

REGIONAL ASSESSMENT REPORT ON BIODIVERSITY AND ECOSYSTEM SERVICES FOR EUROPE AND CENTRAL ASIA							
Comments external review second order draft - Chapter 1							
Reviewer Name	Chapter / SPM	From Page	From Line	To Page	To Line	Comment	Response
Ilija Gasan Osojnik Črncvec	0	0	0			local and native breeds are two interchangeable terms, for greater clarity, I would recommend only one expression is used for the whole publication.	The two terms address slightly different issues, as local breeds denotes breeds present only in a distinct region, and native breeds denotes breeds which had sufficient time to adapt to specific local conditions.
Brendan Coolsaet	0	0	0			All documents include big differences in the quality of the writing. Everything should be thoroughly proof-read and edited by native speakers.	This has been done throughout
Brendan Coolsaet	0	0	0			Use of genetic resources and Nagoya protocol are notably absent in most of the chapters	Limited or unequal access to NCP or genetic resources is now mentioned where appropriate.
Brendan Coolsaet	0	0	0			For reviewing purposes, it may be useful to indicate the gender-balance and 'discipline-balance' within the group of authors (could be illustrated with a gauge at the beginning of each doc for example). This will facilitate identifying biases	The complete authorship is listed at the beginning of each chapter. Statistics on gender and disciplinary balance are available from the ECA TSU and IPBES Secretariat
Germany	0	0	0			We believe that the regional ECA assessment generally has a comprehensive and scientifically sound structure. However, linkages between the chapters, especially for chapters 6, are not that strong yet. For instance, it is not clear in how far chap. 6 builds upon the findings and insights of the analyses within the previous chapters. While the review work, analyses and evaluations made in these chapters are by themselves very insightful, linking more strongly back to the status and trends chapter as well as the drivers/scenarios/visions and pathways chapters would be very useful. For instance, the 'status and trends' chapter 3 might help identify where policy action is most needed and the 'drivers' chapter 4 determines the underlying drivers which need to be addressed by policy action. Giving more weight to these chapters in the discussion of policy options might help to derive more region-based options. As it stands now, many key messages of chapter 6 are of a more general nature.	A comprehensive attempt has been made to cross-reference the different chapters to ensure consistency between them. All chapter texts were screened for potential opportunities for governance or management action and these opportunities are now mentioned in chapter 6 with reference to the chapter of origin.
Germany	0	0	0			This assessment shows some imbalances regarding a lack of coherence in the use of terminology: This can lead to different understandings and also to misinterpretations. For instance, at its last Plenary, the IPBES had agreed to use the term "nature's contributions to people" (NCP) as a synonym for the term "ecosystem services". Unfortunately, the term NCP is now being used in the assessment frequently in a modified form and therefore inconsistently. This aspect needs to be addressed in the assessment as well as in the SPM.	Terminology was systematically checked across the full report
Germany	0	0	0			There are significant contributions and benefits arising from agro-ecosystems. The increase in food, feed and timber production and resulting food security has been mentioned, but not thoroughly discussed. We would therefore ask the authors to extend this discussion and provide a more balanced perspective on the increase in food security over the last decades. Furthermore, information on traditional varieties and breeds or on genetic resources for food and agriculture is missing. Thus, the contributions of agriculture to the biological diversity in the agricultural sector have not been completely considered so far.	We have attempted to address this comment by taking a more balanced perspective on the relative contributions of nature to people especially with respect to food and fibre provision in chapter 2. We have also increased the treatment of genetic diversity of crops and animal breeds in chapter 3.
Germany	0	0	0			Regarding knowledge gaps - please provide a section at the end of each chapter to present the relevant knowledge gaps that were identified from the reviews (for chapter 3 it's missing). It is referred to in the SPM, p. 81. 233 that relevant knowledge gaps are identified, so please ensure that all knowledge gaps identified throughout the individual chapters are then summarized and assessed in the corresponding section of knowledge gaps and uncertainties towards the end of each chapter.	Knowledge gaps have been identified for each chapter, as well as being summarised as a box in the SPM
Germany	0	0	0			Some of the chapters (particularly 2, 3, 4, 6) are very long and readers easily lose track as to what type of information is currently presented. Please try to synthesize the information as much as possible and if a lot of information is to be presented provide short summaries or highly important findings.	All of the chapters have been reduced considerably in length
Germany	0	0	0			There are still some gaps, placeholders or work in progress in the SOD. This makes it partly difficult to comment. Please fill these gaps effectively.	Gaps have been filled throughout the document
Germany	0	0	0			We urgently request the chapter authors to ensure that all facts and figures contained in the chapters are accurately cited and adequately referenced with up-to-date sources. We also encourage chapter authors to cross-check whether the same facts and figures on a specific topic are being used throughout the assessment. Please make sure that all key messages are backed up by facts and figures.	The use of evidence sources has been comprehensively checked across the document, especially including those that integrate across chapters
Germany	0	0	0			Please explain all abbreviations when first used and then use them coherently afterwards (e.g. ILKP in the SPM)	All abbreviations have either been spelled-out or defined on first use
Belgian government - Hilde Eggermont (IPBES National Focal Point)	0	0	0			All documents include big differences in the quality of the writing. Everything should be thoroughly proof-read and edited by native speakers.	The document has been comprehensively reviewed by native English speakers
Belgian government - Hilde Eggermont (IPBES National Focal Point)	0	0	0			Use of genetic resources and Nagoya protocol are notably absent in most of the chapters	Limited or unequal access to NCP or genetic resources is now mentioned where appropriate.
Belgian government - Hilde Eggermont (IPBES National Focal Point)	0	0	0			For reviewing purposes, it may be useful to indicate the gender-balance and 'discipline-balance' within the group of authors (could be illustrated with a gauge at the beginning of each doc for example). This will facilitate identifying biases	The complete authorship is listed at the beginning of each chapter. Statistics on gender and disciplinary balance are available from the ECA TSU and IPBES Secretariat
Belgian government - Hilde Eggermont (IPBES National Focal Point)	0	0	0			no reference to Nature-based solutions, though very relevant in this assessment (i.e. in the different Chapters and SPM)	The NBS concept is referenced where there is literature and evidence to support its use
Anatolij Khapugin	0	0	0	0	0	Through the whole assessment, there are many cases of mixture English (British+American): e.g. ch.1, p. 12, line 333 (prioritize) vs. ch.1, p. 4, line 83 (recognised), etc. I think, some one of English forms should be used through the whole assessment. Also, there are many mistakes (or it is a lack of standards of formatting) for references style. I would recommend check it through the whole assessment. I didn't add concrete recommendations because I don't know what format of references and references style should be used	The document language has been systematically edited by native English speakers
UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	0	0	0			We would recommend that the IPBES Core Indicator 'Marine Trophic Index' is used in this assessment. Indicator information is available from the IPBES Indicator portal and the BIP website www.bipindicators.net. This indicator can be disaggregated/made available for this region, more information on this is available from the Indicator Focal point Dirk Zeller (email: d.zeller@oceans.ubc.ca).	Chapter author teams made use of these core/highlighted/further indicators as far as possible given the delivery late in the process.
UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	0	0	0			We would recommend that the IPBES Core Indicator 'Proportion of local breeds, classified as being at risk, not-at-risk or unknown level of risk of extinction' is used in this assessment. Indicator information is available from the IPBES Indicator portal and the BIP website www.bipindicators.net. This indicator can be disaggregated/made available for this region, more information on this is available from the Indicator Focal point Roswitha Baumung (email: Roswitha.Baumung@fao.org)	Chapter author teams made use of these core/highlighted/further indicators as far as possible given the delivery late in the process.

UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	0	0	0		We would recommend that the IPBES Core Indicator Percentage of Category 1 nations in CITES is used in this assessment. Indicator information is available from the IPBES Indicator portal and the BIP website www.bipindicators.net . This indicator can be disaggregated/made available for this region, more information on this is available from the Indicator Focal point Tom De-Meulenaer (email: Tom.DE-MEULENAER@cites.org)	Chapter author teams made use of these core/highlighted/further indicators as far as possible given the delivery late in the process.
UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	0	0	0		We would recommend that the IPBES Core Indicator 'Nitrogen + Phosphate Fertilizers (N+P2O5 total nutrients)' is used in this assessment. Indicator information is available from the IPBES Indicator portal and the BIP website www.bipindicators.net . This indicator can be disaggregated/made available for this region, more information on this is available from the Indicator Focal point Francesco Tubiello (email: francesco.tubiello@fao.org)	Chapter author teams made use of these core/highlighted/further indicators as far as possible given the delivery late in the process.
UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	0	0	0		We would recommend that the IPBES Core Indicator 'Trends in Pesticide Use' is used in this assessment. Indicator information is available from the IPBES Indicator portal and the BIP website www.bipindicators.net . This indicator can be disaggregated/made available for this region, more information on this is available from the Indicator Focal point Francesco Tubiello (email: francesco.tubiello@fao.org)	Chapter author teams made use of these core/highlighted/further indicators as far as possible given the delivery late in the process.
UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	0	0	0		We would recommend that the IPBES Core Indicator 'Percentage of Undernourished People' is used in this assessment. Indicator information is available from the IPBES Indicator portal and the BIP website www.bipindicators.net . This indicator can be disaggregated/made available for this region, more information on this is available from the Indicator Focal point Carlo Cafiero (email: Carlo.Cafiero@fao.org)	Chapter author teams made use of these core/highlighted/further indicators as far as possible given the delivery late in the process.
UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	0	0	0		We would recommend that the IPBES Highlighted Indicator 'Wetland Extent Trend Index' is used in this assessment. Indicator information is available from the IPBES Indicator portal and the BIP website www.bipindicators.net . This indicator can be disaggregated/made available for this region, more information on this is available from the Indicator Focal point Sarah Darrah (email: Sarah.Darrah@unep-wcmc.org)	Chapter author teams made use of these core/highlighted/further indicators as far as possible given the delivery late in the process.
UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	0	0	0		We would recommend that the IPBES Highlighted Indicator 'Trends in invasive alien species vertebrate eradications' is used in this assessment. Indicator information is available from the IPBES Indicator portal and the BIP website www.bipindicators.net . This indicator can be disaggregated/made available for this region, more information on this is available from the Indicator Focal point Shyama Pagad (email: s.pagad@auckland.ac.nz)	Chapter author teams made use of these core/highlighted/further indicators as far as possible given the delivery late in the process.
UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	0	0	0		We would recommend that the IPBES Highlighted Indicator RAMSAR areas is used in this assessment. Indicator information is available from the IPBES Indicator portal and the BIP website www.bipindicators.net . This indicator can be disaggregated/made available for this region, more information on this is available from the Indicator Focal point Maria Rivera (email: RIVERA@ramsar.org)	Chapter author teams made use of these core/highlighted/further indicators as far as possible given the delivery late in the process.
UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	0	0	0		We would recommend that the IPBES Highlighted Indicator 'Number of countries with national instruments on biodiversity relevant tradable permit schemes' is used in this assessment. Indicator information is available from the IPBES Indicator portal and the BIP website www.bipindicators.net . These indicators are country-specific, so they can be disaggregated by countries in your region. However, given the incomplete country coverage, any regional aggregates cannot be taken to represent the entire region. Currently we have data on about 58 countries. (Just to note, we also have information on countries with biodiversity-relevant taxes in place). More information on this is available from the indicator Focal point Katia Karousakis (email: Katia.KAROUSAKIS@oecd.org)	Chapter author teams made use of these core/highlighted/further indicators as far as possible given the delivery late in the process.
UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	0	0	0		We would recommend that the IPBES Highlighted Indicator 'Trends in potentially harmful elements of government support to agriculture (produced support estimates)' is used in this assessment. Indicator information is available from the IPBES Indicator portal and the BIP website www.bipindicators.net . This indicator is available for the OECD as a whole and has not been disaggregated as such. The original data on (total) government support to agriculture is available on the OECD website by country. More information on this is available from the Indicator Focal point Katia Karousakis (email: Katia.KAROUSAKIS@oecd.org)	Chapter author teams made use of these core/highlighted/further indicators as far as possible given the delivery late in the process.
UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	0	0	0		We would recommend that the IPBES Highlighted Indicator 'Better Life Index' is used in this assessment. Indicator information is available from the IPBES Indicator portal and the BIP website www.bipindicators.net . The data is available for only 38 countries and therefore it would be difficult to be used regionally the way IPBES has classified these. More information on this is available from the Indicator Focal point Katia Karousakis (email: Katia.KAROUSAKIS@oecd.org)	Chapter author teams made use of these core/highlighted/further indicators as far as possible given the delivery late in the process.
UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	0	0	0		We would recommend that the IPBES Highlighted Indicator 'Protected area coverage of terrestrial, marine and freshwater ecoregions' is used in this assessment. Indicator information is available from the IPBES Indicator portal and the BIP website www.bipindicators.net . This indicator can be disaggregated/made available for this region, more information on this is available from the Indicator Focal point Ed Lewis (email: Edward.Lewis@unep-wcmc.org)	Chapter author teams made use of these core/highlighted/further indicators as far as possible given the delivery late in the process.
UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	0	0	0		We would recommend that the IPBES Highlighted Indicator 'Growth in species occurrence records accessible through GBIF' is used in this assessment. Indicator information is available from the IPBES Indicator portal and the BIP website www.bipindicators.net . This indicator can be disaggregated/made available for this region, more information on this is available from the Indicator Focal point Tim Hirsch (email: thirsch@gbif.org)	Chapter author teams made use of these core/highlighted/further indicators as far as possible given the delivery late in the process.
UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	0	0	0		We would recommend that the IPBES Highlighted Indicator 'Number of countries that have adopted legislative, administrative and policy frameworks to ensure fair and equitable sharing of benefits' is used in this assessment. Indicator information is available from the IPBES Indicator portal and the BIP website www.bipindicators.net . This indicator can be disaggregated/made available for this region, more information on this is available from the Indicator Focal point Robert Hoft (email: robert.hoft@cbd.int)	Chapter author teams made use of these core/highlighted/further indicators as far as possible given the delivery late in the process.
UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	0	0	0		We would recommend that the IPBES Highlighted Indicator 'Information provided through the financial reporting framework, adopted by decision XII/3' is used in this assessment. Indicator information is available from the IPBES Indicator portal and the BIP website www.bipindicators.net . This indicator can be disaggregated/made available for this region, more information on this is available from the Indicator Focal point Robert Hoft (email: robert.hoft@cbd.int)	Chapter author teams made use of these core/highlighted/further indicators as far as possible given the delivery late in the process.
UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	0	0	0		We would recommend that the IPBES Highlighted Indicator 'Number of world natural heritage sites per country per year' is used in this assessment. Indicator information is available from the IPBES Indicator portal and the BIP website www.bipindicators.net . This indicator can be disaggregated/made available for this region, more information on this is available from the Indicator Focal point Douglas Nakashima (email: D.Nakashima@unesco.org)	Chapter author teams made use of these core/highlighted/further indicators as far as possible given the delivery late in the process.
UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	0	0	0		We would recommend that the Indicator 'Trends in Loss of Reactive Nitrogen to the Environment' is used in this assessment. Indicator information is available from the BIP website www.bipindicators.net . This indicator can be disaggregated/made available for this region, more information on this is available from the Indicator Focal point Albert Bleeker (email: Albert.Bleeker@pbl.nl)	Chapter author teams made use of these core/highlighted/further indicators as far as possible given the delivery late in the process.
UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	0	0	0		We would recommend that the Indicator 'Wild Bird Index (forest & farmland specialist birds)' is used in this assessment. Indicator information is available from the BIP website www.bipindicators.net . This indicator can be disaggregated/made available for this region, more information on this is available from the Indicator Focal point Richard Gregory (email: richard.gregory@rspb.org.uk)	Chapter author teams made use of these core/highlighted/further indicators as far as possible given the delivery late in the process.
UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	0	0	0		We would recommend that the Indicator 'Climatic impacts on European and North American birds' is used in this assessment. Indicator information is available from the BIP website www.bipindicators.net . This indicator can be disaggregated/made available for this region, more information on this is available from the Indicator Focal point Richard Gregory (email: richard.gregory@rspb.org.uk)	Chapter author teams made use of these core/highlighted/further indicators as far as possible given the delivery late in the process.

UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	0	0	0		We would recommend that the Indicator 'Ocean Health Index' is used in this assessment. Indicator information is available from the BIP website www.bipindicators.net . This indicator can be disaggregated/made available for this region, more information on this is available from the Indicator Focal point Benjamin Halpern (email: halpern@nceas.ucsb.edu)	Chapter author teams made use of these core/highlighted/further indicators as far as possible given the delivery late in the process.
UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	0	0	0		We would recommend that the Indicator 'Cumulative Human Impacts on Marine Ecosystems' is used in this assessment. Indicator information is available from the BIP website www.bipindicators.net . This indicator can be disaggregated/made available for this region, more information on this is available from the Indicator Focal point Benjamin Halpern (email: halpern@nceas.ucsb.edu)	Chapter author teams made use of these core/highlighted/further indicators as far as possible given the delivery late in the process.
UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	0	0	0		We would recommend that the Indicator 'Proportion of countries adopting relevant national legislation and adequately resourcing the prevention or control of invasive alien species' is used in this assessment. Indicator information is available from the BIP website www.bipindicators.net . This indicator can be disaggregated/made available for this region, more information on this is available from the Indicator Focal point Shyama Pagad (email: s.pagad@auckland.ac.nz)	Chapter author teams made use of these core/highlighted/further indicators as far as possible given the delivery late in the process.
UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	0	0	0		We would recommend that the Indicator 'Biodiversity Barometer' is used in this assessment. Indicator information is available from the BIP website www.bipindicators.net . This indicator can be disaggregated/made available for this region, more information on this is available from the Indicator Focal point Rik Kutsch Lojenga (email: rik@ethicalbiotrade.org)	Chapter author teams made use of these core/highlighted/further indicators as far as possible given the delivery late in the process.
UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	0	0	0		We would recommend that the Indicator 'Red List Index (impacts of utilisation)' is used in this assessment. Indicator information is available from the BIP website www.bipindicators.net . This indicator can be disaggregated/made available for this region, more information on this is available from the Indicator Focal point Tom De-Meulenaer (email: Tom.DE-MEULENAER@cites.org)	Chapter author teams made use of these core/highlighted/further indicators as far as possible given the delivery late in the process.
UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	0	0	0		We would recommend that the Indicator 'Water Quality Index for Biodiversity' is used in this assessment. Indicator information is available from the BIP website www.bipindicators.net . This indicator can be disaggregated/made available for this region, more information on this is available from the Indicator Focal point Hartwig Kremer (email: hartwig.kremer@unep.org)	Chapter author teams made use of these core/highlighted/further indicators as far as possible given the delivery late in the process.
UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	0	0	0		We would recommend that the Indicator 'Number of Parties to the CBD that have deposited the instrument of ratification, acceptance, approval or accession of the Nagoya Protocol' is used in this assessment. Indicator information is available from the BIP website www.bipindicators.net . This indicator can be disaggregated/made available for this region, more information on this is available from the Indicator Focal point Beatriz Gomez (email: beatriz.gomez@cbd.int)	Chapter author teams made use of these core/highlighted/further indicators as far as possible given the delivery late in the process.
EU: Frank Wugt Larsen (EEA)	0	0	0		A few points on references: 1) In general, there is a need to systematically check references in the chapters. Specifically, EEA reports are not referenced consistently, e.g. in some chapters it is EEA XXXX, while in other chapters European Environment Agency XXXX. 2) Chapter 3 doesn't seem to contain any reference to EEA materials, which seems a bit odd given the many relevant EEA publications. 3) Some EEA references are not the most current one, e.g. Climate change, impacts and vulnerability in Europe 2012 is referenced although there is 2016 report.	References have been systematically checked and standardised throughout the document using the Mendeley bibliographic software.
EU: Frank Wugt Larsen (EEA)	0	0	0		As during last review, we would like to point you to relevant information hosted by the EEA for which we believe a consultation by authors could improve the ECA report. In general, we will also refer to the EEA/ETC BD document 'Information note to IPBES secretariat on EEA and EU information' (http://bd.eionet.europa.eu/Reports/ETCDBDTechnicalWorkingpapers/PDF/Information_IPBES_on_EEA_EU.pdf), which was shared with the ECA TSU in 2015. Several reports provide a good starting point to find relevant information, incl. EEA, 2015 European environment – state and outlook 2015 (SOER 2015, in particular, thematic briefings and SOER synthesis); EEA 2016. Mapping and assessing the condition of Europe's ecosystems. Progress and challenges; EEA, 2015, State of Nature Report 2015; EEA, 2015, State of Europe's Seas; EEA, 2016. European forest ecosystems – state and trends. In general, the EEA website (http://www.eea.europa.eu) also provides access to a wealth of relevant indicators and assessments.	EEA sources are highly appreciated and cited throughout the assessment.
Thomas Brooks	0	0	0		Overall: the ECA assessment is looking really good - many congratulations to all the authors. I have focused the great bulk of my comments on issues directly related to data mobilised for the ECA against IUCN standards, especially in the light of the provision of these data for IPBES in https://www.nature.com/articles/sdata20167 , and of IUCN's strategic partnership with IPBES in general.	Thanks for the comment
Switzerland: José Romero	0	0	0		General: establish a glossary as part of this report and include in the glossary words like "cohesiveness", "regulatory", "material", "non-material" NCPs; "trophic level"; "biotic homogenisation".	A glossary has been created as suggested
Switzerland: José Romero	0	0	0		General: in this report, the concept of "trade-off" is used in a rather negative sense, while generally a trade-off is a situation reached for the satisfaction of divergent views and interests, which is considered to be a positive solution. We wonder if this rather negative use of trade-off in the report would be correctly translated in the other non-English languages. For example, in French, we would rather think of a happy outcome when a trade-off (e.g. a compromise, a good deal) is done in front of irreconcilable antagonisms. If the use in this report is more in a negative sense, then why not qualify trade-offs as e.g. "harmful". We hope that the English speakers authors understand our point and find a way out to address it in English as well as in the other non-English languages.	Trade-off is here consistently meant to indicate a negative relation between two variables of interest, e.g. between two NCPs. Mitigation of a trade-off would correspond to your "happy outcome".
The Netherlands: Astrid Hilgers	0	0	0	0	(Financial) cost-benefit analyses for policymakers/society are missing, as it is important to name such considerations explicitly. Also, certain concepts should be defined more precisely. This goes, among others things, for Natural Capital.	Discussion of the economics of ES (valuation) has been increased in the document, especially in Ch2
Ramsar Secretariat	0	0	0	0	We recommend that as in the regional assessments for Africa and the Americas, the area of Ramsar Sites, wetlands protected under the Ramsar Convention as internationally important by sub-region, be included in this assessment as an indicator. See: https://rsis.ramsar.org/	Done in chapter 3.
IPBES Knowledge and Data Task Force (KD TF) / Task Group on Indicators (TGI)	0	0	0		This review provides feedback from the IPBES Knowledge and Data Task Force (KD TF) / Task Group on Indicators (TGI) on the use of IPBES core indicators in your assessment. We see potential for inclusion of additional core indicators and for the more consistent use of the standardized visuals provided. For information on core indicators potentially relevant to a given chapter, please see http://www.ipbes.net/indicators (or see the tab named, "core indicators" in this spreadsheet) and check the indicator trend graphs shared by your TSU. For the trends of IPBES core indicator, standardized visualizations should be used as much as possible to ensure the consistency between and within the assessments. The KD TF/TGI aim to follow up with specific recommendations in the near future. In the meantime, do not hesitate to reach out to them through your TSU or the KD TF TSU (ipbes.kdtsu@gmail.com).	Chapter author teams made use of the core indicators as far as possible given the delivery late in the process.
Kremena Gocheva	0	0	0		The draft assessment is an impressive and very informative work. It can, also, be seen that the drafting and peer review process are flexible enough to incorporate very recent work despite the long drafting cycle. It would be helpful to incorporate a feedback mechanism from stakeholders as well, for collecting new information that becomes available on a running basis. For example, the Bulgarian mapping and assessment outside NATURA 2000 - some 66% of the country - for ecosystem condition and biophysical valuation of ecosystem services was completed in April, 2017. IBER-BAS has mapped six of the nine ecosystem types in Bulgaria, and had the lead role in developing the underlying methodological framework. However, the final reports are under verification and publications upon it are still to follow, with findings being systematized. Similarly, work is underway in other countries too. Therefore, at the current stage the comments are somewhat generic and limited to the general approach (Chapter 1) but it would be suitable, if such a mechanism existed, to keep contributing beyond June 26 until the report is ready. It may be good to allow for submitting links to new publications on a regular basis, so the report authors would get up-to-date information in a timely manner.	Thank you for the suggestion concerning new literature. The IPBES guidelines requires us to establish a cut-off date for literature (April 2017), but we have attempted to be flexible in incorporating more recent, but highly important, material.

						The assessment's description in Chapter 1 appears anthropocentric without a clear focus on humans as part of Nature. Since the Assessment clearly notes (Table 1.1, Figure 1.2) that the IPBES has a scope overarching earlier assessments such as MA, TEEB, MAES by providing a holistic view on Nature, the introduction, too, may need to put more emphasis on the socio-ecologic system as a single entity rather than merely a source of benefits to humans.	
Kremena Gocheva		0	0	0		This could lead onto introducing insights at the win-win and lose-lose options, including the ecosystem disservices, as well as a more systemic view at the continuum of states in which the socio-ecologic system is evolving over time. It would bring out more clearly the NATURE component of the IPBES CF, in particular its Mother Earth and Systems Values categories which appear to be underrepresented in the current draft. Their equivalent in Western science appears to be not the entire body of knowledge on biodiversity and ecosystems but rather the parts of ecology that treat ecosystems from the energy/emergy/entropy/information theory points of view.	Chapter 1 has been edited considerably to adopt a more comprehensive socio-ecological systems approach as well as recognising the intrinsic value of nature and pointing out non-material relational values.
Amor Torre-Marín	Ch.1		0	0		Sources of figures need to be added to Mendely and reference list	Done throughout
Bruno Fady	Ch.1		0	0	0	Chapter 1 mentions genetic diversity only once! And only in a box (1,1) about CBD's vision. This is of course not enough. Genetic diversity is one of the main processes for biodiversity (loss) and it is one of the least explored.	The status of genetic diversity is beyond the scope of the introductory chapter, but we included some new mentions in the introduction and concerning the important genetic resources of Central Asia and Central Europe
Bruno Fady	Ch.1		0	0	0	Euforgen, the European programme for forest genetic resources, is never mentioned. This more than 20 year old programme (http://www.euforgen.org/) is a success for raising awareness of and implementing strategies for conservation of genetic diversity across Europe	This is clearly an important initiative but beyond the scope of our chapter, which is the introduction to the assessment. We hope Euforgen is cited in the later chapters.
Andrew Wade	Ch.1		0	0		Congratulations to all the authors and review editors on excellent work to collate and present the material. The chapter is impressive. The comments below are intended to help clarify points, provide further evidence or ask for particular points to be double-checked and perhaps caveats be added.	Thank you for your comments
						Please consider the updated versions of the "Introductory texts proposed for the IPBES regional, land degradation and restoration, and global assessments", which has been compiled for use by all IPBES regional assessments, on the following topics: 1) Conceptual framework 2) IPBES terrestrial and aquatic units of analysis 3) Nature's Contributions to People 4) IPBES treatment of values and valuation 5) Treatment of Indigenous and Local Knowledge Systems in IPBES Assessments 6) Aichi Biodiversity Targets and Sustainable Development Goals (SDGs) 7) Confidence terms 8) Categories of users of the assessment 10) IPBES indicators 11) What is an IPBES assessment? What is a chapter's executive summary? What is a summary for policymakers?	
André Mader	Ch.1		0	0		Existing text in the chapter can be replaced or integrated with this new text. This new text was circulated to chapter 1 ECA experts by the ECA TSU on 21 April 2017.	Standard texts have been used to support the chapter where relevant
André Mader	Ch.1		0	0		Aichi targets should be "Aichi Biodiversity Targets"	Done throughout
André Mader	Ch.1		0	0		Contrary to earlier advice, please change "indigenous and local knowledge and practices" to just "indigenous and local knowledge when referring to the concept.	Done throughout
André Mader	Ch.1		0	0		Please check that all references to IPBES and similar documentation refer to the most up-to-date version of the document, except in cases where an older version is intentionally cited	Check was carried out
ECA values liaison group	Ch.1		0	0		The wording of Chapter 1 could be harmonized in its wording concerning biodiversity and ecosystems (change to 'nature'); ecosystem services (change to 'nature contributions to people') and well-being (change to 'quality of life'). For example: Line 73: Change to 'Nature and its contributions are fundamental for...' Line 87: Change to '...arising from the loss of nature and its contributions to people.' Line 98: Exchange human well-being for human quality of life Line 105: Change to '...enhance nature and its contributions to people through a number...' Line 109: Exchange well-being for quality of life. Line 126: Change to '... state of nature and its contributions to people.' Other lines that require changing: L139, L146-148, L152, L161, L173, L174, L182, L186, L192, L193, L195, L205, L224, L237, L247, L312, L415, L441, Figure 1-5, L486, L505, L513, L522, L523, L532, L547, L549, L551, L565, L653, L675, L958, L968, L990, L1013, L1020, L1059, L1097, L1024, L1303, L1310, L1359, L1363, L1374, L1392, L1410, L1515, L1549, L1560, L1574, L1606	The text has been standardised and checked throughout, as proposed.
ECA values liaison group	Ch.1		0	0		To improve clarity, find-replace 'diverse' instead of 'multiple' values. Lines 122, 238, 243, 246, 254, 260, 331, 424, 1205, 1210, 1259, 1500	done
ECA values liaison group	Ch.1		0	0		(table 1) Compile observations on values (coverage, reasons and consequences, valuation methods and steps) related gaps and their implications. Part of this can be placed alongside the new table (line 254) and/or in the part on 'methodological approaches to value' (lines 1203-1260) and/or may be included in the part on 'limitations' (lines 1473-1546).	This is actually covered in the new figure I made and there is not so much to say. Or it would have to be an after-ECA analysis in a paper maybe.
ECA values liaison group	Ch.1		0	0		It is also need it that in Chapter 1 you include a definition of World view. At the moment in Pascual et al. 2017 figure it is only distinguish between "single" or "diverse" worldview but there is no proper definition. This use of the term does not seem consistent with overall use of diverse worldviews in the literature or in IPBES.	Definitions such as these have been standardised across the IPBES assessments and included in a generic glossary
ECA values liaison group	Ch.1		0	0		Update the table on values coverage in ECA based on the Garmish survey	New table has been inserted
ECA values liaison group	Ch.1		0	0		Check that all subregions are covered roughly equally in terms of values.	Check has been done
ECA values liaison group	Ch.1		0	0		Change "benefits" to "contributions" wherever relevant	done
Mark Snethlage	Ch.1		0	0		In this table, suggestions are made for maps to illustrate some sections of the different chapters. A document with a number of examples (referred to below) is available at: https://tinyurl.com/ECA-Maps ECA sharepoint site login required	Additional maps have been considered for inclusion: maps of UoAs and Human Footprint were included.
ECA values liaison group	Ch.1		0	0		Please double check the use of the term 'worldview' to ensure it is used consistently, and consistently with IPBES wording and meaning, or at least it is clear from the context what exactly is meant.	Check was done

						The value of nature or biodiversity for its own sake, independent from its value for humans, mostly referred to as its intrinsic value, invariably is the highest scoring reason for protecting biodiversity or stopping decline in questionnaires or polls addressed at the general public (e.g. Eurobarometer results, PBL 2017). The IPBES conceptual framework, unlike for instance the Ecosystem Service concept, includes intrinsic value. But regrettably, this apparently does not mean the framework explicitly includes, or explains, how this 'inaccessible' value can translate in a clear motivation to protect it! Intrinsic value in itself may be inaccessible, but our apparent need to value intrinsic value certainly is not! The rift between protecting nature for its own sake or protecting it for its benefits to us, humans, has been very damaging to the protection effort over the last decades. The IPBES conceptual framework and its application in practice seems a very good opportunity to unit these two grounds. But it needs extra effort in properly explaining how they work together then.	We have added some text explaining this, however the suggestion at the end of your comment, an interesting and important avenue for further research, remains to be explored!
Rob Bugter	Ch.1	1	1	65	1925		
Simone Beichler	Ch.1	4	0	4	0	Overall the executive summary seems a bit long and some facts are repeated, thus some room for shorting is highlighted in the next comments	The executive summary has been revised and shortened considerably
Thomas Brooks	Ch.1	4	73	4	74	Very important to retain consistency with IPBES definition of "biodiversity" (http://www.ipbes.net/sites/default/files/downloads/IPBES_2_INF_2_Add.1.pdf ; also Pollination assessment p481, and Africa assessment SOD Chapter 1, Page 5, Lines 142-145), which includes "ecosystems". Therefore, delete "and ecosystems" twice here. This applies throughout the rest of the Chapter (e.g. twice on lines 146-147, three times on lines 159-161, line 173, line 181, line 186, line 192, line 195, line 205, line 219, line 523, line 1013, three times on lines 1045-1048, twice in Table 1.7, line 1374).	Edits have been made accordingly throughout the chapter document
André Mader	Ch.1	4	73	4	79	This seems to belong in chapter 2	This key message has been considerably revised to make it more generic and not specific to Ch2.
UK: David Forrow	Ch.1	4	73	6	170	The summary is far too procedural around the IPBES process as opposed to identifying information of relevance to decision makers. In addition, the language is not accessible, for example "The ECA assessment seeks to support decision-making processes according to the clearly defined, quality-controlled and legitimate IPBES procedure"	The exec summary has been revised considerably to make it more accessible and reducing some of the procedural aspects. However, it is a feature of an introductory chapter, such as this one, that it will usefully contain some procedural messages.
UK: David Forrow	Ch.1	4	73	6	170	The summary could reflect better the dependence of global, natural and corporate economies in sustainable natural capital	We feel this is more relevant to one of the assessment-based chapters, rather than the introduction
Simone Beichler	Ch.1	4	73	4	79	The initially stated "opportunities for improving quality of life" do not really fit to the description afterwards relating to the effects of biodiversity loss. I would suggest ...and improve the quality of life and human wellbeing in multiple ways.	This key message has been revised considerably to better reflect the point made.
André Mader	Ch.1	4	80	4	85	Although "the continued loss of biodiversity arising from human intervention" may be well established, it cannot be said that "the ECA assessment is important and timely" is well established	Confidence language has been removed from this summary, since it is not an assessment per se, but an introduction to the assessment
Simone Beichler	Ch.1	4	86	4	88	delete sentence "in requesting... to people"	Done
Simone Beichler	Ch.1	4	91	5	144	the differences in key questions could be communicated more clearly. Thus for clarity the point here could be moved to the other statement on key questions. In this context the sentence "questions shared...to human wellbeing" could be move to the first paragraph on this issue. The last part from line 155 on could stay at the end	This key message has been completely re-written to better reflect the key questions
Nadine Goris	Ch.1	4	92	4	92	should be "multilateral"	Edited accordingly
Simone Beichler	Ch.1	4	96	4	96	delete "also"	Edited accordingly
Andrew Wade	Ch.1	4	104	4	104	It is unclear what is meant by 'associated diverse values' in this context. Is this defined somewhere?	Edited out
Simone Beichler	Ch.1	4	104	4	104	I would suggest environmental resources instead of biological	Edited to natural resources
Simone Beichler	Ch.1	4	104	4	107	Stakeholders can protect and enhance biodiversity and ecosystem services through a number of actions, including policy instruments, management practices, education and awareness raising, where the ECA assessment provides solid scientific evidence.	Edited
Kremena Gocheva	Ch.1	4	104	4	107	The national scientific community in ECA countries is also a stakeholder not to be left out. Bulgaria, and possibly every other country in the region, has a vast research body stretching over the 19th to 21th century, which is a more specifically related to local biodiversity and local knowledge. Suggested change in the wording for the sentence: "Stakeholders protect and enhance biodiversity and ecosystem services through a number of actions, including policy instruments, management practices, research, education and awareness raising. The ECA assessment provides solid scientific evidence on which stakeholders can base such actions (1.1, 1.2, 1.3, 1.5, 1.8)."	Academic organisations' added
Nadine Goris	Ch.1	5	114	5	114	should be "throughout the report"	Edited
Simone Beichler	Ch.1	5	117	5	118	delete sentence "Data-related and method... are clearly stated" as it repeats the same argument	Edited
Simone Beichler	Ch.1	5	122	5	123	in order to clarify the difference to the ILKP mentioned in the previous sentence, delete "the knowledge of" here. Thus first knowledge systems thatn worldviews and value systems including local practitioners	Edited
Kremena Gocheva	Ch.1	5	122	5	123	Same rationale as in Row 104-107. Proposed change in wording: "The ECA assessment is based on multiple worldviews and value systems, including the global and local scientific evidence, knowledge of local practitioners such as farmers and foresters.	The Exec Summary has been revised considerably to account for this and other comments.
Harald Pauli	Ch.1	5	125	5	136	The regional terms are not self-explaining in the way that West, Central, East are not necessarily related to the geographical terms and where Europe is said, Europe may only make up a small percentage. Similarly confusing appears the characterization of differences among subregions, e.g. in L 131: 'increasing urbanisation and consumption' may not be relevant for the bulk of the Asian area of E-Europe - by far the largest share of this subregion.	The region and sub-regions are defined by IPBES, and we have followed this convention. This is now noted in the text.
André Mader	Ch.1	5	125	5	136	Would it be worth considering a paragraph on each of the regions, reflecting the detail that is provided on each in the text?	This key message has been considerably reduced in length, and no space is available to expand it.
Simone Beichler	Ch.1	5	125	5	125	strong instead of stark	Done
Simone Beichler	Ch.1	5	137	5	143	one statement about central asia in addition would be nice here	The point is made that WE and CE contribute most to impacts on the rest of the world. So EE and CA automatically less so.
Simone Beichler	Ch.1	5	138	5	138	world regions?	Seems clear to us.
Kremena Gocheva	Ch.1	5	143	5	143	Natural resources, including biodiversity, are being exported from East Europe (and likely from CE and CA, too) to West Europe within the region. This needs to be acknowledged. According to the Bulgarian official statistics the international turnover index in the Bulgarian industry (B-E36) grew over four times year end-on-year end between 2000 and 2016, and the same trend holds true for industries that use natural resources, such as production of furniture and clothing against the background of a diminishing population. In food production, the factor is even 7,3 times increase. Although not all of this increase is due to intra-regional trade, EU is one of the main trade partners. At the same time, in tourism the annual number of visitors to Bulgaria is over 6 times more than the number of Bulgarians travelling abroad and in the recent years (since 2008) exceeds the number of population, with a peak in 2016 - more than 3 000 000 over the number of the country's population. Proposed new sentence after the last in the paragraph, with the possible exclusion of Central Europe (Poland): "Intra-regional trade, too, leads to additionally increasing the ecological footprint of Western and Central Europe at the expense of the other sub-regions of ECA."	Acknowledged, and this is discussed in more detail in the main body of the text.
Markus Fischer	Ch.1	5	144	5	144	We should later also say that these questions are outlined in the scoping document framing the ECA assessment.	Done
Thomas Brooks	Ch.1	5	156	5	156	The Aichi Targets do not belong to the CBD alone (so delete "CBD" here). This applies throughout the rest of the Chapter (e.g. page 38).	Edited through out
André Mader	Ch.1	7	172	10	263	Section 1.1.1 and section 1.1.3 seem to cover much the same ground. If this is noted by other reviewers as well, it might be worth considering merging them, and eliminating overlap.	Considerable edits have been made here
Anatoly Khapugin	Ch.1	7	173	7	184	There is a need to include some references supporting this text. At least, references may be added after first and second sentences.	Referencing has been improved throughout the chapter
Simone Beichler	Ch.1	7	177	7	178	to maintain ecosystems and the services they provide - as integrity might be misunderstood in this context	Text has been edited accordingly
Dan Faith	Ch.1	7	177	7	177	refer to biodiversity loss but then imply actions are actions to maintain ecosystem integrity - but note that - NCP18 is beyond ecosystems	Text has been edited accordingly

Nadine Goris	Ch.1		7	180	7	180	It is not possible to "inform future decisions". Should be "The ECA assessment is a base for future decisions"	Text has been edited accordingly
Andrew Wade	Ch.1		7	181	7	181	The concept of 'nature's contributions to people' is an uneasy one to my mind as it seems to set people outside nature and seems to offer a consumer-style mentality. Perhaps it might be better if we view people as an integral part of nature?	An IPBES-wide decision has been made to go with this concept, which is defined in this chapter and the IPBES glossary
Simone Beichler	Ch.1		7	182	7	182	opportunities for sustainable development is clear but human wellbeing seems not to fit in this context. I suggest just delete "and human wellbeing"	Text has been edited accordingly
Kremena Gocheva	Ch.1		7	185	8	221	The text leaves the impression of comparing apples with oranges - habitats in Europe, species in Russia, other information on CA. While, knowing the state of data collection, I can see that the problem probably is in the different policy objectives across time and space (also addressed to some extent in 1.7) and resulting patchy and incomplete data, this needs to be stated, and where correlations are proven scientifically, these may be mentioned (i.e. between habitat deterioration and loss of biodiversity). Otherwise there's a risk that reader would be left with the impression of inconsistency and throwing of numbers without a clear message, instead of a coherent analysis. By the way, inserting this message would provide another argument to underline the next section's statement. Why another assessment? Because this new assessment overcomes the limitations and aims at a broader picture than merely counting species of habitats. It is more informative for policymaking.	We have changed the structure of the section, and attempted a more homogenous comparison. We have also inserted the message that this will be the first comprehensive assessment of their region, something never done before.
André Mader	Ch.1		7	187			The Global Biodiversity Outlook 1, 2, 3, 4 may be more appropriate references here than the Leadley et al. review	The reference relates to the Technical Report behind GBO4. We opted to include the most recent GBO, as it also covers the time period analysed in the other GBOs.
Simone Beichler	Ch.1		7	187	7	188	"over the past 50 years" is a bit confusing, as it might refer to now 2016 or 2005 the MEA assessment the same is true for 60% of ecosystems	We re-wrote the sentence and removed the concrete numbers to make it less confusing, with no impact on the overall message.
Rob Bugter	Ch.1		7	191	7	193	Effective responses can be achieved by mainstreaming biodiversity and ecosystems, as well as their importance to human well-being, at all societal levels'. Unfortunately, this is a hope and not a fact! I would recommend to slightly rephrase, as 'Effective responses can only be achieved when ...'	We have changed the text.
Rob Bugter	Ch.1		7	191	7	193	... at all societal levels'. Indeed, but this assessment does not seem to get very far itself in this respect. Providing 'access to evidence' is the only clearly stated benefit for the general public (page 18, 527-530). Although this assessment is about our relationship with biodiversity, what I really miss in it is a proper discussion of how that relationship actually works, or rather, what we know of it. And which knowledge gaps there still are in this field (would be good to have those included in chapter 2)	This goes beyond the remit of a general introduction, and indeed the knowledge gaps are now covered in Ch2, as well as all other chapters and the SPM
The Netherlands: Astrid Hilgers	Ch.1		7	191	7	193	Effective responses can be achieved by mainstreaming biodiversity and ecosystems, as well as their importance to human well-being, at all societal levels'. This is a hope and not a fact, thus suggestion to slightly rephrase, as 'Effective responses can only be achieved when ...'.	Suggested edit has been made
André Mader	Ch.1		7	191			The Global Biodiversity Outlook 1, 2, 3, 4 may be more appropriate references here than the Leadley et al. review	The reference relates to the Technical Report behind GBO4. We opted to include the most recent GBO, as it also covers the time period analysed in the other GBOs.
André Mader	Ch.1		7	193			"Recent policies and strategies have at their core the need to conserve biodiversity..." This sounds a little ambiguous. If it is saying that these policies should have this aim at their core, perhaps it can be written "Recent policies and strategies must include at their core the conservation of biodiversity..."	Suggested edit has been made
Thomas Brooks	Ch.1		7	201	7	201	Add "national" before "extinction".	Sentence has been modified substantially
Dmitry Schigel	Ch.1		7	205		209	Examples of biodiversity deterioration are taken from "fluffy" biodiversity, the charismatic vertebrates. IPBES need to encourage authors to draw a balanced unbiased picture of biodiversity in the region, focusing on functionally important taxonomic group, and not only those popular in the media.	We removed the examples as they are not really the focus of this section
Anatoliy Khapugin	Ch.1		7	207	7	209	In sentence "For example..." concrete recent references should be added for each animal species: tigers (also, what species of tigers is mentioned is not understandable), snow leopard. And there is for some reason plants don't mentioned.	We removed the examples as they are not really the focus of this section
UK: David Forrow	Ch.1		8	185	8	221	Would also be interesting to know where management action is having little impact (no change) and where improvement is plateauing (i.e. rate of improvement is slowing) despite active management activity because for instance traditional management regimes (e.g. siloed, linear process understanding and management) is not working anymore on today's complex problems	Not really the scope of the chapter
Simone Beichler	Ch.1		8	212	8	217	I would suggest to start with the "fifth national reports provide..." and state afterwards that 53 from 54 countries have submitted the fifth national report to the CBD	Text has been edited accordingly
Nadine Goris	Ch.1		8	217	8	218	Figure 1.1 is out of focus	Final version quality will be improved
Andrew Wade	Ch.1		8	218	8	218	Figure 1.1. Is the term 'ecological footprint' defined in another chapter? It is unclear what is meant by this.	Yes, in Ch2 and in the IPBES glossary
André Mader	Ch.1		8	222	10	263	In my understanding the single truly unique element of IPBES is that it widens its sources to include "other" value systems. Could that be emphasized a little more?	We adapted this section and emphasised this
André Mader	Ch.1		8	222			Suggest removing the somewhat negative "Why another assessment?" from the title.	The paragraph was thoroughly reworded to avoid negative tone. The title therefore doesn't have the negative ring anymore.
UK: David Forrow	Ch.1		8	222	8		I would like to see some discussion of systems management here. Just embedding natural capital and ecosystem services into traditional siloed linear management approaches is unlikely to change much. Need to start understanding problems as systems (dependencies, feedbacks and emergent properties etc).	In this introductory chapter, a discussion on systems analysis would be out of scope. It is partly dealt with in ch 5 and 6 and implicitly through the conceptual framework.
André Mader	Ch.1		9	233	9	234	Suggest using the CBD term "indigenous peoples and local communities", which refer to two different groups	adapted
André Mader	Ch.1		9	233			What are "learned societies"?	removed, jargon
Germany	Ch.1		9	234	9	236	Has this been achieved for all chapters equally? Or were there any gaps /challenges in bringing ILK in for specific topics? We would appreciate if you could reflect on this issue and maybe provide some lessons learned (e.g. could be beneficial for the global assessment)	The text has been revised here, but ILK issues are discussed further in every chapter and in the SPM
ECA values liaison group	Ch.1		9	237	9	253	This paragraph is the first mention of values, so it would be better placed after the definitions. Suggest placing after Line 341. Also the final lines of this paragraph (current Lines 250-253) are superfluous and can be cut.	paragraph was shortened and cross-refers to the section suggested
Anatoliy Khapugin	Ch.1		9	239	9	239	"e.g. (Millenium Ecosystem Assessment 2005)" should be corrected as "e.g. Millenium Ecosystem Assessment (2005)"	ok
Simone Beichler	Ch.1		9	239	9	240	what do you mean by "instrumental values"? The examples MAES and TEEB do not really clarify this, but add confusion. Though the sentence afterwards is easily understandable	paragraph was shortened and clarified and cross-refers to the section suggested
André Mader	Ch.1		9	241	9	242	TEEB does not emphasize monetary valuation. The majority of TEEB literature is about non-monetary valuation. "Economics" is not necessarily monetary	we left out comparative parts, sentence removed
Kremena Gocheva	Ch.1		9	243	9	245	Other important projects to be mentioned include ESERALDA (http://www.eseralda-project.eu/), EnvEurope http://www.enveurope.eu/products	these projects do not explicitly work on valuation
André Mader	Ch.1		9	247	9	248	More discussion on the table and figure's content?	figure was changed
Dan Faith	Ch.1		9	253			Problem with Table 1.1: It implies chapter 3 is looking at biodiversity as intrinsic – again where is the NCP 18 link? (see references for discussion)	figure was changed
Rob Bugter	Ch.1		9	254	9	257	In table 1.1 intrinsic value is used in a wrong, or at least misleading, way. The table is not consistent with its source, table 2.2. from IPBES deliverable 3d. In the deliverable, Nature / intrinsic value is a category, not a value type equated to 'biological' stock and state values. Table headings of the two tables do not match as well. See also the next comments on intrinsic value.	figure was changed
Rob Bugter	Ch.1		9	254	9	257	Valuation, and the classification of values of biodiversity with it, has made huge progress over the last years. But is still a work, or maybe more correctly a struggle, in progress. IPBES makes a basic distinction between anthropocentric and non-anthropocentric values, without – as far as I can see – acknowledging the value structure or hierarchy there seems to be: all values in the non-anthropocentric category, including intrinsic value, seem to be the ones necessary to derive (and quantify) all instrumental and relational values. Basically the stock, state and rights of biodiversity before their interpretation in terms of their use to and value for humans. In my idea, if ECA would interpret the value structure along these lines it would be clearer and far easier to understand and explain.	actually it does, see values section further on. There has been a thorough revision of the entire ECA to streamline the value issues according to the IPBES valuation guidelines. These indeed recognise this reasoning

The Netherlands: Astrid Hilgers	Ch.1	9	254	9	257	In table 1.1 intrinsic value seems to be used in a wrong, or at least misleading, way. The table is not consistent with its source, table 2.2. from IPBES deliverable 3d. In the deliverable, Nature / intrinsic value is a category, not a value type equated to 'biological' stock and state values. Table headings of the two tables do not match as well. See also the next comments on intrinsic value.	actually it does, see values section further on. There has been a thorough revision of the entire ECA to streamline the value issues according to the IPBES valuation guidelines. These indeed recognise this reasoning
Nadine Goris	Ch.1	9	255	9	257	Table 1.1 is out of focus	figure was changed
Thomas Brooks	Ch.1	9	256	9	256	Where does the four-way classification of "nature" come from. Much better to retain the widely used classes of "Genetic diversity", "Species", and "Ecosystems" here.	we are using the classification as put forward within IPBES
Germany	Ch.1	10	241	9	250	Please specify at least broadly the differences between ecosystem services and NCPs. Pls update the reference, because the link does not work	this is defined in the valuation section
Allan Watt	Ch.1	10	258	10	263	I still do not think that this figure is useful...	done
Thomas Brooks	Ch.1	10	258	10	258	Placement of "Nature" as encompassing everything else here is not consistent with the IPBES conceptual framework, which has "Nature" as one of the elements/boxes.	we are using the classification as put forward within IPBES
Rob Bugter	Ch.1	10	258	10	263	Figure 1.2 still uses benefits instead of contributions	figure was changed
Andrew Wade	Ch.1	10	258	10	258	Figure 1.2. I am unsure what this figure is trying to show. Natural capital is not shown, should it be? Why do the benefits of nature extend beyond ecosystem services and yet not encapsulate all biodiversity? Perhaps this figure is not meant to be interpreted as a Venn diagram?	figure was changed
The Netherlands: Astrid Hilgers	Ch.1	10	258	10	263	Figure 1.2 still uses benefits instead of contributions	figure was changed
André Mader	Ch.1	10	258	10	258	It seems incorrect to say that the other assessments did not cover "nature". Likewise it does the MEA a disservice to say that biodiversity was only a partial focus (the same could be said for IPBES). The diagram also does not seem to capture the key distinction of IPBES - its inclusion of various values systems.	figure was changed
UK: David Forrow	Ch.1	10	258	10	258	Fig.1.2 - To appeal to governments much more reference to economic production needs to be made	figure was changed
Sonja Jähnig	Ch.1	10	259	10	263	Figure 1.2 – seems not very convincing and quite condensed. Shouldn't the previous assessments at least be specified i.e. which related to which aspect?	figure was changed
André Mader	Ch.1	10	269	10	270	"...conducted the ECA assessment in a transparent way." It might be necessary to be more explicit.	Edited
André Mader	Ch.1	10	271	10	270	"...not based on advocacy..." - this suggests that advocacy may still be involved - suggest making it clearer that it is not	Edited
Anatolij Khapugin	Ch.1	10	275	10	275	"Hence, The ECA assessment" should be corrected as "Hence, the ECA assessment"	Edited
André Mader	Ch.1	10	277	11	284	Some of the detail here seems unnecessary. Perhaps limit it to explaining that a set of four regional assessments (named) were requested by member States; were preceded by scoping reports; are part of the first work programme (21014-2018); and the SPM was approved and the full report accepted (not ratified) at the Plenary's sixth session. Also is the reference to IPBES-3/18) is relevant here?	Indeed, this section is covered in the preface
Anatolij Khapugin	Ch.1	11	283	11	283	"Asia-Pacific, and;" should be corrected as "Asia-Pacific; and"	This section is covered in the preface
Simone Beichler	Ch.1	11	285	13	341	the overall section 1.2.3 could be shortened avoiding repetition.	Indeed, this section is covered in the preface
ECA values liaison group	Ch.1	11	285	13	341	This section would benefit from simple, clear definitions of all the different values being set out initially, before more detail and discussion. Suggest adding in a final version of the IPBES preliminary value types screening table here (it has more detail than Table 1.1 so will aid understanding).	The values table is added in the section on values SOD 1.6.3, and we refer to the ECA coverage of different value targets as depicted in the section on added value of this assessment SOD 1.1.3
Sandra Diaz	Ch.1	11	285	13	341	Please consider replacing the current text, or integrating it with, the following: "IPBES has developed a conceptual framework to summarize the components of the system comprised of people and nature, and the relationships between them. It provides common terminology for use across IPBES assessments. Integrative but explicit conceptual frameworks are particularly useful tools in fields requiring interdisciplinary collaboration. They help to make sense of complexity by clarifying and focusing thinking about relationships, and supporting communication across disciplines and knowledge systems and between knowledge and policy. The grey boxes and their connecting grey arrows denote the elements of nature and society that are the main focus of IPBES. In each of the boxes, the headlines in black are inclusive categories that should be relevant to all stakeholders involved in IPBES and embrace the categories of science (in green) and comparable or similar categories according to other knowledge systems (in blue). The categories mentioned in green or blue are illustrative, see for more examples Diaz et al, 2015. Solid grey arrows denote influence between elements; the dotted grey arrows denote links that are acknowledged as important, but are not the main focus of IPBES. Interactions between the elements change over time (horizontal broad red arrow) and occur at various spatial scales (vertical broad red arrow). The vertical lines on the right indicate that the scope of IPBES assessments will be at the supranational (from subregional to global) scale, but that they will build on properties and relationships often assessed at finer (national and subnational) scales. The line indicating level of resolution does not extend all the way up to the global level because, for the types of relationship explored by IPBES, the spatially heterogeneous nature of biodiversity is important, so IPBES assessments will be most useful if they retain finer resolution. This figure is a simplified version of that adopted by the second session of the Plenary of IPBES (UNEP, 2014) and modified by the fifth session of the Plenary (UNEP, 2017). A more complete description of all elements and linkages in the CF, together with examples, are given in Diaz et al, 2015. The Main Elements of the IPBES Conceptual Framework <ul style="list-style-type: none"> • Nature: the natural world with an emphasis on the diversity of living organisms and their interactions among each other and with their environment. • Anthropogenic assets refer to knowledge, technology, work, financial assets, built infrastructure, etc. that, together with nature, are essential in the co-production of nature's contributions to people. • Nature's contributions to people (NCP) are all the contributions of nature, both positive and negative, to the quality of life of humans as individuals and societies. (See also section on "Nature's Contributions to People", below). 	Done

						<ul style="list-style-type: none"> • Drivers of change refer to all those external factors that affect nature, and, consequently, affect the supply of NCP. The conceptual framework includes drivers of change as two of its main elements: institutions and governance systems and other indirect drivers and direct drivers (both natural, such as earthquakes and volcanic eruptions; and anthropogenic, such as habitat conversion and chemical pollution). o Institutions and governance systems and at least some other indirect drivers are the root causes of the direct anthropogenic drivers that affect nature. They include systems of access to land, legislative arrangements, international regimes such as agreements for the protection of endangered species, and economic policies. o Direct drivers, both natural and anthropogenic, affect nature directly. Direct anthropogenic drivers are those that flow from human institutions and governance systems and other indirect drivers. They include positive and negative effects, such as habitat conversion, human-caused climate change, and species introductions. Direct natural drivers can directly affect anthropogenic assets and quality of life (e.g. a volcanic eruption can destroy roads and cause human deaths), but these impacts are not the main focus of IPBES. • Good quality of life is the achievement of a fulfilled human life. It is a highly values-based and context-dependent element comprising multiple factors such as access to food, water, health, education, security, and cultural identity, material prosperity, spiritual satisfaction, and freedom of choice. A society's achievement of good quality of life and the vision of what this entails directly influences institutions and governance systems and other indirect drivers and, through them, all other elements in the Conceptual Framework. Good quality of life, also indirectly shapes, via institutions, the ways in which individuals and groups relate to nature. Likewise, institutions and governance systems can influence a society's value system and perception of what constitutes quality of life. IPBES does not address this aspect of the conceptual framework in the assessments, but actions that Governments and societies may choose to take based on the findings of the IPBES assessments often require addressing this pathway wisely. 	
						<p>The grey boxes and their connecting grey arrows denote the elements of nature and society that are the main focus of IPBES. In each of the boxes, the headlines in black are inclusive categories that should be relevant to all stakeholders involved in IPBES and embrace the categories of science (in green) and comparable or similar categories according to other knowledge systems (in blue). The categories mentioned in green or blue are illustrative, see for more examples Diaz et al, 2015. Solid grey arrows denote influence between elements; the dotted grey arrows denote links that are acknowledged as important, but are not the main focus of IPBES. Interactions between the elements change over time (horizontal broad red arrow) and occur at various spatial scales (vertical broad red arrow). The vertical lines on the right indicate that the scope of IPBES assessments will be at the supranational (from subregional to global) scale, but that they will build on properties and relationships often assessed at finer (national and subnational) scales. The line indicating level of resolution does not extend all the way up to the global level because, for the types of relationship explored by IPBES, the spatially heterogeneous nature of biodiversity is important, so IPBES assessments will be most useful if they retain finer resolution. This figure is a simplified version of that adopted by the second session of the Plenary of IPBES (UNEP, 2014) and modified by the fifth session of the Plenary (UNEP, 2017). A more complete description of all elements and linkages in the CF, together with examples, are given in Diaz et al, 2015.</p>	
Sandra Diaz	Ch.1	11	285	13	341	In the box that begins with "Nature's benefits to people", change "benefits" to "contributions" to reflect the fact that these need not necessarily be positive.	done
Simone Beichler	Ch.1	11	288	12	297	it would increase readability if the rather general part here could be integrated in the descriptive part for figure 1.3 from line 312ff	this section was reworded and clarified
Simone Beichler	Ch.1	11	298	11	301	all the facts included in this paragraph have been stated before. Although here it is a bit more specific. Anyway I suggest to delete or integrate it in the sections before, as it reads here just like repetition	this section was reworded and clarified
Hanna Skryhan	Ch.1	12	305	12	326	it's more important to describe the concept (ideas, interconnections and etc.) more details, and to shorten the description of the arrows and etc.	this section was reworded and clarified
Simone Beichler	Ch.1	12	308	12	308	"western science" to which countries/regions does it apply	western is used here in the proverbial (not geographic) way, similarly to 'the global south' and 'the east and the west' as referring to cultural/historical/economic entities which aren't explicitly located or put on the map.
ECA values liaison group	Ch.1	12	312			To be more in line with Pascual et al, change to "The interactions between human societies and the non-human world are embedded in the boxes denoting nature, nature's benefits to people and a good quality of life, and in the arrows connecting them." Also add in after (NCP) – This is defined as all the positive contributions, or benefits, and occasionally negative contributions, that people obtain from nature (Pascual et al., 2017).	this section was reworded and clarified
Kremena Gocheva	Ch.1	12	312	12	313	The entire box titled Nature does not appear to be a purely anthropocentric box in the IPBES CF; rather, it is more objective and independent from human influences, even in the parts implying cognition and valuation by humans. Proposed correction of the wording: remove the word in red in the sentence "The anthropocentric values of nature are embedded in the boxes denoting nature, nature's benefits to people and good quality of life, and in the arrows connecting them."	this section was reworded and clarified
Nadine Goris	Ch.1	12	315	12	315	Reference is missing	this section was reworded and clarified, this sentence was removed
Anatoly Khapugin	Ch.1	12	326	12	326	Perhaps, "as indicated in Table 1.2" should be corrected as "as indicated in Table 1.2".	this table was removed as a redundant figure is found in section 1.8
ECA values liaison group	Ch.1	12	328	12	329	Adapt table 1.2, concerning benefits=>contributions	this table was removed as a redundant figure is found in section 1.8
Sonja Jähnig	Ch.1	12	328	12	329	Table 1.2 – the table caption requires the reference to the conceptual framework (figure 1.3) – just in case someone is not reading the whole text but such scrolls through figures and tables. I would match the order of the heading (concept vs. chapter) to order in columns (chapters vs. concept), currently it's cross-over.	this table was removed as a redundant figure is found in section 1.8
Hanna Skryhan	Ch.1	12	328	12	329	Is it so necessary to present this table? It seems to be possible to delete the table.	this table was removed as a redundant figure is found in section 1.8
Rob Bugter	Ch.1	13	334	13	336	These lines state that the ECA assessment covers intrinsic value as one of the value types. This is in line with table 1.1 (previous comment), but is inconsistent with the way intrinsic value is defined in Diaz et al 2015 (quoted on page 12, 315-317 and page 45, 1228-1229). There it says intrinsic value can't be quantified and is (therefore) not the target of any valuation process.	this section was reworded and clarified, this sentence was removed
The Netherlands: Astrid Hilgers	Ch.1	13	334	13	336	These lines state that the ECA assessment covers intrinsic value as one of the value types. This is in line with table 1.1 (previous comment), but is inconsistent with the way intrinsic value is defined in Diaz et al 2015 (quoted on page 12, 315-317 and page 45, 1228-1229). There it says intrinsic value can't be quantified and is (therefore) not the target of any valuation process.	this section was reworded and clarified, this sentence was removed
André Mader	Ch.1	13	343	14	385	The IAS and sustainable use assessments are not ongoing and are unlikely to be ongoing when the ECA assessment is submitted to the plenary in 2018. They should therefore probably be removed from this section	this section was removed and a short reference to approved and ongoing assessments made in the preface
André Mader	Ch.1	13	343	14	385	There no mention of the methodological assessment on scenarios and modelling	this section was removed and a short reference to approved and ongoing assessments made in the preface
André Mader	Ch.1	13	349	13	356	Reference the completed report or SPM?	this section was removed and a short reference to approved and ongoing assessments made in the preface
Simone Beichler	Ch.1	13	349	13	356	the relation to food production assessment is not clear, does it include provisioning services?	this section was removed and a short reference to approved and ongoing assessments made in the preface
André Mader	Ch.1	13	354	13	356	The pollination assessment contributes to various Aichi Biodiversity Targets, especially 3, 5, 7, 11, 12, 13 and 14. It seems to diminish the assessment and the targets by suggesting only one.	this section was removed and a short reference to approved and ongoing assessments made in the preface
Amor Torre-Marín	Ch.1	13	365	13	365	Name of assessment: To be updated to reflect decisions and their annexes IPBES-5/6 decisions, also regarding the scope of the assessment	this section was removed and a short reference to approved and ongoing assessments made in the preface
UK: David Forrow	Ch.1	13	369	13	370	The whole framework requires a systems approach for understanding problems and for management responses. This needs to be more explicit.	this section was removed and a short reference to approved and ongoing assessments made in the preface
UK: David Forrow	Ch.1	13	387	13	389	Unnecessary repetition from earlier in the document	kept with minor cuts, as it serves introductory purposes

André Mader	Ch.1	14	379			This citation should be updated (later) to reflect the report or its SPM. At the moment it refers to the scoping document, while the preceding text seems to refer to the report itself.	this section was removed and a short reference to approved and ongoing assessments made in the preface
Anatolij Khapugin	Ch.1	14	389	14	390	The fragment "(deliverable 2a; see" is separated of its following "Figure 1.4). All regional..."	done
Nadine Goris	Ch.1	14	389	14	398	why is there a line-break?	done
Anatolij Khapugin	Ch.1	14	392	14	392	"well-being" is used as two words with a dash, but in previous text this word was used as "wellbeing". Maybe, some one variant should be used, doesn't it?	language editing has been done and harmonized across chapters
						"The outcomes of all of the regional assessments are further synthesized in the IPBES global assessment..." should probably be changed to future tense as this assessment is due a year later	done
André Mader	Ch.1	14	392	14	393	later	done
Nadine Goris	Ch.1	14	394	14	396	Figure 1.4: partly not readable due to too small font	the diagram was deleted
Anatolij Khapugin	Ch.1	14	395	14	395	Figure 1.4 – It seems to me that explanation of 1a–4e categories may be provided in Legend to the figure.	the diagram was deleted
André Mader	Ch.1	14	395			This diagram seems a little irrelevant (it covers more than the text refers to) and unnecessary (a sentence or tow, or a simpler diagram, would do).	deleted as suggested
Simone Beichler	Ch.1	15	398	15	426	This section repeats a lot of what has been stated before. However, the text here is written more clearly. I suggest to shorten the related parts in the beginning and maybe even move this section more to the beginning.	The different sections are all written more condensed. The text will go through several editorial reviews in order to get out double information.
Roger Keller	Ch.1	15	400	15	400	It would be useful to provide an additional sentence with more details on how this ECA assessment could be relevant to government stakeholders, i.e. through possible policy-changes resulting from ECA assessment insights...	The benefits the different stakeholders have, are discussed in the following section. In order to be not repetitive, we did not add an additional sentence.
André Mader	Ch.1	15	401	15	403	"As stakeholder engagement is an important element for the relevance, effectiveness, credibility and overall success of a process like the IPBES process..."? The Cowling paper presumably did not pre-empt IPBES as it was published in 2008	The sentence was deleted. The reference was added somewhere else.
André Mader	Ch.1	15	411	15	412	The term "users of land and sea resources" sounds a bit vague, and would technically include everybody	Changed it to 'general public' as it indeed was meant as everyone who is using the resources.
						The text is not quite explicit on the conflict of interests between local and larger scale (e.g. national, global) communities. For example, carbon sequestration by forest ecosystems or wetlands is of great concern internationally but on the local level, especially with poorer communities, harvesting timber may be the prevailing consideration.	
Kremena Gocheva	Ch.1	15	415	15	417	The comment concerns the sentence "For instance, provisioning ecosystem services may be of interest to indigenous and local communities' (e.g. for food and water security), but they may also be of interest at higher institutional levels (e.g. when a marine ecosystem is fished by an international fleet)," which may need to be rephrased.	I rephrased the sentence
Nadine Goris	Ch.1	15	416	15	416	the apostrophe behind communities is wrong	removed it
						These two goals are not mutually exclusive. The first one explains the goal ("the conservation of nature"), while the second one explains some reasons for pursuing a goal ("the enhancement of the aesthetic, cultural heritage, natural, and recreational quality of their living environment").	We do not mean to say anything about the mutually exclusiveness of both. We just wanted to give examples of different views on contributions. On the other hand some people would not see conservation of nature as the goal but having beautiful recreational space as a goal. These two visions can be in conflict.
UK: David Forrow	Ch.1	15	417	15	420	In addition some stakeholders are interested in sustainable exploitation (e.g. fisheries) and some in utilising resources which cannot be replaced (e.g. rock and minerals). Somehow there must be trade-offs across interests	I agree but we just wanted to give some examples. There are many more that give trade-offs across interests.
Nadine Goris	Ch.1	15	419	15	419	the apostrophe behind communities is wrong	removed it
André Mader	Ch.1	15	431	15	432	There is a more recent version of this document (see decision IPBES-3/4. annex II: http://www.ipbes.net/sites/default/files/downloads/Decision_IPBES_3_4_EN_0.pdf)	I changed the reference to IPBES 3/18 annex II
Anatolij Khapugin	Ch.1	15	434	15	434	"and" at the end of the line should be deleted	Deleted. The text is gone to the preface.
Khishigbayar Jamiyansharav	Ch.1	15	477	15	478	Figure 1.5 Institutional levels should be colored with same background color with above team for easier understanding or flow.	Background colours were initially same, mischanged during editing. Corrected.
André Mader	Ch.1	16	440			The causes and the potential measures that can be taken?	Added potential measures. The text is gone to the Preface.
André Mader	Ch.1	16	442			Broader knowledge community?	Changed. The text is gone to the Preface.
Simone Beichler	Ch.1	16	455	16	461	This paragraph is too general. It should be more focused on outreach and communication, which is more related to the time after the report. In this regard only the last sentence is relevant	Only the last sentence is kept and added under the section about the actions stakeholders could take.
Anatolij Khapugin	Ch.1	17	478	17	478	Figure 1.5 is not cited in the text	I cited the figure in the second paragraph of the section
André Mader	Ch.1	17	478			This figure seems to lack a reference in the text, or a source citation.	Figure is own compilation. Reference to it added in the text
André Mader	Ch.1	17	485	17	492	Suggest combining regional governments with the following paragraph	we combined both paragraphs
Anatolij Khapugin	Ch.1	17	490	17	490	Perhaps, "MEA's" should be corrected as "MEAs"	we corrected it.
Anatolij Khapugin	Ch.1	17	492	17	492	"mechanisms as a means of improving" should be corrected as "mechanisms as means of improving" or as "mechanisms as a mean of improving"	we corrected it.
Anatolij Khapugin	Ch.1	17	497	17	497	The web-link "natuurwaardeverkenner.be" is invalid.	I added www. The link is working.
André Mader	Ch.1	17	498	17	500	The MEAs are UN agencies, so perhaps they should be combined here?	I followed your suggestion
						More emphasis should be put on the scientific community stakeholder group: The scientific community, providing much of the biodiversity data, but also may use this assessment, is a rather heterogeneous group. Biologists (taxonomists, ecologists etc.), however, form a core group providing the fundamental data. Given the still existing large regional and taxonomic gaps, capacity building for a young generation of researchers and taxonomic experts, I think, should be an essential task, not only to filling the gaps, but to assess future changes in biodiversity patterns. Taxonomic expertise, however, especially for less conspicuous but diverse and potentially functionally important organism groups, however, is not much promoted in education and research funding. The same accounts for long term biodiversity monitoring based on permanent plots. Both are very important prerequisites for future assessment reports, which, I think, are undervalued in this report, but their role should be underpinned in several chapters. Even more so as capacity building is considered as one of the overall functions of the IPBES process.	I added some of your remarks to the section 1.3.3 on actions that are available to stakeholders
Harald Pauli	Ch.1	18	509	18	511		
André Mader	Ch.1	18	531	19	552	Could the content of this section be combined with earlier sections?	We completely rewrote this section in order to link it better to chapter 6
André Mader	Ch.1	18	536	18	541	Probably better to reference the relevant publication, rather than the deliverable	The text is deleted.
Anatolij Khapugin	Ch.1	18	542	18	542	It seems to me that "Effectiveness is one criterion to evaluate" may be corrected as "Effectiveness is an only criterion to evaluate".	the text is deleted.
UK: David Forrow	Ch.1	19	550	19	551	incomplete sentence	The section was completely rewritten.

						possible additional maps throughout this section could include: Global Ecological Land Units – An Ecophysiological Stratification Approach data download: https://rings.cr.usgs.gov/ecosystems/index.shtml (with layers / values for geomorphology) WorldClim - Global Climate Data data download: http://worldclim.org/ Hydrological Basins data download: http://www.fao.org/nr/water/aquastat/maps/index.stm Rivers data download: http://www.fao.org/nr/water/aquastat/maps/index.stm HydroBASINS data download: http://www.hydrosheds.org/page/hydrobasins HydroSHEDS data download: http://www.hydrosheds.org/page/availability Koeppen Geiger Climate data download: http://webmap.ornl.gov/ogcdown/dataset.jsp?ds_id=10012 topography data download: https://www.ngdc.noaa.gov/mgg/global/global.html Also see https://tinyurl.com/ECA-Maps for examples		maps are clearly useful and will be considered during planning of graphical layout depending on how much space remains. Layout of document (A4 portrait) does not lend itself well to publishing large maps of the ECA region which spreads in the E-W direction, and as the reviewer correctly points out, these maps are easily accessible on the internet, with more interactive user interfaces than allowed by the assessment, which is mainly a hardcopy publication	
Mark Sneath	Ch.1	19	553						
						This might not be accurate. Geography is a key part; while some overseas territories, for example, are not included so it is not only political. It would, however, be correct to say that it is not ecologically defined.		Text refined, nevertheless, UN regions were the basis and these include boundaries that are impossible to justify based on biogeography (Israel, Greece, Turkey, Mongolia)	
André Mader	Ch.1	19	560	19	561			done	
Mark Sneath	Ch.1	19	562	19	563	suggestion: "(the largest and smallest on Earth)" -> "(the largest - Russian Federation - and smallest - Vatican City - on Earth)"		done	
André Mader	Ch.1	19	566	19	567	The term "large heterogeneity" sounds awkward. Perhaps "substantial heterogeneity"; or you could just say that the region is very heterogeneous.		done	
						possibility to include a map of average sea surface temperatures for the entire ECA region EEZ. Mean Annual Sea Surface temperature data download: http://aquamaps.org/main/envt_data.php Also see https://tinyurl.com/ECA-Maps for example		will be considered after page number and limit is close to final, see also our answer to similar comment on line 19 by André Mader	
Mark Sneath	Ch.1	19	568						
Khishigbayar Jamiyansharav	Ch.1	20	570	20	571	Figure 1.6 North pointing arrow would be helpful on the map.		map will be corrected during graphics editing	
Hanna Skryhan	Ch.1	20	570	20	571	need to add the states borders		we are instructed to explicitly avoid showing state borders on maps as far as possible, as per IPBES policy	
						Although mentioned already at the review of the FOD, I need to reinforce my difficulties in understanding the naming 'ECA' as well as its subdivisions, which are not meaningful in a biogeographical sense and, therefore, making the report much bulkier than necessary and weakens a focused presentation of biodiversity issues. Further, I do find ECA and the subdivisions politically problematic (and in Europe s.str. it is also not consistent with the UN geoscheme). In the first glimpse it looks bizarre and I fear it remains so in a biogeographical and for biodiversity context. Admittedly, there may be some pragmatic political reasons for the subdivisions, but an overall name such as 'Europe, Middle and Northern Asia' would be more appropriate.		We agree that the region and sub-region setup is far from ideal. This was extensively negotiated during the scoping meeting in Paris 2014, and the current system was agreed upon as a best compromise	
Harald Pauli	Ch.1	20	571	20	574			graphical layout will be improved	
Nadine Goris	Ch.1	20	571	20	571	Figure 1.6: partly too small fonts, and it should be "ECA Sub-regions" instead of "ECA Sub regions" (within the figure)			
						Figure 1.6 – move the scale into the frame, the small text can be deleted as it is part of the figure caption. The projection is at least irritating – maybe use a similar graphical type as in Figure 1.7, which embeds the region much better in the global context (or other projections with a more "balanced distortion" e.g. Winkel Tripel or Robinson).		graphical layout will be improved, including projection	
Sonja Jähnig	Ch.1	20	572	20	574				
						possibility to include ECA cut out of the World map of the Koppen-Geiger climate classification, data download: http://webmap.ornl.gov/ogcdown/dataset.jsp?ds_id=10012 Also see https://tinyurl.com/ECA-Maps for example		thanks for the suggestion, this will be considered once length of text is close to final	
Mark Sneath	Ch.1	20	575						
Harald Pauli	Ch.1	20	576	20	577	suggest to replace by: 'lie in the arctic, subarctic, boreal and continental climate zones, ...' ('humid' and 'continental' would be a contradiction)		corrected as requested	
Harald Pauli	Ch.1	20	577	20	577	it would be important to remain consistent with generally accepted terms of ecozones, where e.g. 'Mediterranean' is not 'temperate' rather than 'winter-humid subtropical'		corrected as requested	
						suggestion to include a map of land cover. Various options are available, such as: Global Land Cover SHARE http://www.glc.org/databases/lc_glcshare_en.jsp Global Land Cover 2000 database data download: http://forobs.jrc.ec.europa.eu/products/glc2000/glc2000.php Land Cover (GLCNMO) - Global version data download: https://globalmaps.github.io/glcnm.html Also see https://tinyurl.com/ECA-Maps for examples		will be considered after page number and limit is close to final, see also our answer to similar comment on line 19 by André Mader	
Mark Sneath	Ch.1	20	582						
André Mader	Ch.1	20	586	25	595	It might make more sense to discuss the units used in the ECA assessment (specifically chapter 3), rather than the set that was proposed for IPBES as a whole (also please note that this version of the table is outdated).		this is changed and harmonized with chapter 3	
Anatoly Khapugin	Ch.1	21	0	21	0	Table 1.4 - the row 5 has only "None" categories. Maybe it should be deleted from the Table.		done as requested - entire table was removed	
						I would not lump together tropical humid, tropical dry, subtropical humid, subtropical dry forests; how to make the distinction between tropical dry forests and savannas? Further, arctic tundra and mountain habitats should not be combined: even though both are governed by low-temperature conditions, biodiversity patterns strongly deviate. Further, what do you mean with 'cryosphere': glaciers and permanent snowfields or the upper part of the 'alpine life zone' such as upper ridges of Slovenia, N-Urals etc., which in fact would be 'mountain habitats'?		units of analysis are subject of discussion within IPBES and also ECA. In chapter 1, we follow the classes developed by Chapter 3	
Harald Pauli	Ch.1	21	591	23	Table 1.4				
						Where does this habitat classification come from, and what is the justification for using it? Recommend instead using an established habitat classification like http://www.iucnredlist.org/technical-documents/classification-schemes/habitats-classification-scheme-ver3 .		units of analysis are subject of discussion within IPBES and also ECA. In chapter 1, we follow the classes developed by Chapter 3	
Thomas Brooks	Ch.1	21	591	25	593				
								here we disagree with the reviewer. A map of units of analysis in under construction by chapter 3, but it will inevitably lead to habitats of high importance but small area not showing up at all. Also, with such a high number of categories it is an extremely difficult cartographic task to create a map that conveys the message that the table does	
Hanna Skryhan	Ch.1	21	591	25	593	more appropriate to present in the map, not in the table			
						Regarding table: Probably better to refer to the units of analysis used in chapter 3, as they are slightly different to the IPBES ones. If not it should be made clear that these are the units proposed by IPBES (then please check that the latest version is used) in particular for the global, but that ECA uses a version adapted to ECA needs		we are using the units given to us by chapter 3	
Amor Torre-Marín	Ch.1	21	609	21	609				
Anatoly Khapugin	Ch.1	23	0	24	0	Table 1.4 - the rows 13-17: in some cases there are points at the end of text in grids, but there are not them in other cases.		corrected as requested	
Anatoly Khapugin	Ch.1	23	0	23	0	Table 1.4 - in the row 13 "Latpnev" should be corrected as "Laptev"		text was restructured and the table removed	
André Mader	Ch.1	25	594			The term "large heterogeneity" sounds awkward. Perhaps "substantial heterogeneity"; or you could just say that the region is very heterogeneous.		done	

							here we disagree with the reviewer: our aim was to keep the table small and well readable, with numeric figures that can be well compared. Adding proportion to each region (eg ECA, Africa, Asia-Pacific, Americas) would be unnecessary information for the ECA assessment
Hanna Skryhan	Ch.1	25	604	25	605	add the share of the area and population for each region	reference added
Anatoly Khapugin	Ch.1	25	606	25	612	References should be added for each of ECA sub-region. Otherwise, it is inunderstandable which sources were used to show these data?	graphics will be improved after text is finalized
Nadine Goris	Ch.1	26	616	26	618	Figure 1.7: not readable due to too small fonts. Seems to be out of focus, too	Alternative to OECD map would be map based on Gridded Population of the World (CIESIN) http://sedac.ciesin.columbia.edu/data/set/gpw-v4-admin-unit-center-points-population-estimates/data-download Also see https://tinyurl.com/ECA-Maps for example
Mark Snethlage	Ch.1	26	617				this is exactly what we did, by adding new graphic
Harald Pauli	Ch.1	26	618	26	618	Magnitudes of urban populations...'	done
							we are trying to balance conciseness, readability and structure, in addition to dealing with the fact that some sub-regions are generally better known than others. Also, the description of the units of analysis from chapter 3 now had to be merged into this section. Therefore the overall text could not be further shortened. Subheadings were introduced to separate biogeography from descriptions of worldviews, stakeholders and governance, as requested
André Mader	Ch.1	27	628	34	955	These subregion sections are very nice and descriptive, though perhaps they could be shorter? Also, standardized subheadings within them might enhance readability and comparison between the different subregions.	We added some text to the introduction of section 1.4 to better manage expectations of the readers
Dmitry Schigel	Ch.1	27	628		977	From line 628 onwards the assessment mainly repeats the obvious facts at the level of the school text book on physical geography. I would recommend removing or substantially shortening this section.	this section has been changed with more focus on Units of Analysis, the criticized statements were removed
Anatoly Khapugin	Ch.1	27	629	27	637	Are there references which may be appropriate to illustrate these sentences?	we have to avoid this due to lack of space, nevertheless it is easy to find such a map on the internet
Mark Snethlage	Ch.1	27	640			possibility to include a map with toponymical references and major geomorphological features of Western Europe	this has been restructured to the marine description, the term "various sectors" is removed
Anatoly Khapugin	Ch.1	28	659	28	659	"Various sectors" - maybe it is "Various sectors of economics".	done
Mark Snethlage	Ch.1	28	673			suggestion to change "Habitats Directive" in "Habitats and Birds Directives"	statement toned down a bit "also has some negative effects" instead of "had negative effects", citation added (Pe'er 2014 Science)
Germany	Ch.1	28	674	28	676	Please provide a more nuanced picture of the CAP, there have been efforts to adress biodiversity and ecosystem services in the CAP meanwhile.	done
Mark Snethlage	Ch.1	28	679			idem	comma removed
Nadine Goris	Ch.1	28	684	28	684	No comma after "Key examples"	"development" changed to "industrialization and urbanization" thanks for this important comment
Anatoly Khapugin	Ch.1	28	689	28	689	There should be description of term "development" - industrial, economical or others	done
Anatoly Khapugin	Ch.1	29	704	29	704	"Continental" should not be with capital letter: "continental", doesn't it?	done
Anatoly Khapugin	Ch.1	29	704	29	719	Some references should be added devoted to geographical conditions of Central Europe	done
Mark Snethlage	Ch.1	29	720			possibility to include a map with toponymical references and major geomorphological features of Central Europe	Preferred to avoid too much physical geography in Chapter 1
André Mader	Ch.1	29	741			One megacity out of four is not really a bad ratio... And could you mention the name of the city? Also, it seems megacity statistics are mentioned only for Central Europe and not for the other subregions.	Added the name of the megacity and added references to megacities elsewhere, as appropriate
Anatoly Khapugin	Ch.1	30	743	30	746	There is a case when (as it was mentioned above) cases of British and American English are in the same sentence: Central Europe is characterisedby rapid economic and social development andurbanizationin recent decades that increasingly resembles Western Europe together with relatively large areas of more intact nature in the form of cultural landscapes.	Corrected
Anatoly Khapugin	Ch.1	30	746	30	746	The term "green corridors", probably should be explained for non-narrow specialists in the conservation science.	Brief explanation added to the text. The term is also listed in the Glossary.
Anatoly Khapugin	Ch.1	30	750	30	750	"influenced by a different" should be corrected as "influenced by a various" or "influenced by a diverse"	done
Germany	Ch.1	30	751	30	752	Vague - what does this imply? (compare e.g. p. 32 II 837-840 --> this gives more information about the linkages to EU level policies)	clarified
Anatoly Khapugin	Ch.1	30	754	30	754	"Century" should be corrected as "century" and "protected areas" as "Protected Areas" (if you mean Reserves and National Parks; and to avoid confusion of Reserves and land plots protected by someone)	done
Anatoly Khapugin	Ch.1	30	765	30	766	It should be indicated that Moldova, Belarus and Ukraine "are completelyin geographical Europe"	done
Anatoly Khapugin	Ch.1	30	765	31	827	There is an absence of references supporting data presented within indicated fragment of the text on Eastern Europe	done
							This distinction seems to be unavoidable as otherwise it would take too much space to explain differences; it is explained at the beginning of the section, what is the problem with this political region
André Mader	Ch.1	30	765	32	852	The distinction between "geographically Asian" and "geographically European" is confusing in the context of a subregion that is regarded here as entirely "Eastern Europe". Consider not making that distinction, and rather use the names of countries, mountains, rivers to distinguish different parts of the region?	Preferred to avoid too much physical geography in Chapter 1
Mark Snethlage	Ch.1	30	769			possibility to include a map with toponymical references and major geomorphological features of Eastern Europe	done
André Mader	Ch.1	30	783			Although this is well known, it may be helpful appropriate to include a few more words describing the accident	clarified that those are hotspots of regional significance
André Mader	Ch.1	31	786	31	787	"Biodiversity hotspots" is an accepted classification so, unless the word is being used more loosely here, I don't think that one can be "especially" more a hotspot than others.	added the references and revised the statements
André Mader	Ch.1	32	828	32	829	I would advise against using critical statements, and certainly not without very fact-based references. The governments of some of these countries need to approve the report.	added the references and revised the statements
André Mader	Ch.1	32	831	32	838	I would advise against using critical statements, and certainly not without very fact-based references. The governments of some of these countries need to approve the report.	clarified
Germany	Ch.1	32	838	32	840	"the emerging multilevel biodiversity governance arrangements" such as?	The first sentence in this paragraph should be supported by reference(s). As a source for reference's selection, I would like to suggest this review: http://ncr-journal.bear-land.org/article/61 . It is in Russian, but it contains many references in English appropriate for inclusion in the text of assessment
Anatoly Khapugin	Ch.1	32	843	32	845		moved to a separate section and expanded; supported by references too
Anatoly Khapugin	Ch.1	32	851	32	851	"European" should be re-written as "West-European" because Eastern Europe is Europe, too.	completely re-written; the wording is corrected too
Anatoly Khapugin	Ch.1	32	854	34	955	The whole paragraph 1.4.5 contains extremely low number of references. Their number should be increased in order to support the text providing here	references have been added
Mark Snethlage	Ch.1	33	872			possibility to include a map with toponymical references and major geomorphological features of Central Asia Also see https://tinyurl.com/ECA-Maps for example	considered but finally not done because of space limitations
Mark Snethlage	Ch.1	33	904			"the rivers of Syr Darya Amu Darya" -> "the rivers Syr Darya and Amu Darya"?	done
Mark Snethlage	Ch.1	34	922			"13 km/annum of water" should read "13 km3/annum of water"	done

ECA values liaison group	Ch.1	34	956	36	1004	Add a paragraph on typical ECA worldviews and differences within ECA and with other regions.	done
Simone Beichler	Ch.1	35	970	35	970	Here example might be nice e.g. International Commission for the protection of the Danube river https://www.icpdr.org/main/	this section does not deal with policy instruments for mitigation of such effects, it merely introduces and briefly describes them
Simone Beichler	Ch.1	35	977	35	979	I would have expected teleconnections within the ECA as well, which might be of even higher relevance than global ones?	teleconnections are dealt with in full detail in chapter 2, as also noted in the beginning of section 1.3.5
André Mader	Ch.1	35	980			The figure is only marginally referred to in the text. Perhaps in order to justify including a figure, it should be elaborated upon in the text	figure removed
André Mader	Ch.1	36	994	36	1004	The acronym HANPP is not explained.	figure deleted
UK: David Forrow	Ch.1	36	994	36	994	Fig 1.9 - This could do with being brought up to date, noting latest date point within is 2007..	the figure has been removed, the purpose of this section is a general introduction to the issue of teleconnections, which are assessed in detail in chapter 2
André Mader	Ch.1	37	1009	37	1010	A little more context for these questions might be important here - most readers may not know about the process.	This entire section was removed and replaced by a box in the beginning of the chapter cfr. Andras
Harald Pauli	Ch.1	37	1021	37	Table 1.6	General questions are quite overlapping, which may impede their focusing; specific questions lack specificity to the ECA and are absent for Q4 and Q5. Regarding Q5, gaps of knowledge are large even for the basic question of the magnitude of biodiversity changes in different organism groups. A very essential and much demanded question would be on how to establish and/or maintain new and existing long-term observation systems.	This entire section was removed and replaced by a box in the beginning of the chapter cfr. Andras
Thomas Brooks	Ch.1	37	1021	37	1021	"ecosystem functions" are part of biodiversity, so delete five times in Table 1.6. This applies throughout the rest of the Chapter (e.g. lines 1204 and 1211).	This entire section was removed and replaced by a box in the beginning of the chapter cfr. Andras
Andrew Wade	Ch.1	37	1021	37	1021	Table 1.6. The aspect of time seems to be missing from all the key questions - namely if an intervention is made - how long might it be before we can expect a response?	This entire section was removed and replaced by a box in the beginning of the chapter cfr. Andras
Andrew Wade	Ch.1	37	1021	37	1021	Table 1.6. I suggest that there are key questions of whether projected changes in climate and/or land cover/use will confound, or have positive feedback for, potential policies and interventions to improve ecosystem services and biodiversity.	This entire section was removed and replaced by a box in the beginning of the chapter cfr. Andras
Andrew Wade	Ch.1	37	1021	37	1021	Table 1.6. It is unclear if the connections between ecosystems are being considered or whether the ecosystems are being considered as isolated units.	This entire section was removed and replaced by a box in the beginning of the chapter cfr. Andras
ECA values liaison group	Ch.1	37	1021			Table 1.6. The wording in this table needs to be adapted to be in line with Figure 1.3 (Conceptual Framework) so change biodiversity & ecosystems to nature, ecosystem services to nature's contributions to people and well-being to quality of life. For example: Change Q1 to: How does nature and its contributions to people benefit the economy, livelihoods, food security and quality of life in the ECA regions, and what are the interdependencies among them? Change Q2 to: How does nature and its contributions to people, such as those underpinning adaptation to climate change and sustainable development, be protected through investments, regulations and management regimes for terrestrial, freshwater, coastal and marine systems?	This entire section was removed and replaced by a box in the beginning of the chapter cfr. Andras
Sonja Jähnig	Ch.1	37	1021	37	1021	Table 1.6 – why a table? This would be useful if Q6-8 relate to the Q1-3 – but this seems not the case? I would rather use a list (or if a table is required, than a 1-column table) with the two subheadings "general questions" and "ECA specific questions".	This entire section was removed and replaced by a box in the beginning of the chapter cfr. Andras
André Mader	Ch.1	38	1025	38	1035	The terminology of the strategic plan was changed to reflect that it is a UN-wide plan and not one "belonging to the CBD". Therefore CBD should not be part of the name. The authoritative source for this is CBD decision X/22 (https://www.cbd.int/doc/decisions/cop-10/cop-10-dec-02-en.pdf)	Done
André Mader	Ch.1	39	1051	39	1053	Should the three ECA-specific questions not be combined with the general ones here, as begun in table 1.6.? That would make this table simpler. I also wonder how meaningful the table is by just listing the ABTs/SDGs without some indication of their relative importance... Perhaps a more graphical figure showing larger numbers denoting stronger links? Also, the implication that the assessment questions "contribute" to the ABTs and SDGs does not seem quite right.	New box included in the text
Sonja Jähnig	Ch.1	39	1051	39	1053	Table 1.7 – with a list as suggested for Table 1.6 the number of questions match. Please use "short statements for Q6-8, as well, e.g. Q6 "Opportunities to apply instruments", Q7 "Impacts on nature and nature's contributions, effects in other regions", Q8 "policy sectors and instruments". These could also be used in the text preceding Table 1.5 (Section 1.5.1) where Q6-8 are just reiterated instead of being summarized).	Statements shortened according to a suggestion
Ilija Gasan Osojnik Črničec	Ch.1	39	1060		1060	Is Table 1.8 incorrectly referenced as Table 1.7? If not, then there is no reference to table 1.8 in the text.	Indeed, the Table incorrectly referenced. Corrected
André Mader	Ch.1	39	1070	39	1072	In the context of IPBES and the CBD, the EU is simply another government, following the Strategic Plan in the same way that the other ECA governments are doing. This table therefore may be hard to justify unless complemented by others.	Thank you for your comment. We'd like to keep the Table in the text. The aim is to present information specifically for the EU. Individual countries are covered in following Table (1.9)
Ilija Gasan Osojnik Črničec	Ch.1	40	1071		1072	Table 1.8 - according to BISE, Aichi targets: 4 (partnership for biodiversity), as well as 18 and 19 (building on the biodiversity knowledge base) - are horizontal issues (not mentioned in table 1.8 or corresponding text). Also, table is not referenced in the text.	A footnote related to the three targets was added, table reference was corrected
André Mader	Ch.1	40	1073	40	1084	This section might need a sentence or two of introduction to NBSAPs so that the uninformed reader knows what is being discussed.	Brief explanation added
UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	Ch.1	40	1075	40	1076	"...all ECA countries with the exception of San Marino have developed National Biodiversity Strategy and Action Plans (NBSAPs)." Also Cyprus and Monaco have their first NBSAP currently under development.	List of countries updated
UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	Ch.1	40	1077	40	1077	"Parties perform different levels of implementation of NBSAPs." This sentence seems to be the different levels of completion rather than implementation and I am afraid we (SCBD) have created some confusion: NBSAPs "under revision, in revised or completed forms". This is not the best categorization. The most suitable categories would be: 1. NBSAP pre-dating 2010 with no information on revision/updated 2. NBSAP under preparation or revision (i.e. taking into account guidance from 2010, whether or not an earlier NBSAP exists) 3. post-2010 NBSAP completed (and adopted as a policy instrument) 4. no information.	The NBSAP status categories were changed with regard to 2010.
André Mader	Ch.1	40	1077	41	1087	32 countries in ECA? It might be useful to mention how many countries have produced NBSAPs in the past few years (perhaps since 2010), rather than how many have updated theirs. The updates could be very old in some cases, and less important than a first-time NBSAP that is more recent. This information is freely available at www.cbd.int/nbsap	Done: the NBSAP status categories were changed with regard to 2010.
Germany	Ch.1	40	1085	41	1087	Table 1.9: What is the difference between a revised and a completed NBSAP? Please indicate.	Done: the NBSAP status categories were changed with regard to 2010.
UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	Ch.1	40	1085	40	1086	Table 1.9 See comment above. I would need a few days for internal discussion for more meaningful categories.	Done: the NBSAP status categories were changed with regard to 2010.
Ilija Gasan Osojnik Črničec	Ch.1	40	1086		1087	Table 1.9 - line for Slovenia - scientific basis for the action plan have been prepared	Action plan status categorization is changed. Slovenia listed (based on the official source www.cbd.int/nbsap) as a country with Strategy only from pre COP-10.
Mark Sneath	Ch.1	40	1086			Suggestion to present the data in a colour coded table and/or a map Also see https://tinyurl.com/ECA-Maps for example	The Table is changed, colour coding added
Germany	Ch.1	41	1088			Since this is a regional assessment for Europe, you may consider to explicitly mention in Chapter 1.5.4 'other environmental and non-environmental policies and governance' some more specific European agreements like the Bern-Convention, the Alpine and Carpathian Conventions, HELCOM etc.	We have limited space to be comprehensive about all policy measures; this is covered more fully in Ch6
Germany	Ch.1	41	1089	41	1089	EU Biodiversity Strategy 2020 (not "EUs")	Done

Anatoly Khapugin	Ch.1	41	1089	41	1089	"there are a number of" should be corrected as "there is a number of" or as "there are numbers of"	Done
Sonja Jähnig	Ch.1	41	1089	42	1109	Section 1.5.4 – analysed from an aquatic viewpoint, there is now a much more comprehensive overview on policies available which more or less directly relate to the EU Biodiversity Strategy; this sections could refer to it, or make use of the list available (this one here seems too narrow). Please check http://aquacross.eu/sites/default/files/AQUACROSS%20D2.1%20Synergies%20and%20Differences%20-%20Executive%20Summary_0.pdf (Figure 1) or http://aquacross.eu/sites/default/files/D2.1_Synergies%20and%20Differences%20between%20EU%20Policies%20with%20Annexes%2003112016.pdf (Figure 1, Figure 2)	Text edited accordingly
Germany	Ch.1	41	1090	41	1091	The Water Framework Directive is not a political strategy but an instrument to commit the member states to ensure the set objectives. Further political strategies/programmes of relevance would be e.g. 2020 EU Climate and Energy Package, EU Soil Thematic Strategy, The 7th Environment Action Program, EU Europe 2020 Strategy, ...	Text edited accordingly
Germany	Ch.1	41	1091	41	1092	Though within a broader perspective - the main focus of the CAP is still on food production	Text edited accordingly
André Mader	Ch.1	42	1126	49	1397	This entire section might be better placed at the beginning of the chapter, perhaps inter-woven with section 1.2?	We have followed the suggestion of other reviewers to move parts of this section to the Preface.
André Mader	Ch.1	42	1128	42	1130	These figures will probably need to be updated in the final version of the report.	ok
Simone Beichler	Ch.1	43	1151	43	1152	Nearly the same sentence was written one page before, delete the above one.	The second one has been deleted.
Simone Beichler	Ch.1	43	1155	43	1155	natural world keep the same vocabular means either nature or natural environment	Natural world has been changed to natural environment
UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	Ch.1	44	1192	44	1193	Excellent use of the four examples in parentheses here; very important to retain.	Done
Thomas Brooks	Ch.1	44	1192	44	1193	Excellent use of the four examples in parentheses here; very important to retain.	Done
André Mader	Ch.1	44	1199			The conceptual framework is also introduced in this chapter - perhaps refer to pg. 11?	a reference to the page was added. We chose to leave this section concise, as more details are explained the methods section.
ECA values liaison group	Ch.1	45	1204	45	1218	The following changes will clarify this paragraph: "... diverse conceptualization of multiple values of nature, which is embodied in the IPBES conceptual framework." ; "Hence, IPBES has conducted a major assessment of the strengths and weaknesses of the different concepts and methodologies for valuating nature (including biodiversity and ecosystem structure and functioning) and its contributions (including ecosystem services)."	This section was entirely restructured and clarified following the comments.
ECA values liaison group	Ch.1	45	1204	46	1260	Revise and rewrites in the main text the definitions of "Value type" which need to be aligned with the definitions given on Box 2.2. Definitions of the main types of values used in this document (on page 14 of the document IPBES/3/INF/7). I suggest the following definitions that probably should go into a Box in Chapter 1. Nature: The concept of "nature" refers to nature at large, encompassing a continuum from nature as an autonomous functioning and evolving system to nature as domesticated plants and animals. Within the context of science, it includes categories such as biodiversity, ecosystems, ecosystem functioning, evolution, the biosphere, humankind's shared evolutionary heritage, and biocultural diversity. Within the context of other knowledge systems, nature includes different beliefs/concepts held by indigenous peoples around the world, such as Mother Earth and systems of life, shared by the indigenous people (Díaz et al. 2015). Non-anthropocentric values. Non-anthropocentric values are not centred exclusively on humans, and include the values that people attribute to living beings, species or Mother Earth, without regard to their contribution to good quality of human life. Some of those values can be assessed using quantitative measures of biological diversity and ecological integrity that involve studies on biodiversity, individual organisms, biophysical assemblages and ecological processes at different levels. Intrinsic values. Leave explanation as is cfr Pascual et al, but maybe shorten and add some info from the Batavia & Nelson 2017 paper. Maybe as a footnote? Anthropocentric – instrumental values. These are values centred on humans. The assessment of anthropocentric values also considers how they relate to the current state and potential changes in nature, nature's contributions to people, and good quality of life. Instrumental values refer to the value attributed to something as means to achieve a particular end for humans, and in ECA these are referred to as Nature's contributions to people. Nature contributions to people are defined by Pascual et al (2017) as "all the positive contributions, or benefits, and occasionally negative contributions, losses or detriments, that people obtain from nature. It resonates with the original use of the term ecosystem services in the MA (MA reference), and goes further by explicitly embracing concepts associated with other worldviews on human–nature relations and knowledge systems (e.g. 'nature's gifts' in many indigenous cultures) (diaz et al. 2015)". Anthropocentric – relational values: these are the positive values assigned to "desirable relationships, such as those among people and between people and nature (Díaz et al. 2015). Thus, relational values refer to both desirable human-human interactions and human-nature interactions. "Living in harmony with nature", "living-well in balance and harmony with Mother Earth" and "human well-being" are examples of different perspectives on what in ECA is referred to as Good quality of life. Good quality of Life refers to the achievement of a fulfilled human life, the criteria for which may vary greatly across different societies and groups within societies. It is a context-dependent state of individuals and human groups, comprising aspects such as access to food, water, energy and livelihood security, and also health, good social relationships and equity, security, cultural identity, and freedom of choice and action. (Díaz et al. 2015). suggest a few changes on the names of heading of the Screening table of values which should be added. - 1st heading: Instead of "focus of value" => "dimension of value" or category as in the 3d guide on multiple values - 3rd heading: include the name "Focus of value" - 4rd heading: include "Target of valuation". - 5th heading: instead of "example to clarify" => Examples and explanations	This section was entirely restructured and clarified following the comments.

						<p>A suggestion on how to introduce the table: The table links different types of values to the three main elements of the IPBES conceptual framework and is based on the guidance document...3d and accommodated following the wording of 'nature contributions to people' for the purposes of ECA. It is important to highlight that there are values directly linked to nature, values derived from nature's contributions to people and values more directly linked to good quality of life. In each of these dimensions different foci of values are distinguished as they relate to different policy arenas and societal decision making. For example, concern for individual living being is expressed by animal welfare movements and policies, whereas concerns for genetic diversity are expressed in the Cartagena protocol.</p> <p>While there is overlap between different foci and their significance may vary in different contexts, the table rather than a rigid categorisation, is a tool to structure search and analysis of diverse dimensions of value across different worldviews. Table x.y provides an overview of which values are being/have been addressed and where throughout this assessment.</p> <p>Footnote on the use of the term biodiversity throughout the ECA assessment Footnote on the use of the term ecosystem services throughout the ECA assessment</p> <p>In the column of "Target of valuation" instead of repeating again the same names for "Nature" box I suggest to include a very short definition of the concept. For example:</p> <ul style="list-style-type: none"> - Individual organisms - Biophysical assemblages: populations, communities biomes - Biophysical processes: interactions of physical forces, chemical cycles and living beings. - Biodiversity*: specifically means diversity within species, between species and of ecosystems. <p>*: a footnote should be added to explain differential uses (conceptual, policy, etc, cfr Mace et al) of the term biodiversity throughout ECA.</p> <p>Similarly please include in explanation or examples of NCP 18 the previous categories subsumed here: ability of the biosphere to enable the human endeavour or nature's ability to supply, example habitat for fisheries, soil biodiversity to maintain yield capacity, HANPP, total material consumption, ecological footprint. To improve clarity I will recommend that the main text explains somewhere the classification of the three subcategories on GQL (e.g. cultural, societal, individual)</p>	
ECA values liaison group	Ch.1	45	1204	46	1260		This section was entirely restructured and clarified following the comments.
André Mader	Ch.1	45	1219	45	1229	It is not clear what is the difference between "non-anthropocentric values" and "intrinsic values". Are they not exactly the same thing? Also, perhaps it should be more clearly stated that non-anthropocentric values are not the focus of the ECA assessment?	This section was entirely restructured and clarified following the comments.
André Mader	Ch.1	45	1219	46	1260	Interchanged use of humans" and "people" seems a little awkward and unnecessary. Use only "people"?	This section was entirely restructured and clarified following the comments.
André Mader	Ch.1	45	1219	46	1260	This section is very tough to follow, and might benefit from simplification, and specific examples to illustrate what is being explained. Also, the citations are all very recent - are there no earlier, seminal sources on the topic?	This section was entirely restructured and clarified following the comments.
Simone Beichler	Ch.1	45	1220	45	1221	"without regard to their contribution to human well-being." this statement is somehow misleading could be reformulated into: Non-anthrocentric values values that people attribute to animals, living beings, species or Mother Earth that are not centred exclusively on humans and their well-being.	This section was entirely restructured and clarified following the comments.
Simone Beichler	Ch.1	45	1223	45	1226	"Quantification...of the ecosystem" this two sentences should be deleted as they are far too general and goes not in line with the statement line 1228 not quantified.	This section was entirely restructured and clarified following the comments.
ECA values liaison group	Ch.1	45	1228			Remove the word "only" from the sentence?	This section was entirely restructured and clarified following the comments.
ECA values liaison group	Ch.1	46	1244	46	1248	Shorten sentence to clarify: "However, a more holistic valuation method that looks at the system as a whole is essential in fully understanding relational values. This includes methods such as...(continue as before)	This section was entirely restructured and clarified following the comments.
ECA values liaison group	Ch.1	46	1254	46	1256	Cut sentence starting "Most choices..." as it confuses the explanation of valuation in this paragraph.	This section was entirely restructured and clarified following the comments.
ECA values liaison group	Ch.1	46	1259	46	1260	Refer to preliminary guide to values	This section was entirely restructured and clarified following the comments.
ECA values liaison group	Ch.1	46	1261	47	1301	How are indigenous peoples and local communities distributed across the ECA region?	Unfortunately there are no available reliable databases on IPLCs in ECA. Particularly not on local communities.
André Mader	Ch.1	46	1276	46	1277	Indigenous peoples and local communities?	Thanks for the comment, we corrected.
André Mader	Ch.1	46	1283	46	1284	Indigenous peoples and local communities?	Thanks for the comment, we corrected.
Simone Beichler	Ch.1	47	1289	47	1289	For sure ILKPs have socio-ecological knowledge but the term socio-ecological ILKPs is not right in this context from my point of view	Thanks, corrected.
André Mader	Ch.1	47	1291	47	1301	Please reference the relevant publications	Reference added.
André Mader	Ch.1	47	1300	47	1301	You might need to be prepared to explain how this was made available to indigenous peoples and local communities	We reworded the first part of the sentence and deleted the second part as there was a chance for review by IPLC but we have no information how many IPLCs commented the SOD.
Harald Pauli	Ch.1	47	1302	48	1336	Meaningful indicators require suitable (long-term) monitoring data as well as the availability of functional traits. The provision of such underlying needs to be emphasized as a priority task.	We have now added in the text that 'meaningful indicators require long-term monitoring'
UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	Ch.1	47	1305	47	1308	Excellent use of the examples in parentheses here; very important to retain.	Done.
Thomas Brooks	Ch.1	47	1305	47	1308	Excellent use of the examples in parentheses here; very important to retain.	Done.
Dmitry Schigel	Ch.1	47	1305		1308	Other sources of primary data should be considered, such as data aggregated by GBIF.org	GBIF is a significant omission and is now added
Amor Torre-Marín	Ch.1	47	1319	48	1336	FYI, this text was updated by the Secretariat in the version made available for external review. All sections of the standard text for chapter 1 to be updated with the latest version provided.	Our text has been updated according to the latest version of "standard text".
ECA values liaison group	Ch.1	47	1319	48	1336	check this paragraph by comparing N / NCP / GQL categories with work on indicators: adapt wording and examples consistently, see table 2.1, par 2.7.5. Specifically for line 1320: please refrain from using the term 'benefit's ", as this is not in line with the conceptual framework.	Changed to reflect this point

Kremena Gocheva	Ch.1	51	1453	51	1454	The sentence on data heterogeneity across ECA leaves out another important source of heterogeneity - NATURE 2000 is a preferred focus of studies, leaving out or EU funding about 66% of Bulgaria and even higher percentage for other countries. This is creating another bias since NATURA zones are generally in a better condition; however, countries with low GDP and rich biodiversity are hard pressed to produce funding and human resource to rectify the situation. Due to the bias in data collection to NATURA 2000 sites, for example, the rapid decline of wetlands outside NATURA is underestimated in this statement and possibly also the report itself. The WEMA wetland mapping and assessment project of IBER-BAS (finished on April 30, 2017) revealed that many of the expected wetlands outside NATURA do not exist any longer, others are endangered by land-use change and other factors. All in all, there's a strong commercial initiative in the cropland and urban ecosystems' expansion that threatens the survival of these ecosystems where they are not protected.	Yes, good point, but these types of discussion/analysis are taken up by other chapters in the assessment.
Anatoliy Khapugin	Ch.1	51	1457	51	1457	If it is implied that there is much more botanical studies of threatened taxa in compare with zoological ones, I cannot agree with this. Zoological studies of threatened taxa are not less numerous (see web-site of specific journal "Nature Conservation Research" containing publication on organisms primarily from ECA: http://ncr-journal.bear-land.org/journal/). Therefore, I think that sentence "but most is focused on botanical studies" may be deleted with inclusion of some references on zoological studies in Central Asia or in ECA as a whole.	Text was edited accordingly
UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	Ch.1	52	1459	52	1463	Need to clarify exactly what is being shown in Fig 1.13. It is not % of species assessed (because e.g. this is 100% for amphibians, birds, and mammals both in ECA and globally; see http://cmsdocs.s3.amazonaws.com/summarystats/2017-1_Summary_Stats_Page_Documents/2017_1_RL_Stats_Table_1.pdf). Nor is it % of species assessed as threatened with a high risk of extinction (which is e.g. 42% for amphibians, 13% for birds, 25% for mammals; see http://www.iucnredlist.org/about/summary-statistics#Fig_2). Please contact IUCN, via the strategic partnership between IUCN & IPBES, to ensure appropriate refinement and description of this figure.	Text was edited accordingly
Thomas Brooks	Ch.1	52	1459	52	1463	Need to clarify exactly what is being shown in Fig 1.13. It is not % of species assessed (because e.g. this is 100% for amphibians, birds, and mammals both in ECA and globally; see http://cmsdocs.s3.amazonaws.com/summarystats/2017-1_Summary_Stats_Page_Documents/2017_1_RL_Stats_Table_1.pdf). Nor is it % of species assessed as threatened with a high risk of extinction (which is e.g. 42% for amphibians, 13% for birds, 25% for mammals; see http://www.iucnredlist.org/about/summary-statistics#Fig_2). Please contact IUCN, via the strategic partnership between IUCN & IPBES, to ensure appropriate refinement and description of this figure.	Ditto above
Nadine Goris	Ch.1	52	1459	52	1459	Figure 1.13: out of focus	Print version will be corrected
André Mader	Ch.1	52	1459	53	1472	It might be worth considering whether this information and these figures are more appropriate for chapter 3	Considered
Sonja Jähnig	Ch.1	52	1459	52	1463	Figure 1.13 – caption not clear, classified as what? the alphabetical order in the columns is biologically not really comprehensible. It would be much more telling to see the differences within the regions of ECA!	Text edited accordingly
UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	Ch.1	53	1465	53	1472	Fig 1.14 is useful and definitely worth including, but need to confirm that it only includes data for species in comprehensively assessed taxonomic groups (i.e. those documented in Brooks et al. 2016 Nature Sci Data; https://www.nature.com/articles/sdata20167), because there are geographic biases in which species have been assessed from within non-comprehensively assessed taxonomic groups. Confirm this in figure legend.	Text edited accordingly
Thomas Brooks	Ch.1	53	1465	53	1472	Fig 1.14 is useful and definitely worth including, but need to confirm that it only includes data for species in comprehensively assessed taxonomic groups (i.e. those documented in Brooks et al. 2016 Nature Sci Data; https://www.nature.com/articles/sdata20167), because there are geographic biases in which species have been assessed from within non-comprehensively assessed taxonomic groups. Confirm this in figure legend.	Ditto above
Sonja Jähnig	Ch.1	53	1465	53	1472	Figure 1.14 - It would be much more telling to see the differences within the regions of ECA! The abbreviations need to be written out.	The introduction is providing generic messages, rather than precise analysis, which is done in other chapters of the assessment
Nadine Goris	Ch.1	53	1466	53	1467	Figure 1.14: out of focus	Final version quality will be improved
André Mader	Ch.1	53	1473	55	1546	Would it be possible to divide each of these limitations into a paragraph on the limitation and another on how the expert group dealt with each?	Not really possible
Nadine Goris	Ch.1	53	1475	53	1475	should be "intra- and inter-relationships"	Edited
Nadine Goris	Ch.1	53	1476	53	1476	should be "are embedded"	Edited
Nadine Goris	Ch.1	53	1484	53	1484	bracket missing	Edited
Nadine Goris	Ch.1	54	1491	54	1492	wrong bracketing	done
Nadine Goris	Ch.1	54	1493	54	1493	should be "increased interest"	done
Amor Torre-Marín	Ch.1	54	1504	54	1504	Is "well established" a confidence term? If so it should be used between brackets. If not a different wording should be used.	no it is not a confidence term - wording now changed to avoid confusion
Dmitry Schigel	Ch.1	54	1506	54	1510	English became the language of science after WWII, but in the FSU countries, forming the most of the assessed territory, only started to become such since 1991, and a lot of good science has been published in Russian since 1950. The assessment need to make clear to which extent it took into consideration these references. Use of Web of Science, a commercial product, as a source of reference for the intergovernmental decision making, is noteworthy. A section explaining the known biases and attempts to remove them is missing. Lines 1189-1190 in Chapter 1 attempts to explain the selected approach, but in insufficient detail. Clarity on the methods and on the data is fundamental for the assessment transparency the trust in its conclusions.	a recognition of this bias was added, and measure to remove it described, such as adding at least one representative of Eastern Europe per chapter, and setting a workshop with over 60 representatives of Eastern Europe and Central Asia convened to contribute to all the chapters and remove the bias
Simone Beichler	Ch.1	54	1521	54	1529	Although the difficulties in harmonizing data are important this paragraph is rather weak especially reading the others before. "Given... such data"(line1525) the sentences have no real facts that add to the discussion. The following could also be moved to the data section before. What are the "well established limitations" except for the fact that indeed it's always a challenge	More details on limitations will be provided in the chapters that follow; here we only wanted to recognise the issue and direct to the literature discussing the issue; more references (illustrating various contexts) are added to provide better support to the sentence
Amor Torre-Marín	Ch.1	54	1525	54	1525	Is "well established" a confidence term? If so it should be used between brackets. If not a different wording should be used.	phrase removed to avoid confusion
Kremena Gocheva	Ch.1	55	1530	55	1540	The passage (and possibly the IPBES ILKP concept itself) does not address an important aspect - the need of globalizing ILKP. For example, potatoes, tomatoes, tobacco, godjy bery and many other species were introduced to Europe during the centuries but important local knowledge held by the population in their countries of origin didn't go with them. This aspect is equally important in the case of IAS spreading as commercial plants, like the ever-pervasive <i>Ailantus</i> spp. or the <i>Rapana Venosa</i> in the Black Sea, where containment may depend on IKLP from the countries of origin.	This was recognised as less typical of ECA, as the region did not give origin to important globalising species
André Mader	Ch.1	55	1547	55	1552	Could this be phrased more simply? It is not quite clear that it is saying that the assessment does not do any primary research of its own, which is presumably what it aims to express.	clarified as suggested
André Mader	Ch.1	55	1547	55	1565	This might be a good place to state, or re-iterate, the fact that intrinsic value is not covered in the assessment	This is not correct. Intrinsic value is very much part of this assessment
Kremena Gocheva	Ch.1	55	1547	55	1565	Another issue not mentioned but worth noting is the emergence of big data and its processing. As noted in many publications quoted by Alcaraz-Segura et al. - Earth Observation of Ecosystem Services, CRC Press, satellite pictures might be useful for retrofilling missing ground observation data.	Did not mention this, as we are not producing new research in ECA assessment, and therefore as such, big data were not analysed here, and did not represent a limitation or an issue potentially within the scope
Thomas Brooks	Ch.1	55	1553	55	1554	Very good to see the cut off date for literature inclusion stated clearly here.	thank you
Anatoliy Khapugin	Ch.1	55	1558	55	1558	Again I cannot agree with sentence "mostly from experimental botanical studies" - I suggest to delete "botanical" (or add "and zoological") here	added "zoological"
André Mader	Ch.1	55	1564	55	1565	Remember to refer to specific numbered section in final draft	Done

Anatoly Khapugin	Ch.1	55	1566	55	1566	The sub-chapter "1.8. Roadmap to the assessment" presents information about structure and scheme of the whole assessment. Why not move it to the beginning of the chapter?	We decided to leave it at the end of the chapter as a transition to the following chapters. We tried to make it more concise
André Mader	Ch.1	56	1571	55	1574	This description does not capture the strong focus on major systems in chapter 3	We elaborated the description further based on the summary text of y-the chapter
Khishigbayar Jamiyansharav	Ch.1	57	1598	57	1599	Figure1.15 Increase the font size of "good quality of life", "Nature" and "Natur'es benefits to people" boxes, since there are more space to increase the font, plus it is not readable especially words with green and blue colors. Increase the size of the box Q7.	The graphic designers will improve the figure.
Nadine Goris	Ch.1	57	1599	57	1600	Figure 1.15: out of focus	As other reviewers liked the figure it is kept in the chapter. The figure will be updated to better reflect the conceptual framework
Simone Beichler	Ch.1	57	1603	57	1610	I get the intention of this section but it does not add new information and is also not really a conclusion, thus I suggest delete. The last sentence of 1.8.2 would be a much better end for this chapter in my opinion.	We followed your suggestion and deleted the subsection
Nadine Goris	Ch.1	57	1604	57	1604	comma is missing after "approach"	we added the comma
Anatoly Khapugin	Ch.1	58	1615	58	1615	References section has number "1.8". Why? This number is already provided for the section "Roadmap to the assessment"	Edited
Nadine Goris	Ch.1	58	1615	65	1920	many references are incomplete	References have been updated and added to.
UNEP-WCMC: The Biodiversity Indicators Partnership (BIP)	Ch.1	68	1653	68	1654	Replace URL with https://www.nature.com/articles/sdata20167 .	Reference included
Thomas Brooks	Ch.1	68	1653	68	1654	Replace URL with https://www.nature.com/articles/sdata20167 .	Ditto above