by Parties, there are many unresolved issues. The differences between Parties arise among others from different views on the sustainable use of biodiversity, different levels of ambition and different priorities within the countries.

While some developing countries focus on the use of biodiversity and the benefits arising from this use, developed countries tend to focus on the protection of species and ecosystems and want to integrate highly ambitious targets in the framework.

Currently, the Post-2020 GBF, including its mission, goals and targets still does contain many different ideas and text proposals. Therefore, many of the goals and targets need to be streamlined and focused in order to make it acceptable for all Parties but also understandable for the public. This will be the main task of OEWG5 and COP15.

A possible way forward regarding the definition of milestones and indicators for a monitoring framework has been outlined by SBSTTA24. This proposal, including the establishment of an AHTEG, is already in an advanced stage but needs to be refined by COP.

3.4.2. Technical issues

There are many several technical issues which still remain unresolved after the intersessional meetings. DSI being probably the most important one, because it is linked by some Parties to the adoption of the Post-2020 GBF. There the issue of access and use and benefit-sharing needs to be resolved.

Marine issues are also quite important and remain a challenge, especially as - due to the Covid19 - pandemic and limited possibilities to resolve outstanding issues at SBSTTA could not be resolved.

Another topic where no consensus could be reached is synthetic biology. So far there is no agreement on how to proceed with this issue.

For the Cartagena Protocol risk assessment and risk management linked to engineered gene drives will be one of the main topics. However, discussions at SBSTTA were quite fruitful and only some issues, especially on the role of a possible AHTEG need to be resolved.

3.4.3. Implementation related issues

Regarding implementation, the main issues are related to capacity building and development, and finances.

The recommendation of SBI regarding resource mobilisation still contains many unresolved issues, partly linked to the role of and commitments by Parties. Some of the open issues are a possible successor to the current strategy for resource mobilization and national finance plans for biodiversity as well as reporting mechanisms.

The long-term strategic framework for capacity building and development as well as the related action plans of the CBD and the Cartagena Protocol, are already in an advanced stage of discussion. Most of the differences between Parties have been resolved, though some issues like involved stakeholders or implementation mechanisms will have to be decided by COP or COP-MOP-respectively.

The discussions on the implementation plan of the Cartagena Protocol are also at an advanced stage, with only minor issues to be decided upon by COP-MOP10.

4. KEY ISSUES FOR NEGOTIATIONS AT COP15, COP-MOP10, COP-MOP4

COP15 and the concurrent meetings of COP-MOP 10 (Cartagena Protocol) and COP-MOP 4 (Nagoya Protocol) could not take place as initially scheduled. The original plan to organize these meetings in Kunming, China in October 2020 had to be adapted due to the Covid19 pandemic. This rescheduling of the meeting made it necessary, mainly because of formal reasons, to divide the meeting into two parts and to organize an extraordinary meeting at the end of 2020 (Table 3).

Table 3: Meeting schedule of COP 15, COP-MOP 10, and COP-MOP 4 from 2020 to 2022

Meeting	Meeting remarks	Date	Location/Format	Remarks
COP 15	extraordinary meeting	November 2020	virtual	Decision on the interim budget
COP-MOP 10 COP-MOP 4	extraordinary meeting	November 2020	virtual	Decision on the interim budget
COP 15	Part 1	October 2021	Kunming, China hybrid	Opening, Kunming declaration interim budget
COP-MOP 10 COP-MOP 4	Part 1	October 2021	Kunming, China hybrid	opening
COP 15	Part 2	December 2022	Montreal, Canada hybrid	Decisions on Post-2020 GBF and other issues
COP-MOP 10 COP-MOP 4	Part 2	December 2022	Montreal, Canada hybrid	Decisions on implementation plan, capacity development action plans and other issues

Source: Authors own elaboration

4.1. Extraordinary COP and COP-MOPs

As the budget for SCBD is decided upon for a two years' timeframe by the COP, and the budget period ended by the end of 2020, it was necessary to get an agreement on the interim budget for the year 2021, in order to ensure the operability of the SCBD and to facilitate the intersessional work of the Subsidiary Bodies and the OEWG on the Post-2020 GBF.

The meetings were held in a virtual format, consisting of a proposal by the bureau of the CBD and a written procedure. The budget was adopted as proposed by the SCBD.

4.2. Part 1 of COP 15, COP-MOP 10, and COP-MOP 4

Part one of the meetings were held in a hybrid format, due to travel restrictions, caused by the Covid19 pandemic. The meetings in Kunming, China, served the purpose to transfer the Presidency of the COP from Egypt to China and the adoption of an interim budget for 2022. There was also a high-level segment where around one hundred statements by Heads of State or Government, ministers and other high-level representatives were delivered.

After the opening of the meeting the Presidency was formally transferred from Egypt to China, which is therefore responsible to guide the negotiations and work of the COP until COP16.

The interim budget proposed by the SCBD was adopted by COP without substantial changes.

At the high-level segment four round tables and three Panel discussion were organized. The round tables dealt with biodiversity recovery, conservation and sustainable development, as well as financial means for implementation and sharing of knowledge, benefits and innovation. The panel discussions, where the panellists came from organizations like the FAO, WHO or UNEP, dealt with general societal aspects of biodiversity.

The main outcome of the high-level segment was the Kunming Declaration (SCBD2022g) which is seen a step in the right direction. It contains a commitment to negotiate an effective Post2020 GBF matched by the necessary resources, with an effective monitoring and review mechanism. It also outlined the key elements for success, including mainstreaming, redirection of subsidies, rule of law, and full and effective participation of indigenous peoples and local communities.

4.3. COP 15 - CBD

4.3.1. The Post2020 GBF

Without any doubt the Post2020 GBF will be the paramount topic at COP15, limiting time for discussions on other topics. As outlined in chapters 3.2 and 3.4.1 there are still many open issues. The text of the framework as it stands before the fifth meeting of the OEWG needs much work before it can be decided upon by COP15. As the framework, especially with regard to numerical targets and the level of ambition, which is in turn in many cases linked to economic effects, is highly political, it is not unlikely that some of the main points of controversy remain open and will only be resolved at the high-level segment, which is organised in the second week of the meeting.

4.3.2. Resource mobilisation

Besides the Post2020 GBF this is one of the most complex issues up for negotiation at COP15. Different financing institutions, international and national responsibilities and discussions on a global biodiversity fund contribute to this complexity.

Although this topic was discussed extensively at SBI3 most of the text remains in brackets and needs to be discussed again at COP.

The main issues will be the successor to the current strategy for resource mobilization and its linkage to the Post2020 GBF, the national finance plans, as well as terms of reference for a global biodiversity fund. Most contentious are the question of financial commitments by developing countries, the development of a streamlined financial reporting framework, or the identification and reduction of harmful subsidies. Other issues are linked to the mobilization of resources from non-institutional or non-national origin, i.e. industry or private funds. This is strongly linked to the issue of mainstreaming.

In order to resolve all these open points, it is very likely that a contact group will be established.

4.3.3. Capacity building/ - development

COP14 decided that in the context of the development of the Post2020 GBF to review and adapt the existing strategic plan for capacity building. The new long term strategic framework should be valid for the CBD and its Protocols and supplemented by specific action plans for the three instruments.

There have been extensive discussions in the intersessional period, with the final step at SBI 3 where a recommendation to COP has been elaborated. Most of the decision text remains in brackets, also for formal reasons: As there is a strong link to the Post2020 GBF, some parts can only be decided upon, once the decision on the GBF is taken. The long term strategic framework itself was already agreed on to a large extent. Parties reached a consensus on the general structure and the general principles laid down in the framework, e.g. strategic and integrated system-wide approaches, country ownership and commitment, integration of gender and youth perspectives, all activities based on an inclusive analysis of existing capacities and needs, and the establishment of monitoring, evaluation and learning frameworks. Coordination mechanisms and responsibilities for the implementation on different geographical levels are still under discussion and need to be finalized at COP15.

4.3.4. Marine and coastal biodiversity

To regulate Marine and coastal biodiversity as well as the assignment of EBSAs is an ongoing dispute between Parties. As many of them have a high economic interest in benefits from fisheries and/or tourism and regard any multilateral agreement as questioning their national sovereignty, a general agreement is hard to reach.

For EBSAs a proposal for modifying the description of ecologically or biologically significant marine areas, for describing new areas, and for strengthening the scientific credibility and transparency of this process, will be the topics to be negotiated. This also includes the description or the modification of this description of EBSAs within national jurisdiction, in areas beyond national jurisdiction, straddling multiple national jurisdictions, straddling areas both within and beyond national jurisdiction.

Regarding the conservation of marine and coastal biodiversity there are a number of different issues touched upon in the document prepared by the SCBD, such as impacts of anthropogenic underwater noise, marine spatial planning, practical guidance on preventing and mitigating the impacts of marine debris on marine and coastal biodiversity and habitats, addressing biodiversity concerns in fisheries, or capacity-building and partnership activities through the Sustainable Ocean Initiative.

As due to time limitations these issues, especially the recommendations, could not be discussed in detail at SBSTTA 24 the main discussions will take place at COP15.

4.3.5. Synthetic biology

This issue is closely linked to the topic of risk assessment and risk management of LMOs, dealt with under the Cartagena Protocol. At previous COPs and meetings of SBSTTA both issues have been discussed in related contact groups. The recommendation of SBSTTA to COP contains several brackets but also some clean text, i.e. text where an agreement could be reached. Most important is the agreement on the establishment of a process for a regular horizon scanning mechanism for

providing information on the most recent technical developments in synthetic biology. A multidisciplinary AHTEG should inform this horizon scanning.

However, some open issues remain: the need for a multidisciplinary AHTEG is still questioned by some Parties and the timeframe and periodicity of the horizon scanning need to be agreed on. Some Parties may also question the need for a horizon scanning, with the aim to halt further discussion on synthetic biology under the CBD. In addition, the formally unresolved question, if synthetic biology is a "new and emerging issue" may still be controversial and used by some Parties to prolong further discussions on contents.

4.3.6. Digital sequence information

This topic is mainly discussed at the CBD but has strong links to the Nagoya Protocol. This is reflected in corresponding decisions at both the COP and COP-MOP.

Due to the rapid technological progress of recent decades, it has become possible to use data derived from genetic resources, such as the DNA sequence, to develop commercial products, without accessing the actual genetic resource itself. However, openness and free exchange of information is the basis for modern academic research. A lot of data is stored in public databases and for the most part freely shared under an open access license.

The issue of DSI emerged as a part of negotiations on synthetic biology and it became quite contentious during over the last years. COP13 and COP-MOP2 witnessed a clash of positions between the developing and developed countries. Biodiversity-rich, developing countries argued that DSI is or should be considered in the scope of the CBD and the Nagoya Protocol. They argued that DSI is equivalent to genetic resources and needs to be recognized as such, and consequently that the benefits generated from the use of DSI need to be shared, which was clearly opposed by developed countries. To explore the issue further Parties agreed on a process to address the status of DSI and its potential implications for the three objectives of the CBD.

Several meetings have taken place, and the issue was also taken up by the Post2020 GBF – OEWG, following a COP14 decision. In addition, an IAG on DSI was established to support the work of the Co-Chairs of the OEWG and the Executive Secretary.

The recommendation of the IAG and the OEWG to COP does contain in its addendums several options on how to deal with DSI, including financial aspects.

As this issue is of great importance for developing countries, especially Africa, but also for developing countries with regard to open access to DSI for researchers, and has high economic impacts, a compromise will be very difficult to achieve. However, a positive outcome has been linked to an agreement on the Post2020 GBF by some developing countries.

4.4. COP-MOP 10 - Cartagena Protocol on Biosafety

4.4.1. Implementation plan

This topic, together with the Capacity Building Action Plan, will be the most important one at COP-MOP10, as it determines the further work and implementation of the Protocol. During the negotiations of SBI 3 most of the issues regarding the Implementation Plan of the Cartagena Protocol have been resolved. The most important one was splitting the original document prepared by the SCBD and which contained both the Implementation Plan and the Capacity Building Action Plan in one document and the objectives and indicators even in one table. This major amendment was driven by the EU for several reasons: formal ones, as the two plans are referred to in different COP-

MOP 9 decisions and are linked to different "mother" documents at CBD level, and additional reasons linked to readability, visibility and different target groups. This reasoning was accepted by all Parties and there was a consensus at SBI 3 to split the documents, redraft the document accordingly and submit them as two different draft decisions to COP-MOP 10.

Most of the issues related to the content have also been resolved by SBI3. Some minor issues on wording regarding risk assessment or socio economic considerations will, most likely, be easily resolved.

4.4.2. Capacity building action plan

As this document was discussed already at SBI 3 and a decision has been made to recommend to COP-MOP 10 to adopt this Action Plan as a separate, stand-alone, document, the main point of contention has already been resolved. However, the main open point is, how to address the actors responsible for carrying out capacity building activities.

The EU prefers a separate column in the action plan where actors are mentioned and linked to the different activities. Most other Parties, referring to different regional and local circumstances and asking for flexibility on responsibilities do not support this idea and prefer a general statement in the preamble to the action plan.

It is expected that a contact group will be established to discuss open issues on both plans, i.e. the Implementation Plan and the Capacity Building Action Plan.

4.4.3. Risk assessment and risk management

This item has already been discussed at SBSTTA 24 and the outcomes are reflected in a recommendation to COP-MOP. The COP-MOP needs to decide whether it will take up the recommendation to proceed with development of further guidance on the risk assessment and risk management of engineered gene drives, but to refer the development of similar guidance for living modified fish to COP-MOP 11.

It also needs to decide on the procedure on how to develop such guidance. Several options have been put on the table: To mandate an AHTEG with the work, as was the preferred option in the past. Other options are the establishment of a small panel of experts by the Executive Secretary which is tasked with the elaboration of the guidance document. A combination of both options is another possibility. For the EU and many developing countries an AHTEG is the preferred option, as such a technical group guarantees an inclusive broad discussion involving experts from all UN regions. A panel of experts may even be more expensive, does not have these benefits and the outcome may have a low acceptance by Parties. It is expected that a contact group will be established on this agenda item.

4.4.4. Assessment and review

The main issue under this agenda item is the low number of fourth national reports submitted by Parties. Therefore the evaluation undertaken by the Liaison Group and the Compliance Committee of the Protocol was based on insufficient data. This was also addressed by SBI3 and is reflected in its recommendation. The EU will ask for an update of evaluation once a sufficient number of reports has been submitted. However, it is not expected that this agenda item will lead to conflicts in the negotiations.

4.4.5. Socio economic aspects

Though in the past this topic has been highly contentious, with many Parties supporting the development of guidance documents on an international level and others relating to the voluntary nature of Art. 26 of the protocol, being of the opinion that this should be up to the Parties. Over the past years a guidance document has been developed. An AHTEG further supplemented this guidance document. The outcome will be sent for adoption to COP-MOP. The AHTEG does not propose an immediate continuation of the AHTEG but asks for collecting of further information related to experience with taking socio-economic consideration into account in decision making. Therefore it is to be expected that the discussion will be rather smooth on this issue.

4.5. COP-MOP 4 - Nagoya Protocol on Access and Benefit-sharing

4.5.1. Global multilateral benefit sharing mechanism

Benefit sharing according to the Nagoya Protocol is regulated on a bilateral basis between Parties. However, many developing country Parties, led by the African group, consider such a bilateral mechanism as insufficient and have been asking for some time to establish a global multilateral mechanism. To get more information on the need of such a mechanism the SCBD commissioned a study, the results of which have been discussed at SBI 3. As there are still many open questions regarding the establishment and operation of a global mechanism, including the modalities of operation of a proposed global biodiversity fund, the SBI 3 proposed to establish an AHTEG to further discuss these issues and propose solutions and options to SBI 4.

However, it needs to be noted that most of the recommendation text from SBI 3 remains in brackets, including the establishment and the mandate of the AHTEG.

As this issue is at the core of a functioning access and benefit sharing mechanism and has also considerable economic implications, it is not very likely that a solution can be negotiated at COP-MOP 3. The EU, however, is open for further discussion, but does not see the need for such a mechanism for the time being. The main focus should be on implementing the Protocol and on establishing mechanisms for accessing genetic resources, granting prior informed consent and sharing the benefits arising from the use of the respective genetic resource.

4.5.2. Specialized international access and benefit-sharing instruments

This item deals with existing access and benefit sharing mechanisms and their relation to the Nagoya Protocol. Modalities of mutual recognition and terms of acceptance will be discussed at COP-MOP 4. A proposal for criteria was also discussed by SBI 3 and included in the recommendation to COP-MOP 4.

4.5.3. Capacity building and development

The main issue under this agenda item will be the extension of the Informal Advisory Committee on Capacity-building for the Implementation of the Nagoya Protocol and to update its mandate to adapt the current strategic framework to the long term strategic framework for capacity building and development to be decided upon by COP15. COP-MOP4 also needs to decide on priorities for capacity development identified by SBI 3.

5. THE EUROPEAN UNION'S POSITION

The overall EU position for the negotiations at COP 15, COP-MOP 4, and COP-MOP 10 are decided upon by the Council and adopted in Council Conclusions (Council of the European Union 2022). Those are supplemented by Position Papers which lay down proposal for amendments of draft decisions and detailed negotiation positions. These Position Papers are not publicly available.

5.1. COP 15 - CBD

5.1.1. Post2020 Global Biodiversity Framework

The EU and its Member States ask for an ambitious, comprehensive and transformative post-2020 global biodiversity framework, with a clearly communicable mission and SMART targets. Their position is focused on conservation and restoration of biodiversity, covering several aspects and targets. The main elements to be included in the Post-2020 GBF are:

- effectively conserving at least 30% of global land and at least 30% of oceans, safeguarding the rights of indigenous peoples and local communities;
- stepping up action for the effective restoration of degraded ecosystems in order to put biodiversity on the path to recovery, bringing under restoration 3 billion hectares of degraded land and freshwater ecosystems and 3 billion hectares of ocean ecosystems;
- eliminating all illegal, unsustainable or unsafe harvest, trade and use of wild species, and improve the conservation status of threatened species;
- halting human induced extinctions of known threatened species, as well as safeguarding and maintaining the genetic diversity and adaptive potential of populations of;
- reducing levels and risks of pollution from all sources;
- managing pathways for the introduction of alien species and controlling already established invasive alien species to reduce their impacts on biodiversity; and
- sustainably managing all areas under productive uses promoting the sustainable use of biodiversity.

All these elements should not only be included in the framework, but implemented by 2030.

The position also underlines the importance of traditional knowledge, the rights and participation of IPLCs through their full and effective participation with free, prior and informed consent, and the need of cooperation at all levels (global to local) to implement the framework.

5.1.2. Digital Sequence Information

The EU and its Member States are of the opinion that any decision regulating access to DSI and sharing the benefits derived from the use of DSI should be based on existing practices in databases. It should preserve open access to DSI from public databases. It needs to be practical and easily implementable, and ensure legal certainty. The aim is that it is mutually supportive with other ABS instruments, and ensure that benefits that are shared will contribute to the conservation and sustainable use of biodiversity.

5.1.3. Other Issues

The Council Conclusions cover issues relevant for implementing mechanisms as well as technical issues.

It is stated that the importance of dedicated, predictable and adequate resource mobilization for biodiversity is crucial for funding biodiversity related activities and that the GEF is the central source for biodiversity funding. The commitment by the European Commission for the EU to double external funding for biodiversity and that the EU Member States are the largest contributor to the GEF are recalled. It is also made clear that the mobilization of new and additional resources is necessary to implement the GBF.

The importance of capacity building and development is recognized and the adoption of the long term strategic framework is supported.

The NBSAPs, which are seen by the EU and its Member States as the main instrument for the implementation of the CBD on a national level need to be aligned with the goals and targets of the Post-2020 GBF as well as with the monitoring framework and its indicators. The commitment to prioritize assistance for capacity building and development activities for the implementation of the GBF with a focus on the development and implementation of NBSAPs and on reporting and review is also emphasized.

In this context cooperation with other conventions and international organizations as well as mainstreaming biodiversity within and across sectors are seen as mayor tools to support the implementation of the Post-2020 GBF.

The EU and its Member States ask for action and the implementation of further measures in the areas of invasive alien species; biodiversity and climate change, biodiversity and soil, and biodiversity and health (One-Health approach). In order to make progress on the issue of synthetic biology the establishment of a multidisciplinary AHTEG as well as the envisaged horizon scanning mechanism are supported.

The most important technical issues covered by the Council Conclusions are related to marine and coastal biodiversity. While the progress in the area of improving the governance of ecologically representative and well-connected protected marine and coastal areas is recognized many open issues are identified where action is needed. This covers conservation and recovery of coastal habitats and the need to minimize negative impacts of fishing and aquaculture activities on the marine environment, as well as actions to conserve, restore and sustainably use marine ecosystems and to reduce anthropogenic pressures on the oceans, including from overfishing, sea-use change, and pollution. The resilience of the oceans in the face of climate change, including in the sensitive polar regions need to be strengthened.

Further discussions regarding the EBSAs with a view to finalize successfully the revised procedure for the identification of EBSAs are welcomed. However, the outcome of EBSA process should fully respect the sovereignty, sovereign rights or jurisdiction of coastal states.

5.2. COP-MOP 10 - Cartagena Protocol on Biosafety

The main positions of the EU and its Member States cover the Implementation Plan and Capacity Building Action Plan, where their adoption is supported, the concern regarding the low number of national reports, which have been submitted, where other Parties are urged to submit the outstanding reports, and risk assessment and risk management, where the COP-MOP should establish an AHTEG to develop guidance on engineered gene drives.

5.3. COP-MOP 4 - Nagoya Protocol on Access and Benefit-sharing

The focus for the EU and its Member States is the full implementation of the Nagoya Protocol, inter alia through the development of standardized and simplified access and benefit sharing measures. This should contribute to promoting research. The need to support capacity building and development is identified and Parties are asked to make available any information on access and benefit-sharing measures as well as other relevant information to the Access and Benefit-sharing Clearing House.

6. THE EUROPEAN PARLIAMENT'S RESOLUTION ON THE EU BIODIVERSITY STRATEGY

In its resolution on the EU Biodiversity Strategy 2030 from 2021, the European Parliament also reflects the process under the CBD (EP 2021).

In its resolution, the EP supports the commitments included in the EU Biodiversity Strategy 2030 (European Commission 2020) but raises its deep concern on the current status of biodiversity and the negative trends regarding species and habitat loss. It requests the European Commission and the Member States to increase their efforts towards reaching the goals laid down in the strategy. The main drivers of biodiversity loss, i.e. changes in land and sea use, direct exploitation of organisms, climate change, pollution and IAS, should be addressed with priority.

Besides other issues covered by the resolution like funding, mainstreaming, governance, research, innovation, education, and the enforcement of nature legislation, there is also an explicit reference to the Post-2020GBF and other issues to be dealt with at COP15. The proposals made by the European Commission in its EU Biodiversity Strategy 2020 are supported. However, additional points are raised by the EP.

The need for a post-2020 multilateral binding agreement similar to the Paris Agreement to halt and reverse biodiversity loss by 2030, with SMART targets and indicators is emphasised. The EP calls for a robust implementation framework and a science-based, independent and transparent review mechanism. The EU should act as a global leader and push for a high level of ambition, including legally binding global restoration and protection targets of at least 30 % by 2030. The need to support low-income countries in the implementation of this new framework is underlined. The role of the private sector to protect and restore biodiversity is stressed, and the need for further commitments by this sector expressed.

The Commission is asked to push for ambitious and clear global long-term targets at the negotiations.

A topic which is not addressed in the EU Biodiversity Strategy 2030, and which is dealt with under the Cartagena Protocol at COP-MOP 10 is the issue of engineered gene drives and their potential environmental effects. Gene drives are a special application of LMOs, aimed to overcome natural inheritance patterns and spread a certain trait through a population quickly. These applications are usually aimed to diminish populations or drive certain species to extinction (in a certain area), e.g. mosquitos in order to fight the spread of diseases, or to fight invasive alien species. The EP is concerned about the legal, environmental, biosafety and governance challenges that might arise from the release of genetically engineered gene drive organisms into the environment. It acknowledges the need for global and EU-level risk assessment guidance materials, tools and an environmental monitoring framework, as well as clear global governance and effective mechanisms for controlling and reversing the effects of gene drive organisms.

The EP considers that no releases of genetically engineered gene drive organisms should be allowed, including for nature conservation purposes, in line with the precautionary principle.

In general the EP recognizes the potential of using green diplomacy, trade policy and multilateral action to promote the protection of biodiversity outside of Europe and calls on the Commission and the Member States to effectively integrate the protection of the environment and biodiversity in all external action.

7. THE ROLE OF DIFFERENT GROUPS AND STAKEHOLDERS

The role and position of different countries, regional groups or groups of observers regarding different agenda points of the COP and COP-MOPs and the goals and targets of the Post2020 GBF are not uniform and are difficult to pinpoint, as they may change with a change in the political circumstances in a country rather quickly.

However, some general observations and possible difficulties in the negotiations are outlined in the following.

7.1. Observers and organisations

This group is very divers and includes international organisations, like FAO, WHO, or IUCN, industry, education, e.g. participants from universities, and environmental or social NGOs.

While most of the participants from these group see their role as observers in the strict sense, with only few statements – often limited to opening statements in plenary, many NGOs are actively participating in the negotiations, making proposals and trying to influence Parties. Most active are the Global Youth Biodiversity Network, the CBD Alliance – an association of several environmental and social NGOs, like Friends of the Earth or the Third World Network, the IPLC Network, and the Women's Caucus. All of them – with different focus – aim at full implementation of the CBD, an ambitious Post-2020 GBF, strengthening capacity building and development and a better funding for developing countries, ensuring the rights of IPLCs, youth and women. They try to convince Parties in the negotiations as well as in bilateral meetings to support their point of view. Such a support is crucial as their proposals are only taken into account, if supported by a Party. Frequent supporters of NGO proposals are the EU, the UK, Bolivia, Mexico, and some African countries.

7.2. Regional groups and Parties to the CBD

The EU is the only fully coordinated group within the CBD negotiations – speaking with one voice. The other regional groups are coordinated only to a certain extend with Parties from a certain region sometimes openly contradicting the regional positions.

Somehow coordinated are the African and the CEE group – where at least regarding some issues of the agenda a common position is reached. The Asia/Pacific and the GRULAC regions are much more divers in their opinions, and a common positions is rarely achieved. The WEOG region, where the EU is member, is exchanging positions informally, but Parties negotiate on their own and supporting each other on a case-by-case basis.

For the negotiations at COP15 it is to be expected that the main divide will be between developed and developing countries, and between developed countries and countries with economies in transition. One reason for that is the different focus regarding the objectives of the CBD: While developed countries focus on conservation and restoration of biodiversity, e.g. by increasing the area under strict protection, developing countries as well as countries with economies in transition focus on the sustainable use as well as getting benefit from access to their genetic resources. For many of them the use of natural resources is an important economic factor. This is one reason why the views on the level of ambition in the GBF differ greatly, commitments to reach specific goals will be hard to get, and the discussions on DSI will be key to get an agreement on the Post2020 GBF.

The most prominent actors in the negotiations – always depending on the topic, or the content of the different goals and targets of the GBF – are:

- Africa: Cameroon, Namibia, South Africa, Uganda;
- Asia/Pacific: China, India, Japan, Malaysia;
- CEE: Moldova, Russia, Ukraine;
- GRULAC: Argentina, Brazil, Bolivia, Colombia, Mexico; and
- WEOG: Australia, Canada, EU, New Zealand, UK.

8. OVERVIEW ON RELATED PROCESSES AND PUBLICATIONS

8.1. IPBES & the Global Assessment Report on Biodiversity and Ecosystem Services

The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) was established in 2012 to better interlink science and policy. Accordingly, IPBES provides scientific information on biodiversity and ecosystem services for policy makers including governments, multilateral environmental agreements, e.g. the CBD, and UN institutions.

In 2019 IPBES approved and published the Global Assessment Report on Biodiversity and Ecosystem Services (IPBES 2019) that was prepared by more than 150 experts. It is the first UN report on the status and trends in nature since the Millennium Ecosystem Assessment published in 2005. The Global Assessment Report provided also information for the GBO 5 (SCBD 2020a) and contributes to the development of the Post-2020 GBF. In addition to the full report, a summary for policy makers is available.

The Global Assessment Report includes an overview on the status of biodiversity and ecosystem services and respective trends as well as underlying causes, and provides information in how far international objectives related to nature have been met, e.g. the Aichi Biodiversity Targets. It covers also pathways to sustainability including the achievement of the SDGs. The report assessed the status of nature from the 1970s onwards and includes predictions until 2050 (the year where the biodiversity vision "living in harmony with nature" should be accomplished).

According to the report, nature continues to deteriorate worldwide, with a rapid decline in biodiversity (including varieties of domesticated plants and breeds of animals) and degradation of ecosystems (e.g. 75% of land surface is significantly altered and 85% of wetland area lost). More species are threatened with extinction than ever before.

Direct drivers of these processes listed in the report are land- and sea use change, direct exploitation of organisms, climate change, pollution, and invasive alien species. They are generated by the following indirect drivers identified: demographic and sociocultural drivers (e.g. human population dynamics, consumption patterns), economic and technological drivers (e.g. global economy has grown fourfold and global trade tenfold in last 50 years causing respective demand for energy and materials), drivers that are related to institutions and governance (e.g. economic incentives associated with unsustainable practices), and conflicts and epidemics.

Based on the assessment, taking also into account scenarios for future trends, many international goals will not be met, including the Aichi Biodiversity Targets, the 2050 Vision for Biodiversity or the 2030 Agenda for Sustainable Development.

Nature is vital for human existence and well-being (e.g. regarding quality of fresh-water, soil, climate regulation, pollination). In order to achieve positive trends on biodiversity and ecosystems, humankind needs to act immediately on all indirect and direct drivers. According to the report, future goals will be supported by e.g. addressing population growth and per capita consumption, as well as transformative changes (by incentives and capacity building, cross-sectoral cooperation, preemptive action, decision-making in the context of resilience and uncertainty, environmental law and implementation). Other aspects are enhanced international cooperation, the alignment of local, national and international efforts on sustainability (including mainstreaming biodiversity), policy measures like expanding protected-area networks (incl. marine protected areas), and conservation measures. Promoting sustainable agriculture, supporting conservation of genetic diversity,

avoidance of food waste, reducing pollution, nature-based solutions to mitigate the effects of climate change, or building a global sustainable economy are also vital aspects.

8.2. The Dasgupta Review

In 2019 the government of the United Kingdom commissioned a global review on the economics of biodiversity. Its aim was to assess both the economic benefits of biodiversity and the economic costs and risks of its loss. In addition, measures that can both enhance biodiversity and provide economic prosperity should be included. In 2021 the final report "The Economics of Biodiversity" was published, better known as "The Dasgupta Review" (Dasgupta 2021). In addition to the full report an abridged version as well as a publication with headline messages are available. The report was to be published ahead of COP 15 of the CBD and COP 26 of the UNFCCC, since nature is an important issue for both conventions and COP 15 is supposed to agree on the Post-2020 GBF. The Dasgupta Review is providing options for change and an underlying rationale as well as a broad overview on human use of nature, the economic system, biodiversity and ecosystem services and related aspects. It describes humankind's dependence on nature and biodiversity, and the consequences of its unsustainable use in economic terms. It shows how much humanity depends on nature und what important role biodiversity plays in ensuring nature's services. Prosperity achieved in the last decades came at the expense of nature (e.g. biodiversity decline, high extinction rates, degradation of ecosystems). This endangers the prosperity and well-being of current and future generations. Underlying problems identified are, amongst others, that nature values and the goods and services it provides are not reflected in market prices and that governments invest more in the exploitation of nature than in its protection.

According to the review a fundamental change in economics is needed in order to both reverse the loss of biodiversity, and to protect and enhance prosperity. This change towards a sustainable economy needs to be implemented now (Dasgupta 2021). Respective options presented in the report cover the following aspects: the demands of nature shall not exceed its supply and in addition nature's supply should be increased, the measures of economic success need to be changed, and institutions and systems (e.g. finance, education) need to be transformed to enable the necessary changes.

Proposals relate to fundamental changes in consumption and production (e.g. standards for recycling and re-use), influencing population growth (e.g. education, family planning), or the conservation and restoration of natural assets (e.g. improved management of protected areas, investment in nature-based solutions).

Highlighting the limitations of the Gross Domestic Product, it is e.g. proposed to include natural capital accounting into national accounting systems. That way aspects of nature would be considered in economic decision-making and reshape what is considered an economic success.

New management systems are proposed for those ecosystems that are considered global public goods. Proposals include payments to nations for the protection of those ecosystems that humankind depends on (e.g. tropical rainforests), charges for the use of those ecosystems that lie outside national boundaries (e.g. ocean traffic, ocean fisheries) or the prohibition of using ecologically sensitive areas outside national boundaries. Such measures would require supranational arrangements. It is also pointed out that a financial system is needed which inter alia enhances natural assets. In addition, environmental educations programmes are seen as important to empower people to understand nature and the consequences of their actions.

8.3. **IUCN**

The International Union for Conservation of Nature (IUCN), with members from governments and civil society organisations, was founded in 1948. It played a role in the creation of international conventions, e.g. the CBD, and addresses a broad range of topics clustered into 15 themes. Many of the topics are also discussed within the CBD and its Protocols, like alien species, nature based solutions or synthetic biology. IUCN provides scientific information and advice, issues resolutions and recommendations, develops position papers (e.g. on the Post-2020 GBF) and produces standards (e.g. regarding the classification of the impact of alien species, IUCN Red List of Threatened Species, categories of protected areas). The IUCN is also engaged in the CBD discussions.

As an example, the development within the IUCN regarding synthetic biology is presented. A topic that is intensively discussed within the CBD and the Cartagena Protocol since many years.

In 2016 at its World Conservation Congress (convened every four years) IUCN members adopted a Resolution for the development of a IUCN policy on synthetic biology and nature conservation. In the following a respective task force and technical sub-group were established that, amongst others, assessed the topic and provided policy recommendations (IUCN 2021a).

The report on the assessment of synthetic biology and biodiversity conservation was published in 2019 (Redford et al. 2019). In addition to the full report a synthesis with key messages is available. In this report several applications of synthetic biology are presented that are intended to tackle issues of nature conservation, amongst others engineered gene drive applications, with most of the examples being in early stages of research and development. In addition, other topics are discussed e.g. governance frameworks and respective challenges (e.g. regarding digital sequence information).

Although the report recognises possible negative impacts of synthetic biology and engineered gene drives (e.g. impact on non-target populations by escaped organisms carrying gene drives, broader ecosystem effects, decrease of funding for other conservation approaches, the authors see also potential benefits for nature conservation. Examples are the eradication of invasive alien species using organisms with engineered gene drives, the restoration of extinct species (development of proxies for e.g. the woolly mammoth or the passenger pigeon), or the increase in genetic diversity in small populations of threatened species by reintroducing extinct variations genetic variation.

At the Marseille World Conservation Congress in September 2021 the resolution "Towards development of an IUCN policy on synthetic biology in relation to nature conservation" was adopted (IUCN 2021b). It will serve as the basis for the development of an IUCN policy on the implications of the use of synthetic biology in nature conservation to be adopted by the World Conservation Congress in 2024.

SUMMARY AND OUTLOOK

The CBD and its Protocols do cover a wide range of technical and policy issues related to biodiversity and its sustainable use. It functions through input from Parties in various formats ranging from small working groups and formal committees to the governing body, the Conference of the Parties. The COP meets every two years and decides on the necessary steps to implement the CBD but also on processes for its further development. The most important being the development of a global biodiversity framework for the period 2020 to 2030, which was decided upon by COP 14 in 2018 and should have been finalized until COP15, originally scheduled for 2020.

Due to the Covid19 pandemic, the process got somehow delayed. However, the goal is to adopt this framework at COP15 in December 2022. Many meetings have taken place in order to draft, discuss and refine the framework. However, despite all the efforts by the co-chairs, the SCBD, and experts assisting the process, there are many open points relating to the formulation of the goals, milestones and targets of the framework. The differences between Parties do mainly originate in different views on the "sustainable" use of biodiversity, the overall ambition of the framework and the degree of detail to be reflected in the different targets. The GBF will be supplemented by a monitoring framework, comprising indicators to measure progress in the implementation of the GBF and a long term strategic framework for capacity building and development.

Negotiations on the GBF as well as other issues will try to resolve open points remaining from the intersessional work of the subsidiary bodies and the working groups. Among these open issues are capacity building and development, resource mobilization, marine issues, synthetic biology, and DSI. The last being the most critical, as a progress in resolving the dispute on benefit sharing related to the use of DSI is seen as a prerequisite to agree to the Post-2020 GBF by some developing countries.

COP 15 will be dominated by the discussions on the Post-2020 GBF and DSI. All other issues will be lower on the agenda, and some of them might, due to time constraints, even be deferred to COP16. This, though understandable, might lead to a considerable setback in the implementation of the CBD and its Protocols, concerning the conservation of biodiversity.

The presidency of COP 15, China, is determined to reach an agreement on the Post-2020 GBF, with the ambition to halt the loss of biodiversity and to enable the sustainable use of biodiversity to meet people's needs. This is supported by many Parties and therefore a success of COP 15 in reaching an agreement on the framework and the most important topics seems possible.

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Issues at stake at the COP 15 Conference to the Convention on Biological Diversity

This study aims at providing background information on the history and functioning of the UN Convention on Biological Diversity and its Protocols. It also gives an overview on recent developments and main topics to be discussed at COP15. Special emphasis is put on the development of the Post-2020 Global Biodiversity Framework.

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