# Environmental-Economic Accounts and Financial Resource Mobilization for Implementation of the Convention on Biological **Diversity**

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### Abstract

At the Rio "Earth Summit" the Convention on Biological Diversity introduced a global commitment to conservation of biological diversity and sustainable use of its components. An implementation process is going on, based on a strategic plan, biodiversity targets and a strategy for mobilizing financial resources. According to target "2", by 2020 national accounts should include monetary aggregates related to biodiversity. Environmental accounts can play an important role - together with other information - in monitoring processes connected with target "20": contribute to identifying activities needed to preserve biodiversity, calculating the associated costs and eventually assessing funding needs. In particular, EPEA and ReMEA are valuable accounting tools for providing data on biodiversity expenditure. The high quality of the information provided by these accounts makes them good candidates for being adopted world-wide within the Convention's monitoring processes. Enhanced interaction between statisticians and officials from ministries of environment would be crucial to reach significant advancement towards standardization of the information used in support of the Convention.

Keywords JEL code Conservation of biological diversity, Aichi Biodiversity Targets, environmental-economic Q56, Q57 accounts, environmental expenditure, standardization

#### INTRODUCTION

At the UN 1992 Conference on Environment and Development - the Rio "Earth Summit" (United Nations, 2015a) - the internationally agreed text of the Convention on Biological Diversity (CBD) was submitted for signature. It was one of the three "Rio Conventions", together with the United Nations Framework Convention on Climate Change and the United Nations Convention to Combat Desertification.

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At the completion of signature and ratification, in December 1993 the CBD entered into force (Convention on Biological Diversity, 2015a).

With the adoption of this international legal instrument, almost two hundred Parties<sup>2</sup> all over the world have committed themselves to the conservation of biological diversity and the sustainable use of its components. Hence a global long-term process for the implementation of the CBD is going on, based on the Decisions adopted by the Conference of the Parties (CoP), the CBD's governing body. The CoP has held twelve ordinary meetings, the last one in 2014; the next meeting is scheduled for 2016.

In 2014 the Mid-term Review of progress in implementation of the Strategic Plan for Biodiversity 2011–2020 was completed. An important effort for the collection and utilization of statistical data had been made world-wide in order to provide suitable information to support the assessments made on the occasion of the Mid-term Review. Actually, statistical information suitable for taking decisions and monitoring the attainment of agreed targets is an important point in the global process for the implementation of the CBD. The relevant data-sets cover a variety of domains, ranging from various fields of environmental sciences to economic aspects such as the costs of biodiversity conservation.

Financial aspects related to biodiversity are considered to be very important for the CBD, in the same way as the many distinct domains concerning environmental issues. As a matter of fact, the lack of sufficient financial resources has turned out to be one main obstacle in achieving the internationally agreed objectives. The main aspects to be taken into account include financial resources globally mobilized and expenditures spent in all countries committed to the CBD's implementation, as well as the amount of financial resources which is estimated as necessary to carry out the activities that are needed to that end.

Within statistics, environmental expenditure is one specific field which is thoroughly investigated: extensive statistical information on this topic is currently available. In particular, within official statistics, data on expenditure for the conservation of biodiversity and the sustainable use of its components is a mature statistical domain, more advanced as compared to other domains focused on the measurement of environmental phenomena. Expenditure aggregates derived from environmental accounts have an additional merit: they are calculated according to a system approach.

In general, when considering the economic statistical information available for the purposes of the CBD, the potential of environmental accounts should not be ignored. Environmental accounting within official statistics, in fact, can play an important role as a tool for providing indicators for decision makers as well as data for analytical work.

The subsequent paragraphs are focused on information concerning the mobilization of financial resources and environmental expenditures actually carried out for the achievement of the CBD's objectives. By reviewing developments that have taken place since the last decade, first an overview of processes related to the implementation of the CBD is given. Then the use of data on financial resources and expenditures for biodiversity is discussed. In that context, the system of integrated environmental-economic accounting is considered and its potential for the purposes of the CBD is highlighted; a specific focus is put on environmental expenditure aggregates. Some concluding remarks are emphasized mainly with the aim to encourage good interaction between official statisticians and those involved in political and administrative steps connected with targets of resource mobilization in support of the CBD.

### 1THE ENDURING IMPLEMENTATION PROCESS OF THE CONVENTION ON BIOLOGICAL DIVERSITY

The implementation of the CBD is an enduring and complex process involving the engagement of international organizations and national governments all over the world. Like the international effort which

According to the UN Glossary of terms relating to Treaty actions, Parties are the States as well as Organizations (for example the EU) that are bound by the CBD. All the States/Organizations that have either "ratified", "acceded to", "approved" or "accepted" the CBD are Parties to it (United Nations, 2015b).

had lead to the adoption of the CBD, its implementation is inspired by a global commitment to sustainable development. Mobilization of financial resources is a crucial element of this process.

A number of milestones have characterized the advancement of work carried out for the implementation of the CBD as well as the efforts put in place to ensure good governance for key processes. An overall strategic plan has been adopted for the conservation of biodiversity, as well as a strategy specific for mobilization of financial resources in support of the CBD. Work on indicators has been developed in the course of decades and a framework for reporting on financial aspects has recently been established.

# 1.1 The Convention on Biological Diversity and mobilization of financial resources in support of its implementation

The CBD's three objectives, as stated by Article 1, can be synthesized as follows: ensure that biodiversity is preserved by adopting economic and social development patterns that are environmentally sustainable and equitable at the same time.

As regards the financial resources that are necessary to implement the CBD, each country is committed to provide financial support in respect of its domestic activities intended to achieve the CBD's objectives, in accordance with its national plans, priorities and programs; furthermore, in order to help developing country Parties to fulfill the obligations deriving from the CBD, developed country Parties are committed to provide new and additional financial resources (Article 20 – Financial Resources).

Along with economic reasons which also exist, equity appears to be at the origin of the developed country Parties' additional commitment. Behind this there is the recognition that for developing country Parties economic and social development and eradication of poverty are priorities: in other words, following a strictly economic rationale, the opportunity costs of the conservation of biodiversity are particularly high for non affluent countries.

Having recognized the crucial importance of the financial resource mobilization undertaken both within countries and through international financial resource flows provided to help developing country Parties, the CoP has paid special attention to financial aspects. Through the CoP's Decisions, several elements have been put in place step by step to mobilize flows of money and eventually ensure that effective efforts are made in support of the CBD. Key steps have been the adoption of a strategy, a strategic plan, a set of indicators, a financial reporting framework.

In 2008, based on an in-depth review of the availability of financial resources for the purposes of the CBD, through Decision IX/11 the CoP encouraged the Parties and relevant organizations to improve the existing financial information through enhancing accuracy, consistency and delivery of existing data on biodiversity financing and improved reporting on funding needs (Convention on Biological Diversity, 2015b).

Furthermore, considering the urgency of coping with a difficult situation, through the same Decision IX/11 the CoP adopted the Strategy for resource mobilization in support of the achievement of the CBD's three objectives for the period 2008–2015. Strategic goals and objectives were defined, calling for concrete activities and initiatives to be developed to achieve the outlined goals; in addition, indicators were to be developed to monitor the implementation of the Strategy, which is noteworthy from a statistical viewpoint.<sup>3</sup> The first strategic goal was of particular relevance from the point of view of statisticians involved in the production of official statistics: according to Goal 1, the information base on funding needs and gaps – which also implies information on financial resources available – was to be improved.

<sup>3</sup> All this was to be done within appropriate timeframes, according to the Strategy.

## 1.2 The Strategic Plan 2011–2020 and the Aichi Targets

A very important step in the implementation of the CBD was the CoP's Decision "X/2 – The Strategic Plan for Biodiversity 2011–2020 and the Aichi Biodiversity Targets", adopted by the CoP in 2010 at its 10th meeting (Convention on Biological Diversity, 2015c).

The Strategic Plan, covering by definition all main aspects of the CBD, is based on five Strategic Goals.<sup>4</sup> Besides these, the Strategic Plan comprises a set of twenty biodiversity targets (Convention on Biological Diversity, 2015d) – known as Aichi Biodiversity Targets (ABTs) – which are organized under the Strategic Goals.<sup>5</sup> The CoP decided, through Decision X/3 of the same meeting, to adopt the ABTs at its next meeting, provided that robust baselines would have been identified and endorsed and that an effective reporting framework would have been adopted.

Though ambitious, the ABTs were considered to be achievable, some for 2015, others for 2020. One of them – ABT 2 – directly involves official statistics; another one – ABT 20 – implies the use of such statistics in one way or another, including for analytical work based on modeling.

ABT 2 is under Strategic Goal A ("Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society"); it reads as follows: "By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems". National accounts are mentioned explicitly in this target.

ABT 20 is under Strategic Goal E ("Enhance implementation through participatory planning, knowledge management and capacity building"). It reads: "By 2020, at the latest, the mobilization of financial resources for effectively implementing the Strategic Plan 2011–2020 from all sources and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilization should increase substantially from the current levels. This target will be subject to changes contingent to resources needs assessments to be developed and reported by Parties". For ABT 20 also a baseline is needed – similarly to several other targets – for the purpose of measuring progress. Official statistics on flows of financial resources are involved by ABT 20; furthermore, any kind of official statistics – in particular national accounts, but also other official statistics – may be crucial to carry out analyses that are necessary for the foreseen assessments of resource needs.

In addition to what is reported above, through Decision X/10 the CoP also decided that the national reports due in 2014 should focus on the implementation of the 2011–2020 Strategic Plan and progress achieved towards the ABTs.

Concerning possible indicators in monetary terms for ABT 20, "Official Development Assistance provided in support of the Convention" was taken into consideration, but it was recognized that additional indicators could include the financial resources provided to developing countries which were dispersed through other mechanisms. Also, the global monitoring reports of the Strategy for resource mobilization were considered as useful to monitor the progress towards ABT 20.

As a matter of fact, through Decision X/3 a set of indicators was adopted to monitor the implementation of the Strategy for resource mobilization; several of them were in monetary units. Indicator 1 measured aggregated financial flows of biodiversity-related funding; it included both an overall amount, without double-counting, and the following categories: "Official Development Assistance" (ODA); "Domestic budgets at all levels"; "Private sector"; "Non-governmental

The Strategic Goals (SGs) are as follows: SG A – "Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society"; SG B – "Reduce the direct pressures on biodiversity and promote sustainable use"; SG C – "Improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity"; SG D – "Enhance the benefits to all from biodiversity and ecosystem services"; SG E – "Enhance implementation through participatory planning, knowledge management and capacity building".

While the goals and targets are intended for achievement at the global level, they also represent a flexible framework for the establishment of national or regional targets.

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organizations, foundations, and academia"; "International financial institutions"; "United Nations organizations, funds and programs"; "Non-ODA public funding"; "South South cooperation initiatives"; "Technical cooperation". In addition to Indicator 1, the following indicators in monetary units were also adopted: Indicator 3 – "Amount of domestic financial support, per annum, in respect of those domestic activities which are intended to achieve the objectives of this Convention"; Indicator 4 – "Amount of funding provided through the Global Environment Facility<sup>6</sup> and allocated to biodiversity focal area"; Indicator 11 – "Amount of financial resources from all sources from developed countries to developing countries to contribute to achieving of the Convention's objectives"; Indicator 12 – "Amount of financial resources from all sources from developed countries to developing countries towards the implementation of the Strategic Plan for Biodiversity 2011–2020". The CoP also set out a process for elaborating and implementing the set of fifteen indicators it had adopted, including an expert consultation aimed at developing methodological guidance (United Nations, 2015c).

It is worth noting that the monetary indicators quoted above – Indicator 1 to Indicator 12 – correspond to different subsets of the economy and as a whole they cover the entire economic system. This suggests, in principle, that the information derived as appropriate from the system of national accounts, in particular from environmental accounts, could play a significant role as basic data for these indicators.

## 1.3 Recent developments

A preliminary reporting framework was agreed in 2012 for the indicators adopted to monitor the implementation of the Strategy for resource mobilization (Convention on Biological Diversity, 2015e). This framework was aimed at ensuring that, after adoption of targets, the attainment of the same targets could be monitored conveniently. Through a review of the said indicators, progress had been made in understanding which basic data could be taken into account to calculate them. It had been noted, in particular, that many of the indicators in monetary units relied on overlapping information for their calculation. With a view to reducing the risk of double-counting, a limited set of "data fields" required to provide the information needed for the entire set of indicators had been identified; the Preliminary Reporting Framework was developed based on these "data fields".

This preliminary framework was intended for use by Parties to provide data on resource mobilization according to the adopted indicators. As concerns the calculation of these indicators, one suggestion was to organize the requested information by indicator and relevant set of basic data. Flows of financial resources for biodiversity from developed to developing countries and financial resources available in each country for biodiversity were the two main sets of basic data required to calculate the monetary indicators to be used to monitor the Strategy for resource mobilization. For these sets of basic data a brief description of the distinct categories comprised in them was provided, as well as an indicative list of activities that could be considered for each category, while Parties were encouraged to add further possible activities that they might want to take into account.

Parties were also encouraged to interact, in completing the reporting framework, with their respective statistical offices. It was argued that some information needed was probably already available and should

<sup>8</sup> The same could be said as far as monitoring of the attainment of ABT 20 is concerned.

The Global Environment Facility is a partnership for international cooperation where 183 countries work together with international institutions, civil society organizations and the private sector, to address global environmental issues (GEF, 2015).

For Indicator 1 it had been highlighted that some of its components were sub-categories of other components, some overlapped one another and many of them overlapped, completely or partially, with the other indicators; furthermore, there was an additional risk of double-counting in as much as in some cases these components were related to the end use of a flow of an international financial support while in other cases they consisted of amounts of international financial flows. In addition to that, Indicator 3 overlapped largely with the sum of components of Indicator 1, while Indicator 11 and Indicator 12 overlapped with several components of the same Indicator 1 (Convention on Biological Diversity, 2015e).

have been used, where possible, in order to reduce duplicity of efforts; furthermore, a joint effort with statistical offices could lead to an improvement in the quality of the information used.

At the meeting held in October 2014 in Pyeongchang<sup>9</sup> the CoP has established, through Decisions XII/1 to XII/6, the Pyeongchang Roadmap for the enhanced implementation of the Strategic Plan for Biodiversity 2011-2020 and the achievement of the ABTs. Concerning financial resources matters, Decisions XII/1 and XII/3 include developments that have an impact on work carried out within official statistics.

Through Decision XII/3 (Convention on Biological Diversity, 2015f) the Strategy for resource mobilization has been extended until 2020. Also, having reviewed the progress towards the achievement of ABT 20, the CoP has adopted final targets concerning this Strategy. The key importance of domestic resource mobilization for implementation of the Strategic Plan for Biodiversity 2011–2020 has been recognized: according to one of the final targets Parties provided with adequate financial resources endeavour to report domestic biodiversity expenditures, as well as funding needs, gaps and priorities, by 2015.

Most importantly from a statistical viewpoint, at the same 2014 meeting the CoP has adopted the revised Financial Reporting Framework, as Annex II to Decision XII/3. This is intended for use by Parties to provide baseline information and report on their contribution to reach the global financial targets, under ABT 20, as adopted through the same Decision XII/3.

# 2 STATISTICAL DATA ON FINANCIAL RESOURCES MOBILIZATION FOR THE CONVENTION: CURRENTLY USED DATA AND ECONOMIC AGGREGATES FROM OFFICIAL STATISTICS

The information needed to monitor the mobilization of financial resources in support of the CBD includes data that may or may not be produced within official statistics; several kinds of data are provided by other sources.

In particular, information on biodiversity-related funding and expenditures includes, according to the Financial Reporting Framework mentioned in the previous paragraph, distinct categories of data with different characteristics and quality: on international financial flows, which partly are "official" and partly relate to resources mobilized e.g. by non-governmental organizations; on expenditures, as resulting e.g. from public budgets as well as from environmental accounts; on funding needs, as assessed in National Biodiversity Strategies and Action Plans.

# 2.1 Data on financial resources mobilization according to the Convention's Financial Reporting Framework

At present, reporting on financial aspects for the purposes of the CBD is based on the Financial Reporting Framework adopted in 2014, which is discussed here with limitation to what concerns information to be provided on funding and expenditure flows; other matters, e.g. priorities and plans or other assessments, are not discussed here.

The Framework includes reporting on baseline and progress towards 2015.<sup>11</sup> To this end, monetary data on the following flows are to be taken into account: international financial resource flows to developing countries and countries with economies in transition; current domestic biodiversity expenditures; funding needs and gaps. To identify biodiversity-related activities and thereby the corresponding monetary flows, an indicative list of possible classifications is suggested in the Appendix of the Framework, where reference is made to international work on this matter such as e.g. the guidance provided by OECD.<sup>12</sup>

 $<sup>^{9}</sup>$  Twelfth meeting, the last meeting held by the CoP. Its thirteenth meeting is scheduled for December 2016.

<sup>&</sup>lt;sup>10</sup> Preliminary targets on resource mobilization had been agreed in 2012 at the CoP's eleventh meeting (Decision XI/4).

<sup>&</sup>lt;sup>11</sup> Reporting on this part of the Framework is scheduled for December 2015.

<sup>12</sup> See: <a href="http://www.oecd.org/dac/stats/46782010.pdf">http://www.oecd.org/dac/stats/46782010.pdf</a>>.

The baseline concerns the international financial resource flows to developing countries and countries with economies in transition and 2010 is the reference year. If data is not available for that year, it is to be provided for the most recent year prior to that, and if possible, for the period from 2006 to 2010. As concerns progress towards 2015, the years 2011 to 2015 are to be covered.

The data to be provided concerning international financial flows include official financial flows and resources mobilized by the private sector as well as non-governmental organizations, foundations, and academia. Data on official financial flows are presented under two main headings: Official Development Assistance (ODA), i.e. flows of official financing aimed at promoting economic development and welfare of developing countries; Other official flows (OOF), i.e. transactions by the official sector with countries on the List of Aid Recipients which do not meet the conditions for eligibility as Official Development Assistance or Official Aid. In order to identify official financial flows, in past reporting under the preliminary reporting framework several Parties used "Rio markers". Data on resources mobilized by the private sector as well as non-governmental organizations, foundations, and academia are under the heading Other flows.

Concerning current domestic biodiversity expenditures, what needs to be reported is the annual financial support provided to domestic activities related to the conservation of biodiversity carried out in the reference year by the different sectors of society. Several years should be covered, if possible, starting with the most recent year for which the data are available. The data to be provided cover all sectors of the economy, but at least data on central government budget outlays directly related to biodiversity should be provided. Expenditures financed by international sources are to be taken into account, while funding provided to other countries is excluded. In past reporting, under the preliminary reporting framework, Parties made use of public budget data and also of the information derived from environmental protection expenditure accounts included in their systems of environmental-economic accounts.

As concerns reporting on funding needs and gaps, the reference year should be the year which is most appropriate for national planning purposes. The information requested is normally included in National Biodiversity Strategies and Action Plans.

Reporting on progress towards 2020 is also due.<sup>15</sup> Two main sets of data are requested in this context. First, the information on international financial resource flows is to be provided through the same data as in the section on progress towards 2015; these data are requested for the years 2016–2019. Secondly, each country should provide data on funding needs and gaps; these data are connected with the implementation of a country's national finance plan, and they include: the country's funding gap; the resource mobilization from domestic sources and from abroad achieved by the country; the remaining gap.

# 2.2 Environmental accounts aggregates

Within official statistics the interaction between economy and environment is described by means of different statistical tools. Two main categories can be distinguished in this regard: environmental statistics and environmental-economic accounts. The former include data that in some cases relate to both environmental and economic aspects simultaneously, but it is the latter that regularly link environmental and economic dimensions. Environmental-economic accounts are national accounts that are satellites to the core accounts of SNA, the system of national accounts (European Commission et al, 2009); they

<sup>13</sup> If specific annual figures are not available, the best estimates of average figures for 2006 to 2010 would have to be delivered.

15 Reporting on this section will take place in conjunction with the sixth national reports. As concerns the last national reports, their submission to the CoP had been requested for March 2014.

<sup>14</sup> These Parties were members of the Development Assistance Committee of the OECD, which monitors aid provided for the purposes of the Rio conventions (Biological Diversity, Climate Change, Desertification). "Rio markers" are policy markers: external development funding for biodiversity purposes is labeled, and this is done by using a scoring system that highlights whether the funding is targeting biodiversity as its "principal" objective or simply as a "significant" one.

are based on a system approach and compiled according to an overarching international framework: the System of Environmental-Economic Accounting (SEEA), endorsed by the UN Statistical Commission (United Nations, 2015d).

# 2.2.1 The system of integrated environmental-economic accounts

SEEA has been developed by the UN Statistical Commission as a follow up to an input from Agenda 21. At the Rio "Earth Summit" the importance of integrating the statistical evidence that informs policy decision-making had been highlighted and the idea had been shared that, to monitor the transition to sustainable development, a system approach would help significantly.

SEEA provides a comprehensive conceptual accounting framework based on the same basic principles, definitions and classifications of SNA, thus allowing proper linkages with economic accounting data and other official statistics. Environmental and socio-economic statistics are reconciled and organized within the various SEEA modules, highlighting the interrelationships between the different phenomena covered; this allows the construction of time series of consistent, comparable and comprehensive statistics and indicators to monitor the contribution of the environment to the economy and the pressure of the economy on the environment, as well as the state of the environment. As a result, the trade-offs of policy-makers' decisions affecting natural resources and associated services are made explicit. The different domains of the environmental debate are suitably dealt with by accounts compiled according to SEEA; biodiversity is one of such domains.

Within environmental accounting in a broad sense, some SEEA components as well as SEEA-related initiatives provide tools which may be of particular interest to deal with the biodiversity theme. One example is the SEEA publication called System of Environmental-Economic Accounting 2012 – Experimental Ecosystem Accounting (United Nations et al., 2014a); another one is a SEEA subsystem: System of Environmental-Economic Accounting for Agriculture, Forestry and Fisheries (United Nations, 2015e); the global partnership Wealth Accounting and the Valuation of Ecosystem Services – WAVES – is also relevant (WAVES, 2015), being focused on research work on ecosystems valuation.

The main SEEA publication – System of Environmental-Economic Accounting 2012 – Central Framework (SEEA-CF) – is nevertheless of crucial interest in general (United Nations et al., 2014b); it deals with issues related to the interaction between economy and environment without being limited to the biodiversity theme. <sup>16</sup> Agenda 21 had explicitly proposed to develop integrated environmental-economic accounts, and the release of SEEA-CF has been the main response of the official statistics community to this. In 2012, after a global consultation that involved UN member countries, UN agencies, World Bank, IMF, OECD and the European Commission, SEEA-CF was adopted as an international statistical standard, similarly to SNA.

The above mentioned System of Environmental-Economic Accounting 2012 – Experimental Ecosystem Accounting is not an international statistical standard like SEEA-CF, but it complements the latter by providing methodological guidelines specific for ecosystem accounting and of course it is relevant when biodiversity is at issue. In general, it deals with biodiversity-related aspects more in detail and more comprehensively as compared to SEEA-CF; however, it is not specialized on aspects related to financial resources. Two specific environmental-economic accounts derived from SEEA-CF, instead, provide economic aggregates on biodiversity-related expenditure, which are of particular interest with connection to financial targets under ABT 20.

Another SEEA publication is the following one: System of Environmental-Economic Accounting 2012 – Applications and Extensions. This latter publication and those on SEEA Central Framework and on Experimental Ecosystem Accounting mentioned above are known as the three SEEA publications.

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The Environmental protection Expenditure Account (EPEA) and the Resource Management Expenditure Account (ReMEA), derived from SEEA-CF, are the proper accounting tools to describe, in a national accounting perspective, expenditures carried out for environmental purposes, including those for conservation of biodiversity.

EPEA describes expenditures and economic activities performed to protect the environment against pollution and degradation phenomena (including loss of biodiversity); ReMEA describes expenditures and economic activities carried out to manage natural resources (e.g. forest resources, wild flora and fauna) and to save the stock of these resources against depletion phenomena. The expenditures and economic activities taken into account are those realized by resident units of the national economy; the overall aggregate derived from each of these accounts, known as national expenditure, includes consumption of environmental services and investments for their production. The total amount of the two national expenditure aggregates derived from EPEA and ReMEA is an assessment of the total economic effort devoted by a country to preservation of the natural environment.

Among distinct environmental domains that are covered in these accounts, two are relevant in relation to ABT 20. According to the classifications used, they are labeled as follows: "Protection of biodiversity and landscapes" as far as EPEA is concerned (classification: CEPA) and "Management of wild flora and fauna" as concerns ReMEA (classification: CReMA).<sup>17</sup>

The implementation of EPEA and ReMEA is particularly advanced within EU member countries, were a legal basis is in place for mandatory production of national environmental-economic accounts in line with SEEA-CF: Regulation (EU) No 691/2011 of the European Parliament and of the Council of 6 July 2011 on European environmental economic accounts (European Union, 2011), amended by Regulation (EU) No 538/2014 (European Union, 2014). <sup>18</sup> This legal basis provides methodology, common standards, definitions, classifications and accounting rules for the compilation of accounts that are given highest priority in the EU according to the European Strategy for Environmental Accounts – ES-EA (European Statistical Committee, 2014). As concerns quality criteria, Regulation No 223/2009 shall apply (European Union, 2009).

Like all figures delivered within the European Statistical System, the EPEA and ReMEA expenditure aggregates are produced in compliance with the European Statistics Code of Practice – ESCP (Eurostat, 2011), which in turn is aligned with the UN Fundamental principles of official statistics (United Nations, 2015f); this applies in particular to EPEA and ReMEA data concerning the two environmental domains mentioned above, which is the information relevant in relation to ABT 20.

<sup>17</sup> CEPA (Classification of Environmental Protection Activities and Expenditure) is an international statistical standard; its item 6 – Protection of biodiversity and landscapes refers e.g. to measures and activities aimed at the protection and rehabilitation of fauna and flora species, ecosystems and habitats as well as the protection and rehabilitation of natural and semi-natural landscapes; measurement, monitoring, analysis activities as well as administration, training, information and education activities are also included; excluded are e.g. the protection and rehabilitation of historic monuments or predominantly built-up landscapes, the control of weed for agricultural purposes. CReMA (Classification of Resource Management Activities) has been developed within the European Statistical System for compiling statistics on the Environmental Goods and Services Sector; its item 12 – Management of wild flora and fauna refers to activities aimed at the minimization of the intake of wild flora and fauna through in-process modifications as well as withdrawals, reduction and regulation measures; restoration activities (replenishment of wild flora and fauna stocks) are included when aiming at maintaining/increasing the consistency of stocks (otherwise they come under CEPA item 6); measurement, monitoring, analysis activities as well as administration, training, information and education activities are also included; excluded is the protection of biodiversity which concerns essentially threatened species (under CEPA item 6).

<sup>&</sup>lt;sup>18</sup> Regulation No 538/2014, in particular, includes provisions for the production of EPEA aggregates. A similar approach would be appropriate for the calculation of ReMEA aggregates.

#### 3 ISSUES AND PROSPECTIVE FUTURE DEVELOPMENTS

In order to allow decision-makers to make decisions with a solid knowledge basis, high-quality statistics are needed. The general public also needs high-quality statistics, because people want to evaluate the performance of politicians and other decision-makers. Quality is a crucial point which in principle distinguishes official statistics as compared to other statistical information; the former are based on a set of fundamental principles and follow international statistical standards. The foundation for all this is the idea that democratic societies hardly function properly without a solid basis of reliable and objective statistics.

The world-wide applied UN Fundamental principles of official statistics and ESCP, mentioned before, target both outputs of statistical production and processes used, as well as institutional and organisational aspects. As concerns ESCP, fifteen principles and a set of indicators of good practice for each principle are adopted, while mandatory quality assurance procedures and a quality reporting system are in place.

Among the ESCP principles, "Professional Independence" and "Impartiality and Objectivity" might deserve special attention in some cases when considering the statistical information used within processes for monitoring the attainment of the global financial targets under ABT 20. Sound Methodology – another fundamental principle of official statistics – might also be an issue in some cases. With connection to this, it appears to be very constructive that Parties have been encouraged to interact with their respective statistical offices, not only because there is a need to avoid duplication of work, but because special attention should be devoted to quality of the data used: statistical offices could help to that end.

A special effort to promote interaction with the official statistics community might end up, in practice, with an increased use of official statistics in support of CBD's processes. This applies in particular to environmental accounts. A possible issue, in this perspective, would be the possibility to introduce, in the CBD's complex negotiations concerning monitoring activities, the intention to arrive, within appropriate timeframes, at a point where EPEA/ReMEA-type aggregates are systematically used worldwide for monitoring current domestic expenditures as requested by the Financial Reporting Framework.

Furthermore, it should be taken into account that available data from official statistics – including EPEA and ReMEA data, but not only this data – is a relevant and valuable potential input to the analytical work that is necessary to estimate financial resource needs. With connection to this, another possible issue would be to examine the extent to which such an input is actually used in assessments of financial resources needs. <sup>19</sup>

In general, sound methodology and comparability at the international level is a crucial point for statistical data. This has been recognized also with regard to the implementation of the Strategy for resource mobilization, for which reliable statistical information is needed. Then, a more general issue would be whether to adopt thoroughly concepts, definitions and classifications of environmental accounts and other official statistics while preserving essential rules given by the Financial Reporting Framework.

### CONCLUSION

CBD's overall goal is twofold: first, biodiversity is to be preserved world-wide; secondly, this is to be done in an equitable way. Accordingly, two main instruments are in place: an overall strategic plan and a strategy for mobilizing financial resources. The strategic plan includes ABTs, which correspond to all CBD's purposes; in particular, ABT 20 concerns financial aspects. The strategy for mobilizing financial resources takes into account the effort to preserve biodiversity world-wide and to assist non affluent countries in their own effort for conservation of biodiversity.

<sup>19</sup> Or, otherwise – as concerns the preparation of National Biodiversity Strategies and Action Plans – to examine the extent to which EPEA and ReMEA data, together with other official statistics, actually contribute to the preparation of those strategic documents, from which information may be derived according to the Financial Reporting Framework.

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As far as financial aspects are concerned, the information requested to monitor the attainment of financial targets under ABT 20 includes two distinct sets of data: on actual expenditures for activities intended to achieve the CBD's objectives; on funding needs and gaps and on financial flows from developed country Parties to developing ones. This approach to the collection of the information needed is tailored on the main purposes of the CBD.

Concerning official statistics, in general it would be natural that data derived from SEEA and SNA would be used extensively in the context of the CBD, together with other official statistics as well as other information; this happened in past reporting to some extent. As national accounts are referred to in ABT 2, in a sense the usefulness of SEEA and SNA aggregates is out of discussion.

Indeed, as far as ABT 20 is concerned, SEEA and SNA aggregates may turn out to be essential, together with other data, in order to monitor the achievement of financial targets: this applies in particular at the stage of identifying activities that are needed for conservation of biodiversity, then for the calculation of the costs associated with these activities and eventually for assessing funding needs and gaps.

In past reporting, for the purposes of monitoring financial targets under ABT 20, some Parties have provided EPEA/ReMEA-type data on expenditures related to conservation of biodiversity. Such an exercise could be extended and refined, provided that there is room for improving interaction between ministries of environment and statistical offices.

Perhaps an ad hoc developmental work at the international level focused on the proper way to single out, as appropriate, data from EPEA and ReMEA for the Financial Reporting Framework, could help. Classification issues would deserve special attention, because the guidance provided by the Financial Reporting Framework as concerns the set of activities to be considered for the calculation of biodiversity-related expenditures does not ensure that standardized information is provided by Parties. Statisticians' understanding of the scope and breakdown of EPEA and ReMEA data would have to be shared with ministries' officials. The final goal would be to enhance the accuracy and consistency of the data used within the Convention's implementation processes.

The costs and benefits of such an endeavor would include an advancement towards standardization; furthermore, the fact that to enhance accuracy and consistency national accounting aggregates would be used would represent an additional benefit. From the cost side, there would be an additional charge on statisticians and ministries' officials; the importance of this extra cost, however, depends on the priority that statisticians give to environmental-economic accounts and ministries to biodiversity.

Overall, when reflecting on the importance of enhancing accuracy and consistency of data on biodiversity expenditure within the Convention's implementation processes, the importance of the utilization of the financial resources committed to biodiversity targets should be emphasized: in the end, activities actually carried out to preserve biodiversity is what really matters.

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