

ID	Reviewer Name	Country of residence	Affiliation	Government Representative	Chapter	From Page (start)	From Line (Start)	To Page (End)	To Line (End)	Comment	Answer
28	Bob Watson	United Kingdom	N/A	No	Ch. 2	General				Referring to the key messages - much of this reads as if it were a text book. Many of the paragraphs infer that a complete analysis of all world-views, all values, all value processes, etc is essential for informed decision-making - great in an ideal world but totally impractical due to costs, time, lack of human resources and data.	We agree that the FOD version of KMs were largely textbook, but now with the results of assessments available, these have all be re-oriented towards novel 'findings' and also highlighting their policy relevance. As a 'conceptual' chapter, we have prioritized highlighting the issues at stake, including costs/benefits. However, the empirical evidence of outcomes are presented in subsequent chapters on methods and decision-making.
29	Bob Watson	United Kingdom	N/A	No	Ch. 2		24		31	Is this a hypothesis, an evidence-based conclusion or expert judgement?	KMs were reformulated in iterative processes since the FOD. Their content was also adjusted to reflect key findings from the several literature reviews conducted by CH2 authors.
30	Bob Watson	United Kingdom	N/A	No	Ch. 2		24		31	I am surprised that this sub-set of SDGs are more dependent on diversity than others such as poverty, food, water, gender etc. The finding needs to say why these are sensitive and the others are less so	KMs were reformulated in iterative processes since the FOD, and SDGs were specified when relevant.
31	Bob Watson	United Kingdom	N/A	No	Ch. 2		32		40	Pure text book – not a new finding	KMs were reformulated in iterative processes since the FOD. In the case of the 'conceptual' chapter, it was required that certain concepts be defined (i.e. 'textbook') to establish them and later use them in the assessment.
32	Bob Watson	United Kingdom	N/A	No	Ch. 2		41		48	Largely text book – but probably has to be said	Thanks, we revised the text to address this concern.
33	Bob Watson	United Kingdom	N/A	No	Ch. 2		49		54	Again this largely reads as text book not an assessment finding – but need to show how individual values differ from broad values	We make a distinction between individual and shared social values. We present the values typology, outlining the differences between broad and specific values, and then specific value sub-types of intrinsic, relational and instrumental value. We have overcome the text book presentation by referring more closely to the findings of the literature assessment.
34	Bob Watson	United Kingdom	N/A	No	Ch. 2		55		59	Well known – need to discuss how individual and shared values differ and what the importance is for decision-making – but need to acknowledge that developing shared and social values is a complex, time-consuming and costly process that is beyond the ability of most governments for most decisions	The issue of shared and social values is developed in section 2.3. In the KM it is highlighted as part of specific decision-making processes.
35	Bob Watson	United Kingdom	N/A	No	Ch. 2		60		65	Text book and very general	We have substantially revised all of the key messages to ground them in the findings of the assessment and to make them more policy relevant.
36	Bob Watson	United Kingdom	N/A	No	Ch. 2		66		72	But how can most governments with limited human and financial resources develop the values and incorporate them into policy formulation	We thank the reviewer for this comment. We are unclear what is meant by 'develop the values' here. Chapter 2 focuses on the conceptual basis of the diverse values of nature. In section 2.3 we present different theoretical perspectives on how values can be activated to support environmental decisions, and this is further developed in Ch5 and Ch6 with regard to education and capacity building initiatives that can be adopted by policy makers. Key messages point to the differences between value conceptualisation and activation through institutions.
37	Bob Watson	United Kingdom	N/A	No	Ch. 2		73		78	This a critical issue and highly policy relevant – this must be expanded more in the chapter key finding and then in the SPM – this is the type of issue that is central to the assessment – government want guidance	We have expanded on issues of commensurability in section 2.2.3.1.3.2 with reference to the strengths and limitations of the TEV framework.
38	Bob Watson	United Kingdom	N/A	No	Ch. 2		79		86	The Life framework should be introduced in chapter 1 – this chapter should assess the policy implications of using it. Some of the language will be opaque to government decision-makers – e.g., the last sentence saying the framework can act as a boundary object	Agreed. Ch1 will briefly introduce the Life Frames.
39	Bob Watson	United Kingdom	N/A	No	Ch. 2		87		94	Ok – but it reads a little prescriptive – decision-making “Needs”.	We have reworked all of the KMs, paying attention to not be descriptive.
40	Bob Watson	United Kingdom	N/A	No	Ch. 2		95		99	I assume this is evidence-based – this conclusion and the rest of the paragraph imply that relying on behavior change to address issues where urgent and transformational change is required on a global scale, such as human-induced climate change and loss of biodiversity, is doomed to fail. The implications of this paragraph need to be expanded – incredible policy relevance. We do not have time to wait to address climate change and loss of biodiversity.	From a policy perspective, we highlight from the literature that a) 'broad' values are considered relatively stable (justice, respect, etc.) and b) 'specific' values are more malleable (how one 'values' the effect of climate change). Policies can therefore seek to change 'broad values' through long-term processes, but better 'align' specific values via institutional and social processes. Plus, we make clear that it is not always necessary to 'change values' per se, but rather active latent values or create the institutions structures that allow aligning actions and behaviors with existing values, attending to what is hindering or the power dynamics involved in suppressing said values.
41	Bob Watson	United Kingdom	N/A	No	Ch. 2		100		107	Easy to say, but there are reasons why certain groups have no voice- power asymmetries and vested interests will fight this - therefore the “recommendation” is worthless without a discussion of how vested interested and power asymmetries can be overcome.	First, we think it is important that the fact that many voices are not heard come forward in the VA. Regarding what to do about it, the VA emphasizes not least the role of power asymmetries and the need to protect the rights of marginalized voices and include their voices in policy processes.

42	Bob Watson	United Kingdom	N/A	No	Ch. 2		108		110	Text book -- needs an expansion -- implications for the science-policy interface	KMs have been reformulated to enhance policy-relevance, specifically in the context of values-articulating institutions.	
43	Bob Watson	United Kingdom	N/A	No	Ch. 2		111		113	Ok -- again, implications for decision-making	KMs are completely rewritten and we have in that process emphasized implications. Note, however: Chapter 2 is a conceptual chapter and much of the empirical grounding is meant to come in later chapters.	
44	Bob Watson	United Kingdom	N/A	No	Ch. 2		114		117	Again self-evident -- this and the two previous bullets are important but need to be unpacked and elaborated to be useful to a decision-maker	KMs are completely rewritten - see also other responses to Bob Watson	
87	Arfanuzzaman	Bangladesh	Organization (FAO) of the United Nations	No	Ch. 2		100.	2273	103	2345	Social and environmental decision making are also important which are missed here	Is now included
124	Alan Feest	United Kingdom	University of Bristol/ecosulis	No	Ch. 2		16.	448	16	454	threatened with vanishing just as is biodiversity.....endangered with disappearing.....humanity less able to.....traditions and domains	Thanks for this comment and suggestion, it was noted and taken into consideration in the revised SOD.
125	Alan Feest	United Kingdom	University of Bristol/ecosulis	No	Ch. 2		18.	504			Here you have not listed the references in date order; in fact the basis of the listing of the references seems to be a mess with neither date order or alphabet being followed	Thank you - this was a first draft. References will be taken care of at the end.
126	Alan Feest	United Kingdom	University of Bristol/ecosulis	No	Ch. 2		18.	510			humanity that not only crases two	thank you for your note
127	Alan Feest	United Kingdom	University of Bristol/ecosulis	No	Ch. 2		19.	box			Here the mess of the references can be clearly seen!	The references were updated for the SOD.
128	Alan Feest	United Kingdom	University of Bristol/ecosulis	No	Ch. 2		21.	Figure 2.6			The black print on red is impossible to read for at least 10% of men!!!!	Noted! This whole text and figure were re-worked and are no longer part of the SOD.
129	Alan Feest	United Kingdom	University of Bristol/ecosulis	No	Ch. 2		23.	595			defining natural beings as	Thanks for the comment. We are using non-human and other-than-human beings in the SOD, and are including these definitions in the Glossary.
130	Alan Feest	United Kingdom	University of Bristol/ecosulis	No	Ch. 2		25.	686			Here you should quote Feest who created a Conservation value index as part of an attempt to measure biodiversity!	We have removed references to Feest.
131	Alan Feest	United Kingdom	University of Bristol/ecosulis	No	Ch. 2		29.	774	29	775	Here you should quote Feest who created a Conservation value index as part of an attempt to measure biodiversity!	Thank you for this suggestion. Please see 2.2.5, where you will see results of a review on frameworks about understanding human-nature relationships.
132	Alan Feest	United Kingdom	University of Bristol/ecosulis	No	Ch. 2		52.	1284	52	1288	Here you should quote Feest who created a Conservation value index as part of an attempt to measure biodiversity!	Thank you for this suggestion. Please see 2.2.5, where you will see results of a review on frameworks about understanding human-nature relationships.
133	Alan Feest	United Kingdom	University of Bristol/ecosulis	No	Ch. 2		55.	1378			De Castro, 2012, 2003 (reference order again	Corrected
134	Alan Feest	United Kingdom	University of Bristol/ecosulis	No	Ch. 2		81.	2012			Reference to Cost-benefit analysis should be cautioned that it is now highly discredited due to (exactly) doubts about valuation processes and boundaries	Thanks for your comment. In section 2.3.2.1. and 2.3.2.2. we discuss some of the assumptions and implications of CBA and monetary valuation methods in relation to how they frame the importance of Nature. We discuss valuation methods as institutions with rules determining what is included and what not.
135	Alan Feest	United Kingdom	University of Bristol/ecosulis	No	Ch. 2		81.	2018			valuation not neutral !!! Exactly my point	We agree with this comment. See our section 2.3.2.2 in relation to the framing of valuation approaches as institutions determining what is included and what not.
136	Alan Feest	United Kingdom	University of Bristol/ecosulis	No	Ch. 2		84.	2102			law enforcers may	Thank you. We have made this change in the text.
137	Alan Feest	United Kingdom	University of Bristol/ecosulis	No	Ch. 2		94.	2294			surely there is a spectrum of government between democracies and dictatorship?	We agree. The section is completely rewritten based on a) a revised decision-making typology and b) reviewer comments
150	Kris Wyckhuys	Vietnam	Chrysalis consulting	No	Ch. 2		1.	16	1	19	To gain a grounded understanding of local knowledge, perspectives and beliefs regarding nature & its societal contributions, literature reviews of e.g., anthropogenic surveys can help - but there's also immense potential in the use of culturomics (i.e., the use of high-throughput internet analytics to assess public visibility or 'salience' of certain organisms or concepts). This powerful toolkit has successfully been used in the fields of conservation biology and biological pest control, e.g., recent publications by Jepson, Correia or Wyckhuys.	We appreciate the suggestion, but the IPBES mandate is to 'assess' the available information. In this case, we would be creating a new dataset based on primary research. Such a task would be beyond our mandate, as well as our capacity.
162	Michael Bordt	Canada	None (Member of SEEA EEA Technical Expert Committee and Editorial Board)	No	Ch. 2		64	1425	64	1446	Hope that the linkages among components (from, with, in, as) are related and how methodologies are used to understand them. For example, the SEEA/Natural Capital Accounting may focus on the "from", but also has potential to address the others with coherent and consistent classifications and definitions.	We now discuss the potential and limitations of different approaches more elaborately in the Life Frames annex.
167	Christine ALAUX	France	AFIE (Association Française Interprofessionnelle des Ecologues)	No	Ch. 2		26	677	26	679	I think the following explanations would be easier to understand if you put in this place, beside this sentence, an explanatory but simple diagram ; for example a nesting of cubes, the largest called broad values, containing smaller called specific values, themselves containing drawers called indicator values.	We thank the reviewer for this suggestion. We have created four figures to represent our values typology. Figure (part 1 of 4) clarifies the associations between broad values, specific values and human-nature relationships.
168	Christine ALAUX	France	AFIE (Association Française Interprofessionnelle des Ecologues)	No	Ch. 2		27	701	28	754	In this part, you define the broad values and you quote several authors with their values classification. It would be very interesting if you then put your own classification of broad values applied to nature, presenting them in a table or a scheme. For example you would indicate the broad value « health » and you would indicate the elements of the nature related to it like « the medicinal plants », « the oxygen oht the air », « the beauty of the natural landscape », etc..	This is a good suggestion. We have now included different types of broad values in Section 2.2.3.1 - Different categories of values

169	Christine ALAUX	France	AFIE (Association Française Interprofessionnelle des Ecologues)	No	Ch. 2	51	1270	51	1270	It would be interesting to add a chapter 2.3.5 which contains complete tables containing all the broad values classified according to all that you described previously. For example : broad value = health / specific value = nature's contribution to people / value justification = instrumental and relational / value indicators = number of chaman + abundance of medicinal plants +...	We intend to add these tables to an appendix in the TOD.
170	Christine ALAUX	France	AFIE (Association Française Interprofessionnelle des Ecologues)	No	Ch. 2	101	2486	133	3809	It's a pity not to have used the following book : « La chute du ciel : paroles d'un chaman Yanomami » by Davi Kopenawa and Bruce Albert, Terre Humaine, PLON, 2010. This book was written from the words of Davi Kopenawa, shaman and leader of the Yanomami Indians of Brazil, collected in his language by Bruce Albert, a French ethnologist to whom he has a friendship of more than thirty years. Davi Kopenawa traces his vocation as a shaman since childhood and reveals a secular metaphysics based on the use of powerful hallucinogens. Through his often dramatic personal story, he relates the devastating advance of the Whites in the forest and his travels abroad to defend his people. This exceptional testimony is both the story of a life out of the ordinary, a vibrant shamanic manifesto and a cry of alarm in the face of the global ecological crisis seen from the heart of the Amazon.	We have conducted a systematic strategy of ILK inclusion. See methods in SOD (2.1.3).
187	Ryo Kohsaka	Japan	Nagoya University Graduate School of Environmental Studies Dep. of Social and Human Environment	No	Ch. 2	29	780	30	852	On 2.3.1.4 Shared and social values There is a comparative study on values and perceptions of "close to nature forests" in Europe and Japan, which could be of interests for the authors to include in the section. There are limited number of studies in spiritual and aesthetic aspects of such values but I consider the element to be integral part of these values. It is not recent publication but I consider the discussion to be relevant and not outdated. [Article] 1. Kohsaka, R. & Handoh, I. J For Res (2006) 11: 11. <a href="https://doi.org/10.1007/s10310-005-0177-4">https://doi.org/10.1007/s10310-005-0177-4</a> <a href="https://doi.org/10.1016/j.forpol.2004.03.016">https://doi.org/10.1016/j.forpol.2004.03.016</a> Exploring forest aesthetics using forestry photo contests: case studies examining Japanese and German public preferences Forest Policy and Economics Volume 6, Issues 3-4, in "Economics of Sustainable Forest Management" June 2004, Pages 289-299, also cited in C Price (2017) The Constitution of Value - Landscape Economics, 2017	Thank you for this information. As you will see from the SOD extensive reviews have been undertaken to inform the text.
241	Miles Richardson	United Kingdom	University of Derby, Nature Connectedness Research Group	No	Ch. 2	74.	1879	75	1885	Parts of this section are based on weaker evidence. There is a suggested link between environmental education and nature connectedness, this has rarely been found and research in this area has tended not to use psychometric scales and not considered sustained relationships. Recent evidence suggests that knowledge and learning is actually a poor route to nature connectedness (Lumber et al 2017). Further, nature connectedness is a much better predictor of variance in ecological behaviours (69%) than environmental knowledge (2%), see Otto & Pensini (2017). Otto, S., & Pensini, P. (2017). Nature-based environmental education of children: Environmental knowledge and connectedness to nature, together, are related to ecological behaviour. Global Environmental Change, 47, 88-94.	The reviewer's core points here (that the link between environmental education and nature connectedness are weak, and that nature connectedness is more correlated with behavior than knowledge) are important, and we have addressed them in our revision. In particular, we have cited an extensive lit review from 2020 that provides evidence that there is a link between environmental education (which is much more than conveying knowledge) and nature connectedness; we elaborate in the text.
244	Miles Richardson	United Kingdom	University of Derby, Nature Connectedness Research Group	No	Ch. 2	77.	1953	77	1954	Table 2.4 reference to Kellert can be extended. Lumber et al (2017) explored which of Kellert's values of biophilia explained nature connectedness. Lumber et al showed that values of human-nature relationships based on utility, dominion, scientific knowledge and fear were unrelated to nature connectedness. Whereas the humanistic, affective, aesthetic, moral and symbolic values explained a large proportion of nature connectedness.	Citation was added.
245	Miles Richardson	United Kingdom	University of Derby, Nature Connectedness Research Group	No	Ch. 2	69.	1706	69	1710	Lumber et al (2017) explored which of Kellert's values of biophilia explained the psychological construct of nature connectedness. Lumber et al showed that values of human-nature relationships based on utility, dominion, scientific knowledge and fear were unrelated to nature connectedness. Whereas the humanistic, affective, aesthetic, moral and symbolic values explained a large proportion of nature connectedness. Given the relationship between nature connectedness and quality of life (Pritchard et al, 2019) and pro-nature behaviours (Mackay & Schmidt, 2019), humanistic, affective, aesthetic, moral and symbolic values and activities help form a close and harmonious relationship with nature. Whereas a relationship with nature based on utility, control, fear and knowledge does not.	Added Lumber et al. 2017. Thanks.

253	Miles Richardson	United Kingdom	University of Derby, Nature Connectedness Research Group	No	Ch. 2	26	670	26	670	This section/shapter could include discussion of Lumber et al (2017) pathways to nature connectedness which identifies which of Kellerts values relate to a connected more harmonous relationship between people and nature.	We thank the reviewer for this comment. In section 2.2.3.3, we now present multiple frameworks to organize values with respect to human-nature relationships, including the important work of Kellert and human-nature typologies for sociology.
274	Matteo De Donà	Sweden	University of Gothenburg	No	Ch. 2	3	76	3	78	The link here is not straightforward: it is not clear why demoractic exercise would automatically facilitate a "comparison" of incommensurable values. I would reformulate it like this: "in cases of incommensurability, a dialogue between different values and worldviews may be undertaken through democratic deliberation, to ensure that all perspectives are considered in parallel"	We thank the reviewer for this comment. We have since removed reference to this text from Ch2.
275	Matteo De Donà	Sweden	University of Gothenburg	No	Ch. 2	12	346	13	355	The concept of worldview outlined has also been expressed in other ways in academia. See, for instance, the indigenous and political ontologies outlined by Blaser, M. (2014). Ontology and indigeneity: On the political ontology of heterogeneous assemblages. Cultural Geographies, 21(1), 49-58. doi:http://dx.doi.org.ezproxy.uib.gu.se/10.1177/1474474012462534.	We thank the reviewer for this comment. We revised our conceptualization of worldviews in the present SOD to reflect more nuanced definitions and distinctions.
276	Matteo De Donà	Sweden	University of Gothenburg	No	Ch. 2	15	423	15	423	The same goes for the French "terre", this is a common feature in most Latin languages.	Thanks for this comment and suggestion, it was noted and taken into consideration in the revised SOD.
277	Matteo De Donà	Sweden	University of Gothenburg	No	Ch. 2	17	490	17	490	It would be preferable to refer to "ancient Greeks".	thank you for the note
278	Matteo De Donà	Sweden	University of Gothenburg	No	Ch. 2	53	1310	53	1312	It is not entirely clear to me why the proposed framework (Kronenburg & Andersson 2019) would be suitable to analyse values. I believe that instead of two dimensions (commensurability and compatibility), it would suffice to adopt one (commensurability). Moreover, the concept of "data" and "indicators" mentioned here may not be applicable to some value systems.	We have removed reference to Kronenburg and Andersson 2019.
279	Matteo De Donà	Sweden	University of Gothenburg	No	Ch. 2	54	1357	54	1357	Would it be possible to give a definition of "boundary work"? Is it here intended as in STS tradition, in the formulation by Gieryn (1983)? Gieryn, T. F. (1983). Boundary-Work and the Demarcation of Science from Non-science: Strains and Interests in Professional Ideologies of Scientists. American Sociological Review, 48(6), 781-795.	We have removed references to boundary work.
280	Matteo De Donà	Sweden	University of Gothenburg	No	Ch. 2	65	1618	65	1618	The adjective "our" in this sentence should be clarified. Would not be using the word "dominant" or "prevailing" a better solution?	This has been rephrased
281	Matteo De Donà	Sweden	University of Gothenburg	No	Ch. 2	88	2164	88	2164	I would add that social constructivist do not only see values as "cultural phenomena", but also as a key way to create and give intersubjective meaning to social interactions.	Thanks for your comment. We have included this suggestion in the new version of the text (2.3.2.1)
282	Matteo De Donà	Sweden	University of Gothenburg	No	Ch. 2	94	2293	94	2297	The dychotomy between democracies and dictatorship sounds a bit simplistic here (a definition/boundary between they two should be at least defined). For example, some cultures/systems may express an oligarchic form of government. Furthermore, while talking about "local" and "national" is legitimate, one should not forget the "regional" dimension, as well as the type of organization embodied in federal states.	We agree. The section is completely rewritten based on a) a revised decision-making typology and b) reviewer comments
310	Dandan Yu	China	Nanjing Institute of Environmental Sciences (NIES), Ministry of Ecology and Environment (MEE) of China	No	Ch. 2	Table of Content	2.1.1 Scope	Table of Content	2.3.2 Values and their relevance to good quality of life	Table of Content is very messy.	The table of content was entirely redone for the SOD.
311	Dandan Yu	China	Nanjing Institute of Environmental Sciences (NIES), Ministry of Ecology and Environment (MEE) of China	No	Ch. 2	3	79	3	86	The term of 'Life Framework' need to be defined and explained.	Thank you for this suggestion. In section 2.2.4, we have now defined the Life Framework of Nature's Values as an organising framework that summarises the complexity of values to help integrate them into decisions (O'Connor and Kenter, 2019). We have also moved this definition into the KMs.
312	Dandan Yu	China	Nanjing Institute of Environmental Sciences (NIES), Ministry of Ecology and Environment (MEE) of	No	Ch. 2	4	95	4	99	This part needs to be included in the previous paragraph.	KMs were reformulated entirely and are now more synthetic.
313	Dandan Yu	China	Nanjing Institute of Environmental Sciences (NIES), Ministry of Ecology and Environment (MEE) of	No	Ch. 2	8	256	8	256	The term of 'conceptual landscape' need to be defined and explained.	This term was removed.

314	Dandan Yu	China	Nanjing Institute of Environmental Sciences (NIES), Ministry of Ecology and Environment (MEE) of	No	Ch. 2	11	301	12	337	It is not easy to understand the quotation here. A scientific expression is needed.	In the revised version of the text, this story has been removed as we have changed the original structure
315	Dandan Yu	China	Nanjing Institute of Environmental Sciences (NIES), Ministry of Ecology and Environment (MEE) of	No	Ch. 2	26	678	27	679	Which references? The "value indicators" should not be counted as category of values.	Yes, this was a mistake. We now refer to value indicators and preferences as different ways of assessing the diverse values of nature.
316	Dandan Yu	China	Nanjing Institute of Environmental Sciences (NIES), Ministry of Ecology and Environment (MEE) of	No	Ch. 2	27	700	32	852	What is logical relationship between 2.3.1.1 Broad values, 2.3.1.2 Specific values, 2.3.1.3 Value indicators, and 2.3.1.4 Shared and social values?	We have clarified the relationships between broad values, specific values and value indicators with the aid of the pyramid (section 2.1). Also, we have added a new section on the relationships between specific values, preferences and indicators.
354	Droz Lařna	Japan	Kyoto University, Graduate School of Global Environmental Studies	No	Ch. 2	61	1554	62	1566	"Living as nature" could be related to "multispecies thinking" and "multispecies sustainability". See e.g.: van Dooren, T., Kirksey, E., Münster, U., 2016. Multispecies Studies: Cultivating Arts of Attentiveness. Environmental Humanities 8, 1–23. Ogden, L.A., Hall, B., Tanita, K., 2013. Animals, Plants, People, and Things: A Review of Multispecies Ethnography. Environment and Society 4, 5–24. <a href="https://doi.org/10.3167/ares.2013.040102">https://doi.org/10.3167/ares.2013.040102</a> Locke, P., Muenster, U., 2015. Multispecies Ethnography. Oxford Bibliographies - Anthropology.	We have included a discussion of multispecies thinking in relation to living as in the more elaborate review of the different frames in the Life Frames annex.
357	Droz Lařna	Japan	Kyoto University, Graduate School of Global Environmental Studies	No	Ch. 2	61	1544	66	1654	"Living in nature" could be related to the Japanese concepts of "Satoyama and satoumi" (里山と里海) and "Fuudo" (風土). Satoyama reflects integrated resources management inspired by traditional knowledge (see also the UN Satoyama initiative). The concept of "fuudo" (translated in French by "milieu") was developed by the Japanese philosopher Watsuji Tetsuro and refers to the local environment as perceived and lived by subjective human beings. Ref.: BERQUE Augustin, Ecumène: Introduction à l'étude des milieux humains, BELIN, Paris, 2000. TAKEUCHI Kazuhiko, Rebuilding the relationship between people and nature: The Satoyama Initiative. In: Ecol Res, 25, pp. 891-897, 2010. WATSUJI Tetsuro, Fuudo, ningengakuteki Koosatsu, Tokyo, Iwanami Bunko, 2004. WATSUJI Tetsuro, Ningen no gaku toshite no rinrigaku, Tokyo, Iwanami Zensho, 1971. Droz, L. 2018, Watsuji's Idea of Self and the Problem of Spatial Distance in Environmental Ethics, European Journal of Japanese Philosophy, Vol. 3., pp.145-168.	We have now included these suggestions and references
362	Droz Lařna	Japan	School of Global Environmental Studies	No	Ch. 2	15	423			Add "Terre" in French (as it is a UN language).	Thanks for this comment and suggestion, it was noted and taken into consideration in the revised SOD.
363	Droz Lařna	Japan	Kyoto University, Graduate School of Global Environmental Studies	No	Ch. 2	17	488			"Western and non-Western" sounds like there is an opposition, or such a thing as "Western tradition" that is not constantly influenced and influencing other traditions. And it seems to assume "Western tradition" as reference point, which is problematic. I would simply write "in different traditions".	thank you for your suggestion. In revising the section we will consider it
364	Droz Lařna	Japan	Kyoto University, Graduate School of Global Environmental Studies	No	Ch. 2	18	499			The current notion of "nature", as widely accepted in the English-speaking world, ... etc. For the French-speaking world, see also Vidal de La Blache and the Ecole française de géographie who contributed to develop the current notion of "nature". Notably, the history of the translated concept of nature in Japanese and Chinese is remarkably different, and must be acknowledged.	Thank you for your comment. For the SOD we had entirely revised the section and add more contributions from different languages and traditions.
365	Droz Lařna	Japan	Kyoto University, Graduate School of Global Environmental Studies	No	Ch. 2	17	494	18	498	Ancient Greek sciences and worldviews were influenced by Ancient Indian traditions, so it would be interesting to trace and identify the history of the concept in Sanskrit in particular.	Thank you for your comment. For the SOD we had entirely revised the section and eliminate most of it.

366	Droz Lařna	Japan	Kyoto University, Graduate School of Global Environmental Studies	No	Ch. 2	18.	599			<p>this concept of nature "as construed in the English-speaking world". Because the rest of the paragraph and the distinctions and debates introduced here are strongly situated, and none of it can be said to the idea of nature (translated literally by the same word) in Chinese and Japanese traditions, for example. To the limits of my knowledge, the concept of "nature" as construed in the West was introduced in Japan in 1796 as a translation from Dutch into 自然. The word 自然 had a different meaning before, rooted in Ancient Chinese, in Laozi in relation with a way of being (wuwei, that human can or should also practice, etc.), and with the co-determined emergence of things (Yinyuan, close to Buddhist and Taoist cosmologies). 自然 as a translation for the Western "Nature" is likely to have been taken back into Chinese from the Japanese translation. Both meanings (Way of being existing by itself, and Western-style nature) coexist currently. This background is very likely to influence "values of nature", or even the difficulty of speaking of "values" of "自然" (e.g. ref: Jannel Romaric, "Vie de concepts: le vocabulaire philosophique au Japon", in A L'épreuve, 2015, pp. 10-12). There are other words that might get close to the idea of nature within these traditions, for example the Japanese 山川草木, which does not include human beings. (e.g. ref: 世界大百科事典) (Maybe the word "World", as in the life framework, might be more easily translated, as it has sanscrit roots that gave both the Chinese-Japanese 世界, (e.g. ref: 岩波哲学思想事典, 1998 and 岩波仏教辞典, 1989) and the Latin lucus).</p>	<p>Many thanks for your comments and for this very important input from Japan! After internal discussions, we decided to abandon the effort of having a separate text for the history of "nature". First, because this would go beyond the scope of the values assessment; and second, because it would demand a lot of time and effort from lead authors for a text to be included as an Appendix. In the SOD, Chapter 1 explains how the concept of nature is incorporated in the Values Assessment, based on the definition proposed in the IPBES framework (Diaz et al. 2018).</p>
367	Droz Lařna	Japan	Kyoto University, Graduate School of Global Environmental Studies	No	Ch. 2	17.	483	25	669	<p>The whole part is exclusively eurocentric (even references to ILK are also made mainly in relation towards a point of reference that is Western-centered, and mainly by Western authors), and this is highly questionable. Moreover, it appears as if Western traditions, as the reference points, are contrasted with ILK diverse secondary traditions. Crucially, the existence of others well-documented historical traditions are totally absent. I think it is highly necessary to mention 1) other traditions such as (at the very least) Indian (Sanskrit, Tibetan, etc.) philosophical traditions and debates, Chinese and Eastern Asia philosophical traditions and debates, and Arabic philosophical traditions and debates, and 2) to show - or at least mention - how these traditions were influencing each other throughout the history, through multiple translations and exchanges. I also think that it would be necessary to include a discussion regarding the different translations of the English word "nature" (at least in the UN languages), their extremely different connotations, and thus the limitations of the concept itself in the context of a "global assessment" of "values" (this word is also extremely Western-centered and hard to translate) of "nature".</p>	<p>Thank you very much for this comment. This was a first attempt at representing a timeline about the concept of nature with the expertise we had available. We agree with the comment and for the SOD we made sure to engage contributing authors with a more diversified expertise.</p>
368	Droz Lařna	Japan	Kyoto University, Graduate School of Global Environmental Studies	No	Ch. 2	14.	407	14	408	<p>In Japanese, the word "aoi" for "blue" is still used today to describe many things that would be described as "green" in English. The green-blue distinction is clear in textbook, but not yet widely spread in everyday life when describing real things (such as apple, rice-field, etc, that are "aoi").</p>	<p>Thanks for this comment. These color examples are not part of the current SOD, as we decided (also based on reviewers' comments and feedback from the MEP) to focus on examples and concepts directly connected to values of nature and biodiversity. Thus, this comment is no longer applicable to our text.</p>
427	Syed H. Raza	Malaysia	Media Project on Conservation Environment & Nature MPCEN	No	Ch. 2	11	301	17	483	<p>The most important information and the basis of the belief system &amp; its historical background should also mention about Migration patterns of humans over the years. How migration has influenced beliefs about nature, biodiversity, animals? How migration has influenced the disbalance of natural resources? Migrations because of depletion of natural resources &amp; Migration towards cities leaving farming &amp; regenerative food practices behind.</p>	<p>Many thanks for your message and important reminder about the role of human migrations (and displacement) on worldviews and values. We have strict space limitations, but reference to migration affects worldviews (2.2.1). We also noted the role of immigration/emigration on shaping values via social group conformation (2.3.3.2).</p>
428	Syed H. Raza	Malaysia	Media Project on Conservation Environment & Nature MPCEN	No	Ch. 2	22	572	23	615	<p>Anthropocentrism vs Biocentrism also need to be viewed in the context of human population the 20th century had worst wars 2 world wars the fall of colonialism, cold war all by the end of 20th century more than 108million people died due to wars still today we have a population of 7.5billion. the population can be a driving factor to produce more to feed more to consume more.</p>	<p>Thank you for your comment. This might be beyond the scope of this section, which addresses worldviews.</p>
429	Syed H. Raza	Malaysia	Media Project on Conservation Environment & Nature MPCEN	No	Ch. 2	52	1282	54	1346	<p>Talking about values, Why we see values as whole as one singular thing. Studies have proven that not all the values applies on all the Socio-economic cultures, not all the values are accepted in all Socio-economic Belief systems. If geographically &amp; demographically we pin point values for each Socio-economic culture &amp; society. In this way better and effective results can be achieved.</p>	<p>We thank the reviewer for this comment. We now acknowledge that the types of values which are drawn upon can vary based on one's world view. We have de-emphasised the links between values and culture.</p>

430	Syed H. Raza	Malaysia	Media Project on Conservation Environment & Nature MPCEN	No	Ch. 2	59	1497	62	1557	We know that Life Framework can be altered according to the values, certain cultures, geographical location or society. The other option could spread awareness to change perceptions & values and then apply Life Framework.	Agreed. We have tried to use diverse examples from across geographies and cultures (also see Life Frames Annex)
431	Syed H. Raza	Malaysia	Media Project on Conservation Environment & Nature MPCEN	No	Ch. 2	75	1903	76	1939	Narrative building in Anthropocentrism, the change of values also happens through other mediums like marketing, advertising, literature news & other media. Why I have mention this here is that Coporation, industries who are responsible for Climate Change have build a narrative through different mediums which resulted in two things high sales & hardwired values which passed on through generations. An important reason why it is hard to change values.	Need to incorporate marketing in value change, but not sure this goes in the "Encounter" section. Am bringing to attention of group and individual processes section.
503	Dolores Amelia Arreguín Prado	Mexico	Latin America Youth Biodiversity Network Mexico	No	Ch. 2					I question the information sources used: there are experiences and cases that have not been written and that are not 'scientifically documented', but that exist.	We have re-written this section by drawing on the results of our literature assessments. Each assessment now has a Data Management Report which can be used to trace the source of the evidence.
519	Rafael Calderón Contreras	Mexico	Licenciatura en Estudios Socioterritoriales, Universidad Autónoma Metropolitana, Unidad Cuajimalpa	No	Ch. 2					There is no reference to the concepts of justice and sustainability.	We have briefly introduced issues of justice and sustainability across the Chapter, including 2.1, 2.2 and 2.3. In Section 2.1 we delimit the scope of justice, in Section 2.2 we consider justice as a broad value and in Section 2.3 we discuss the influence of values and power on issues of justice and sustainability.
520	Rafael Calderón Contreras	Mexico	Licenciatura en Estudios Socioterritoriales, Universidad Autónoma Metropolitana, Unidad	No	Ch. 2					Provide examples about the designation of citizenship status to specific Ecosystems.	We present fundaments and examples of the Rights of Nature / citizenship status to rivers, mountains, etc. in the Buen Vivir case-study, as well as in the Values Typology subsection. This topic is also approached in Chapters 4 and 5.
521	Rafael Calderón Contreras	Mexico	Licenciatura en Estudios Socioterritoriales, Universidad Autónoma Metropolitana, Unidad	No	Ch. 2					It is not clear the difference between the individual values and the collective/institutional values. This is important for value formation, change and expression.	Please see introduction 2.3.3, which highlights that these are not mutually exclusive processes, and it is a question of where to put the focus. Also see sections 2.3.3.1 and 2.3.3.2.
522	Rafael Calderón Contreras	Mexico	Licenciatura en Estudios Socioterritoriales, Universidad Autónoma Metropolitana, Unidad	No	Ch. 2					There is a gap about the link between valuation and behaviour. This is very important for the Life Framework of Values.	The sections covering the relationships between values, valuation and behavior is much extended. Links to the Life Framework of values are made
531	Juan Manuel Frausto	Mexico	Fondo Mexicano para la Conservación de la Naturaleza	No	Ch. 2					There should be synergies with Climate Change: people who deny climate change might also deny biodiversity loss.	The approved scope of this assessment is on the multiple values of nature. Chapter 2 does not delve into specific issues of values and climate change.
532	Juan Manuel Frausto	Mexico	Fondo Mexicano para la Conservación de la Naturaleza	No	Ch. 2					How does the fact of 2019 being the year of Population (and not the year of biodiversity) can affect the Values Assessment?	We make connections between populations, values formation and change, and individual and social values in section 2.3. There are also important implications of the year 2020 and the COVID-19 pandemic to values, that are addressed in the new draft -SOD. The Year of Population is not addressed per se.
533	Juan Manuel Frausto	Mexico	Fondo Mexicano para la Conservación de la Naturaleza	No	Ch. 2					How to consider Buen Vivir? How to achieve development? What is civilization? How to link this with collapse?	Thanks for this comment. We developed a specific cross-assessment Case-study on Buen Vivir in the SOD, addressing the important questions you pose.
534	Juan Manuel Frausto	Mexico	Fondo Mexicano para la Conservación de la Naturaleza	No	Ch. 2					The Life Framework can be extremely useful. They are very inclusive. The Framework takes us further from the discussion between conservation vs. development. It would be interesting to know what are the consequences of living within each frame.	Thank you. We now present the risks associated with under- or over-emphasising a particular frame within life.
543	Fernando Jaramillo Monroy	Mexico	FAUNAM, A.C.	No	Ch. 2					Clearly the way in which human beings have been acting about nature has been against it.	Agreed, we introduce the Life Frames of Nature's Values as a way to understand this important point. i.e., the risks of over-emphasising or under-emphasising particular frames can lead to harmful impacts to nature and human well-being.
544	Fernando Jaramillo Monroy	Mexico	FAUNAM, A.C.	No	Ch. 2					About the Life Framework: how I live, how I think, how I act and what I consume could have different approaches.	True, that is why we not that we can draw upon different frames depending on the decision context.
545	Fernando Jaramillo Monroy	Mexico	FAUNAM, A.C.	No	Ch. 2					Consider Governance: Policies are based on votes and agreements with groups in power positions. In this sense, there is no value equilibrium, since producers and the society in general, is not taken into account.	The issue of power in relation to governance is much expanded in the SOD. The challenge that certain voices are discriminated are also very clearly emphasized
546	Fernando Jaramillo Monroy	Mexico	FAUNAM, A.C.	No	Ch. 2					It is of special importance to understand whose values are shaping institutions and the implications of this.	We agree and have taken the point into account. At the same time we note that many institutions have a long history and we are not able to cover that
547	Fernando Jaramillo Monroy	Mexico	FAUNAM, A.C.	No	Ch. 2					Explain how values originate and are built, considering the fact that there are intersectorial mechanisms to achieve binding participation.	We appreciate the point of intersectionality. We acknowledge issues of intersectional justice are inherent to the consideration of the multiple values of nature; however, we have decided not to delve into the specifics of different types of justice and values. Section 2.1 delimits our exploration of justice, section 2.2 refers to justice as a broad value and section 2.3 discuss justice in relation to power and human-nature relationships.

548	Fernando Jaramillo Monroy	Mexico	FAUNAM, A.C.	No	Ch. 2						How are values expressed at different scales of nature?	We have decided not to consider how values are expressed with reference to different geographic scales. However, we do recognise in section 2.3 that value trade-offs will depend on various factors, such as temporal and spatial scales, the interactions of the social and biophysical systems, as well as the worldviews, interests and values of the actors involved
549	Fernando Jaramillo Monroy	Mexico	FAUNAM, A.C.	No	Ch. 2						What consequences do the outcomes of the chapter have to launch participation spaces and to generate long-term strategies?	Chapter 2 is conceptual. We do, however visit the issue of participation at several points in the text. The main treatment of the issue comes in Chapter 6
550	Fernando Jaramillo Monroy	Mexico	FAUNAM, A.C.	No	Ch. 2						Life Value Frames: make emphasis on the values that are held by individuals, cultures and societies.	We discuss the importance of values to individuals and groups in section 2.3. We decided not to bring these nuances into our discussion of the LVFs.
551	Fernando Jaramillo Monroy	Mexico	FAUNAM, A.C.	No	Ch. 2						Present successful and unsuccessful cases of the life value frames.	We now discuss this important idea with reference to risks of over- or under-emphasising a LVF.
578	Sofía Treviño Heres	Mexico	CONABIO	No	Ch. 2						About the Life Value Frames: I may value nature, but my lifestyle is contradictory. I can live with the world without having to make a separation between "human world" and the "natural world". I still live in the world, whatever I value and I do. How to address such cases and ensure the coherence between my personal perception of my relation with nature and how I value biodiversity vs my actions and the impacts of my actions.	This is an important question. This is discussed now in Section 2.3
599	Valeria Cruz Blancas	Mexico	Alianza Mexicana para la Biodiversidad A.C.	No	Ch. 2						There is a lack of communication that could influence the paradigm change. Communicating the new ways of understanding is what will generate public pressure. There needs to be more ambitious goals - new deal for nature and people.	Thanks for this suggestion. We have paid greater attention to the role of communication and languages in representing different types of values.
610	Jasmin Hundorf	Mexico	Coordinator bei Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH	No	Ch. 2						In practice, it is difficult for actors to understand what are 'values'. How are values to be explained? How are values to be explained? Maybe using synonyms? This should be presented in the conceptual chapter of the Assessment.	Good point. We now use the values pyramid to clarify our understanding of values. We then add layers to our conceptualisation of values in 4 separate figures differentiating between broad values, specific values, preferences, indicators and Life Frames of Nature's values.
625	Lucía O. Almeida Leñero	Mexico	Ecology and Natural Resources Department, UNAM	No	Ch. 2						Many things from chapter 1 are repeated in chapter 2. Chapter 2 could be more visual.	We are addressing the repetition between Ch1 and Ch2. Chapter 2 is more visual. We have increased the number of figures to illustrate core ideas.
631	Georgina Cabrera	Mexico	CONABIO	No	Ch. 2						The integrated landscape approach should be included in order to promote an integrated cosmovision, which includes the cultural, environmental, social and economic perspectives.	Good suggestion.
637	Julio Campo	Mexico	Functional Ecology Department, Ecology Institute, UNAM	No	Ch. 2						The categories of the vision of the system human-nature is confusing [the life framework of values]. I consider this would be clearer if instead you presented a dichotomy: humans as part of the system and humans not integrated to the system; this last category would nest the remaining ones.	We have decided not to present dichotomies in Ch2. Rather, we introduce the concept of fundamental ecological values that embrace/support all other value types and accommodate the bi-directional relationships between humans and nature.
652	Ricardo Iván Cruz Cano	Mexico	FESI Igg, UNAM	No	Ch. 2						To perform a systematic review in SCOPUS from 2005 differs from what has been done for chapters 3 and 4, which used Web of Sciences. Take into account that the review has only been done in English.	We chose to use SCOPUS because it accommodates more of the social science literature. We extended our review to works beyond 2005 in the stage 2 literature review.
653	Ricardo Iván Cruz Cano	Mexico	FESI Igg, UNAM	No	Ch. 2						When explaining the seven dimensions of values, wouldn't it be pertinent to consider the dimension/characteristic of values changing throughout time? (for example, dynamic or changing VS static or permanent).	We have simplified the presentation of values by not referring directly to these 7 dimensions of values anymore.
661	Adriana Carolina Flores Díaz	Mexico	CENTRUS, Universidad Iberoamericana	No	Ch. 2						Avoid using the term "sustainable development" and use "pathways of sustainability".	Good suggestion.
662	Adriana Carolina Flores Díaz	Mexico	CENTRUS, Universidad Iberoamericana	No	Ch. 2						Consider the work of Maass that nests the social system within the bio-ecological system within the physical/chemical system.	Thank for this suggestion.
669	Jaime E. González Barrera	Mexico	CONANP	No	Ch. 2						What is the role of the negative (anti-values, dis-services, costs)? Develop concepts and frameworks that include the development of anti-values or of the approaches that consider values in a negative way.	Rather than present negative values, we now refer to the risks associated with over-emphasising or under-emphasising a particular LVF.
683	Patricia Koleff	Mexico	CONABIO	No	Ch. 2						The conceptual base presented in the chapter seems to be clear, but it seems this concepts are not considered for the other chapters. The conceptual base could be more synthetic. The concept of landscape is not considered.	We have spent much time reaching out to other chapters to coordinate the use of values terms.
698	Diana López Higareda	Mexico	CONABIO	No	Ch. 2						The focus of the chapter is not very adequate (or not accessible in language) for decision makers.	We have tried to improve the accesibility of the chapter to decision-makers by reducing the amount of jargon and by adding examples and through line case boxes to exemplify key points.
699	Diana López Higareda	Mexico	CONABIO	No	Ch. 2						State clearly that the MEA is the point from where the deepening of the concepts or approaches starts.	Good suggestion.
700	Diana López Higareda	Mexico	CONABIO	No	Ch. 2						The concepts of "value" and "power" are not consistent with the way they are used in other chapters.	We have since coordinated concepts across chapters.
706	María Azahara Mesa	Mexico	Sustainability Sciences Department, Colegio de la Frontera Sur, Mexico	No	Ch. 2						Include the "landscape value approach" from Schulz et al. 2017.	Thanks for this suggestion.

724	María Perevotchkikova	Mexico	CEDUA, COLMEX	No	Ch. 2					We need to reduce (the life value frames) to two visions: humans within and outside of nature, and to balance the search of literature for those two visions.	We have avoided the use of hard binaries in Ch2, but rather present various pathways understanding the way humans live in the world.
725	María Perevotchkikova	Mexico	CEDUA, COLMEX	No	Ch. 2					Chapters 2, 3, and 5 have the same problematic bias: Chap 2 has a bias towards an occidental vision. Ch3 has a big presence of enomic valuation methods compared to other methods. Ch5 talks about "the green economy".	We appreciate that the FOD had a bias towards western systems of knowledge. We have since been through a through process of receiving contributions from ILK knowledge holders and have generated findings new findings based on a review of the ILK literature. Also, we have read more literature and policy reports from the global south to balance our arguments.
726	María Perevotchkikova	Mexico	CEDUA, COLMEX	No	Ch. 2					The difference between concepts defined in chapters 2, 3 and 4 is obvious (power, knowledge, institutions).	Key concepts of the assessment are defined by Chapter 1. It is assumed that each chapter use these
727	María Perevotchkikova	Mexico	CEDUA, COLMEX	No	Ch. 2					There is a clear bias towards the occidental knowledge .	We appreciate that the FOD had a bias towards western systems of knowledge. We have since been through a through process of receiving contributions from ILK knowledge holders and have generated findings new findings based on a review of the ILK literature. Also, we have read more literature and policy reports from the global south to balance our arguments.
728	María Perevotchkikova	Mexico	CEDUA, COLMEX	No	Ch. 2					Why are the examples of only one ethnic group in America? What about other regions in the world?	Thanks for this comment. We revised the text and are including many other ILK examples from around the world in the SOD.
729	María Perevotchkikova	Mexico	CEDUA, COLMEX	No	Ch. 2					Why think about including religion? There are too many religions in the world.	We do not do a list of religions per se, but rather focus on religion as a social institution that embodies and forms values. Please see 2.3.3.2 and Annex.
730	María Perevotchkikova	Mexico	CEDUA, COLMEX	No	Ch. 2					The historic vision of the concept of nature is important, but it is presented from the Western vision. Also, it is a monodisciplinary focus, there is a lack of inclusion of the social sciences in this part. It is reductionist.	Please see Chapter 1's treatment of this issue.
731	María Perevotchkikova	Mexico	CEDUA, COLMEX	No	Ch. 2					State clearly how will the inclusion of knowledge from 'other languages' is intended to be done or has been done.	Thanks for this comment. We included knowledge from other languages through 3 main sources: 1) working with Contributing Authors; 2) ILK literature review on the topic; 3) ILK submissions.
732	María Perevotchkikova	Mexico	CEDUA, COLMEX	No	Ch. 2					Instead of 4 models there could be 2 [the life framework]: (1) Use (extraction) - humans "outside of nature"; (2) Equilibrium - humans as part of nature. This will be better linked with the methods reviewed in Chapter 3.	We decided to continue with the four Life Frames of Nature's Values.
740	Jorge Ramirez	Mexico	Sciences, UNAM	No	Ch. 2					Why SCOPUS and why from the year 2005?	we chose Scopus because it is more representative of the social sciences literature on values. We chose 2005 because this represented the publication date of the MEA.
752	Sandra Solís	Mexico	CONABIO	No	Ch. 2					Clearly define the concept of 'bioculture' or 'biocultural diversity' in Chapter 2, to retake, making it concrete, in Chapter 5.	Thanks for this comment. We clarify the biocultural diversity concept in 2.2.3 (Languages subsection), which connects to both ILK perspectives and to broader societal contexts.
762	Luis Zambrano	Mexico	Ecological Restoration, Biology Institute, UNAM	No	Ch. 2					Reduce the Life Frames to only two categories, humans outside nature and humans within nature. Also, in the frame of 'living as the world', the statement of 'living in harmony' is not necessarily true, so it could be removed.	We decided to continue with the four Life Frames of Nature's Values.
813	Mariana Machado García	Mexico	Academic Workshop IIES Morelia, Mexico	No	Ch. 2					Incorporate in the theoretical framework, the research line of deep ecology, eco-psychology, literature on the emotional aspects of valuing nature. This goes in hand with a philosophical framework in which we see the roots of the environmental crisis, related to our feelings, our connexion to the earth, which is reflected in our relationship with her.	Thank you for these suggestions. We have drawn upon a greater diversity of perspectives to exemplify deep connections to earth.
814	Mariana Machado García	Mexico	Academic Workshop IIES Morelia, Mexico	No	Ch. 2					The literature review must go beyond Scopus, ILK is not present in that platform.	The IPBES/Values Assessment had an open Call for Contributions for ILK, and got around 260 contributions, which are being processed to be included in the SOD and TOD.
821	Laura Rojas Gonzalez	Mexico	Academic Workshop IIES Morelia, Mexico	No	Ch. 2					The chapter should consider that once you classify values, some values necessarily remain outside the scope of valuation - other values may be wrongly classified. To avoid this, it could help to use few parameters and to allow for values to be classified in various parameters (for instance, in a gradient between explicit and implicit).	We recognise the possibilities for assessing and categorising values in different ways, including values that resist ranking in certain scholarly traditions.
826	Erandi Rivera Lozoya	Mexico	Academic Workshop IIES Morelia, Mexico	No	Ch. 2					The chapter should reflect on how the recognition of cultural diversity (in terms of multiple visions and values with regards to the environment) can be linked to different sectors of society, that are the focus of public policies. More broadly, the chapter should reflect about the relations (positive or negative) between cultural diversity and decision-making processes.	Thanks. This is now included especially in a section on decision-making (2.3.2).
827	Erandi Rivera Lozoya	Mexico	Academic Workshop IIES Morelia, Mexico	No	Ch. 2					the chapter should reflect on how the theory helps achieve IPBES objectives. How is each section useful to understand IPBES conceptual framework and to address the needs of the platform?	Please see 2.4 for explicit treatment of this issue.
831	Aline Pingarroni	Mexico	Academic Workshop IIES Morelia, Mexico	No	Ch. 2					Chapter 2 emphasises indigenous languages, but there is also richness in languages like english or spanish and their relation to nature - we just don't know it because it's been lost in modern times.	Thanks for this comment. It is very relevant to our subsection on Languages, and this was addressed in the SOD.

832	Aline Pingarroni	Mexico	Academic Workshop IIES Morelia, Mexico	No	Ch. 2				Analysing values and cosmovisions for governmental policies is difficult. For instance in Peru, they have extraordinary multicultural values, but their policies go against this cosmovision. Costa Rica has little multiculturality but does have policies for conservation of nature.	Thanks for this comment. It is very relevant for us to note the connections (or lack of thereof) between policies and diverse worldviews or conceptualizations of values of nature.
833	Aline Pingarroni	Mexico	Academic Workshop IIES Morelia, Mexico	No	Ch. 2				The revision in Scopus will not identify literature published in books or theses... yet the social sciences use these channels, so this represents a bias. You could also consider using novels and art that has very rich information. However, a balance has to be reached between having in-depth information and having a synthesis that can be easily understood by policy-makers.	Please see 2.1.3 where we explain our strategy for systemic reviews, and also targeting blind spots etc. (Stage II).
838	Manuel Maass	Mexico	Transdisciplinary Socio-Ecosystem Management, IIES, UNAM	No	Ch. 2				Cultural values integrate human, biological and physical values. Unlike bio-physical values, human values are teleological (they have goals, purpose, visions).	Please see 2.2 for our values typology.
839	Manuel Maass	Mexico	Transdisciplinary Socio-Ecosystem Management, IIES, UNAM	No	Ch. 2				Are values created, constructed or identified? The three are correct. Biophysical values exist, and human values are created and built. Is it the case?	Issue core to discussions of values typology group. Important to clarify early on.
840	Manuel Maass	Mexico	Transdisciplinary Socio-Ecosystem Management, IIES, UNAM	No	Ch. 2				It is unclear if the chapter adopts a constructivist perspective. Do values exist, or are they constructed by humans? Are values subjective or objective?	Need to clarify that we are not taking one perspective, but trying to represent many/the diversity of them.
846	Alejandro Torres García	Mexico	Academic Workshop IIES Morelia, Mexico	No	Ch. 2				Diverse values are not only about diverse cultures, it's also about diverse sectors of the population. Public policies divide the population in sectors (private, public, etc) so it would be useful for the assessment to adopt this same categorisation. So far the assessment mostly reflects academic and cultural values (but the private sector is absent, for instance).	We have now discussed how the private sector expresses and filters values (section 2.3).
847	Alejandro Torres García	Mexico	Academic Workshop IIES Morelia, Mexico	No	Ch. 2				Values change to adjust to cultural contexts across time - some are very dynamic and others resist change. It would be worth considering integrating literature from disciplines such as neuroscience, psychology and even marketing to understand better how values form and (can) change (including the role of emotions and the reptilian brain in this process).	Please see 2.3.3.1.
852	Ana Maria Flores Gutierrez	Mexico	Academic Workshop IIES Morelia, Mexico	No	Ch. 2				Ch2 and Ch3 need to be better linked. For instance, it is unclear how implicit values described in Ch2 can be evaluated in Ch3.	Agreed. We have sought to align the conceptual basis of values (Ch2) with the methodological basis (Ch3).
868	Glenn Deliège - HoGent	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2		241		Shouldn't it be 'identify' instead of 'identity'?	Thanks. We reviewed the SOD for such spelling errors.
869	Glenn Deliège - HoGent	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2		499		European traditions'	thank you for your note
870	Glenn Deliège - HoGent	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2		491	498	This section is confusing. Does it imply that current scientific concepts of nature rest on sometimes contradictory Greek notions of nature? The section needs elaboration (show what those Greek concepts are and how they influence current scientific concepts) or scrapping (because as it stands, it does not add anything substantially, especially since there is a mention of Greek concepts in the next section).	Thank you for your comment. For the SOD we had entirely revised the section and eliminate most of it.
871	Glenn Deliège - HoGent	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2		499		Nothing happens between the Greeks and the 17th century?	Thank you for your comment. For the SOD we had entirely revised the section and eliminate most of it.
872	Glenn Deliège - HoGent	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2		499		The current notion', shouldn't that be 'the current Western-scientific notion'	Thank you for your comment. For the SOD we had entirely revised the section and eliminate most of it.
873	Glenn Deliège - HoGent	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2		509	511	But please note that the very analysis of 'worldviews' as 'lenses' presupposes that very same separation.	Unclear line reference.
874	Glenn Deliège - HoGent	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2		520	521	This is sorely needed since as it stands, it seems as if the 'Western' conception of nature can be equated with a 'scientific one'.	Thank you for your comment. For the SOD we had entirely revised the section and eliminate most of it.
875	Glenn Deliège - HoGent	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	19			Box 2. I think that there is a great difference between saying 'nature' or 'the natural world' have been conceived of in different ways, and saying that the 'concept of nature' has known many 'versions'; The latter, much more than the former (though neither of course escape it completely), already presupposes the Western worldview in which nature is separate, delineated entity which can be 'caught' by different concepts.	Thanks for your comment. The text on the Conceptualization of Nature in historic perspective is no longer part of the SOD, as we had to be more strategic in focusing on Values while dealing with word limitations.

									541	Here, the singular focus on 'scientific' conceptions of nature (see 520-521) becomes apparent. Notions of nature as alive, beautiful, bountiful, sublime, interconnected, vulnerable, mysterious, ... have been stock-in-trade for Western art and society at even before Ancient Greece. They have always existed at the heart of Western culture, indeed, they tended to be much more popular with the urban elite than with the rural populations and existed happily alongside (more mechanistic) scientific notions.	Thank you for your comment. For the SOD we had entirely revised the section and eliminate most of it.	
876	Glenn Delière - HoGent	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2				539			
877	Glenn Delière - HoGent	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2				572	There is a break here in the text. It is not obvious why we need to be talking about anthropocentrism here.	Thank you for your comment. We have entirely revised the section on worldviews in the SOD	
878	Glenn Delière - HoGent	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2				572	586	On the whole, I do not understand the function of this section in the text. It seems to be very normative. Are we looking for concepts to evaluate worldviews or to describe them? Why is it necessary to start talking about the anthropocentrism debate?	Thank you for your comment. For the SOD we had entirely revised the section and eliminate most of it.
879	Glenn Delière - HoGent	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2				596	598	Where does capitalism suddenly come from? Could be that these notions form an alternative for 'capitalism', but why is that important to note here? The text has made no mention of capitalism as a specific worldview, or the way nature is conceived of within capitalism. It is not clear why they should be seen as an alternative to capitalism. Again, a very normative section, while this section aims to be descriptive.	Thanks for your comment and input. We have revised the Worldviews subsection accordingly, describing how diverse worldviews guide values and valuation processes. We have edited the text to make sure there are no normative elements, and that we prioritize the assessment of findings from literature reviews conducted in Ch2.
880	Glenn Delière - HoGent	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2				483	617	On the whole, this section lacks coherence. It starts off with a short discussion of the concept of nature as used within the scientific worldview - so to speak - and ends with a seemingly random discussion of other worldviews, intermingled with a discussion of anthropocentrism. What is the overall aim of this section? Is it to show that the scientific understanding has been dominant in conservation (to an extent, I would agree) and that there are alternative conceptions? Is it simply to present (rather randomly) a number of different conceptions of nature to give an indication of the plurality of concepts?	thank you for your comment. This whole section will be revised in the SOD and more coherent discussion of worldviews will be presented
881	Glenn Delière - HoGent	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2				656		Positive impacts on what? What precisely is positive about these evolutions?	This comment addresses a deep and important issue (normative evaluation of changes in policy). We have revised this language to be more explicit.
882	Glenn Delière - HoGent	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2				667		Surely 'urban nature' cannot be seen as an emerging worldview? Of course it is true that urban nature has been somewhat of a blindspot of the (Western, scientific) conservation tradition, but the way in which urban nature is discussed and thematised within for instance the 'biophilic cities' movement (emphasis on biodiversity, ecosystem services etc.), shows its indebtedness to that tradition. At best, the rise in interest in urban nature, as conceived within these frameworks, is an extension or modification of an existing 'worldview' on the basis of 'values' already present within it.	The reviewer is correct; the language in the FOD was confusing. We did not intend to imply that urban nature is an emerging worldview, and we have edited accordingly, to indicate that urban nature is a context within which worldviews are relevant.
883	Glenn Delière - HoGent	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2				618		Should be 2.2.4	Thank you for noticing our typo in numbering the sections! This has been fixed.
884	Glenn Delière - HoGent	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2				841		Gould et al. (2019) is not taken up in the bibliography	We have addressed.
885	Glenn Delière - HoGent	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2				1020		Probably (Muraca, 2019)	thank you for the note. References will be revised in details at the end.
886	Glenn Delière - HoGent	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2				1363		Lay-out for enumeration	Corrected.
887	Glenn Delière - HoGent	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2				1363		Translate implies?	Corrected.
888	Glenn Delière - HoGent	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2		68				Part of figure 2.20 seems missing	There is no longer a figure in 2.3.3 (old 2.6).
889	Glenn Delière - HoGent	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2				32		Certain types of normative anthropocentrism see humans as the most important, but there are many types of anthropocentrism. The statement is too strong and imprecise.	Thanks for this comment. In the SOD, subsection 2.2.2 on Worldviews was re-written, in which we clarify the diverse types of anthropocentrism and the context-dependent, real-world nuances that overlaps that may exist between the academic framings of human worldviews connected to nature.
890	Glenn Delière - HoGent	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2				23	119	There are too many key messages and they are too disparate	Indeed initial KMs were preliminary. Since the FOD, they have been co-created in 2 specific group sessions in Ch2, as well as presented and considered in SPM workshops across chapters to develop the SPM.

891	Glenn Delière - HoGent	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2		268	482	I believe the problem with this section is that sets up the analysis of different worldviews along precisely those dualistic lines which the document later wishes to overcome (see ex. 1485-1487). The point is that if you see culture (as 'language', or 'conceptual scheme') as a kind of map which imbues significance on the world in order to make it intelligible, you are adhering to a social-constructivist view which presupposes a nature/culture split, whereby culture appears as the constituting entity and nature as the constituted object (this is, for instance, especially clear in figure 2.3, but there are examples throughout the section). This is a thoroughly 'Western, Modern, Scientific' view which will bias any analysis or interpretation of worldviews that do not share the social-constructivist outlook. See for instance Ingold 'Culture, Nature, Environment: steps to an ecology of life'; Ingold 'Hunting and Gathering as ways to perceive the environment' (Both in Ingold 'The Perception of the Environment', Routledge: 2000)	We thank the reviewer for this relevant and insightful comment. It is, indeed, a challenge to write to policy-makers and communicate these diverse constructs in a way in which we do not separate humans from nature in a dualistic way. In the SOD, we attempted to address the problem of our biased Western perspective by recognizing alternative constructs, especially in the Worldviews, Languages and Values Typology subsections. The work of Tim Ingold is very relevant to help us use other languages and departing points to communicate these complex concepts. Also, the contribution provided by our CA Kyle Whyte (Values Typology subsection) has helped us in this direction.	
892	Glenn Delière - HoGent	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2		925		I think a crucial reference here should be: James, Simon P. (2016). Ecosystem Services and the Value of Places. Ethical Theory and Moral Practice 19(1): 101-113.	thank you for your comment. We decided to eliminate this entire section for the SOD	
893	Hilde Eggermont - NFP Belgium	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	general			Too many and too complicated key messages with complicated concepts which are interesting but not necessarily needed to understand the issues, even will confuse many. Please refrain to a smaller number of clear and policy relevant ones, reformulate these in plain language use this set to trim down, filter and reorganise the chapter.	The Key Messages were revised, prioritized, simplified, and their policy relevance was made more explicit in the SOD.	
894	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	general			I have four general remarks on the chapter: (i) I think the chosen perspective of the Lifeframes is interesting. I think this threefold perspective from-with-in is indeed one of the most interesting and applicable ideas in environmental philosophy. (ii) At the same time, I also think there are some major gaps in the literature, in particular, there is no single reference to the debate on value theory in philosophy (see next comment). (iii) I believe many parts and section can be significantly shortened – it might be important to think about which main messages one wants to convey and focus on these. (iv) In my view, many of the central conceptual distinctions are unclear (see comments below).	We have significantly condensed the writing and have now characterised each of the frames based on a systematic review.	
895	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	8	248	8	250	I am rather surprised by the lack of reference to philosophical work on values. There is a large debate of which not a single author is mentioned. See for instance, the entry 'value theory' on the Stanford Encyclopedia of Philosophy. This whole debate, on an issue where philosophers could be expected to have a relevant say, is almost completely ignored. Important philosophers such as T. Nagel, B. Williams, J. Raz, R. Chang, E. Anderson, etc. It is true that these are mostly not referred to in the debate on environmental values, but that might reflect problems with the debate on environmental values. There are reference to some philosophers such as Latour, Foucault, Whitehead, etc., while interesting, these certainly are not representative for the whole debate on value theory.	This is now better accounted for in references to the Stanford Encyclopedia and also a box that highlights philosophy's tradition on this topic beyond nature-environmental values.
896	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	8	248	8	253	That sounds like 3 steps	This was completely re-written to account for our 3 stage process. Plus, we included our strategy of 'case studies' that were incorporated in a methodological way to highlight certain issues.
897	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	11	300	11	300	I also think (see comment next section) that this section better would be shortened. I think the authors should just express and illustrate the main idea, namely that worldviews and languages shape the interaction.	Thanks for this suggestion. In the SOD, we completely revised each subsection, further reducing the word limits and making our text more concise and to the point.
898	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	14	383	14	394	This is of course just one model. To me, values and beliefs seem of a very different nature, and values are not just coming from beliefs	Thanks for this comment. We have re-written the text on worldviews, and the reference to Bohm's work and model is no longer part of the new text in the SOD.
899	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	16	452	16	452	I am not sure that the loss of languages makes humanity more vulnerable to change (e.g. less languages might allow for more coordination) - I think the problems with linguistic loss are of a different nature.	Thanks for this comment. In fact, there is evidence that the less vocabulary and the less concepts used for biodiversity and nature processes makes us "culturally poorer", in which instrumental, intrinsic and relational values are lost. Diversity creates opportunity for creativity and reflexivity to be expressed. We think that we did not explain these interconnections in enough depth and clarity in the FOD. We addressed this gap in the present SOD.

900	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	16	459	16	460	Does this claim imply that there cannot be high biodiversity in a monolingual region? That seems controversial to me. Moreover, this paragraph seems to assume that there is a consensus that the loss of languages is bad, but there are definitely several philosophers in the linguistic justice debate that would not agree with that claim (assuming that language loss is not the consequence of oppression)	Thanks for this comment. we did not imply that monolingual regions cannot have high diversity. It is the other way around: what has been found and demonstrated with enough evidence in the IPBES Global Assessment, is that places with high biodiversity were found to also exhibit high cultural diversity. There is a correlation between biological and linguistic diversity. This is well-established in the literature.
901	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	17	483	17	483	I was not convinced by the section. It is very hard to make a good summary of such an enormous topic. I think that for this report it is only important to reveal that notions have changed over time, and give a few examples. I would suggest to strongly reduce this section; if not, it will lead to controversies	Thank you for your comment. We agree. for the SOD we had entirely revised the section and eliminate most of it.
902	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	20	535	20	535	This table representing the idea of nature in Western thought feels a bit hubristic to me. There are some interesting ideas in it, but it seems extremely simplistic. Very striking, for instance, is that the whole Romantic movement is not mentioned, and there might be many other.	Thank you for your comment. For the SOD we had entirely revised the section and eliminate most of it.
903	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	19	525	19	525	This ecofemist table with examples of normative dualisms is nice and challenging, but is not necessarily representative of the modernisation process, there might have been more nuanced ways of thinking. Ecofeminism is just one view on this.	Thank you for your comment. For the SOD we had entirely revised the section and eliminate most of it.
904	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	23	598	23	600	This sentence in particular but also the broader section sounds frequently as a specific normative stance - I don't think this is what IPBES want	Many thanks for your comment and input. The text has been revised accordingly, with revision/removal of the normative content, and prioritization of main findings from the literature reviews conducted in Ch2.
905	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	24	635	24	635	more plural than what?	We have revised our language to clarify the comparison we are making.
906	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	26	680	26	691	The distinction between broad and specific values is unclear to me. I think this is conceptually rather vague. Also no definition of value as such. Perhaps some examples would help.	We have now clarified the distinctions between broad and specific values. "Broad values refer to life goals, general guiding principles and orientations towards the world that are informed by people's beliefs and worldviews (Dietz et al. 2015). Broad values go beyond particular contexts, although they originate in and arise from specific cultural settings, world views, languages, and geographies... Specific values are opinions or judgements of the importance of specific things in particular situations and contexts (e.g. the importance of water quality) or states of affair (e.g. the importance of enacting water quality regulations). They have also been referred to as assigned (Rokeach, 1973) or contextual values (Kenter et al. 2015), or simply 'importance' (IPBES, 2015)."
907	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	28	733	28	734	Broad values are defined as values? That sounds a bit as a tautology. Also still not really defined what the authors mean with values	We have modified our definition of broad values to "Broad values refer to life goals, general guiding principles and orientations towards the world that are informed by people's beliefs and worldviews (Dietz et al. 2015). Broad values go beyond particular contexts, although they originate in and arise from specific cultural settings, world views, languages, and geographies."
908	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	28	755	28	760	The notion of 'specific values' remains unclear to me. Are it applied values? Are it values only relevant in a specific context? ...	We have modified our definition of specific values to: "Specific values are opinions or judgements of the importance of specific things in particular situations and contexts (e.g. the importance of water quality) or states of affair (e.g. the importance of enacting water quality regulations). They have also been referred to as assigned (Rokeach, 1973) or contextual values (Kenter et al. 2015), or simply 'importance' (IPBES, 2015)."
909	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	29	771	29	771	Adding an example already in this section would be helpful	We have rewritten the values as indicators sub-section, providing specific examples of biophysical, socio-cultural and economic indicators
910	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	29	782	29	792	Are not all values shared? Do there exist non-shared values? I think this reveals conceptual ambiguity in the definition of values	The literature is making a distinction between individual and shared values. That has to be reflected in the text. In this sense there is an 'ambiguity' in the literature that the text reflects. At the same time, the SOD have as stronger focus both on the different perspectives and the processes of the formation of shared values.
911	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	29	788	29	792	If shared and social values mean the same, why not use just one notion?	Shared and social are different constructs. A social value can be formed through social discourse, but one group's social values may be in conflict with another group. Shared social values form when everyone in the room decide to express their values in a similar way.
912	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	30	795	31	797	Difference between shared and individual values unclear to me. (Do individual values refer to self-interest? Or values hold only by individuals? Or ...)	We have clarified the meaning the concepts shared and individual values

913	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	31		820	31	820	Better to refer to standard works in the literature, rather than an opinion in Nature	We have removed this reference.
914	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	32		841	32	841	Which are first and second thread?	We have removed references to these terms.
915	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	31		822	31	822	Notions of transformative and normative approaches are not explained	We have removed references to these terms.
916	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	33		858	33	869	(i) Seems to miss a central category, namely preference-based accounts (very different from hedonic accounts). (ii) Eudaimonic underdefined (often there is a list of clear distinctions from preference-based and hedonic accounts) (iii) unclear link with utilitarianism	We have added a new section in the SOD about preferences and will briefly address utilitarianism
917	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	33		879	33	880	Unclear whether this is true; linked to preference-satisfaction	agree. We are writing a new section on economics for the SOD
918	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	42		1058	42	1058	self-regarding' is unclear or at least not yet defined; preferences (other-regarding) can be about others as well, but the crucial thing is that you want/prefer it	Thank you for your comment. in the SOD we have added a new section about preferences and economics. As economic term, preferences is always brought back to individual utility, we think, even in the case of so-called altruistic preferences.
919	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	44		1105	44	1107	Relation between 'intrinsic values' and 'obligations of justice towards current and future generations' unclear. They do not seem to be the same.	Thanks for pointing that out, it is a helpful critique. This is a part that we are reworking for the SOD
920	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	44		1121	44	1123	Why is this definition chosen, what is the justification? Does it, according to the authors, represent the consensus in the debate?	Thank you for your comment. We have completed a systematic literature review and will rework definitions in the SOD accordingly
921	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	45		1151	45	1152	The following bullet points only address 'embedded', 'fundamental', and 'essential'. Constitutive and eudaimonic are not addressed here. In the text below, they are also not really defined (while they seem essential)	Thank you for the detailed comment. In the reworking of this section we will simplify the categories and make things clearer
922	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	50		1260	50	1264	Definition 'epistemic lenses' is difficult to understand	We have removed references to epistemic lenses
923	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	52		1279	52	1302	Not very clear. E.g. is MCA 'commensurated'? Moreover, logically, there should also be the option of incommensurability and/or non-comparability/compatibility. It might be better that the authors stay closer to the central reference texts, namely O'Neill and Martinez-Allier.	We have removed this section. For further details see Ch3.
924	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	54		1360	54	1360	It is unclear for the reader which these 5 tasks are (the different verbs in next paragraph)?	We have removed references to these 5 tasks.
925	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	57		1434	57	1446	The authors add a fourth category to the threefold distinction of Holland & O'Neill, but the distinction between 'in' and 'as' is not that clear. One straightforward way to look at from-with-in is linking it with the earlier made distinction instrumental-intrinsic-relational values, but by adding a fourth category this parallel does not work anymore. More in general, it might be useful to elaborate/clarify the link between these two parts of the chapter, for instance by using the idea of perspective on the next page.	The relation between relational values (and other justifications) and each of the Life frames has now been more explicitly discussed
926	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	59		1459	59	1469	I definitely agree with the authors that the framework of Holland-O'Neill-Light is an interesting perspective. I think their book is one of the best introductory/comprehensive works in environmental philosophy, and thus (already) deserves a classical status. There might be some tension with the other paper mentioned in the box, which is (just) one recent paper, unclear whether this has (or will have) a comparable status in the debate. (It is difficult not to see this as self-promotion of one of the co-authors - I think this risks undermining the credibility of an assessment such as IPBES).	A more rigorous justification has been made for adoption of the LF, including through review of organisational frameworks for environmental values and human-nature relations, and systematic review to ground each of the frames.
927	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	65		1622	65	1623	If one wants to keep the NCP framework, then one should perhaps use some time to explain that framework as well. The text is now a bit ambiguous, is the Life Framework an improvement, or just something else. If it is something else, NCP should be explained fully as well. If it is an improvement, one should perhaps not say that much about NCP (which many people will not know, contrary to ES)	The relation to NCP is now more clearly explained at the start of 2.2.5
928	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	68		1689	68	1690	unclear beginning of text box and sentence	This figure was modified into a 'structural' figure for section 2.3 to highlight the topics addressed and how they interrelate (2.3 combines FOD 2.6 and 2.7). The box was removed, because this typology was eliminated. We now use individual, group and socio-ecological processes rather than mixing that with the distinction of objects-subjects of value.

929	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	70	1735	70	1735	which schools of thought?	This sentence was modified.
930	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	70	1736	70	1754	It is not clear whether this is the best place in the tekst to discuss some economic value theories, since it is about value formation	This was modified.
931	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	72	1803	72	1803	add classical references?	Section is VERY short now, and not based on systematic review. Will change substantially when based on review; also need to think about the classical refs point....
932	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	72	1806	72	1806	There is also research that hints towards positive effects of markets, such as trusting strangers, see research of Bowles	This sentence was modified to incorporate both negative and positive effects (e.g., while increasing trust in strangers).
933	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	73	1832	73	1843	This is perhaps rather broad and vague; it would be interesting to refer to reviews of empirical studies. This is perhaps more theoretical than necessary.	We have revised this section to make it less theoretical and more practical. We have also increased citation of empirical studies.
934	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	73	1812	75	1902	I am not sure that value formation and change need so much attention in the text. Moreover, the causal link between environmental experiences and environmental values is more complex and ambiguous as the text suggest (see e.g. Does nature experience matter? Why not to care too much about the link between nature experience and valuing nature, in Biological Conservation)	Make sure complexity is clear. Scoping doc says we have to talk about change.
935	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	75	1903	76	1935	In this paragraph/section, understanding value and value formation are not clearly separated	We put forward in the introduction to this subsection that values formation-change are very similar processes, but refer to a difference is scale. We make this explicit and then use that understanding in each 'pathway' highlighting how the same process can be about formation and/or change.
936	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	76	1940	80	1989	These conclusion could make the relevance clearer of discussing value formation and change; at the moment it is less clear why it should be included in so extensively in the IPBES report, and how it can be incorporated in the models of the previous sections.	These 'conclusions' were brought to the beginning of the sub-section to highlight the take home message that readers should understand for the whole sub-section before presenting the details and evidence that constitute the 'data' for these findings. Plus, some specific details and treatment were moved to Supplemental Material.
937	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	85	2117	85	2117	Perhaps one should make clear what the relation is with the next chapter that will review valuation methods. Here, it is not clear why it should be discussed here as well.	Thanks for your comment. In this section (new version) we understand valuation procedures as institutions framing (via rules) what can (not) be included in such processes. We provide an analytical frame (i.e. figure on implicit and explicit value expressions (2.3.2.1) and dimensions in which valuation procedures affect valuation outcomes; 2.3.2.2.) and only some examples on how valuation procedures frame valuation outcomes. However, chapter 3 will provide systematic literature reviews showing the tendencies of how different valuation methods frame valuation outcomes. We hope in this new version the links between chap 2 and chap 3 and 4 are more clearer.
938	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	97	2373	97	2394	To me, it seems there is no real empirical consensus yet, about when crowding out occurs, see overview study Rode et al. And recent (2019) introductory article of Ezzine-de-Bas in special issue of Ecol Econ on crowding.	Thank you for this important comment. We agree there is no scientific consensus on crowding out. Due to considerable revisions of the SOD text, the section on crowding in and crowding out has been removed from the text.
939	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	99	2448	99	2448	One should be careful with the use of the notion 'value' here, namely whether it concerns motivations, behavior, short- or long-term attitudinal changes, etc.	This line has been deleted as there were considerable revisions to this section for the SOD.
940	Stijn Neuteleers - Open University	Belgium	HILDE EGGERMONT - Belgian National Focus Point - collated comments BELGIUM	No	Ch. 2	99	2460	99	2460	Many authors use the notion intrinsic motivation very differently (Frey vs. Deci&Ryan vs. Vatn vs. Bowles...)	Thank you for this comment. We have removed references to crowding in and crowding out in the revised structure of the SOD.
1059	Anne Atlan	France	Recherche CNRS, Laboratoire ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	2	24	2	31	The first key message could relate to a more general issue, as in the introduction, and state that the plurality of values lies between cultures, but also between societies, social groups and between individuals within the same culture, society or social group.	This is a good suggestion. We now clarify in our KM that values are diverse and can vary across individuals and groups. We have decided not to go into the details of cross-cultural analyses on values.
1060	Anne Atlan	France	ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	2	32	2	40	Divergences exist also within occidental cultures, as stated in the same chapter for example in box 2.3, or page 64, line 1957, or page 84, lines 2104 to 2108	Thanks for this comment. In the SOD, we focus more in the concept of worldviews that cultures, which is more complex, but also we explain how divergences on values may exist within and across cultures.
1061	Anne Atlan	France	Recherche CNRS, Laboratoire ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	3	55	3	59	Values also depend on situations	Different theories on values exist. Some imply that values transcend context whereas other theories discuss the situatedness of values. We have sought to clarify the situatedness of values by reference to 'contextual factors' influencing the relationships between values and behaviour in 2.3. We also present multiple case examples in 2.2 to show how values are place-based and can vary depending upon the situation. We have modified the KM to highlight that some theoretical perspectives acknowledge the situatedness of values.

1062	Anne Atlan	France	ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	4		4	117	it is a question of power but also of legitimacy	Thanks. We agree. KMs are completely rewritten		
1063	Anne Atlan	France	Recherche CNRS, Laboratoire ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	8			224	8	226	What about the differences arising from differences in social positions, within the same culture ?	We thank the reviewer for this relevant comment. We addressed this relevant comment in the SOD, by explaining that we should view culture in a more nuanced and relative way, connected to worldviews, and that people sharing the same culture can hold different values, even conflicting ones, whereas people from different cultures can sometimes agree on values. These nuances are now better explained and explored in the text, and where also evidenced in the ILK literature review conducted by Chapter 2 authors.
1064	Anne Atlan	France	ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	8			233			non-anthropocentric appears here for the first time. I you mean "intrinsic values", then use the word, if not, please explain the difference.	Thanks. Corrected.
1065	Anne Atlan	France	Recherche CNRS, Laboratoire ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	9			264			Expression in context also depends on legitimacy (both of the value and of the individual/group expressing the value	In section 2.1, we now incorporated the concept of power and justice. These at least partially address the concerns of the reviewer, and they are retaken in both sections 2.2 (e.g., the power dynamics that affect recognitional justice of different cultures or worldviews) and 2.3 (e.g., power dynamics that affect which values get expressed by institutions), but set up deeper reflections in Chapters 4 and 5.
1066	Anne Atlan	France	ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	10		10	284	285		I would add "ecocentric", which is different from the others. In particular, ecocentric and biocentric values can conflict when considering animal vs environment protection	We thank the reviewer for this comment. We are including Ecocentric in the SOD, illustrating with examples such as the one you suggest.
1067	Anne Atlan	France	Recherche CNRS, Laboratoire ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	12			317	12	337	This example shows non occidental values of nature, but also a very asymmetric (dominance) of relationships between males and females (the bride has to leave her deities to adopt those of her husband). I thus don't find it very judicious	This example was eliminated from the present SOD.
1068	Anne Atlan	France	ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	14		14	377		382	Is the first song Bon and the second one Buddhist ? Could be clarified why.	Thank you for this comment. This story has been removed in the revised version of the SOD.
1069	Anne Atlan	France	Recherche CNRS, Laboratoire ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	14			406	14	408	Is this also the case for the Berberians	Thanks for this comment. These color examples are not part of the current SOD, as we decided (also based on reviewers' comments and feedback from the MEP to focus on examples and concepts directly connected to values of nature and biodiversity. Thus, this comment is no longer applicable to our text.
1070	Anne Atlan	France	Recherche CNRS, Laboratoire ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	18		19	522			This table considers separation between nature and humanities linked to the separation between male and female. But see remark on page 12, line 377. ("Is the first song Bon and the second one Buddhist ? Could be clarified why.")	Thank you for your comment. For the SOD we had entirely revised the section and eliminate most of it.
1071	Anne Atlan	France	ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	19		19	526		534	What about Evolution ? (also in box 2.1)	Thank you for your comment. For the SOD we had entirely revised the section and eliminate most of it.
1072	Anne Atlan	France	ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	21			538			Didi this occur at the same time in all Western countries ? Could you provide approximate dates ?	Thank you for your comment. For the SOD we had entirely revised the section and eliminate most of it.
1073	Anne Atlan	France	ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	22		22	583		586	Biocentric and ecocentric are different. The second one is more conceptual and focus on populations and species.	Thanks for your comment. It was taken into consideration in the subsection 2.2.1 of the revised SOD.
1074	Anne Atlan	France	ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	23			603	23	617	I do not find that this figure enlightens the point.	Thanks for this comment. We need to improve the figure and the messages it can transmit. We are addressing this issue in the SOD.
1075	Anne Atlan	France	ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	24		24	619		634	Do not forget absence of justice between different social and socio-economic groups within the same society	This is a crucial point, and we have made sure to address it in our revisions; we have noted conflicts that can occur within a society.
1076	Anne Atlan	France	Recherche CNRS, Laboratoire ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	26			676			And sociology	We thank the reviewer for this comment. We now present multiple frameworks to organize values with respect to human-nature relationships, including the important work of Kellert and human-nature typologies for sociology.
1077	Anne Atlan	France	Recherche CNRS, Laboratoire ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	29		29	788		792	I do not think that values formed through a social process are always shared. There may be very different values between social groups within a given society, or individuals within a given social group. See good examples later in this chapter (box 2.1), or in Fisher and Young 2007, or in our own work on subantarctic islands (Atlan and Van Tilbeurgh, Vertigo, 2019).	True, we now clarify that there is potential for shared, plural and conflict values in section 2.3.
1078	Anne Atlan	France	ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	30	table 2.2					Existence and bequest values are different, the first one is never instrumental, the second one can be but not always.	Agreed. We have clarified the distinctions between existence and bequest values by drawing on the TEV
1079	Anne Atlan	France	Recherche CNRS, Laboratoire ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	32		32	837		852	reconciling plurality in the formation of (not always shared) social values implies also to recognise that scientific knowledge is not the more legitimate one. A paragraph on the place of scientific values and knowledge would be welcome.	We have now unpacked the importance of consider the associations between values, knowledge and languages in section 2.2.2.

1080	Anne Atlan	France	ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	34	Figure 2.8			Hapiness in the provisionning context is not always individual. It can also be collectif (social groups, friens, relatives...)	We have removed this figure from the Chapter
1081	Anne Atlan	France	ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	34	Figure 2.8			Resilience and adaptation are is also mitigation strategies	Agreed. We have removed these terms from the Chapter.
1082	Anne Atlan	France	ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	38	Figure 2.10			I do not understand this figure	We have removed this figure from the Chapter
1083	Anne Atlan	France	ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	42	1046	42	1050	It seems interesting, but it's not clear. Maybe rephrase with two or three different sentences ?	thank you for your comment. We will rewrite this passage
1084	Anne Atlan	France	ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	44	1109	44	1111	Could you precise what you call nature, biodiversity, and nonhuman beings, the difference between them and one limt your analyses to the last ones ?	thank you for your comment. This is a point that we have been discussing across chapters and will address when reworking the document
1085	Anne Atlan	France	ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	44	1121	44	1123	I do not believe there is such thing as a value without humans as valuers. I think I i understand the idea 5better express in the next sentence? but it could be rephrased.	thank you for your comment. We agree. The sentence stresses that the reference to humans as valuers is left out, not that there are no human valuers. But we will revise all definitions in the SOD
1086	Anne Atlan	France	ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	47	figure 2.13			Items of the top box (especially the last one) is far toot long. It should be more synthetic, otherwise, the figure does not add anything copared to the text.	Agreed. We have removed this figure from the Chapter.
1087	Anne Atlan	France	Recherche CNRS, Laboratoire ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	49	1228			social values are not always shared (see previous comments on line 788) "I do not think that values formed through a social process are always shared. There may be very different values between social groups within a given society, or individuals within a given social group. See good examples later in this chapter (box 2.1), or in Fisher and Young 2007, or in our own work on subantarctic islands (atlan and vanTilbeurgh, Vertigo, 2019)."	We agree with this comment. We acknowledge the potential for shared, plural and conflicting values.
1088	Anne Atlan	France	ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	53	Figure 2.16			In the middle,it seems to me that "combination" is not the only possible outcome. Such situation can generate "compromise", "negociations", or even "conflict"	We have removed this figure from the Chapter
1089	Anne Atlan	France	ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	56	1408			I still have a problem with the notion of shared social values (see previous comments on line 788).	See response to line 788
1090	Anne Atlan	France	ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	57	1439			What do you mean by "more-than-humans" ? It should be defined. I would prefer a word such as "immaterial entities" or "transcendental entities", that does not imply a hiearchy.	the term 'more-than-human' is used in the field of 'more than human participation' within human geography. We don't use this term now, except when referring explicitly to this field.
1091	Anne Atlan	France	ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	61	1554	61	1559	Do you mean that hunting and fishing are radically diffrent from farming ? Could you develop why ?	Paragraph has been rewritten
1092	Anne Atlan	France	ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	62	Table 2.3			Difference between italic and non-italic examples not clear	Formatting has been adjusted
1093	Anne Atlan	France	ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	69	1714			I am not sure hat universal and broad values are the same	Indeed, we point out they are 'akin' to broad values, but not synonymous.
1094	Anne Atlan	France	Recherche CNRS, Laboratoire ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	69	1718			Also see the work of Nathalie Heinrich (in French), Heinrich, N., 2006, La sociologie à l'épreuve des valeurs, DOI : 10.3917/cis.121.0287, Heinrich, N., 2017, Des valeurs, Une approche sociologique, Bibliothèque des Sciences Humaines, Gallimard, Paris, 405 p.	There is plenty of work on group formation of values -- just need a better review here in general.
1095	Anne Atlan	France	Recherche CNRS, Laboratoire ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	75-76	1913-1922			This, sometimes called "ecological values" is not on the same level than the values of nature effered in the text. The question is just moved: do the "natural components and processes" mentioned have a utilitarian, relational or intrinsic value?	Hopefully why this is included will become clear in the SOD.
1096	Anne Atlan	France	ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	76	1936-39			Indeed, what is a "good" ecosystem depends on social valuation. What about invasive species, "novel ecosystems", urban ecosystems and so on ?	I'm not sure why this comment is here and obviously we know this. Just need to consider while revising ecological values section, make sure this comes out.
1097	Anne Atlan	France	ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	77	Table 2.4.			This table is not synthetic enough. An effort should be made to be concise so that the table is not just a repetition of the text.	I agree -- table not streamlined enough. Will revise.
1098	Anne Atlan	France	Recherche CNRS, Laboratoire ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	79-80	1983-1989			Yes, but traditional knowledges and inter-generational changes are not the only ones concerned. There may also be large differences of values between components of a given society (users, farmers, urbans, scientists, praticians, social classes, elite vs non elite etc...). The notion of environmental inequality can arise within a given coutry ad societ, and be crossed with other inequality (transactionality). Also see lines 2104-2106 of the same chapter and links with Chapter 5.	Good point. Idea of value conflicts and value manipulation is relevant in all sectors, not just IPLC/ILK.

1099	Anne Atlan	France	Recherche CNRS, Laboratoire ESO - Espaces et Sociétés, Université Rennes, Campus de Villejean	No	Ch. 2	100	273-274			I would nuance this proposal. Acknowledging the plurality of values implies that a consensus is not always to be sought for (unless artificially imposed), but it does not prevent to optimize the decision making process. This process should be accompanied by the search for compromises that respect all parties, through negotiation.	There was an assessment-wide process to agree on how to discuss plural values and plural valuation, not as 'the right way' but rather when and how they should be used. Precisely as enunciated by the reviewer, we have tried to see how and where they can be optimized in the decision-making process, but also recognizing their limitations or when singular-value approaches are sufficient or appropriate.
1136	Mollie Chapman	Switzerland	University of Zurich	No	Ch. 2	33	861	33	869	I see how all these approaches fit into the same 'box' but I'd be wary of calling them all eudamonic approaches for fear that the idea of eudamonia will get diluted. Perhaps call them 'multidimensional' approaches or human flourishing approaches. This seems to be a narrow understanding of eudamonia. Eudamonia (at least one origin) comes from a Aristototelean virtue ethics, where the idea is eudamonia is not something you get but something you achieve. With eudamonia the goal is not wellbeing but to be a good person, to live a life that is normatively good.	thank you for your helpful comment. we agree on the point about eudaemonic, although often this is the overarching term used in the literature, which is not necessary deep into philosophy. In reworking this section we will consider the comment.
1137	Mollie Chapman	Switzerland	University of Zurich	No	Ch. 2	33	883	33	886	I would be careful equating values and motivation. A key contribution of this report should be to help disentangle many of these often conflated concepts. Perhaps instead of 'correspond' you could say 'are associated with' to indicate that intrinsic motivations and relational values 'go together' but are not the same thing	Thank you for your suggestion. We will consider it when reworking this section
1138	Mollie Chapman	Switzerland	University of Zurich	No	Ch. 2	35	929	35	936	Another great example is the Western Apache, whose landscape is inscribed with detailed place names each associated with a story (described by Basso in Wisdom Sits in Places). At one point Basso describes a rich conversation consisting entirely of place names.	thank you for your comment. We decided to eliminate this entire section for the SOD
1139	Mollie Chapman	Switzerland	University of Zurich	No	Ch. 2	38	976	38	976	A corollary would be fugitive values where values are excluded from "science-based decision making" and so manifest in fugitive form via technical debates. see: Satterfield, T., & Levin, J. (2007). From Cold War Complex to Nature Preserve: Diagnosing the Breakdown of a Multi-Stakeholder Decision Process and Its Consequences for Rocky Flats. In B. R. Johnson (Ed.), Half-Lives & Half-Truths: Confronting the Radioactive Legacies of the Cold War. Santa Fe, New Mexico: School for Advanced Research Press.	Thank you for your suggestion. This section will be entirely changed in the SOD, but the reference can be useful in general.
1140	Mollie Chapman	Switzerland	University of Zurich	No	Ch. 2	49	1217	49	1217	How can intrinsic values be expressed by monetary indicators? As shown in the figure...	thank you for the comment. We will take out this figure from the SOD and replace it with an entire section on indicators
1141	Mollie Chapman	Switzerland	University of Zurich	No	Ch. 2	36	957	36	957	This Box 2.2 and discussion thereof is a really great example for showing how worldviews shape how we see the world!	thank you very much. Unfortunately we decided to eliminate this section from the SOD
1152	Meredith Root-Bernstein	Chile	France; INRA AgroParisTech, Paris, France; Institute of Ecology and Biodiversity, Santiago, Chile; Center for Applied Ecology and Sustainability	No	Ch. 2	15	418	15	420	Thinking and language are very very separable. Many people think in images, feelings, sounds, etc., long before converting those into words. For a large number of examples of non-linguistic, pre-linguistic thinking, see for example the book Sparks of Genius by Root-Bernstein & Root-Bernstein. Also, the Sapir-Whorf hypothesis is much more controversial and you seem to think.	Many thanks for this relevant comment. This was noted and the text was revised to convey this correction and important feedback.
1153	Meredith Root-Bernstein	Chile	Musée de l'Homme, Paris, France; INRA AgroParisTech, Paris, France; Institute of Ecology and Biodiversity, Santiago, Chile; Center for Applied Ecology and Sustainability	No	Ch. 2	15	420	15	422	I am pretty sure that Foucault never said that different words are what embody different interactions. This is way too reductionist-- he was interested in concepts, but a concept is much more than one or more words. A concept is a relationship, or a representation. A word can represent a concept, but a building, or a dance, or a way of managing a forest can also represent a concept. Bourdieu, for example, showed how all kinds of interactions in a given culture are formed by, or take the form of, certain core analogies or concepts-- not by particular words.	Many thanks for your comment and input. The text has been revised accordingly, with prioritization of main findings from the literature reviews conducted in Ch2, as well as inputs from language experts and linguistics who were invited as Contributing Authors for the subsection on Languages, values and biodiversity.

1154	Meredith Root-Bernstein	Chile	Musée de l'Homme, Paris, France; INRA AgroParisTech, Paris, France; Institute of Ecology and Biodiversity, Santiago, Chile; Center for Applied Ecology and Sustainability	No	Ch. 2	15	427	15	429	I sincerely think that this whole paragraph reads as very naive and unhelpful. Language differences are interesting, and I agree that a different way of formulating a grammatical sentence using a verb vs. A noun is fascinating. However, there is no explanation here as to what difference language makes to environmental values. We also have a verb in English, to stream, meaning for a liquid to move in a stream-like form. We can also say "to be a stream". Is it really the case that we have radically different world views "because of" language? If language had this role, wouldn't translation be impossible? Maybe you can go deeper and give some specific examples of sentences that show how we have to understand a stream in a completely different way to speak about it in Potawatomi? Because otherwise this is just a charming anecdote, adding picturesque elements to the text. Also the assumption that the reader assumes that one kind of grammar is functionally or morally superior to the other strikes me as very unsophisticated. If you really feel that readers will jump to that ignorant conclusion, perhaps you can find a different way to refute it that would also be interesting to more informed and less prejudiced readers, like by demonstrating that both languages can represent the same situations and thus are both equally competent at communication.	Many thanks for your comment and input. This subsection has been interly revised and this comparison is no longer presented in the SOD text.
1155	Meredith Root-Bernstein	Chile	Musée de l'Homme, Paris, France; INRA AgroParisTech, Paris, France; Institute of Ecology and Biodiversity, Santiago, Chile; Center for Applied Ecology and Sustainability	No	Ch. 2	22	558	22	558	"Principles of reciprocal responsibilities guide actions more than 'values' .." What on earth does that mean? Why does a principle of reciprocity not constitute a value, like a broad guiding value, in your schema? Surely at least principles specify specific normative values, or value relations? What is a value, for god's sake? If this were an undergraduate term paper I would give it a very poor mark. This entire section is of very uneven quality and full of random unsubstantiated claims like this one. The whole section just seems like a totally random set of things that someone found after a rapid google search, with no structure or depth. Unfortunately I cannot tell you all the citations that you should put in this section, since that would depend on having some idea of your goal or focus here, which I cannot understand.	thank you for your comment. This was the first order draft and the result of a first analysis of the literature. Like the first draft of a final paper, if you wish. We will rework all of it for subsequent drafts.
1156	Meredith Root-Bernstein	Chile	France; INRA AgroParisTech, Paris, France; Institute of Ecology and Biodiversity, Santiago, Chile; Center for Applied Ecology and Sustainability	No	Ch. 2	26	678	26	678	I'm sorry but how can a value indicator be a kind of value? This is like saying than a sign that says "way out" is a kind of door. I don't exactly know what you are trying to say here--are you talking about money?--but please try to find a way to say it that makes sense logically.	Yes, this was a mistake. We now refer to value indicators and preferences as different ways of assessing the diverse values of nature.
1157	Meredith Root-Bernstein	Chile	France; INRA AgroParisTech, Paris, France; Institute of Ecology and Biodiversity, Santiago, Chile; Center for Applied Ecology and Sustainability	No	Ch. 2	26	681	26	681	What are "objects of values"? Do you mean "objects of value", like expensive golden statues? Do you mean things that we evaluate, like this is a "beautiful statue"? Do you mean anything that may be the object of an evaluation, like "that was a useful experience"? Or anything that is widely perceived as good, like good luck, being the object of respect and esteem, having friends, etc. ?	We have since deleted references to "objects of value"
1158	Meredith Root-Bernstein	Chile	Musée de l'Homme, Paris, France; INRA AgroParisTech, Paris, France; Institute of Ecology and Biodiversity, Santiago, Chile; Center for Applied Ecology and Sustainability	No	Ch. 2	26	687	26	688	I am not sure that money is a measure of value, rather than a value. I am also not sure that you are making this claim, or merely reporting that some people make this claim-- please clarify. You are, I think, quite possibly, confusing values that are quantitative on an interval scale, with (1) quantitative values that are only rankable, and (2) qualitative measures. The idea that money is a metric of other values (rather than, say, dollars being a metric of monetary value) is very very problematic. For example, how much does your Grandmother cost? I know that some economists argue that this question and questions like it have legitimate monetary answers. But others don't. This is actually explained later in the chapter in the section on economics, so please have a look at that.	We have removed references to money as a value. Rather, we note: "The basis for the commensurability is the overall 'utility' derived from ecosystem services for an individual, measured through a common unit of account, which is mostly money. The assumption is that, given a limited budget, people would allocate their money according to their preferences, thus revealing how they rank values through their behaviour. "

1159	Meredith Root-Bernstein	Chile	Musée de l'Homme, Paris, France; INRA AgroParisTech, Paris, France; Institute of Ecology and Biodiversity, Santiago, Chile; Center for Applied Ecology and Sustainability	No	Ch. 2	27	709	27	710	A principle is not the same as a moral, so I don't see the problem here. A principle is a concept suggesting how things ought to be in the ideal or best case. Like, the principle of fairness, or the principle of equality. Morality is statements about how people should act to qualify as a good person according to some standards of what a good person is. "That's immoral" means you have done something that makes you a bad person. "That's unprincipled" means you have done something that doesn't follow a rule or concept like fairness or equality. You can do something unprincipled that is not immoral. For example, you could allow a woman with a baby to advance in line in front of people who were waiting longer, so that she is served first, even though this violates the principles of fairness and equality. That doesn't make it an immoral act: arguably you are a good person because you were motivated by care and empathy, which are qualities of good people. There are other possible distinctions between principles and morals (see, for example, an encyclopedia of philosophy) but I believe all of them would make a distinction of some kind.	We have not elected to delve into complex discussions about the differences between principles and morals in Ch2.
1160	Meredith Root-Bernstein	Chile	Musée de l'Homme, Paris, France; INRA AgroParisTech, Paris, France; Institute of Ecology and Biodiversity, Santiago, Chile; Center for Applied Ecology and Sustainability	No	Ch. 2	28	761	29	767	I am confused about how intrinsic, instrumental and relational values are specific rather than broad. Isn't the idea that nature has the right to exist a principle? Which would then inspire and guide a number of specific actions understood as valuable? So it should be broad. From previous text, I thought that specific values were going to be things like "this tree is pretty" "this forest is worth \$500000" "it is good to protect pangolins". You also seem confused since in line 266 you say that relational values are broad values.	We have clarified as follows: "However, recent interests in relationality have connected broad and specific values and place through key sets of values such as care, stewardship and responsibility (Schröter et al. 2020; Jax et al. 2018), and web of life and kinship responsibilities and gratitude to nonhumans (de la Cadena, 2015; Knudtson & Suzuki, 2006). This is supported by a comprehensive literature review on types of environmental values." We also recognise that intrinsic and instrumental values can have associations with broad values (see Table with Salient Definitions & relevant associations )
1161	Meredith Root-Bernstein	Chile	Musée de l'Homme, Paris, France; INRA AgroParisTech, Paris, France; Institute of Ecology and Biodiversity, Santiago, Chile; Center for Applied Ecology and Sustainability	No	Ch. 2			30	794	All of these entries are ambiguous and disputable. Here is just one example: why is an obligation to protect a species an intrinsic value and not a relational value? Surely your obligation to protect it could arise from (1) the fact that it is your ancestor or cousin etc. (2) a personal relationship you formed with one or more members of that species. Also this raises the question of why we need to make this distinction: what do we gain by sorting values this way? Also, here you refer to instrumental, relational and intrinsic as "justifications" for values, not as values. What is the difference? A justification sounds a lot like a principle...	We thank the reviewer for this comment. We no longer go into deep semantic discussions about the various sub-types of relational and intrinsic value. We conduct an assessment on the diverse values of nature and map the different conceptualisations in relation to instrumental, intrinsic, relational and fundamental ecological values.
1162	Meredith Root-Bernstein	Chile	Musée de l'Homme, Paris, France; INRA AgroParisTech, Paris, France; Institute of Ecology and Biodiversity, Santiago, Chile; Center for Applied Ecology and Sustainability	No	Ch. 2	35	922	35	927	appear to be claiming that values are something discrete that take on their full or true expression as either words or choices/ preferences. Why do you claim that values as expressed in actions (embodiment) are somehow vague, or that writing a petition is not a physical act/ action/ behaviour? What point are you trying to make with this distinction? If the point you are trying to make is that values do actually exist outside questionnaire formats and market transactions, this seems like a poorly-structured and vague way of making that point. You might instead address methods for discerning values across forms of expression. I also think that your discussion and examples in Figure 2.9 of embodied values are excessively mysterious and strange and make it seem outside the realm of analysis ("bodily interpenetration with essential oils"? Are you trying to make this sound as exotic and bizarre as possible? Why not just "walking to the corner grocery rather than driving to the supermarket"? I really don't get what you think the critical gradient of difference is between a culturally-informed feeling that you are one with nature and saying "I am one with nature". You seem to be trying, but failing, to make a distinction between how values inform actions, habits, behavioural orientations and tendencies, or what Bourdieu called "hexis", and verbal-logical accounts of values. Yes hexis is embodied, because action is corporeal, your actions are expressed in how you use your body and behave, but you are getting all confused when you equate that with empathy and bodily interpenetration and being-other. Those are also interesting, but really going off in another direction. By mashing together these ideas you simply make it very unclear what you are talking about or trying to say. Question 1: how is a choice or preference (which is an act or action) not a form of embodied value? In what way does your	thank you for your comment. We decided to eliminate this entire section for the SOD

1163	Meredith Root-Bernstein	Chile	Musée de l'Homme, Paris, France; INRA AgroParisTech, Paris, France; Institute of Ecology and Biodiversity, Santiago, Chile; Center for Applied Ecology and Sustainability	No	Ch. 2	38	963	38	977	This paragraph is substantially clearer than the previous paragraphs and suggests that I was about right in my guess in my Question 4 above. However, it needs to be made much more explicit that this is a functional distinction that has to do with what the IPBES or standardized decision making procedures need as inputs, it is not some kind of fundamental or meaningful differentiation between different forms of kinds of values. I think it is relevant here to relate this to your prior confusion as to whether a measure of value is kind of value in and of itself. A measure of value cannot logically be a kind of value. This point here is an example of discussing different measures or expressions of value (=articulations of values), which are not actually different values. This is what I was trying to get at when I asked why you think that feeling at one with nature is different from saying "I am at one with nature." I would argue that your bodily hexis, to use Bourdieux's term, and your verbal-logical statement are both different forms of expression, articulation, or 'measure' of the same value about nature.	Thank you for your comment. We decided to eliminate this entire section for the SOD
1164	Meredith Root-Bernstein	Chile	Musée de l'Homme, Paris, France; INRA AgroParisTech, Paris, France; Institute of Ecology and Biodiversity, Santiago, Chile; Center for Applied Ecology and Sustainability	No	Ch. 2			38	979	I don't understand figure 2.10. There is a whole realm of highly complex systems where single-measure valuation systems are very robust?? (left of figure). This requires explanation. Also, I don't understand how "importance of human-nature relationships" is an example of value plurality. Are you saying that when such relationships are more important to people—what? those people develop more values? that when they have more different kinds of values, nature relationships become more valuable? Are you just trying to say that human-nature relationships can either be reduced to money, or they can be understood as plural? Underlying this unclear formulation I am worried about an exoticising assumption that people who use money cannot also understand plural values underlying relations with nature, and vice versa. Now, we might argue that money incentives distort those relations, and so on, but even in neoliberal economies there are values other than money that motivate people. I also think that you are stuffing too much into this section with your vague articulation of the relations between embodiment, articulation, value plurality, complexity and decision making. I think you need to go much more slowly, put your ideas in order, and not rush to put all the cool ideas together in one sentence like you seem to be doing frankly.	We thank the reviewer for this comment. We have re-written the values typology sub-section and now 'walk the reader' through the complexity, starting with basic definitions of broad and specific values, and then adding different types of broad and specific values, and providing examples of how they can be elicited using preferences and indicators. We have removed the figure implying that economics does not consider plural values.
1165	Meredith Root-Bernstein	Chile	Musée de l'Homme, Paris, France; INRA AgroParisTech, Paris, France; Institute of Ecology and Biodiversity, Santiago, Chile; Center for Applied Ecology and Sustainability	No	Ch. 2	45	1134	45	1131	Only some people in the world are motivated by intrinsic values of nature? Why say "some people" rather than "some decisions?" Are you sure that those people are always informed by intrinsic values, or that there is a whole set of people who never are? The way you state this makes it sound like an exotic characteristic of some peoples living off in the wild somewhere whom we need to be informed about as though it were a nature documentary. I also fail to understand the throw-away comment that these values cannot be replaced. Is the IPBES in the business of replacing people's values? Are you actually talking about finding ways to articulate or measure these values for standardized decision-making processes? At this point you seem to have a secret agenda for why you are talking about certain things, and it would be better to explain that agenda clearly from the beginning.	thank you for your comment. We have completed a systematic literature review and will rework the SOD accordingly and be more precise.
1166	Meredith Root-Bernstein	Chile	France; INRA AgroParisTech, Paris, France; Institute of Ecology and Biodiversity, Santiago, Chile; Center for Applied Ecology and Sustainability	No	Ch. 2	45	1148	45	1147	I don't understand why this description of intrinsic and relational values (but not instrumental values, for some reason) has been merged with a discussion of substitutability. I don't know what is meant by substitutability here. I presume this is about environmental compensation? That seems like a very different topic that should be addressed separately.	thank you for your comment. The key point is that a means to an end is in principle replaceable by another means to reach the same end. This is how substitutability is used here. It does not mean compensation necessarily, but it includes it. We will try to make this clearer in the SOD
1167	Meredith Root-Bernstein	Chile	Musée de l'Homme, Paris, France; INRA AgroParisTech, Paris, France; Institute of Ecology and Biodiversity, Santiago, Chile; Center for Applied Ecology and Sustainability	No	Ch. 2	45	1135	46	1185	So, just to be clear, environmental relationships are not valuable either due to their inherent or intrinsic existence qualities (e.g. Existence of love), nor due to their instrumental utility (e.g. Plants provide oxygen)...but rather... I don't get it. Please clarify.	Thank you for your comment. The literature, which we have collected after a large and systematic search, presents different definitions of intrinsic values - depending on the definition, relational values as category might or not overlap with some of them. In this case, relationships are values for their intrinsic qualities - but this is not the general way in which the term 'intrinsic value' is used in the literature. In the reworked SOD we will present a synthesis of the literature and try to offer some systematization

1168	Meredith Root-Bernstein	Chile	Musée de l'Homme, Paris, France; INRA AgroParisTech, Paris, France; Institute of Ecology and Biodiversity, Santiago, Chile; Center for Applied Ecology and Sustainability	No	Ch. 2		47	1187	Figure 2.3 I don't get the difference between "fundamental" and "constitutive", and I don't see how they are equivalent to money. I don't understand what they are—are they the values? Are they the justifications of the values? Are they the articulations/ measures of the justifications of values? I also don't understand why inherent values are left off this Figure. How would it fit into the gradient? OK it would help if you would signpost that this will be treated in the following Figure. I never know where the argument is going in this document, it needs far more structure and signposting.	We have removed references to constitutive relational values and rather refer to environmental value types that constitute who people and communities of human and nonhuman beings are) and eudaimonic relational values (a good life in harmony with nature-as-self, a self-realised life) We refer to fundamental values in terms of those values associated with ecological processes and that sustain all other values.	
1169	Meredith Root-Bernstein	Chile	France; INRA AgroParisTech, Paris, France; Institute of Ecology and Biodiversity, Santiago, Chile; Center for Applied Ecology and Sustainability	No	Ch. 2		48	1212	This section should be at the top, not last.	We have sought to clarify why values matter for environmental policy in section 2.1 and in the KMs. Also, we return to this topic in section 2.4.	
1170	Meredith Root-Bernstein	Chile	Musée de l'Homme, Paris, France; INRA AgroParisTech, Paris, France; Institute of Ecology and Biodiversity, Santiago, Chile; Center for Applied Ecology and Sustainability	No	Ch. 2	49	216	49	1218	Figure. I do not recall that you made an argument that instrumental values are substitutable. Whether in theory or in reality I do not see why this should be the case. I presume we are talking about environmental compensation. A priori I can think of a number of different things you might mean here. If I say "I like the forest because it gets me in a good mood", its an instrumental value because I use the forest to manage my mood. What is substitutable about this? That I could also have an instrumental value about something else? "I like hamburgers because they get me in a good mood"—I do not think it is that clear that one could thus compensate loss of forest with more hamburgers. There are plenty of theories that might suggest that no amount of hamburgers can be equivalent to a forest even if they are both mood lifters. Or are you saying that the value is substitutable in the sense like "Because the forest gets me in a good mood, it also is something I would defend in a council meeting." I.e it has other valued qualities or leads to other actions? Or do you mean substitutable like "I like water skiing because it is exciting. So if you cut down the forest, I will still have a good quality of life as long as I can go water skiing." I do not see how the fact that the value is instrumental has anything to do with this. You could make the same argument for intrinsic values or relational values. "If my mother dies I will buy a cat" or whatever. I don't even understand why this is in this part of the document, it needs a dedicated section explaining the issue.	We have clarified the issues concerning the substitutability vs. non-substitutability of different value types in section 2.2.3.1.3.2.
1171	Meredith Root-Bernstein	Chile	France; INRA AgroParisTech, Paris, France; Institute of Ecology and Biodiversity, Santiago, Chile; Center for Applied Ecology and Sustainability	No	Ch. 2		50	1219	I would strongly suggest moving this entire section to the introduction of section 2.3 or perhaps the chapter. The document's argument and structure is very hard to follow and requires much more signposting.	We have sought to clarify why values matter for environmental policy in section 2.1 and in the KMs. Also, we return to this topic in section 2.4.	
1172	Meredith Root-Bernstein	Chile	France; INRA AgroParisTech, Paris, France; Institute of Ecology and Biodiversity, Santiago, Chile; Center for Applied Ecology and Sustainability	No	Ch. 2	54	1363	55	1369	This is very clear thank you. This can be an example for how to write the earlier parts of the document.	Thank you.
1173	Meredith Root-Bernstein	Chile	Musée de l'Homme, Paris, France; INRA AgroParisTech, Paris, France; Institute of Ecology and Biodiversity, Santiago, Chile; Center for Applied Ecology and Sustainability	No	Ch. 2	56	1392			I don't understand why this section comes in this position. It is your big new thing, its the key you propose to pluralistic environmental valuation, shouldn't it be close to the beginning of the document, not hidden in the middle? You don't even hint that it is coming. I had no sense that you were laying the theoretical groundwork to understand this new framework. The document needs much more signposting and a better structure.	We have now signposted this Life Framework by introducing it briefly in Section 2.1, and then providing a clearer justification of its importance in section 2.2. i.e., we reviewed existing organising frameworks on human-nature relationships and found no frameworks that could holistically organise different types of broad and specific values and NCP.
1174	Meredith Root-Bernstein	Chile	France; INRA AgroParisTech, Paris, France; Institute of Ecology and Biodiversity, Santiago, Chile; Center for Applied Ecology and Sustainability	No	Ch. 2	67	1655			This section seems like it should come much earlier, when values are defined (although they aren't really). Otherwise, it seems like it should integrate this discussion of value origin and change with the new framework proposed in the previous section.	We have restructured by first defining the diverse values of nature and then clarifying how they can be organised using Life Frames of Nature's Values. From there we present different theories and concepts for assessing value formation and change.
1175	Meredith Root-Bernstein	Chile	France; INRA AgroParisTech, Paris, France; Institute of Ecology and Biodiversity, Santiago, Chile; Center for Applied Ecology and Sustainability	No	Ch. 2	81	1996	81	2009	This seems both redundant to, but infinitely clearer than, much of the material in preceding sections, e.g. Everything about measures, articulation, substitutability, and so on.	The section is cut/reformulated in the revised version of the text

1176	Meredith Root-Bernstein	Chile	France; INRA AgroParisTech, Paris, France; Institute of Ecology and Biodiversity, Santiago, Chile; Center for Applied Ecology and Sustainability	No	Ch. 2			86	2152	Why is this Box here rather than integrated into earlier parts of the document where it would be relevant, e.g. In the discussion of articulation? Its seems to be a fundamental issue.	Thanks for the suggestion. We have placed an edited version of the text that was previously in the box in the main text. See section 2.3.2.1.
1177	Meredith Root-Bernstein	Chile	France; INRA AgroParisTech, Paris, France; Institute of Ecology and Biodiversity, Santiago, Chile; Center for Applied Ecology and Sustainability	No	Ch. 2				90	Box. I also feel that this box material is pretty critical and belongs in a more integrated position in the text.	The text is now integrated in an extended section on human behavior
1178	Meredith Root-Bernstein	Chile	Musée de l'Homme, Paris, France; INRA AgroParisTech, Paris, France; Institute of Ecology and Biodiversity, Santiago, Chile; Center for Applied Ecology and Sustainability	No	Ch. 2	93		93	2273	I'm not convinced from this description that an Inuit talking circle is a form of valuation procedure. It sounds like a social mechanism in which people decide what to do about a situation. I do not see that the situation or outcome is assigned value through the collective action... the situation does seem to be given meaning, and to be repaired or treated in a way in accordance with existing values. Surely all of those things are not simply identical to valuation (if so, is there any part of human action/ behaviour that is not valuation? Is that a useful non-distinction?). But is "decision making and collective action" of all kinds what you mean by valuation procedure? I understand that you have a professional interest in addressing environmental compensation and ecosystem service valuations. I am just worried that broadening your scope to encompass all forms of human decision making and collective action is just beyond the scope of what you can hope to explain and make a useful contribution to, especially if you need to clearly articulate the relationship between values and decision making and collective action. But since valuation was not very clearly defined, nor do you make reference to any such definition, who really knows whether this fits your definition and scope or not.	Thanks for highlighting this issue which was not clear in the previous version of the text. In section 2.3.2.1. we have introduced the distinction between implicit value expression, which refer to decision-making contexts (i.e. valuing) and explicit value expression (i.e. valuation). We consider this distinction important because it helps to understand that the operationalization of values does not only occur only within valuation procedures but also in decision-making processes.
1179	Meredith Root-Bernstein	Chile	Musée de l'Homme, Paris, France; INRA AgroParisTech, Paris, France; Institute of Ecology and Biodiversity, Santiago, Chile; Center for Applied Ecology and Sustainability	No	Ch. 2			93	2273	This is interesting material to be sure, but I am not sure what it has to do with values. We could investigate the expression of values in different forms of articulation (as you tried to do before) without going into the details of political mechanisms and power relations. Important as those are, surely they are out of the scope of this report. I am missing an argument as to why this material needs to be here.	The section is completely rewritten emphasizing how different types of values influence decision-making under different contexts. The basis for the new section is the decision-making typology defined in Chapter 1. The key logics of different types of decision-making - what values underpin them - are explained. We think this is crucial to the VA as it is important for policy makers to evaluate what type of decision-making - what actors and institutions - can best facilitate the protection of environmental values.
1180	Meredith Root-Bernstein	Chile	Musée de l'Homme, Paris, France; INRA AgroParisTech, Paris, France; Institute of Ecology and Biodiversity, Santiago, Chile; Center for Applied Ecology and Sustainability	No	Ch. 2			100	2462	My overall impression of this chapter is that while certain subsections about economics, psychology, and decision-making were written by competent professionals, it is very unclear how those fit into the rest of the document. Some of these disciplinary overview sections make a small effort to relate academic work to the terminology from the first several sections of the report up through the new proposed framework. However, it is not at all clear that the rest of the document was informed by those disciplinary sections. In other words, a bunch of fairly random schema, concepts and frameworks are presented and then the academic work is made to seem relevant to them. This seems backwards. What body of knowledge were these schema, concepts and frameworks derived from, exactly? Does this structuring of the chapter indicate that IPBES expects academics to start justifying their own concepts and theories in terms of IPBES "theory"? Anyhow, the structuring and argumentation of the chapter is extremely poor and the earlier parts of it are of extremely uneven and overall poor quality and very unconvincing. I don't see how a policy maker is going to read this and think "oh now I understand what environmental values are" because they are the intersection of like 16 poorly-differentiated things.	We appreciate the reviewer's deep concern for what she perceives as a random schema. We understand and trust that the IPBES assessment process of iterative versions and group work/learning will produce a rigorous, legitimate and integrated product.

1181	Meredith Root-Bernstein	Chile	Musée de l'Homme, Paris, France; INRA AgroParisTech, Paris, France; Institute of Ecology and Biodiversity, Santiago, Chile; Center for Applied Ecology and Sustainability	No	Ch. 2					in which culturally diverse examples are cited throughout the text strikes me as inappropriately contextualized. Throughout, very general if not universal aspects of values are illustrated with picturesque, exotic examples as if all these non-economic non-standardized value phenomena were only carried out by minor, marginal groups of people as part of their colorful but ultimately incomprehensible cultural practices. Even when you say "in the United States, lyrics songs have expressed messages of environmental activism and also of love and wonder for nature" it sounds like this was a brief event and the only example you could find of that phenomena, which is ridiculous. Instead, I would recommend something like, "song is one very common if not universal medium in which cultures around the world express care about and attachment to nature. Examples come from industrialized nations such as the contemporary United States (ref), as well as, among many other examples, medieval Persian ghazals, early Celtic balads, and indigenous traditions around the world." Its not clear what your purpose is in including diverse cultural examples throughout the chapter-- to be culturally inclusive, or to illustrate the phenomenon being discussed. I think they fail to do the latter by trying too hard to choose unique cultural expressions that most people around the world cannot relate to. You could, rather, choose relatively mundane and common examples and then show how they fit into some particular cultural contexts. The exoticism implied by the under-contextualization of each example (such that most people cannot understand or relate to it) also undermines any attempt to be culturally inclusive. Please try for a different style with a better mix of cultural contextualization and comparative framing, maybe hire an anthropologist to do this.	Thank you for this valuable comment and input. We revised the text accordingly, bringing examples from Indigenous peoples from different world regions shared by Contributing Authors. We still need to do a better job by bringing the mundane examples and illustrating with examples that people can relate to. We think that the subsection has improved significantly, but there is still additional work to do toward the third order draft.
1263	Luis Pacheco Cobos	Mexico	Workshop IPBES - Veracruz, Mexico	No	Ch. 2					In which context are values defined?	We define values in section 2.1 with respect to environmental policy and decision-making.
1267	Ina Susana López Falfán	Mexico	Workshop IPBES - Veracruz, Mexico	No	Ch. 2					Considering the scale, which one is the unity that the chapter considers? Because the construction is not through the individual, it is about social aspects. It is important to consider that individuals reflect always a social aspect and the social does not mean a sum of individuals.	Indeed, we highlight the 3 pathways as different foci, but not mutually exclusive. We also highlight the fact that the individual is never entirely isolated from society. Please see 2.3.3.
1282	Citlalli López Binquiquist	Mexico	Workshop IPBES - Veracruz, Mexico	No	Ch. 2					In other languages the concept of "nature" does not exist. Nature, and everything that it involves could be considered as talking about people, this link and relation can be lost in texts.	We clarify this aspect on Subsection 2.2.2, bringing examples from other languages and other parts of the world.
1283	Araceli Aguilar Meléndez	Mexico	Workshop IPBES - Veracruz, Mexico	No	Ch. 2						Many thanks for your comment. We re-wrote Section 2.2, and include reference to worldviews as a synonym to cosmology, presenting examples from diverse world regions. We also have a Box on Religions, and mention examples from Natural Sacred Sites that came from our specific literature review on ILK, plus others to be incorporated toward the TOD, as we process over 250 Contributions from Indigenous Peoples and Local Communities on this subject.
1284	Estrella Chevez	Mexico	Workshop IPBES - Veracruz, Mexico	No	Ch. 2					Have you included or considered the participation of linguists or physcolgists on this chapter, in order to understand how we name things and how we relate to these terms? (i.e nature, development, etc.)/ In these four ways to relate to nature, wouldn't it transform the general context in which we are working? The way that it is conceptualized would change it.	Many thanks for this great suggestion! For the SOD, we actually develop a collaborative work with 8 linguists/ languages experts, and bring examples from different world regions, on the interconnections between languages, nature and biodiversity, as well as local concepts used to refer/ conceptualise these issues.
1286	Miguel Escalona	Mexico	Workshop IPBES - Veracruz, Mexico	No	Ch. 2					As the document categorizes, there is a risk to separate and not to include something. How many communities are not influenced on consumption. Their cosmovision is wide, they still considier nature- "madre tierra", but have been influenced by modernity. How can we classify these situations? Interphases are important to consider in order no to fall on simplification.	Thank you for this comment! In Section 2.2 of the new draft-SOD, we explain the diversity of worldviews, contexts and nuances that characterize what we are broadly referring to as Indigenous peoples and local communities. This will also come upfront in Chapter 1 of the Assessment.
1287	Ricardo Contreras	Mexico	Workshop IPBES - Veracruz, Mexico	No	Ch. 2					Even if you consider yourself in one of the four classifications, the extractivist model is the one that dominates. There is a risk on presenting the four scenarios as alternative in the analysis. Does the text recognizes the extractivist model as the dominant?	Yes, we have now also demonstrated that in the environmental values literature the 'living from' frame is dominant.
1288	Simoneta Negrete Yankelovich	Mexico	Workshop IPBES - Veracruz, Mexico	No	Ch. 2					Does the document analyzes that a lot of the world operation goes against values of human being? Does it consider that what governs in natural resources are habits that are not questioned? In which conditions we make an agreement between values and actions? / There is a disagreement between scales (time and space) where people operate, so this document could consider: How can you influence in the different scales of human acts?	Please see sections 2.3.1 and 2.3.2, where these issues are explicitly addressed.
1290	Ricardo Contreras	Mexico	Workshop IPBES - Veracruz, Mexico	No	Ch. 2					It is not possible to assume you do not have instrumental values. The intrinsic values are also in communities that are not necessarily "campesinos" or indigenous.	Agreed. We now acknowledge that western cultures can assign intrinsic values to nature.
1292	Citlalli López Binquiquist	Mexico	Workshop IPBES - Veracruz, Mexico	No	Ch. 2					Values cannot be separated. For example, harvesting means obtaining resources but also means group, family, fun, advices, etc.	This depends on one's world view and ontological beliefs. We have clarified this in section 2.2.

1295	Ina Susana López Falfán	Mexico	Workshop IPBES - Veracruz, Mexico	No	Ch. 2					"Tierra" is also used as world, as Earth. I sensed that it is more explicit the term of soil rather than the wider term.	Thanks for this comment. We have noted this broader conceptualization in this revised SOD.
1296	Luis Pacheco Cobos	Mexico	Workshop IPBES - Veracruz, Mexico	No	Ch. 2	77				In the table that summarizes the concepts of processes by which values are being formed: I sensed that interactions of people with environment are subrepresented. They use three processes: social-human, encounters and non human. The interaction through time can help to value more or change the valuation towards the resources they interact. The encounters are mainly about institutions, and not necessarily with resources in a space or through time. Is this interaction with resources considered? The habits?	We have entirely restructured the section that addresses social-ecological processes of value formation and change, and the section now focuses on precisely the kinds of interactions (of people with environment, across space, etc.) this reviewer identifies
1335	Ina Susana López Falfán	Mexico	Workshop IPBES - Veracruz, Mexico	No	Ch. 2		5	139		It seems that Nature, Biodiversity and Nature's Contributions to People are considered as different things. It seems that Biodiversity and NCP are used as two different categories of Nature. These three concepts do not seem like synonyms. How are they intended to be used, like synonyms or categories?	We have undertaken to review the chapter in light of the IPBES conceptual framework (CF), whereby nature and biodiversity are 'synonyms', but NCP is another component of the CF.
1336	Ina Susana López Falfán	Mexico	Workshop IPBES - Veracruz, Mexico	No	Ch. 2	56		1392	56	The Life Framework is very interesting, showing a bigger and inclusive scope (including perspectives of both ecosystem services and NCP). Nonetheless, is not clear to me how can it be used or implemented into the practice.	We have added a section that more clearly discusses how it can be used in practice
1337	Ina Susana López Falfán	Mexico	Workshop IPBES - Veracruz, Mexico	No	Ch. 2	15		423	15	As a native Spanish speaker (from México), "Tierra" can be understood and used as the Earth. Perhaps it has to be written with capital letters (la Tierra, the planet, the world), la tierra, the ground, the soil, or the land or country. Reading the sentence I understand that tierra in Spanish is not used for designate the planet, but it is. I consider that this paragraph can be misleading.	Thanks for this comment and suggestion, it was noted and taken into consideration in the revised SOD.
1339	Kuenda Laze	Albania	Polytechnic University of Tirana	No	Ch. 2	16		461	17	Here, a map of high biodiversity areas of International Union for Conservation of Nature (IUCN) could be overlapped showing the areas of high biodiversity and linguistic/cultural diversity. This would better show a potential link between languages/cultural and biological diversities. Maybe, a forest cover map can be useful to also show cultural diversities in Tropical Asia (e.g., Indonesia), Amazon and Tropical (Forest) Africa.	Thanks for this comment and suggestion, it was noted and taken into consideration in the revised SOD. We don't include the same map that was already part of the Land Degradation and Global assessments, we just cite these assessments.
1340	Kuenda Laze	Albania	Polytechnic University of Tirana	No	Ch. 2	18		520	18	Is there any concept related to conflict/war, please? A paragraph could be written to better link with Table 2.1. This way of thinking could also be reflected to policy and or show any effect of the present policy on nature.	Thank you for your comment. For the SOD we had entirely revised the section and eliminate most of it.
1341	Kuenda Laze	Albania	Polytechnic University of Tirana	No	Ch. 2	21		539	21	Is there any location information please? It is more interesting to better know where these rural areas are and if there is any diversity.	Thank you for your comment. For the SOD we had entirely revised the section and eliminate most of it.
1342	Kuenda Laze	Albania	Polytechnic University of Tirana	No	Ch. 2	21		555	21	Is there any example from European rural areas and Asia/Oceania, please? It is better to show examples from all over the world if there are.	Thank you for your comment. For the SOD we had entirely revised the section and eliminate most of it.
1343	Kuenda Laze	Albania	Polytechnic University of Tirana	No	Ch. 2	22		576	22	To make this clear, this should be illustrated by examples. Here, information on protected areas category should be provided. What category of protected areas was established that excluded local community? Was it a full protection of natural resources (e.g., strict protected areas of forests) please? What type of natural resources (e.g., forest, river) were protected that excluded local community please? Is there any examples from all continents? Here, not all protected areas exclude human activities/local community activities. We better be careful on this. Protected areas should exist to ensure nature conservation, plants and animal species conservation allowing local community to know/participate in the establishment of a protected area.	Thanks for your comment. The need for clear examples was noted, and we are addressed this gap in the revised SOD.
1344	Kuenda Laze	Albania	Polytechnic University of Tirana	No	Ch. 2	22		587	22	This sounds great. What was a primary natural resource used and possibly conserved by Kichwa and Aymara Andean Indigenous people, please? It could be good to know nature resources they used throughout time, what and how the biodiversity was conserved by these cultures. It would also be good to provide examples from other regions in the world focusing on forests, plant species use and conservation.	Thanks for your comment. We are including specific examples of resources and values connected to biodiversity for other world regions in the new cross-assessment case-study on Buen Vivir.

						62							Table 2.3/Living with/Regulating aspects and contribution. When using ecological modelling, here, there might be a need for distinguishing between Environmental Impact Assessment (EIA) and ecological modelling for species distributions modelling. Ecological modelling is widely used for identifying potential species distributions, potential species habitats, and potential species conservation areas not dealing with costs and benefits analysis at all. EIA is often used to identify environmental impacts of a development project and to quantify environmental costs of an environmental mitigation measure if this measure is agreed by all stakeholders to be considered. Costs and benefits analysis is considered at lines 2278-2279 but not ecological modelling. I would delete ecological modelling and write EIA.	
1345	Kuenda Laze	Albania	Polytechnic University of Tirana	No	Ch. 2			63	1581					This table has been replaced by a new table in section 2.4 relating life frames, values and indicators. We have now more clearly used indicators rather than methods/approaches, so CBA, ecological modelling, or EIA are not applicable.
1346	Kuenda Laze	Albania	Polytechnic University of Tirana	No	Ch. 2	62			1578	63	1581		Here, it would be nice to present climate modelling articulating the importance of protecting mother Earth and show differences with ecological modelling that shows potential species habitats and potential species conservation areas (which are part of food web). It would also be useful to illustrate ideas of nature protection and biodiversity conservation as an alternative of keeping climate change below 2 degree centigrade (Dinerstein, E. et al. (2019) 'A Global Deal For Nature: Guiding principles, milestones, and targets', Science Advances, 5(4), p. eaaw2869. doi: 10.1126/sciadv.aaw2869).	We appreciate these points, though an elaborate discussion of nature-based solutions for climate are beyond the scope of this section, though we've included this paper in the Life Frames annex.
1368	Jean-Louis Martin	France	CNRS	No	Ch. 2	4			87	4	88		human and social processes remains vague: some of these process can be more "societal" than social. Eg public education which is designed and the way it is designed will influence, values; belief systems and their institutional expressions; economic systems and their ways to influence values not for their own "value" but toward a non-value related objective. I realize that some of these aspects can be very difficult to treat in the context of the IPBES process. But they are essential and possibly critical if we want to address the current environmental crisis. If they are developed in the main text may be they should better emerge in the key message section (a difficult task I realize)	Thanks for the thoughtful comment, and also a nod to some of the challenges of this process per se. The typology is now individual, social and social-ecological. We also try to better link the sections on 'expression' (including action and behavior) and formation/change, particularly via the role of institutions that do not just express values, but affect them.
1369	Jean-Louis Martin	France	CNRS	No	Ch. 2	4			108	4	108		It says "Values form the basis for the norms and legal rules (institutions) of a society" but the reverse operates too (see comment above) legal norms, institutions, political structure, belief systems, may reflect values but can also shape values and may act as obstacles to shift in values in societies, or obstacles to the transcription of emerging values into the legal rules and institutions	We understand values and norms as influenced by actors in the same way as belief systems are. We agree that institutions (as well as e.g., belief systems) may hinder change in values. We note this as well as we focus at what may facilitate change
1370	Jean-Louis Martin	France	CNRS	No	Ch. 2	69			1729	70	1734		These 5 lines seem to be the only ones touching slightly on the topic developed in the two previous comments	We are unclear how to respond to this comment, by not understanding the reference to two previous comments.
1418	Teina Mackenzie	Cook Islands	Te Ipukarea Society (TIS) Cook Islands Environmental NGO	No	Ch. 2	9			277	9	277		replace "conceive" with "perceive"	The SOD was reviewed to ensure grammatical and conceptual consistency.
1425	Juan B. Eborá	Philippines	Department of Environment and Natural Resources - Ecosystems research and Development Bureau	No	Ch. 2	1			148		4239		With due respect to the authors, it may be preferable to put "Diversity of value systems and nature's contribution to people" instead of "Conceptualizing the diverse values of nature and their contributions to people". It is understandable that there are diverse concepts of values and there is no need to conceptualize these but we need to describe these concepts and their implications on how people view NCP based on their value systems.	We appreciate the suggestion. We have refined the title of 2.1.1 to "Diverse conceptualizations of the multiple values of nature and its benefits". Also, thereafter we refer to the "diverse values of nature" and "less plural and more plural valuation"
1433	Neville H McClenaghan	Ireland	Galway-Mayo Institute of Technology (GMIT)	No	Ch. 2	13			371	13	371		(Bohm, 1994) proposes should be Bohm (1994) proposes?	Correction noted, thank you!
1434	Neville H McClenaghan	Ireland	Galway-Mayo Institute of Technology (GMIT)	No	Ch. 2	15			442	16	443		Think need to make reference to the fact that Gaia, whilst an arguably great concept, is rather dated thinking considering the scientific evidence that notes its flaws?	Thanks for this comment and suggestion, it was noted and taken into consideration in the revised SOD.
1435	Neville H McClenaghan	Ireland	Galway-Mayo Institute of Technology (GMIT)	No	Ch. 2	67			1689	67	1689		Assume this is not the final diagram as the quality isn't perhaps what it should be?	The diagram has been modified to be a 'structural' orientation of the chapter. The quality is the best possible version the authors could produce for the SOD.
1443	Cecilia Lindblad	Sweden	Swedish Environmental Protection Agency	No	Ch. 2	56			1423		57		Why using "the world" in the section describing "The Life Framework includes four Life Frames of how the natural world matters: we live from the world, we live in the world, we live with the world, and we live as the world". It would be more consistent with the text in the Global assessment to use the word "Nature" instead.	Done
1474	The Swedish delegation of the IPBES Values Assessment	Sweden	Swedish delegation	No	Ch. 2								All attendees very much liked the life value frames as a way to start a conversation with diverse actors about the sustainability transformations required on this planet. Can we present some consistent and ambitious policy pathways aligned to each life value frame?	This is possible to address by the integration of the life frames into other chapters, particularly Ch5 and Ch6. However, this is part of the 'process' of the assessment, whereby chapters begin to integrate. So, it is addressed somewhat in 2.2 of this chapter, but can be more fully expressed in the iterative process of the assessment's preparation. Please see also a full Annex on the life frames that provides more in-depth analysis on the causes and consequences of these human-nature relationships.

1477	The Swedish delegation of the IPBES Values Assessment	Sweden	Swedish delegation	No	Ch. 2					Why have we moved from "living from nature" to "living from the word". I explained the rational but they thought a focus on nature would be more consistent with the scoping doc.	We now refer to Life Frames of Nature's Values or Life Framework of Nature's Values	
1507	Finnish National IPBES panel (Finland)	Finland	Finnish national IPBES panel (Luontopaneeli)	No	Ch. 2	Key messages				The key messages of chapter two are frequently formulated in a matter of fact style but lack insight on why is this important for the policy maker. It might be desirable to try to formulate the messages so that they convey the importance for the policymakers, the facts and the possible actions to be taken if the policymaker is willing to do something about the item.	The Key Messages were revised, prioritized, simplified, and their policy relevance was made more explicit in the SOD.	
1508	Finnish National IPBES panel (Finland)	Finland	Finnish national IPBES panel (Luontopaneeli)	No	Ch. 2	2		32	2	40	Most people would probably hold a worldview which included elements of both extremes, this sounds too black and white.	Thanks for this comment. In the SOD, subsection 2.2.2 on Worldviews was re-written, in which we clarify the diverse types of anthropocentrism and the context-dependent, real-world nuances that overlaps that may exist between the academic framings of human worldviews connected to nature.
1509	Finnish National IPBES panel (Finland)	Finland	Finnish national IPBES panel (Luontopaneeli)	No	Ch. 2	6			6	157	The first suggestions to actually value the non-market values (of nature) by Bowen (1943) and Ciriacy-Wantrup (1947) should be mentioned here.	In developing the SOD, it was decided that the broader history of 'values of nature' or 'valuing nature' are introduced in Ch1. While we do not provide the entire historical context of market and non-market values to bear in the introduction, we do represent those 'conceptualizations' via the discussions brought to light in the references to TEEB, MA, etc.
1510	Finnish National IPBES panel (Finland)	Finland	Finnish national IPBES panel (Luontopaneeli)	No	Ch. 2	8		227	8	236	Repetition from Ch 1.	2.1 was rewritten entirely, and an effort was made to not overlap with Ch1.
1511	Finnish National IPBES panel (Finland)	Finland	Finnish national IPBES panel (Luontopaneeli)	No	Ch. 2	26		678	26	678	Different terminology compared to Ch 1.	We have been through a process of harmonising terminology between Chapters 1 and 2.
1512	Finnish National IPBES panel (Finland)	Finland	Finnish national IPBES panel (Luontopaneeli)	No	Ch. 2	33		879	33	879	Utility and utilitarianism certainly do not involve only consumption! There is a lot of scientific literature based on utility theory that involves altruism, plural values and appreciation of nature (intrinsic values). This insert seems to reflect negative attitude to one part of science which is not appropriate for this report. Please revise.	Thank you for your comment. We are writing a new section on economics for the SOD. Altruistic and biospheric preferences are captured by utilitarianism, indeed. However, in the framework of individual satisfaction
1513	Finnish National IPBES panel (Finland)	Finland	Finnish national IPBES panel (Luontopaneeli)	No	Ch. 2	49			49	1220	The valuation of instrumental values is often linked to decision making - there are trade-offs and opportunity costs when certain action is planned, and non-market benefit values could be used in cost-benefit framework to highlight this. The valuation practioners themselves don't usually claim to cover all values, and acknowledge that they do exist.	We have rewritten the section on instrumental values and economics, showing the strengths and limitations of the approach. See section 2.2.3.2
1514	Finnish National IPBES panel (Finland)	Finland	Finnish national IPBES panel (Luontopaneeli)	No	Ch. 2	52		1228	52	1228	The above applies here: The valuation of instrumental values is often linked to decision making - there are trade offs and opportunity costs when certain action is planned, and could be used in cost-benefit framework to highlight this. The valuation practioners themselves don't usually claim to cover all values, and acknowledge that they do exist.	In section 2.3., we now add a more in-depth discussion on values and trade-offs.
1515	Finnish National IPBES panel (Finland)	Finland	Finnish national IPBES panel (Luontopaneeli)	No	Ch. 2	64		1614	64	1615	Or they are not lost but they were never intended to be included and no such suggestion is made. The same applied to research in biology - not including all species in a research of one habitat does not mean that a study on one species would have no meaning.	The paragraph has been rephrased
1516	Finnish National IPBES panel (Finland)	Finland	Finnish national IPBES panel (Luontopaneeli)	No	Ch. 2	70		1740	70	1754	Bentham was the father of utilitarianism, animal rights and equality of women (and slaves). Utility theory is often presented here in a too simplistic manner.	This entire section is re-written.
1517	Finnish National IPBES panel (Finland)	Finland	Finnish national IPBES panel (Luontopaneeli)	No	Ch. 2	92			92	2239	CV is not only about instrumental values, but also very much about intrinsic (existence) and relational (e.g. recreation) as well.	Thanks for your comment. In section 2.2. where value as indicators are addressed, we develop a figure explaining how the total economic value approach relates to intrinsic, instrumental and relational values. We acknowledge that because CV and other monetary valuation methods are framed under an anthropocentric/utilitarianism approach in which trade-offs are allowed, they can indirectly capture proxies of such values.





																				predates the marginal revolution and because they do not believe that welfare valuations using revealed or stated preference techniques should be mixed with exchange values because the latter exclude consumer surplus. However neo-classical economics is not a monolithic structure and many different schools use marginalism whilst disagreeing quite profoundly on other matters. Take, for example, the new institutional school represented by RH Coase, DC North, the Ostroms, and today by Daron Acemoglu at MIT. A drive for parsimony in theoretical models amongst deductive neo-classical economists can lead to an over enthusiastic application of Ockham's razor, where assumptions that are critical are dispensed with. Elinor Ostrom used to counter-argue that whatever worked in practice had to work in theory. George Akerlof, who received the Nobel prize for his essay "The market for lemons" (which was turned down as trivial by several publishers, and who has made a distinguished contribution to information theory) argued in his Presidential Address to the American Economic Association delivered on 6th January 2007 about the need to re-integrate the missing motivations into macroeconomics. He concluded "The incorporation of norms based on careful observation imparts an appropriate balance to macroeconomics. The New Classical research program was correct in viewing models of the early Keynesians as too primitive. They had not been sufficiently attentive to the role of human intent in choices regarding consumption, investment, wages, and prices. But that research program itself has failed to appreciate the extent to which the Keynesians' views of macroeconomics were also reflective of reality, since they were based on experience and observation. A macroeconomics with norms in decision makers' objective functions combines the best features	
1588	John Gossage	United Kingdom	Cyfoeth Naturiol Cymru/Natural Resources Wales	No	Ch. 2															We now recognise the strengths and limitations of TEV in the preferences and indicators sub-section.	
1594	John Gossage	United Kingdom	Cyfoeth Naturiol Cymru/Natural Resources Wales	No	Ch. 2		17													The treatment of nature in historical context is so schematised as to require either removal or substantial expansion. There is undoubtedly a strong case to be made for including history to achieve a truly transdisciplinary approach. Mike Hulme, the climate scientist who established the Tyndall Centre for Climate Change Research and who subsequently obtained a post-graduate qualification in history, used his diverse disciplinary background to write his book Why we disagree about climate change: Understanding Controversy, Inaction and Opportunity (pub CUP 2009) which demonstrates the value of an historical perspective and in which he concludes that there are four avatars that the debate about climate change, or for that matter biodiversity loss, invoke, which are: 1. Nostalgia for the past – which he dubs the Eden myth; 2. Fear of the future – which he dubs the Apocalypse myth; 3. The desire for dominance and mastery of nature – which he dubs the Babel myth; 4. The desire for justice – which he dubs the Jubilee myth	Thanks for your comment. The text on the Historical Conceptualization of Nature is no longer part of this Chapter. We had to prioritize the discussion on Values, and deal with the word limits.
1599	John Gossage	United Kingdom	Cyfoeth Naturiol Cymru/Natural Resources Wales	No	Ch. 2															Not being an historian, I am not familiar with all the titles and monographs that should be consulted, but I am surprised to see no reference to the American geographer Clarence J Glacken for his Traces on the Rhodian Shore: Nature and Culture in Western Thought from Ancient Times to the End of the Eighteenth Century which establishes the importance of the Hippocratic corpus to Western notions, particularly Airs, Waters, Places.	Thanks for your comment. The text on the Historical Conceptualization of Nature is no longer part of this Chapter. We had to prioritize the discussion on Values, and deal with the word limits.
1600	John Gossage	United Kingdom	Cyfoeth Naturiol Cymru/Natural Resources Wales	No	Ch. 2															Another one of my personal favourites would be Simon Schama's Landscape and Memory (pub Harper Collins 1996).	Thanks for your comment and suggestion, it was noted.
1616	Luis Pacheco Cobos	Mexico	Facultad de Biología Xalapa, Universidad Veracruzana	No	Ch. 2		18			534	21									Box 2.1 — Though the headings are clear, extra work on the artwork could facilitate the reading of the timeline, e.g. merging Box 2.1 with Figure 2.6?	all figures will be reworked by designers
1617	Luis Pacheco Cobos	Mexico	Facultad de Biología Xalapa, Universidad Veracruzana	No	Ch. 2		41					41								In Figure 2.11 Relational > Fundamental > Is the wording in "Values are expressed that refer to are essential conditions for (human) life", correct?	Will be fixed.
1618	Luis Pacheco Cobos	Mexico	Facultad de Biología Xalapa, Universidad Veracruzana	No	Ch. 2		17													Add Jelinski's (2010) review to the citations in section "2.2.3 The conceptualization of 'nature' in historical context". Jelinski discusses the cultural and scientific concept of nature and its "implications for environmental conservation". - - -Jelinski, D. E. (2010). On the Notions of Mother Nature and the Balance of Nature and Their Implications for Conservation. In D. G. Bates & J. Tucker (Eds.), Human Ecology: Contemporary Research and Practice (pp. 37–50). <a href="https://doi.org/10.1007/978-1-4419-5701-6_3">https://doi.org/10.1007/978-1-4419-5701-6_3</a>	Thanks for this comment and suggestion of this interesting reference. The text on Historic Conceptualization of Nature is no longer part of the revised text/SOD. We had to prioritize content and stick to strict word limits.

1619	Luis Pacheco Cobos	Mexico	Facultad de Biología Xalapa, Universidad Veracruzana	No	Ch. 2	23	601	23	602	<p>“Buen Vivir” concept: it would be worth to include, along with the suggested contribution in red text, the experiences by Universidad Veracruzana Intercultural (UVI) whom have carried several Buen Vivir festivals: [google search: festival buen vivir uvi universidad veracruzana] <a href="https://www.uv.mx/uvi/general/4-festival-por-el-buen-vivir-uvi-sede-grandes-montanas/">https://www.uv.mx/uvi/general/4-festival-por-el-buen-vivir-uvi-sede-grandes-montanas/</a> - - - <a href="https://www.uv.mx/uvi/general/6-festival-por-el-buen-vivir-uvi-grandes-montanas/">https://www.uv.mx/uvi/general/6-festival-por-el-buen-vivir-uvi-grandes-montanas/</a> - - - <a href="https://www.uv.mx/uvi/general/8-encuentro-de-estudiantes-en-el-marco-del-7-festival-del-buen-vivir/">https://www.uv.mx/uvi/general/8-encuentro-de-estudiantes-en-el-marco-del-7-festival-del-buen-vivir/</a></p>	There is now a systematic review of Buen vivir, presented as a cross-assessment case study in multiple chapters and also an Annex.
1620	Luis Pacheco Cobos	Mexico	Facultad de Biología Xalapa, Universidad Veracruzana	No	Ch. 2	77	1950	79	1954	<p>Table 2.4's accompanying Figure (2.4) shows that behavior is on the top of the interacting levels-of-knowing pyramid, appearing as the most visible part of the spectrum. In this sense behavior can be our first hand evidence of the underlying norms, values, beliefs, worldviews, and/or cosmology. If so, why do not use it as a tool for validating value formation processes in space and time? Is this done in Chapter 3? I comment on this in a different line. Individuals, families, or communities at the local level could keep track (in space and time) of their interactions with forest or water products, and use their records as evidence of how valuable are the resources they interact with. In this sense, our proposal (Pacheco-Cobos et al. 2015) and others (e.g. Shekhar et al. 2015), could be adjusted to help building or understanding value processes. - - - Pacheco-Cobos, L., Rosetti, M. F., Montoya Esquivel, A., &amp; Hudson, R. (2015). Towards a traditional ecological knowledge-based monitoring scheme: A proposal for the case of edible mushrooms. Biodiversity and Conservation, 24(5), 1253–1269. <a href="https://doi.org/10.1007/s10531-014-0856-6">https://doi.org/10.1007/s10531-014-0856-6</a> - - - Shekhar, S., Feiner, S., &amp; Aref, W. G. (2015). From GPS and virtual globes to spatial computing—2020. Geoinformatica, 19(4), 799–832. <a href="https://doi.org/10.1007/s10707-015-0235-9">https://doi.org/10.1007/s10707-015-0235-9</a></p>	The issue of values-action is now a sub-section. The mentioned figures-tables are no longer related to behavior. Please see: 2.3.1.
1630	Sylvia Karlsson-Vinkhuyzen	The Netherlands	Wageningen University, Public Administration and Policy Group, and member of IPBES Task Force on Scenarios and Models	No	Ch. 2	24	470	155		<p>On page 24 there is a clear story of how a large majority of humanity identifies with a religion or spiritual tradition. However, in the rest of the chapter there is hardly any reference to those larger faith traditions that a majority of the world identify with (hinduism, buddism, christianity, islam, judaism, the baha'i faith and how values related to nature and the relationship with nature are embedded in the holy scriptures of those faiths. The literature review seem to have missed out on the literature that study this e.g. ichard Clugston and Steve Holt (eds), Exploring Synergies between Faith Values and Education for Sustainable Development. Earth Charter International and University for Peace, San Jose, Costa Rica. pp. 44-48. <a href="http://www.earthcharterinaction.org/invent/details.php?id=901">http://www.earthcharterinaction.org/invent/details.php?id=901</a> or the many publications from the Yale Forum on Religion and Ecology. Of course it is very relevant to highlight indigenous perspectives for all they bring, and for how long they have been kept invisible from the conversation but one cannot in such a comprehensive assessment ignore addressing in more detail also the value perspectives of major world religions towards nature - they cannot be equated with western scientific thought from the enlightenment onwards.</p>	We now address religion in various places in the chapter, and also have an Annex developed by CA Chris Ives and a box developed by CA Bron Taylor.
1631	Sylvia Karlsson-Vinkhuyzen	The Netherlands	Wageningen University, Public Administration and Policy Group, and member of IPBES Task Force on Scenarios and Models	No	Ch. 2	77	1755	79		<p>A very good text but I am missing a very relevant perspective and body of literature on developmental psychology, when at what ages children adopt and internalise values (there is a before and after when they e.g. have their own conceptualisation of justice vs. taking on that of their culture). This has strong implications for the possibility to change values through education. Concluding (as is done in the summary of the chapter) that values are quite stable in adults hints exactly on the need to focus on early childhood rearing and formal and non formal education. It is mentioned (referring to Piaget) but elaborating this and relating to this in the section on value change would be relevant.</p>	In the reformulation of the SOD, the typology was changed to individual, group and socio-ecological processes. We give specific treatment to development psychology in the first of these now.
1632	Sylvia Karlsson-Vinkhuyzen	The Netherlands	Administration and Policy Group, and member of IPBES Task Force on Scenarios and Models	No	Ch. 2	76	1716	76	1730	<p>Formal education is mentioned in this paragraph and rightly so but the role of early value formation by family, culture, non-formal education and formal education could be expanded - as this is highly relevant for the potential for value change.</p>	We have incorporated references to education in the section on social and social-ecological processes.
1633	Sylvia Karlsson-Vinkhuyzen	The Netherlands	Administration and Policy Group, and member of IPBES Task Force on Scenarios and Models	No	Ch. 2	42	914	915		<p>his ad hoc list of bullet points without references is not convincingly argued why it is here</p>	We have removed references to these bullet points on consumption and good quality of life.
1634	Sylvia Karlsson-Vinkhuyzen	The Netherlands	Administration and Policy Group, and member of IPBES Task Force on Scenarios and Models	No	Ch. 2	42	916	921		<p>Add the role of manifestation of values in visions and scenarios for how to get to them</p>	thank you for your comment. We decided to eliminate this entire section for the SOD





						76					Hargrove and others in this period emphasised aesthetic arguments, which are not anthropocentric. See our paper Nigel Cooper, Emily Brady, Helen Steen, Rosalind Bryce Aesthetic and spiritual values of ecosystems: Recognising the ontological and axiological plurality of cultural ecosystem 'services' Ecosystem Services 21 (2016) 218–229	References were taken into consideration
1663	Nigel Cooper	United Kingdom	Anglia Ruskin University and Diocese of Ely	No	Ch. 2					1917		
1664	Nigel Cooper	United Kingdom	Anglia Ruskin University and Diocese of Ely	No	Ch. 2	92				2229	This paper is very interesting on Exxon Valdez: Cents and Sensibility: Economic Valuation and the Nature of "Nature" Author(s): Marion Fourcade Source: American Journal of Sociology, Vol. 116, No. 6 (May 2011), pp. 1721-77	Thanks for the suggestion. We have included the reference in the new version of the text
1665	Nigel Cooper	United Kingdom	Anglia Ruskin University and Diocese of Ely	No	Ch. 2	135				3842	Religion: is the data stream in mind here the traditional perspectives of world religions, the religious dimensions of ILK, campaigning materials to make religious cases for caring for nature, academic analyses of the above?	Examples have now been provided in the Life Frames annex.
1668	Rosendo Ahue Coello (Tikuna People: Magütá); Gloria Erazo; Andrea Cárdenas.	Colombia	Organizacion Nacional Indígena de Colombia (Onic)	No	Ch. 2						Chapter 2 expresses an important dialogue about values. It would be suitable to also analyse beyond life values, what type of values are prioritised on international conventions such as the World Trade Organization.	Interesting idea. We decided not to extend our discussion this way in Ch2. This is a focal point in Ch4 with reference to environmental accounting.
1681	Rosendo Ahue Coello (Tikuna People: Magütá); Gloria Erazo; Andrea Cárdenas.	Colombia	Organizacion Nacional Indígena de Colombia (Onic)	No	Ch. 2						Chapter 2 - Guiding questions. The first question is not clear. It would be suggested to take into account concepts based on indigenous languages such as the integrity of nature (i.e. from indigenous cosmovisions, humans are not separated from nature. Therefore, it would be suggested to reformulate the use of expressions such as 'human-nature relationships' because that implicitly separates persons from nature).	Thanks for this relevant comment! The text was revised to reflect multiple conceptualizations of nature across different worldviews. In the Languages, Values typology and Life Values Frames subsections, which were re-written, we explain that, for many Indigenous peoples and local communities, the distinction between humans and nature does not exist.
1682	Rosendo Ahue Coello (Tikuna People: Magütá); Gloria Erazo; Andrea Cárdenas.	Colombia	Organizacion Nacional Indígena de Colombia (Onic)	No	Ch. 2						Chapter 2 - Guiding questions. We consider setting a real dialogue between knowledge systems as a big challenge. In this way, we would like to suggest including a question related to indigenous understandings of lives in connection to their environment based on ancestral knowledge (we prefer using the term 'ancestral knowledge').	Thanks for this relevant comment! We have re-written the text to reflect this comment. We do refer to ancestral knowledge in the Subsection on Languages, which information came from the ILK literature review conducted. We also address a Key Message that emerged from the Dialogue Workshops with Indigenous peoples leaders, in which ancestry is referred to as an important concept and value connected to the circular worldviews of many IPLCs.
1683	Rosendo Ahue Coello (Tikuna People: Magütá); Gloria Erazo; Andrea Cárdenas.	Colombia	Organizacion Nacional Indígena de Colombia (Onic)	No	Ch. 2						Chapter 2 - The Life Framework of Values. Framework is confusing because it lacks the integrity of life and biodiversity.	We now recognise the importance of fundamental ecological values in our typology of values.
1684	Rosendo Ahue Coello (Tikuna People: Magütá); Gloria Erazo; Andrea Cárdenas.	Colombia	Organizacion Nacional Indígena de Colombia (Onic)	No	Ch. 2						Chapter 2 - Value expressions in context. In relation to power, it would be interesting to contrast values implicit in the states with those implicit in economies (e.g., multinational corporations).	Thanks for your comment. In section 2.3.2.3 we provide several examples regarding value expression in the context of corporations (and markets liberalist discourse) and public decision-making (and state regulation). We have also a new subsection 2.3.1.4 in relation to power, where we provide examples of the type of power in contexts such as agricultural trade and public programs such as payment for ecosystem services.
1695	Marta Díaz	Colombia	Parques Nacionales Naturales de Colombia (PNNC)	PNNC is part of the Colombian state	Ch. 2						Chapter 2 - Guiding questions. The first question closes the human-nature discourse due to it leaves aside the intrinsic value (i.e. right) of nature.	We have 4 guiding questions now, which we do not feel leaves assign intrinsic value, which has a prominent place in the chapter.
1696	Marta Díaz	Colombia	Parques Nacionales Naturales de Colombia (PNNC)	PNNC is part of the Colombian state	Ch. 2						Chapter 2 - The life framework of values. It would be suggested to use the term 'nature' instead of 'world' because 'nature' is more direct and less subjective.	Done
1712	Felipe Guerra	Colombia	Parques Nacionales Naturales de Colombia (PNNC)	PNNC is part of the Colombian state	Ch. 2						Chapter 2 - Guiding questions. It would be suggested to simplify the first question. Which are the values? What are their main components?	Please see 2.1.3.
1713	Felipe Guerra	Colombia	Parques Nacionales Naturales de Colombia (PNNC)	PNNC is part of the Colombian state	Ch. 2						Chapter 2 - Guiding questions. It would be helpful to add the following question: which are the predominant or more relevant values? i.e. hierarchy of values.	Please see 2.1.3.

1714	Felipe Guerra	Colombia	Parques Nacionales Naturales de Colombia (PNNC)	PNNC is part of the Colombian state	Ch. 2						Chapter 2 - Methods. Literature review could be enriched with informations of different sources e.g., local communities, management plans, agreements with communities and other publications of protected areas (i.e. national parks - PNNC).	Please see 2.1.3 and the Stage II approach.			
1715	Felipe Guerra	Colombia	Parques Nacionales Naturales de Colombia (PNNC)	PNNC is part of the Colombian state	Ch. 2						Chapter 2 - Value expressions in context. It would be advisable to broaden the notion of 'power relations to 'force correlations'. It is a concept proposed from the perspective of political theory that might be of interest for analysing making-decision processes based on the role of ideologies.	Thanks for your suggestion. We developed a new section on power where we provide examples of the types of power, including discursive power (2.3.1.4). However, due to scope and word limit we were not able to integrate the concept you suggested.			
1716	Felipe Guerra	Colombia	Parques Nacionales Naturales de Colombia (PNNC)	PNNC is part of the Colombian state	Ch. 2						Chapter 2 - Value expressions in context. It would be advisable to also normalise the role of values not only on politic or economic decisions but also on daily life of individuals e.g., how are their patterns of production and consumption.	The section is rewritten and we have taken the comment into account			
1728	Felipe Guerra	Colombia	Parques Nacionales Naturales de Colombia (PNNC)	PNNC is part of the Colombian state	Ch. 2						Literature review. It would be interesting analysing the way international conventions and free trade agreements define values of nature.	Agree. This is an issue covered in later chapters - chapter 4			
1731	Viviana Moreno	Colombia	Parques Nacionales Naturales de Colombia (PNNC)	PNNC is part of the Colombian state	Ch. 2						How approach values of nature from the pererspective of education?	We address education in 2.3.3.2 and 2.3.3.3.			
1741	Miguel Bedoya	Colombia	Parques Nacionales Naturales de Colombia (PNNC)	PNNC is part of the Colombian state	Ch. 2						Chapter 2 - Guiding questions. It would be suggested to also include economic factors on the first question.	Economics as well as economic factors now plays a much more explicit role in the text			
1771	Damien Marage	France	Landscape and territories planning department in the Bourgogne-Franche-Comté region	No	Ch. 2	6				158	6	158	In the last chapter of "Fundamental of Ecology", E. Odum developed the Human Ecology concept. Odum, E. Fundamental of Ecology, 2d ed ed. W. B. Saunders Company, Philadelphia, 1971.	This is entirely true (indeed in his first edition in the 1950s, Odum was already calling to 'study man and nature as a unit and not separate). In developing the SOD, the broader historical issues have been included in Ch1, and here we focus only on the most related events giving rise to the current process.	
1772	Damien Marage	France	planning department in the Bourgogne-Franche-Comté region	No	Ch. 2	18				501		501	Please add reference : Larre' re, C., and Larre' re, R. Du bon usage de la nature. Pour un philosophie de l' environnement. Alto. Aubier, Paris, 1997.	thank you for your suggestion	
1773	Damien Marage	France	Landscape and territories planning department in the Bourgogne-Franche-Comté region	No	Ch. 2	20				535	20	535	Bios and oikos: The "economy of nature" was first use by Charles Darwin in "On the origin of species by means of natural selection, or the preservation of favoured races in the struggle for life, 1st ed. John Murray, London, 1859 : he claims in the Origin that "all organic beings are striving, it may be said, to seize on each place in the economy of nature."	Thank you for your comment. For the SOD we had entirely revised the section and eliminate most of it.	
1774	Damien Marage	France	Landscape and territories planning department in the Bourgogne-Franche-Comté region	No	Ch. 2	24				644		24	653	add the following references : This debate have started in early of the seventies (Stone, C. D. Should trees have standing-toward legal rights for natural objects. S. Cal. l. rev. 45 (1972), 450). In the beginning of the nineties, Michel Serres's Book aims to ceil a contract between Humans and Nature.(Serres, M. Le contrat naturel. Champs Flammarion, Paris, 1990.)	we appreciate these suggestions, and have added these foundational references
1775	Damien Marage	France	Landscape and territories planning department in the Bourgogne-Franche-Comté region	No	Ch. 2	26				678	26	678	What are values? A proposal : Values: it is a complex notion that is conventionally opposed to the facts. Values are not the order of fact but transcendent entities. There is immediately an ambivalence in this notion ... Value is a constant philosophical question ... and this question of the status of values remains essential and unresolved. It does not exist in itself, it is in the action that it expresses itself	We thank the reviewer for this suggestion. We have refined our definition of value to: Values denote what is good and important (Schroeder, 2016). Values are a boundary object at the intersection of economics, ethics, social science, and ecology. . Values are framed differently in different traditions and /or paradigms. In the following sections, we build on key IPBES value conceptualisations (Pascual et al. 2017), refining and further elaborating these towards a cohesive classification based on the environmental values literature and local knowledge, to enable interdisciplinary assessment. Values can be broad and specific, and specific values can be categorised as instrumental, relational and intrinsic. Values can be expressed through preferences and indicators, and can be organised with respect to different frames of human-nature relationships.	

1776	Damien Marage	France	planning department in the Bourgogne-Franche-Comté region	No	Ch. 2	27		27	718	Leopold (1967) : you mean : Leopold 1947 . A sand county almanach. Please add to reference	Thanks for pointing this out. We have changed.	
1777	Damien Marage	France	planning department in the Bourgogne-Franche-Comté region	No	Ch. 2	30		793	795	30	UICN Red List rather than Conservation Status?	We have since removed this term.
1778	Damien Marage	France	Landscape and territories planning department in the Bourgogne-Franche-Comté region	No	Ch. 2	33		867		869	please cited Kaplan, S. The restorative benefits of nature: Toward an integrative framework. Journal of environmental psychology 15, 3 (1995), 169–182. and Kaplan, S., and Peterson, C. Health and environment: A psychological analysis. Landscape and Urban Planning 26, 1-4 (1993), 17–23.	thank you for your suggestion. We will consider it in reworking this section
1779	Damien Marage	France	planning department in the Bourgogne-Franche-Comté region	No	Ch. 2	41		1020	41	1020	Replace (Muraca, 20119) by (Muraca, 2019)	thank you for the note. References will be revised in details at the end.
1780	Damien Marage	France	planning department in the Bourgogne-Franche-Comté region	No	Ch. 2	44		1121	44	1124	Remembering that species and/or biological and ecological processes were the fruits of evolution and long and complex interactions.	thank you for your comment. It is not entirely clear how it could be considered in the lines addressed.
1782	Damien Marage	France	planning department in the Bourgogne-Franche-Comté region	No	Ch. 2	45		1158	45	1158	please cited Kaplan, S. The restorative benefits of nature: Toward an integrative framework. Journal of environmental psychology 15, 3 (1995), 169–182.	thank you for the suggestion
1783	Damien Marage	France	planning department in the Bourgogne-Franche-Comté region	No	Ch. 2	46		1185	46	1185	Where are you placed the "potential value" ? see Blandin, P. De la protection de la nature au pilotage de la biodiversité. Quae, 2010.	thank you for the suggestion. We did not encounter in the systematic literature review this category except for the reference the reviewer mentions. Is this linked to the option value in economics?
1784	Damien Marage	France	planning department in the Bourgogne-Franche-Comté region	No	Ch. 2	56		1421	56	1421	Please cite also Blanc, N. E'thique et esthétique de l'environnement. EspacesTemps. 31 (2008).	We have now cited two papers by this author when discussing environmental aesthetics and the connection between living with and living in
1785	Damien Marage	France	Landscape and territories planning department in the Bourgogne-Franche-Comté region	No	Ch. 2	57		1433	57	1433	Wilderness is defined by Aldo Leopold in 1921 in an anthropocentrism manner. Leopold and his "Thinking like a mountain" doesn't separate the Nature from Humans. Leopold, A. The wilderness and its place in forest recreational policy. Journal of Forestry XIX, 7 (1921), 718–721	Agreed. We make reference to this under the living as frame.
1786	Damien Marage	France	Landscape and territories planning department in the Bourgogne-Franche-Comté region	No	Ch. 2	57		1442	57	1446	Incoherence in cited Naess ecosophy in line 1442 and relationships of care between people, when you know that Deep Ecology principles n°5 : The flourishing of human life and cultures is compatible with a substantial decrease of the human population. The flourishing of nonhuman life requires such a decrease !	While reference is made to deep ecology, this does not imply an embrace of the mentioned principle. Naess and many deep ecologists did advocate human population reduction but did not support any form of coercion in relation to this. However we have included misanthropy and more extreme calls for population control as risks of overemphasising the living with frame, see Table 2 in the Life Frames annex.
1787	Damien Marage	France	planning department in the Bourgogne-Franche-Comté region	No	Ch. 2	58		1460	58	1463	The forest, in this sentence, is considered as an object (a useful resource) or a subject (ecological identify of a community). But if you considered forest as a project then the vision will change.	This is true, but it is not fully clear what the reviewer is suggesting.
1788	Damien Marage	France	planning department in the Bourgogne-Franche-Comté region	No	Ch. 2	60		1511	60	1511	Figure 2.17 : B Living with : Nature, Biodiversity are tangible entities, wilderness not, it's a concept.	Agreed. We have refined this.
1789	Damien Marage	France	planning department in the Bourgogne-Franche-Comté region	No	Ch. 2	65		1617	65	1619	Emphasize this crucial sentence	This message now opens a subsection (2.2.6.2.) for emphasis
1790	Damien Marage	France	Landscape and territories planning department in the Bourgogne-Franche-Comté region	No	Ch. 2	68		1689	68	1690	I'm totally disagree with the non-anthropogenic processes : We're here on the earth and we foster climate change and others biophysical processes : welcome to the Anthropocene!	We appreciate the reviewer's comment, but our intention was not to agree or disagree with process, but assess the information and the ways these issues are conceived. At the same time, the non-anthropogenic processes were eliminated because it conflated the 'value formation process' with the 'object-subject of value'. The SOD uses a typology of individual, group and socio-ecological value formation-change processes.
1791	Damien Marage	France	Landscape and territories planning department in the Bourgogne-Franche-Comté region	No	Ch. 2	69		1730	69	1730	Rather than Dumont 1980, 1986, please cite Claude Levi-Strauss the "Structuralism father" see Lévi-Strauss, C. Anthropologie structurale, vol. 171. Plon Paris, 1958 and Lévi-Strauss, C. Structuralism and ecology. Information (International Social Science Council) 12, 1 (1973), 7–23.	Incorporated citation.
1792	Damien Marage	France	planning department in the Bourgogne-Franche-Comté region	No	Ch. 2	82		2035	82	2037	Figure 2.21: A time scale is missing. The velocity of the institutional responses is crucial in order to legitimate the value expression.	We have dropped this figure in the new version of the text.
1793	Damien Marage	France	planning department in the Bourgogne-Franche-Comté region	No	Ch. 2	89		2180	89	2192	Figure 2.23: a time scale is also missing between the feedback from decision-making to institutions	Thanks for the suggestion. In the new version of the figure we have included an arrow with a reference to time.
1819	Francois Sarrazin	France	Sorbonne University	No	Ch. 2	4		87	4	94	This key message on value formation appears to mostly consider the contemporary processes involved in value formation. I would suggest to remind of make explicit that value formation also results (even very partly) from long term evolution and co evolution with nature as well as historical and cultural heritages that also include various kind of interactions with nature.	In the 'individual' pathway, we make reference to the role of evolution and human biology. In the social and social-ecological processes we discuss the role of culture, etc., which has an implicit 'legacy' aspect. We also added reference to this 'long-term' aspect of culture, traditions, etc.

1820	Francois Sarrazin	France	Sorbonne University	No	Ch. 2	15	436	15	437	It might be added that even among close European countries, differences may be significant: e.g. English language considers she/he/it but Latin language such as French only consider she/he even for natural elements including animal plants ecosystems...	Thanks for this comment and suggestion, it was noted and taken into consideration in the revised SOD.
1821	Francois Sarrazin	France	Sorbonne University	No	Ch. 2	17	491	18	508	It might be very useful to briefly introduce the apparition of the concepts of natura naturans and natura naturata underlined by Spinoza and rooted in old translations of ancient Greeks to introduce the perceptions of nature as sum of states or as a sum of processes. This discrepancy remains at least implicitly important in many discourses on nature and NCP and is also relevant for discourses on nature values and valuation.	Thank you for your comment. For the SOD we had entirely revised the section and eliminate most of it. We try to avoid being too theoretical, which would make it difficult to refer to Spinoza, although the point is very interesting.
1822	Francois Sarrazin	France	Sorbonne University	No	Ch. 2	19		20		The role of monotheist religions in the history of the nature culture discrepancy should be underlined or at least questioned (see e.g. White, L. (1967). The historical roots of our ecologic crisis. Science, 155(3767), 1203-1207. and following papers on that subject)	Many thanks for this relevant comment. In the SOD, we included a Box by CA Bron Taylor on the potential role of Religions in conservation of destruction of nature and biodiversity. This topic also came through the ILK lit. review that was conducted in CH2, and which reinforce and illustrate the point you are making, backed-up by supporting literature.
1823	Francois Sarrazin	France	Sorbonne University	No	Ch. 2	19		20		The emergence of the theory of evolution and the reconnection of human being to the tree of life should be also underlined as a major step in the debates on nature values in western culture.	Thanks for this suggestion
1824	Francois Sarrazin	France	Sorbonne University	No	Ch. 2	33	858	33	878	The perception of a good quality of life is also partly linked to our evolutionary heritage that puts biological constraints, but also motivations and reward on basic life processes linked to survival and reproduction (i.e. human fitness in an evolutionary framework). And in many societies culture and cooperation allows human being to go a step beyond these evolutionary rooted motivations to enhance the hedonic part of their well being (see Sarrazin and Lecomte 2016, Evolution in the Anthropocene: taking account of the evolutionary effects of human actions is crucial for humans and non-humans. Science, 351(6276), 922-923. DOI: 10.1126/science.aad6756)	thank you for the suggestion. We are reworking this entire part for the SOD and will discuss it.
1825	Francois Sarrazin	France	Sorbonne University	No	Ch. 2	43	1075	43	1077	"Importantly, existence values are different from intrinsic values (below) in that existence value does not refer to the value of nature for its own sake, but to the satisfaction of knowing that it will continue to exist (Atfield, 1998)". I fully agree with this very clear statement and I strongly recommend to make sure that it will be kept in the final version of the document.	thank you. We are reworking this section for the SOD and will try to keep this expression
1826	Francois Sarrazin	France	Sorbonne University	No	Ch. 2	44	1108	44	1108	Please read and consider Sarrazin and Lecomte 2016 ( Evolution in the Anthropocene: taking account of the evolutionary effects of human actions is crucial for humans and non-humans. Science, 351(6276), 922-923. DOI: 10.1126/science.aad6756) for an evolutionary perspective of the intrinsic value of present human well being and of future generations in sustainable development.	Thanks for suggesting these references.
1827	Francois Sarrazin	France	Sorbonne University	No	Ch. 2	44	1110	45	1134	The paragraph on intrinsic value is globally clear and relevant. Some additional references might include: Vucetich, J. A., Bruskotter, J. T., & Nelson, M. P. (2015). Evaluating whether nature's intrinsic value is an axiom or anathema to conservation. Conservation Biology, 29(2), 321-332.; Batavia, C., & Nelson, M. P. (2017). For goodness sake! What is intrinsic value and why should we care?. Biological Conservation, 209, 366-376.; It should be added that intrinsic value may also involve processes beyond individuals. Rolston III put intrinsic value on species as a relevant unit for evolutionary processes and Sarrazin and Lecomte (2016, Science, 351(6276), 922-923) defined "evocentric" values and conversation as a respectful focus on the evolutionary degrees of freedom of non-humans.	thank you for your suggestions and comments. We have completed a systematic review of documents for this section and will consider it in reworking it for the SOD. We agree about Rolston, but we might not be able to address this in details, because it would create too much complexity for the brevity of the section.
1828	Francois Sarrazin	France	Sorbonne University	No	Ch. 2	45	1134	45	1134	It should be added that intrinsic value may also involve processes beyond individuals. Rolston III put intrinsic value on species as a relevant unit for evolutionary processes and Sarrazin and Lecomte (2016, Science, 351(6276), 922-923) defined "evocentric" values and conversation as a respectful focus on the evolutionary degrees of freedom of non-humans.	Thank you for your comment. After completing a systematic literature review we will revise the section and refer to the most used definitions. Articulating Rolston's position might be too complicated for the section.
1829	Francois Sarrazin	France	Sorbonne University	No	Ch. 2	49		49		Fig 2.15 Close to the biophysical indicators the text saying "values are expressed in terms of important processes..." should explicitly include evolutionary processes.	We have removed this figure.

1830	Francois Sarrazin	France	Sorbonne University	No	Ch. 2	56	1392	66	1654	I fully support the vision and the presentation of the Life Framework. It efficiently solves many problems opened by NCP with a full respect of the wide range of intrinsic, relational and instrumental values. I would say that the Life Framework appears to be a promising open minded framework to embrace the huge diversity of issues concerning nature or biodiversity values and valuation. My main suggestion would be to account for the short and long term temporal dimension of life processes and to remind more explicitly the evolutionary properties of Life in this framework. Indeed, despite I am convinced that this is compatible and even implicitly included in the Life Framework, the evolutionary dimension of Life (of both humans and non-humans) should be more explicit. This is of first importance since the emergence of such a framework allowing to maintain and develop new respect for other life forms (living with, living as) is part of the evolutionary transition that make us conserving non humans for their own sake (Sarrazin and Lecomte 2016 Science, 351(6276), 922-923).	We appreciate the supportive comments. We now make explicit reference to the evolutionary dimension of life within the living with section, and have included the suggested reference. We hope to flesh this topic out further in the Life Frames annex in further iterations
1831	Francois Sarrazin	France	Sorbonne University	No	Ch. 2	69	1704	69	1715	I fully agree with these arguments. They are consistent with the idea that considering the intrinsic value of non humans and their evolution, beyond human fitness or well being is quite new at the scale of evolution (but may have already occurred in human history) and may constitute, if largely implemented, a major evolutionary transition (Sarrazin and Lecomte (2016) Evolution in the Anthropocene. Science, 351(6276), 922-923.).	This reference is relevant to the chapter, but less so now in the reformulated section 2.3. It appeals to 'non-anthropocentric' perspectives, but that is not part of this section now, and it does not fit entirely in the 'individual' values formation processes.
1832	Francois Sarrazin	France	Sorbonne University	No	Ch. 2	75	1915	76	1916	Please consider references on values of evolution Soulé, M. E. (1985). What is conservation biology?. BioScience, 35(11), 727-734; and on evocentric conservation : Sarrazin and Lecomte (2016) Evolution in the Anthropocene. Science, 351(6276), 922-923.	References were taken into consideration
1838	Sofia Boujida	Morocco	Association Terre et Humanisme, Association COALMA (Coalition Marocaine pour l'eau)	No	Ch. 2	22	576	22	577	Review of regional policies and implementation, sensibilisation of local communities	Thanks for your comment. We conducted a review of policy relevant documents, and include examples in the revised SOD.
1839	Sofia Boujida	Morocco	Association Terre et Humanisme, Association COALMA (Coalition Marocaine pour l'eau)	No	Ch. 2					sharing conservation methodes of local communities to others regions	Thanks for your comment. The methods and tools employed by local communities are discussed in Chapter 3, not in Chapter 2.
1840	Sofia Boujida	Morocco	ATTIARIWAFWA BANK, Association Terre et Humanisme, Association COALMA (Coalition Marocaine pour l'eau)	No	Ch. 2	22	588	22	589	recensement des pratiques ancestrales agroécologiques [inventory of ancestral agroecological practices)	Thanks for your comment. This was a key finding in the ILK literature review conducted in Ch2. However, given the space limitations, we are unable to provide such a comprehensive inventory of ancestral agroecological practices in this assessment. We mention agroecological landscapes as providers of multiple values in subsection 2.2.3.
1841	Sofia Boujida	Morocco	Association Terre et Humanisme, Association COALMA (Coalition Marocaine pour l'eau)	No	Ch. 2	25	659	25	661	programme smart-cities program	We appreciate this suggestion, but due to its specificity, we have not mentioend the smart cities program in our revision
1842	Sofia Boujida	Morocco	Association Terre et Humanisme, Association COALMA (Coalition Marocaine pour l'eau)	No	Ch. 2		949			Actions de sensibilisation à l'environnement by local organizations [actions for awareness about the environment, done by local organizations]	We do not understand what the reviewer means here.
1881	Kowarsch, Martin	Germany	Mercator Research Institute on Global Commons and Climate Change (MCC), Berlin	No	Ch. 2					Ch. 2 might have to say more on the relationship between facts and values in environmental assessments (fact/value entanglement, philosophy of science)	We have endeavoured not to delve into the post-truth world and the values implied in this. But we do now acknowledge that more information and elicitation of the diverse values of nature in many cases does not lead to changes in behaviour or decision-making. Many other factors are at play.
1882	Kowarsch, Martin	Germany	Mercator Research Institute on Global Commons and Climate Change (MCC), Berlin	No	Ch. 2					Not sure if this is within scope: would be helpful if Ch. 2 would not only listen pro-environmental values/principles/attitudes but also say a bit more about the justifications given for them.	Section 2.3 now presents a number of 'value-related' concepts like attitudes with reference to how values directly or indirectly influence behaviour.
1883	Kowarsch, Martin	Germany	Mercator Research Institute on Global Commons and Climate Change (MCC), Berlin	No	Ch. 2					Apart from that, I find Ch. 2 very good and helpful.	Thanks.
1906	Pua'ala Pascua	Unites States	American Museum of Natural History	No	Ch. 2	2	51	2	54	The differences between the two concepts of human-nature relationships and NCP are unclear. Recommend clarification in this bulleted takeaway and/or in the respective section.	This is an important point. We have now unpacked different frameworks for understanding human-nature relationships and associated them to NCP and different types of values using the Life Frames of Nature's Values.
1907	Pua'ala Pascua	Unites States	American Museum of Natural History	No	Ch. 2	3	55	3	55	"individually" should be revised to clarify that it is a unit/scale of measurement, rather than in reference to "broad and specific values" respectively.	We have worked to ensure that individual refers to a scale either of measurement or processes, particularly in reference to how values form or are internalized.

1908	Nadav Gazit	Unites States	American Museum of Natural History	No	Ch. 2	2	25	2	27	This language seems opportunistic, extractive, and colonial, in that it implies that the value of at-risk languages comes from being useful for conservation.	Many thanks for this relevant comment. Subsection 2.2.2 on languages was re-written focusing on the interconnections between cultures, languages and biodiversity. We rephrased the importance of languages as a humanity patrimony, and we refrained to communicate this extractive/opportunistic/colonial framing, which was not our aim.
1909	Nadav Gazit	Unites States	American Museum of Natural History	No	Ch. 2	5	153	6	154	IPLCs should be centered, rather than being an addition ("as well as") in the language here, or at least same level as scholars and practitioners. Current language makes it sound like an after thought.	Thanks. Done.
1910	Nadav Gazit	Unites States	American Museum of Natural History	No	Ch. 2	8	237	8	253	Adding wording to explain the bias in methodology would be worthwhile here (i.e., very academic)	We have detailed better our methodological approaches, where are also explicitly developed in Annexes and Data Management Reports.
1968	Yaku Félix Viteri Walinga	Mexico	Second ILK Dialogue on Values, Oaxaca, Mexico	No	Ch. 2					It is important to think about the language though which the West wants to get to know the Indigenous world, and how to look at the connections to be able to really reflect it, when using another language, a restrictive language that do not comprehend all the meanings IP provide through their words.	Thanks for this comment. For the SOD, we did make an effort to consult Linguists and Languages experts, as well as databases, to survey and highlight the diverse interconnections between languages, cultural and biological diversity.
1969	Guadalupe Yesenia Hernández Márquez	Mexico	Second ILK Dialogue on Values, Oaxaca, Mexico	No	Ch. 2					Consider that language is a very important factor that defines IPs, and even if colonialism has caused some things to get lost, there is still a very defined way of thinking and of engaging with the surroundings	Thanks for this comment. For the SOD, we did make an effort to consult Linguists and Languages experts, as well as databases, to survey and highlight the diverse interconnections between languages, cultural and biological diversity.
1970	Guadalupe Yesenia Hernández Márquez	Mexico	Second ILK Dialogue on Values, Oaxaca, Mexico	No	Ch. 2					Look in databases of languages (such as Ethnologue), the concepts related to Mother Earth or Mother Nature, to show how many ways for conceiving nature are there, even show percentages.	Thanks for this comment. For the SOD, we did make an effort to consult Linguists and Languages experts, as well as databases, to survey and highlight the diverse concepts and designations for "nature" present across the world's cultural traditions.
2027	CONANP	Mexico	CONANP, Mexico	Yes	Ch. 2	5		7	215	The introduction is somehow repetitive regarding to chapter 1 where a construction of the evaluation of concepts has been already consider	In preparing the SOD there were various strategies to better unify contents between chapters. Specific to Ch1, two fellows collaborated in cross-chapter linkages. Also, Ch1 coordinated various 'concept notes' that came to form part of the structure of Ch2, and thus took out 'basic' information from each subsequent chapter (e.g., much of the 'values history in environmental policy' that was the beginning of Ch2, is now in Ch1.
2028	CONANP	Mexico	CONANP, Mexico	Yes	Ch. 2	16	263	16	263	Recommended to work on a road map for the hole chapters, each for chapter but also design a general map for the entire exercise	Please see Chapter 1.
2029	CONANP	Mexico	CONANP, Mexico	Yes	Ch. 2	20	536	20	436	The diagram used to explain the evolution of the concept seems incomplete because it groups concepts but it does not describes it completely in the section, several concepts of different cultures has been described before (chapter 1 and part of chapter 2) and not all are included in this section	Thank you for your comment. For the SOD we had entirely revised the section and eliminate most of it.
2030	CONANP	Mexico	CONANP, Mexico	Yes	Ch. 2	30	602	30	602	It seems like there are a lot of description of concepts but it requires a last paragraph which summarize the information and focused on a more synthetize conclusion like in the key messages in which the importance of the plurality of the concepts can diverge but also should converge in order to improve the decision making	Thanks for this relevant comment. We are addressing this issue in the SOD by trying to 'wrap' up each section in a more coherent way..
2031	CONANP	Mexico	CONANP, Mexico	Yes	Ch. 2	23	618	24	669	The content of this section is not enough, on the same section different topics are mentioned, from the concept of equality to go into specifics legal process, this last one is particularly important in order to understand the different process of decision making and institutional structures over the world, so most be treated with more importance and described not only as a mention but into deep, at least some examples from different sectors, booth from institutional/governmental but also from the concept of legality and institutionalization from local and indigenous communities	We appreciate this comment about the perception that this section addresses too many big topics without adequately delving into them. In our revision, we have paid close attention to a) clarifying what topics we are addressing, and b) providing as comprehensive an introduction as we can in limited space. The rights-of-nature discussion now occupies less of the section, and we try to indicate that this is a brief introduction of the topic, rather than a deep treatment.
2032	CONANP	Mexico	CONANP, Mexico	Yes	Ch. 2	31	794	31	794	The table of example is not clear, instead of specific values like the ones mentioned above is entering into interpretations of values and under criteria not specified before, also is recommended that the table only describes example of the three values described in the section On the other hand there is a need for deepen into the relation of the definition of the different types of values and how they approach and relate with the nature context and definition	We have reformulated the tables summarising relational, intrinsic and instrumental values, including presenting a series of salient Definitions & relevant associations
2033	CONANP	Mexico	CONANP, Mexico	Yes	Ch. 2	33	854	33	886	Examples of each approach of wellbeing are needed, also to explain more about the transition from value to wellbeing in order to obtain good quality of life	We are expanding and refining this section.
2034	CONANP	Mexico	CONANP, Mexico	Yes	Ch. 2	35	915	35	915	This section looks like an interpretation of the way people approach value but not a description of the different types of approaches existing, and on the example given in figure 2.9 the approaches described are not mentioned before	thank you for your comment. We decided to eliminate this entire section for the SOD
2035	CONANP	Mexico	CONANP, Mexico	Yes	Ch. 2	40	994	40	994	Instead of describing the justification of people interpretation of values, this section should be focus on the justification or explanation of why is important to consider the different approaches and how they can relate on the construction of the decision making	Thank you for your comment. We decided to change the terminology and avoid using 'justification' as term for values. In reworking the section we will focus more on relevance for policy

2036	CONANP	Mexico	CONANP, Mexico	Yes	Ch. 2	41	1021	41	1021	The figure used in this text have different definitions of types of values which most are not even described in the entire chapter, this type of classification and description of each class is important to give specific information to decision makers	this figure will be entirely revised in the SOD
2037	CONANP	Mexico	CONANP, Mexico	Yes	Ch. 2	41	1032	41	1032	In this section another definition of value is introduced, at the beginning of the chapter only three main type were define and in this and the next sections new definition are introduced, is not a bad idea to give as much information as possible because that is part of the objective of the exercise but there is needed a more rational organization of the ideas because it looks unorganized, the same for the figure 2.12 in page 43	thank you for your comment. In reworking the section we will present a more coherent definition
2038	CONANP	Mexico	CONANP, Mexico	Yes	Ch. 2	52	1270	52	1270	During the section of integration of diverse values the recommendation is to use as an example the concepts given during the entire chapter, construct a logic and direct path through the chapter	We have removed the section on value integration. This is more applicable to Ch3.
2039	CONANP	Mexico	CONANP, Mexico	Yes	Ch. 2	55	1384	55	1391	The section provides more doubts instead of affirmation about specific impediments for integration, and like stated before there is a need of a logic flux between the different sections which is not happening at the moment	We have removed references to value integration from Ch2.
2040	CONANP	Mexico	CONANP, Mexico	Yes	Ch. 2	56	1392	56	1392	Besides the importance of the concept of the life framework, it generates confusion between the hole chapter because is another approach integrated to the others mentioned before, is needed to clarify the difference between them and the recommendation from this document on how to used and considered them	The connections between the LF and the preceding values typology has been clarified through an elaborate set of figures, as well as in the text and tables. A section has been added on the relevance of the LF to policy.
2041	CONANP	Mexico	CONANP, Mexico	Yes	Ch. 2	76	1940	76	1940	Why are the conclusions stated at this point? Is not the end of the chapter so it's confusing	"Conclusions" (or rather the take home message of the findings from teh assessment questions) were brought to the beginning of the sub-section and the use of the term "conclusion" was elminated to avoid confusion with the conclusions of the chapter.
2042	CONANP	Mexico	CONANP, Mexico	Yes	Ch. 2	81	1995	81	1995	Also should be integrated that also institution cooperation (multidisciplinary work) affects and influence on the interpretation and consideration of values	Please, note that we define institutions as 'rules' and not actors in the values assessment. See also the brief mention to facilitators influence in valuation process in 2.3.2.2.
2043	CONANP	Mexico	CONANP, Mexico	Yes	Ch. 2	86	2150	86	2150	The figure 2.22 is a clear pathway for the chapter but it brings specific concepts (particularly from box C) which has not been discussed before, in the section of methods a comment was made about being clear with examples of methods existing	This figure is taken out
2044	CONANP	Mexico	CONANP, Mexico	Yes	Ch. 2	100	2462	100	2462	There are two sections of conclusions in these chapter The conclusions should be more specific about the information described during the entire chapter, about the values, valuation, perception, etc because the conclusions does not reflect the information given, key messages from the beginning are more clear about the information presented	The conclusion - presented in section 2.4 was re-written. In the new section, we present main findings from the chapter that have implications for other Chapters and for the IPBES CF, as well as summarize gaps of knowledge.
2045	CONANP	Mexico	CONANP, Mexico	Yes	Ch. 2					General comment: There are a lot of information on this chapter but decision makers need more accurate and precise information (key and clear messages) and recommendations on how to aboard all the existing information, there is a need for a more clear path of evolution trough the chapter	Please see Exec Summary, but also new section 2.4.
2058	Sana Okayasu	The Netherlands	PBL Netherlands Environmental Assessment Agency	No	Ch. 2	13.	371	13	376	This paragraph is interesting, but seems a little out of the blue. How does it connect or add to the rest of the concepts presented in the page?	Thanks for this comment. We have re-written the text on worldviews, and this paragraph is no longer part of the new text in the SOD.
2059	Sana Okayasu	The Netherlands	TSU for Scenarios and Models at PBL Netherlands Environmental Assessment Agency	No	Ch. 2	14.	397	14	408	This paragraph on the diversity of expressions of colour is fascinating, but seems abrupt - would probably be better placed as an example of how we embody our worldviews in language. So better to have it after the two subsequent paragraphs that introduce the importance of language.	Thanks for this comment. We have re-written the text on worldviews, and the reference to Bohm's work and model is no longer part of the new text in the SOD.
2060	Sana Okayasu	The Netherlands	TSU for Scenarios and Models at PBL Netherlands Environmental Assessment Agency	No	Ch. 2	19.	534	21	538	Box 2.1. The creation of nature within Western thought / Figure 2.6. Timeline synthesizing the development of the concept of nature in Western thought. --> The figure and the contents of the box could be merged into a vertical timeline / infographic which would be easier to understand.	Thank you for your comment. For the SOD we had entirely revised the section and eliminate most of it.

2061	Sana Okayasu	The Netherlands	TSU for Scenarios and Models at PBL Netherlands Environmental Assessment Agency	No	Ch. 2	22.	572	22	586	<p>pluricentric worldviews: This resonates well with the conceptual framework distilled in the work of the IPBES scenarios and models expert group (now task force) which is conducting a participatory scenario development process. This started with a future-visioning process with a wide range of stakeholders, which generated multiple positive future visions serving as the basis for formulating new IPBES scenarios. The analysis of the visioning results identified three underlying perspectives on how people relate to and value nature, which could capture the wide range of views represented in the visions. These perspectives are: "nature for nature", in which nature is regarded as having value in and of itself without human intervention, and the preservation of nature's functions is of primary importance; "nature for society", in which nature is primarily valued for the interest of people, and which could lead to an optimisation of multiple uses of nature; and "nature as culture", in which humans are perceived as an integral part of nature and its functions. These three perspectives form a continuum, or gradient, that is represented in a triangular "nature futures framework", and which can be discussed across different scales and sectors. --&gt; Please refer to Lundquist et al. (2017), Rosa et al. (2017), PBL (2018), and PBL (2019) for details on the process of development of the nature futures framework. Links are: <a href="https://www.niwa.co.nz/coasts-and-oceans/research-projects/ipbes-nature-futures-workshop">https://www.niwa.co.nz/coasts-and-oceans/research-projects/ipbes-nature-futures-workshop</a> <a href="https://www.nature.com/articles/s41559-017-0273-9">https://www.nature.com/articles/s41559-017-0273-9</a> <a href="https://www.pbl.nl/en/publications/report-on-the-workshop-next-steps-in-developing-nature-futures">https://www.pbl.nl/en/publications/report-on-the-workshop-next-steps-in-developing-nature-futures</a> <a href="https://www.pbl.nl/en/topics/nature-landscapes-and-">https://www.pbl.nl/en/topics/nature-landscapes-and-</a></p>	<p>We thank the reviewer for pointing us to this important articulation of worldviews in the Scenarios Assessment. The Scenario's presentation of worldviews seems to represent different visions for the way individuals and groups live in the world, and how we should conserve nature for future generations. As such, they depart from our understanding of worldviews (section 2.2.1) defined as 'mental lenses' through which humans perceive, think, interpret and shape the world (Olsen, Ludwig and Dunlop 2019). They are deeply rooted in culture, iteratively shaping and being shaped by knowledge systems, languages and values. We have developed the Life Framework of Nature's Values to connect different visions for living in the world to a diversity of value types and NCP.</p>
2062	Sana Okayasu	The Netherlands	TSU for Scenarios and Models at PBL Netherlands Environmental Assessment Agency	No	Ch. 2	23.	603	23	617	<p>Figure 2.7. Anthropocentric, non-anthropocentric (nature-centric) and ecocentric or pluricentric worldviews on human-nature relationships and hierarchies. --&gt; As stated for the previous page, this conceptual structure fits well with the "triangle" diagram of the nature futures framework developed by the IPBES task force on scenarios and models. Please refer to the resources suggested above.</p>	<p>We thank the reviewer for this observation. We have refined our conceptualisation of world views to comprise of anthropocentric, non-anthropocentric, ecocentric and pluricentric perspectives.</p>
2063	Sana Okayasu	The Netherlands	PBL Netherlands Environmental Assessment Agency	No	Ch. 2	57.	1425	57	1446	<p>The description of the four Life Frames is repeated later (with some more detail) from p. 60 to 62. Maybe it would be worth moving up all of the definitions to here and not repeating it again?</p>	<p>Section has been restructured</p>
2064	Sana Okayasu	The Netherlands	TSU for Scenarios and Models at PBL Netherlands Environmental Assessment Agency	No	Ch. 2	57.	1451	57	1454	<p>Thank you for making reference to the work of the expert group on scenarios and models! Grateful if you could please refer to the group, for instance by rephrasing slightly: The IPBES expert group on scenarios and models also conceived of three perspectives (described in PBL (2018)): 'nature for nature', 'nature for society' and 'nature as culture', with the latter resonating with both the 'in' and 'as' Life Frames (see also Supporting Material for more detailed descriptions of the Life Frames).</p>	<p>Thank you, we've updated the reference to the group rather than the first author</p>
2065	Sana Okayasu	The Netherlands	TSU for Scenarios and Models at PBL Netherlands Environmental Assessment Agency	No	Ch. 2	61.	1544	62	1567	<p>There is an explanation on how 'living in' differs from 'living with', which is helpful. But it is a little hard to understand why 'living in' needs to be separate from 'living as' - could there be some additional explanation on how it differs from 'living as'? 'Living in' emphasises the sense of place, but because it also refers to spirituality and to some extent reciprocity ("care and responsibility for places"), the distinction from 'living as' becomes a bit confusing. With the current description, 'living in' seems like it could be a part of 'living as'.</p>	<p>We hope this is now clearer in the text. There is certainly a continuum between living in and living as, but there is a difference in ontology / epistemic worldview.</p>
2066	Sana Okayasu	The Netherlands	TSU for Scenarios and Models at PBL Netherlands Environmental Assessment Agency	No	Ch. 2	62.	1568	62	1577	<p>Figure 2.19. The Life Frames in relation to different value justifications (adapted from O'Connor &amp; Kenter 2019). --&gt; This diagram would also work well to illustrate the way the Life Frames match with other conceptualisations of nature-people relationships as described in your text. E.g. the mapping of the nature futures framework against the Life Frames would be similar to the mapping of the relational, instrumental, and intrinsic values.</p>	<p>Thank you for this comment. We now present a review of different frameworks for conceptualising human-nature relationships.</p>
2067	Sana Okayasu	The Netherlands	TSU for Scenarios and Models at PBL Netherlands Environmental Assessment Agency	No	Ch. 2	68.	1689	68	1690	<p>It would be good to have simpler language in the assessment. E.g. what are a 'group's inter-individual subjectivities'? Is it the subjective experience of people within a group? / E.g. What does "Encounter-based theories may include subjective elements (e.g., a spiritual experience an individual has in nature), but propose explicitly that values arise not from a separation between subject and object; rather this approach highlights the dynamic relationship between them, vis-à-vis embodied and non-dualistic experiences of value." mean? Does it mean "Encounter-based theories propose that values arise from the relationships between the valuer and others"? (explanation in 2.6.2 is much simpler)</p>	<p>We appreciate the reviewer's comment, and it is indeed imperative to communicate in clear language that is comprehensible across academic disciplines and social or professional spheres. In preparing the SOD we have sought to attend this comment systematically, but one specific example is the fact that the 'core' conclusions of 2.3.3 (FOD 2.6) are presented first and then the details are discussed (which can make it easier to find "just the facts"). Plus, the synthesis table attempts to use simple language, rather than disciplinary jargon to explain what each topic-concept means.</p>

2068	Sana Okayasu	The Netherlands	TSU for Scenarios and Models at PBL Netherlands Environmental Assessment Agency	No	Ch. 2	87	2152	87	2153	Box 2.6 on the shepherds of the Jasimaná Highland in Andean Argentina performing rituals such as offerings to the Mother Earth/Pachamama (Salvucci, 2015). "These rituals can be understood from a relationality cosmivision of humans and non-humans ('living as' frame)," --> why not from a 'living in' frame, since it covers the spiritual aspect of place, and the act of performing rituals could be a way of caring for the place? (this question is not a request to change the text here, but seeking to clarify whether the distinction of 'living in' and 'living as' is useful)	Thanks for raising this relevant issue. In the new version of the chapter we have emphasized that Life frames are not necessarily mutually exclusive. Thus we agree with you that both life-frames can be articulated by the talking circle. This box was edited and synthesized and included as a main text in the document (2.3.2.2). This text now does not make reference to Life-frames but the values (i.e. intrinsic, instrumental and relational values)
2086	System of Environmental-Economic Accounting (SEEA)	N/A	System of Environmental-Economic Accounting (SEEA)	N/A	Ch. 2					The relevance of linking different types of values (e.g. intrinsic, instrumental and relational) to different types of indicators, as in Figure 2.15. The multiple connections shown in this figure highlight the relevance of supporting an integrated and coherent set of data that can underpin the assessment of multiple value perspectives.	We have removed figure 2.15 from the text.
2104	Susan Goff	Australia	Government	Yes	Ch. 2	13	371	13	376	Bohm's work on Implicate Order is perhaps worth mentioning here. Underpins several of the concepts that follow in your text regarding intrinsic, implicit and explicit expressions. The summary you have made of his thought here is very accessible and true. It could also capture the imminence of patterning that holds and imbues all presences and "arrangements" such as the nested concept. Implicate order compels us to humility and continual vulnerability to the imminence of life, reminding us that whatever our human constructions may be they are "inescapably" natural. (Bohm. Wholeness and the Implicate Order. 2002. Routledge.)	Thanks for this comment. We have re-written the text on worldviews, and the reference to Bohm's work is no longer part of the new text in the SOD.
2105	Susan Goff	Australia	Government	Yes	Ch. 2	15	418	15	418	Suggest that thinking and feeling should not be a binary but essential interdependency for good decision making etc. Reference: Strle, T. (2017) Feeling and Thinking. Interdisciplinary description of complex systems 14/4: 331-343	Thanks for this comment and suggestion, it was noted and taken into consideration in the revised SOD.
2106	Susan Goff	Australia	Government	Yes	Ch. 2	20		20		Diagram - 20th Century notation, not sure if systems thinking and representations of nature can be included in "holism"? Does it needed to be added here?	Thanks for your comment. This figure and text on the Conceptualization to nature in historic perspective is no longer part of the SOD.
2107	Susan Goff	Australia	Government	Yes	Ch. 2	50	1236	1236	50	Values may be articulated, embodied and where there is congruence (integrity) both. Not a binary?	We have removed this description from the text.
2108	Susan Goff	Australia	Government	Yes	Ch. 2	55	1381	1383	50	Here in the conversation about commensurability is another space for Bohm's Implicate Order.	Thank you. We have noted this.
2109	Susan Goff	Australia	Government	Yes	Ch. 2	59	1494	1495	59	regarding conflict resolution about values, and taking into account the concept of pluricentricism, the conceptualisation of "values" can in some cultures not be abstracted at all. For example, when working with some First Nations in Australia, a "value" is a "fresh water oyster". This is a form of values embodiment and creates quite a different kind of conversation and perception/worldview.	Agreed. This is discussed in 2.2.2, 2.2.3 and in the Life Frames annex.
2110	Susan Goff	Australia	Government	Yes	Ch. 2	64	1612	1615	64	Should the Life Framework include consideration of values that destroy life? It could be useful to include reference to what would seem to be the global dominant values framework. Close reference: Kasser, T. 2016. Materialistic Values and Goals, Annual Review of Psychology, 67: 489-514	We now address this through looking at the risks of under- or overemphasizing different life frames, including a general disconnection from nature. This is discussed in detail in the Life Frames annex (section 4), which also includes the suggested reference.
2111	Susan Goff	Australia	Government	Yes	Ch. 2	69	1724	1726	69	Participatory Action Research is another social process where values are made explicit in language (reflection) and action/practice (embodiment) as a basis for social inquiry (learning and education) to drive change. Both individual and collective. Given its global uptake, it may well be important to mention here in this context. Ref: Podger, D., Velasco, I.M., Luna, C.A. et al (2012) Can values be measured? Significant contributions from a small civil society organization through action research. Action Research, 11 (1) 8-30.	The section on valuation (2.3.2.2) contains a lot of elements of participatory action research -- for instance it is made clear that values are comprised of both individual and collective action, and individuals are active participants in the valuation process.
2112	Susan Goff	Australia	Government	Yes	Ch. 2	75	1883	1885	75	There is much literature about the importance of exposure to the environment for child cognitive development. Important to mention children here, and throughout perhaps where relevant. Berg & Berg (2010) A comparison of children with ADHD in a natural and built setting. Child: care, health and development. 37/3: 430-439. Also, effects of nature on healing: Jimenez, AG, (2018) The healing power of green spaces, Building Design and Construction.	We appreciate the point that we need to include children more explicitly in this section, and we have done so.

									81	Comparing monetary value to market prices while having obvious advantages of the weight of the market, is not always a reliable indication of value. The market can change, be wrong (as in the case of not valuing natures services to people), and not reflect the socioeconomic circumstances of people. Restriction of supply is also not necessarily useful for value determination to nature - as for example, the increasing price of water in drought for water market profit. Percentage value of monetary value offered against actual income level of an individual or demographic group could be a counter approach. \$30 for National Park entry for someone on \$350 a week, is a greater value attribution than \$30 for someone on \$1500 per week. Is there value in considering this in the interests of equity and the nexus of values intrinsic, relational and instrumental values with market monetary values? Regression techniques risk a false finding - lower income, lower willingness to pay.	Thanks for your comment and these insights on the issues of WTP. We agree. This is a fundamental issue on monetary valuation: the frequent assumption of equal marginal utility of income across socio-economic groups. 1\$ does not mean the same for a low income person than for a high income one. A proposal from some CBA analysts is to use weights to adjust WTP in terms of income distribution. However, this approach is not frequently used because it will imply a 'value judgment' that most CBA practitioners will intend to avoid. Other valuation approaches that recently have been, and may overcome to some extent this limitation, is willingness to donate time for ecosystem conservation. In some of these studies the monetary value (opportunity cost) of time is much higher than WTP responses. Due to word limit, we could not provide a detailed account of this discussion. However, we mention in 2.3.2.2. (from values to valuation) how monetary measures are rooted in income distribution.
2113	Susan Goff	Australia	Government	Yes	Ch. 2		81	2006	2007		
										89	
2114	Susan Goff	Australia	Government	Yes	Ch. 2		89	2178	2180	As well as the method, it is the actual praxis of the facilitator that is also crucially important to explicit valuation outcomes. See: Heron, J. (1999) The Complete Facilitator's Handbook. Kogan Page, London. and Drennon, C. & Certero, R. (2002) The polics of facilitation in practitioner inquiry groups. Adult Education Quarterly, 52 (3): 193-209.	We agree with your comment. We have included the references you suggested and the role of facilitators in section 2.3.2.2 From values to valuation, in which we explained how valuation methods are institutions with rules regarding what can (not) be included.
2119	MADHAV KARKI	NA	MEP/Bureau	No	Ch. 2	overall				overall: Too long, I think it need to eb reduced to 70-80 pages; I also find the chapter too academic if not reinventing the wheel. Some of the nexts on different world views can be referred to already published IPBES related literature; new materials should be introduced if the aimis to convey a more nuanced, new and transformative nature of policy relevant messages to convince the policy makers why they should be appyving the tools of multiple conceptualisation valuation?	Unable to place this comment in the text
2120	MADHAV KARKI	NA	MEP/Bureau	No	Ch. 2	27-34				why not life under water?	Unable to place this comment in the text
2121	MADHAV KARKI	NA	MEP/Bureau	No	Ch. 2	35-43				what are they@ too specific to include in KM	Unable to place this comment in the text
2122	MADHAV KARKI	NA	MEP/Bureau	No	Ch. 2		315-356			Reference to faith value is good to illustrate how it describes value system; but better to provide perspectives from different religious belief systems to give the readers a more comprehensive and useable knowledge; better compres to a case study; for example polynesians attach high values to nature especially Taro and sing a song before eating Taro... suggest to provide a text box to describe different cases in a more succinct manner	Unable to place this comment in the text
2123	MADHAV KARKI	NA	MEP/Bureau	No	Ch. 2	368-387				Better to have literature published in last 10 years or so; knowledge is dynamic component; we cannot solve tomorrow's problem with yesterday's knowledge including ILK although I also am a champion of ILK but I do not use it to romanticise the worldview but to solve contemporary problems	Unable to place this comment in the text
2124	MADHAV KARKI	NA	MEP/Bureau	No	Ch. 2	432-436				how about the depth of knowing; i think both intensive snd extensive knowlede is what we need	This comment seems directed to Ch3 instead of Ch2
2125	MADHAV KARKI	NA	MEP/Bureau	No	Ch. 2	463-465				In IPBES, we want to give equal (or equivalent) consideration of 'indigenous or l' " and Local or L" language; it would be good to also dwell into how changing culture and demography chnages language and their world views; E.g what happens when a Ladakhi migrate to Delhi or New York or Geneva which is reality; In Khumbu region almost half of the people live outside for most part of the year so what happens to their world view expressed originally in SHINGI NAWA based norms of managing nature???	This comment seems directed to Ch3 instead of Ch2
2126	MADHAV KARKI	NA	MEP/Bureau	No	Ch. 2		489-491			consider using it in Setting the Scene (chap 1)	Thanks for this comment and suggestion, it was noted and taken into consideration in the revised SOD. We don't include the same map that was already part of the Land Degradation and Global assessments, we just cite these assessments.
2127	MADHAV KARKI	NA	MEP/Bureau	No	Ch. 2	503-505				Religious and faith values as some people practice multiple religions i.e. Hindu and Buddhism or Shikhism etc	Religion is incorporated into 2.2, but also 2.3, as a values-articulating institution and also a cultural practice that not only expresses values but can form and change them.
2128	MADHAV KARKI	NA	MEP/Bureau	No	Ch. 2		519-532			Since Diaz et al, 2015 have reviewed literature on Nature extensively does this review add any new knowledge to that? if the chapter author want to convey the same policy message as the authors of the the CF of the IPBES, I am for not reinventing the wheel; In this chapter, I am still not getting how this chapter can convince a traditional economists that non-economic valuation of nature is going to solve the problem of biodiversity loss in a better or more effective way ????	Thank you for your comment. For the SOD we had entirely revised the section and eliminate most of it.
2129	MADHAV KARKI	NA	MEP/Bureau	No	Ch. 2	559-562				yes, agree but we need tools that can be used to provide information in a way that is useful to decision makers, such as life cycle analysis, ecosystem services valuation, benefit-cost analysis, and resilience analysis	Thanks for your relevant comment! It was noted for the revision of the FOD toward the SOD.



2141	MADHAV KARKI	NA	MEP/Bureau	No	Ch. 2	2484-2492					The information from examples in my view should be based on or should foster systems thinking and sustainability, allowing decision-makers to better understand the consequences of their decisions. Your policy relevant messages should also lessen the likelihood of unanticipated consequences; many of the use-based tools involve monetization of nature principally from the anthropocentric view of human well-being. Intrinsic and economic valuation need not be mutually exclusive; there is room for both perspectives. This message should come strong and clear from this Chapter.	We have taken account of this comment. We note that it is equally relevant for the section on valuation methods
2142	MADHAV KARKI	NA	MEP/Bureau	No	Ch. 2	2550-25169					All the IPBES assessments have talked about the role of perverse incentives, disincentives, negative incentives etc. Perhaps here the the way actors value nature might play a role; so institutions related to taxations, regulatory mechanisms (eco-labelling) are put in place but their effectiveness vary; May be values play certain role here.	We have noted the point. The section is entirely rewritten. Much of this relate also to issues that are Chapter 4 responsibilities - empirical documentation.
2146	Fischer, Markus	NA	MEP/Bureau	No	Ch. 2						Ch2 (and Ch1): "What are values?" should be at the beginning, and in part even be moved to Ch1.	Agreed. It is now in Section 2.1, as well as in Ch1.
2169	Rovshan Abbasov	NA	MEP/Bureau	No	Ch. 2	30	812		850		More about non use values/ Bequest value is not mentioned. The same can be told regarding option and existance values.	We have included a separate section on the TEV framework, which includes non-use, bequest values etc.
2170	Rovshan Abbasov	NA	MEP/Bureau	No	Ch. 2	79	2031		2055		In Non-anthropocentric value formation processes section we should talk more about animal and even plant rights. There are broad palette of literature sources about that.	This is a good comment, but a decision was made for the SOD to remove this typology because it conflated value process with 'objects-subjects of value'. Therefore, the issue of who is a subject or object of rights is not appropriate for this section.
2183	Judy Fisher	NA	MEP/Bureau	No	Ch. 2	2	37		2	40	It is important that we include numerous indigenous language groups and culture from different and varied parts fo the world. I am wondering why it is specifically relating to language groups, when there are also ther cultural perspectives aside form language groups	Thanks for this comment, the text was revised to reflect this suggestion. There are various examples, apart from language groups, connected to ILK from diverse parts of the world. This diversity was also captures in our ILK literature review, which some examples are explored in this SOD, but taking into account our word limits.
2184	Judy Fisher	NA	MEP/Bureau	No	Ch. 2	2	42		2	42	This is a growing trend and has a high association with values and implementation of values based approaches co could eb a strong area to weave through this topic	Thanks for this note. In the SOD, we further develop this ideas and include a specific cross-assessment case-study on Buen Vivir and related philosophies/ lifeways.
2185	Judy Fisher	NA	MEP/Bureau	No	Ch. 2	2	46		2	49	this statement is perhaps a little weak perhaps it requires more than a condiseration of balance, but also requires providing understandings of the differences in diverse values and what the benefits will be to the policy formation and its implementation by their inclusion	Thanks, we noted this comment, and we discuss the differences in diverse values and implications of policy choices in Subsection 2.2.3 of the SOD. Also, Key Messages were reformulated to reflect our revised text and the results from the several literature review efforts conducted by Chapter 2 authors.
2186	Judy Fisher	NA	MEP/Bureau	No	Ch. 2	3	66		3	69	I feel this sentence needs restructuring so that the people side of the values discussion becomes the frist part an dthe inclusiev part of the sentence	Thanks for this suggestion
2187	Judy Fisher	NA	MEP/Bureau	No	Ch. 2	3	70		3	76	this could be improved to be less about definitions but how these different approaches can be incorporated into policy	KMs were generally updated to have a link to policy, and specifically to account for policy documents, we have incorporated findings from the assessments of CBD, MEA, NBSAPs, FAO, etc documents
2188	Judy Fisher	NA	MEP/Bureau	No	Ch. 2	3	77		3	83	perhaps the role of the assessment is not to state the differences but to provide a key message which assesses how to utilise the assessed key components of incorporating values into effective policy, rather than an academic descriptions	Ch2 presents the conceptual basis of values. We have elected not to be prescriptive about how to utilise the assessed components in policy. This is the focus of Chapters 4-6.
2189	Judy Fisher	NA	MEP/Bureau	No	Ch. 2	3	84		3	91	what is the Life framework, perhaps I will find out as progress througth the document, difficult to bring such a concept directly into a key message	In KM 5 we now note: The Life Framework of Nature's Values are a systematising framework that can effectively organise the complexity of values, linking broad and specific values to NCP, good quality of life and diverse perspectives of human-nature relations. They provide a way to include, bridge and communicate multiple value perspectives in decisions and can help balance use and conservation of nature.
2190	Judy Fisher	NA	MEP/Bureau	No	Ch. 2	4	92		4	99	values, here perhaps the most important thing is about values systems which are quite different to values, my thinking is that a key aspect of such a key message should be about value systems	We try to relate 'value systems' in the KMs in two places. One is related to the ways of being/knowing/etc... which we term life frames. These affect how people 'organize' their value systems. In the formation/change section, we discuss how formation and change is not necessarily 'new' values, but how values are structured and prioritized (see 2.3.3.2).
2191	Judy Fisher	NA	MEP/Bureau	No	Ch. 2	4	105		4	112	probably needs a great deal of reworking	The whole structure of KMs is changed. The version in the FOD came forward at a very early stage
2192	Judy Fisher	NA	MEP/Bureau	No	Ch. 2	4	116			117	this sounds like an economic approach is that hwat we are trying to achive here which is quite different to valuing the intrinsic aspects of the natural world	It is not intended as such. We define institutions as 'rules' and note that norms is a key type of institutions
2193	Judy Fisher	NA	MEP/Bureau	No	Ch. 2	4	119		4	122	rather than a statement of fact can we turn this wording as time progresses into solutions around this	We have tried to do so. At the same time, Chapter 2 is conceptual and there are limitation regarding how far we can 'stretch' our text with respect to policy implications
2194	Judy Fisher	NA	MEP/Bureau	No	Ch. 2	4	158		5	196	It would begood to bring prior to this discussion the many historical and philisophical approaches into this discussion which were in existence long before the discusion which begins at line 158. It is really these early approaches which should frame this topic with the matters mentioned from line 158 on being an appendix to the early evolutions of this topic	Ch1 introduces the history of these concepts, and we have delimited our discussion to that which is specifically relevant to the IPBES mandate. There is also an Annex regarding a 'concept note' of nature.

2195	Judy Fisher	NA	MEP/Bureau	No	Ch. 2	8	250	8	251	Great to see this approach being used but do question beginning at 2005 as values are a very ancient topic w emay lose critical information here	We appreciate this point, but justify the 2005 'benchmark' for the reasons given in the text. Plus, our approach does incorporate earlier works for two reasons: a) The Stage 1 database included review articles that inherently take into account previous work, and b) in Stage 2, we explicitly accounted for other previous works (obtained via snowballing techniques from Stage 1, expert opinion on seminal publications, or new keyword searches).
2196	Judy Fisher	NA	MEP/Bureau	No	Ch. 2	8	252	8	257	I do query the logic here as the topic of values has been in the public domain since before the millennium ecosystem assessment can we please reassess this this whole section, in the light of the historical use of values through other world views, cultures and perceptions which must surely be a very important part of this "assessment"	We appreciate this point, but justify the 2005 'benchmark' for the reasons given in the text. Plus, our approach does incorporate earlier works for two reasons: a) The Stage 1 database included review articles that inherently take into account previous work, and b) in Stage 2, we explicitly accounted for other previous works (obtained via snowballing techniques from Stage 1, expert opinion on seminal publications, or new keyword searches).
2197	Judy Fisher	NA	MEP/Bureau	No	Ch. 2		258		263	How do you propose doing a similar search through the grey literature which will be critical to understanding this topic of values and covering differing world views and perspective?	The grey literature databases are explained now in the section on Stage 2.
2198	Judy Fisher	NA	MEP/Bureau	No	Ch. 2	8		general	8	I have recently worked on a similar approach in another project and when assessing the results we found problems using a narrow start date and accessing the equally valid grey literature	We use a 3 stage approach, which is systematic (1), representative (2) and expansive (3).
2199	Judy Fisher	NA	MEP/Bureau	No	Ch. 2	9	268		9	I see the inclusion of languages which is good but what about other approaches such as perceptions, may I suggest looking at Chapter 2 of the Land Degradation and restoration assessment which is all about worldviews and perceptions and quite different to chapter 2 in all other assessments	Perceptions is such a broad term. We have decided to retain our conceptualisation of the diverse values of nature, as presented in the pyramid in Section 2.1.
2200	Judy Fisher	NA	MEP/Bureau	No	Ch. 2	9	270		9	this seems limiting to just be academic and cultural, maybe I will understand better when I read the section, may be it relates to more than this	The grey literature databases are explained now in the section on Stage 2. The section was re-structured.
2201	Judy Fisher	NA	MEP/Bureau	No	Ch. 2	11	315		11	very good section it will be interesting to see how this develops with more time	Thank you! We actually split this section in 2, and further developed the Languages part in a specific subsection, with the contribution from several CAs. We hope that you like the direction we took with this section from the FOD to the SOD.
2202	Judy Fisher	NA	MEP/Bureau	No	Ch. 2	16	466		16	please see the figure we developed in the land degradation and restoration SPM which shows a map of the world and linkages between biodiversity and number of languages	Thanks for this comment and suggestion, it was noted and taken into consideration in the revised SOD. We don't include the same map that was already part of the Land Degradation and Global assessments, we just cite these assessments.
2203	Judy Fisher	NA	MEP/Bureau	No	Ch. 2	30	831		30	I guess this is only about economic Valuation? Hopefully non economic will be included	We have rewritten the values as indicators sub-section, providing specific examples of biophysical, socio-cultural and economic indicators
2204	Judy Fisher	NA	MEP/Bureau	No	Ch. 2	31	847		31	will this section include values systems as oppose to individual values, both are quite different	We have decided to not delve into the issue of value systems. We instead refer to worldviews. Regarding individual value, we note also a focus on shared and social values.
2205	Judy Fisher	NA	MEP/Bureau	No	Ch. 2	59	1539		69	not sure that such strength should be placed on this Life Framework, it appears to be just one approach here it seem e to be advocating it as the way forward when I am unsure that this is the correct way to approach, it may be mentioned as 1 vis but I doubt stating it can repace others is a correct approach. there needs to be vety careful consideration to advocating thsi, there are many world views which would not aspire to this as an appropriate approach,	Ch2 has completed a review of potential organising frameworks (2.5), providing a clearer justification of why the LF was chosen. Elaboration of the LF is now also more explicitly grounded in systematic review.
2206	Judy Fisher	NA	MEP/Bureau	No	Ch. 2	81	2078		85	the whole chapter does not appear to have mentioned value systems this appears to be a huge gap and lack of understanding that there are systems of values not just value alone, and systems of values are probably more important than values alone	Based on the typology presented in 2.1 of the SOD, we do not have a specific typology for 'values systems', but do recognize that people prioritize and hierarchize values based on their modes of living/being and applied in specific contexts. This allows the same ideas to be communicated, but in a causal mechanism rather than a typological list of systems.
2207	Judy Fisher	NA	MEP/Bureau	No	Ch. 2	98	2398		106	there appears to be a large gap/lack of information about non monetary approaches to valuest throughout the chapter	The SOD has been prepared to balance both monetary and non-monetary approaches to values-valuation.



2381	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	28	752	28	752	2.3.1.1 Broad values includes gender values, age values (teenagers are making their agenda in environment) and what about ideologies (without taking side to any), for example differences between the liberal ideology, ecofeminism, Marxism , etc.... My question is based on whether an analysis of values can be done without touching these points, however difficult they may be. For example, I realize that in my own life the valorization of things and much of what I do is deeply linked to my own ideology, and from there I determine own values. Religions can also be treated as ideologies that shape the relationship with nature; Christian Jewish values with animals are not the same as the values expressed by Buddhism	We thank the reviewer for this comment. We now broadly discuss the concept of ideology in relation to different worldviews (sections 2.2.1), but we have chosen not to present the complex terms of ecofeminism, Marxism etc. We refer to the important influence of religion and religious studies on value formation and change.
2382	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	35	939	35	940	Is not very clear the relation of well-being with asthma, allergies, mental health, obesity, cardio-vascular condition, depression and cancer. Of course this is a negative relation that must be stated. I understand what the author intention was...there is a negative relation between well being and cancer, of course, so they are related, but the sentence is neutral and can be confuse	thank you for your comment. This section on wellbeing will be entirely revised in the SOD.
2383	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	36	967	36	FIG 1	Inside the figure there are concepts not explained in the text as "pareto optimality future discounting"	Thank you for your comment. We will rework this section entirely for the SOD
2384	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	37	973	37	974	I do not agree with this sentence that is for urban people from which nature is like a medicine. Several rural children for example are very cruel with animals. This is not a rule. It happens but not as a principle. ENVIRONMENTAL EDUCATION is what helps to valorate and enjoy the joy of nature	Thank you for your comment. We decided to eliminate this entire section for the SOD
2385	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	37	983	37	983	and ideologia	Thank you for your comment. We decided to eliminate this entire section for the SOD
2386	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	38	1006	38	1006	In case you need an example, we have a paper about decisions and perceptions of children in the altiplano regarding animals. Wawrzyk A. y Vilá B. 2013. Analysis of the perception of the wild vicuña by children and teenagers in the Andean altiplano of Argentina. Journal of Ecological Anthropology, 16 (1), 27-42. In which values are expressed	thank you very much for the suggestion.
2387	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	38	1022	38	1022	interpenetration, is the exact word? It has a shocking sound reading it for the first time	the term is used by anthropologists working with Amerindian in the Amazons and refers to literal bodily interpenetration with different herbs or substances. In reworking the section we will explain it better
2388	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	39	box 2.2.	39	box 2.2	Marisol is the author? And Maxima is the protagonist, is this OK? why have Marison in the title then.	The text was revised for errors.
2389	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	40	1046	40	1046	Nice figure	Thank you very much!
2390	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	41	1081	42	box 2.3	Very interesting example in UK!	thank you
2391	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	43	1113	43	1113	Muraca 2019 or Muraca 2011?	thank you for the note - we will revise the references at the end
2392	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	46	1181	46	fig 2.12	the figure is very clear. It could be nicer with some drawings...	Figures were further refined in iterative working sessions and support was provided by the TSU.
2393	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	47	1215	47	1216	Intrinsic value definition very nice! 1215; the values of nonhuman beings expressed independently of any reference to humans as valuers.	thank you!
2394	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	48	1244	48	1245	The terms have already being presented in the chapter before, so it is important to refer to them	We have removed repetition in the presentation of terms by cross-referencing other sub-sections.
2395	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	50	1303	50	1303	Is it possible to mix figures 2.13 and 2.14 in only one figure?	We have removed these two figures from the SOD and replaced with new figures.
2396	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	52	1353	52	1354	meta lenses are ideology, culture not only knowledge	We have removed references to meta-lenses
2397	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	56	1456	56	1456	It would be interesting to give an example. I think the discussion about trophy hunting can be very interesting, with pros and cons that come from many places	We have removed this section.
2398	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	57	1485	57	1485	the concept of "pluriverse" is very interesting	Thank you.
2399	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	58	1537	58	1538	Life Frames of how the natural world matters: we live from the world, we live in the world, we live with the world, and we live as the world. They are not mutually exclusive, we can live every day with different percentages of "from, in, with and as", simultaneously	That is correct, the text explains the frames are not mutually exclusive
2400	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	59	1570	59	1570	are you using "more-than-human world" as nature synonymous?	the term 'more-than-human' is used in the field of 'more than human participation' within human geography. We don't use this term now, except when referring explicitly to this field.
2401	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	60	1597	60	1568	while the NCP framework has extended this breadth, it has not been fully able to address these critiques. I do not really see how life framework is doing better than NCP	The LF unpacks NCP, including context specific NCP, by providing a straightforward set of ways in which people may relate to nature. Also, it extends the ways NCP represent human nature relations by including intrinsic values, and making more explicit reference to reciprocal embodied relationships and values. The LF also provide the function of linking the IPBES concepts of nature, NCP and good quality of life with particular sets of broad and specific values. This is now explained and demonstrated more clearly in 2.2.5, and see diagram 2.15

2402	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	61	1619		61	1620	contributions to people is problematic with regard to reflecting care, duties and virtues towards nature expressed as 'giving back'. This is an interesting reflexion, but I do not understand why the reciprocal People contributions to Nature is difficult to asses. Can be a doble narrow from NCP to and from PCN	Agreed. We have discussed peoples contributions to nature briefly in the Living with text, and it is also discussed in Section 5 of the Life Frames annex.
2403	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	62	1625		62	1625	This is already indicated in my previous review, I do not think that this figure that shows these four illustrations separated from each other is indicated. One does not operate exclusively in one of them, operates simultaneously in several	We agree. We now present a set of fuzzy boundaries in our values typology, and the frames as spotlights on to particular areas of value.
2404	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	67	1723		67	1724	This passage demonstrates how the narrator can concurrently see the environment as a resource (living from), as their place (living in) and as an object of reverence (living with), THIS IS what I said. That we use diferent ways simultaneously, so It has no sense to have them separately	We believe this is a non-sequitur: why does something being important for more than one reason mean that identifying these multiple reasons does not make sense? Along the same argument, it would not make sense to distinguish between intrinsic, instrumental and relational values, because things are often valued for multiple reasons.
2405	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	71	box 2.5		71	box 2.5	source of a value, which can be based on an objects, subjects or encounters. Question: Ideologies, religions are not SOURCE of values?	This box was removed.
2406	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	72	fig 2.20		72	fig 2.20	I FULLY AGREE that lamas and vicuñas as all the camelids are a great source for values. They are beautiful animals! I love them, I study them, I use them as resource. The figure is not very nice although the nice animals	This box was removed, but this is now the initial figure in 2.3 with slightly different meanings.
2407	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	74	1898		74	1898	Please give an example of context-specific values.	Specific values are defined in 2.2 as those applying to particular contexts or situations.
2408	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2						Encounter based values formation needs some reference to Thoreau (walden) To appreciate the craft of everyday life and the ancient rhythm that connects individuals and nature, Thoreau recommended the same thing as pre-existentialist thinkers like Kierkegaard or Nietzsche: avoid the call of the crowd and the obligations to sustain a reputation and material life and live in the woods.	We have added the famous 'story' by Leopold of his encounter with the wolf... and to be regionally balanced decided not to prioritize another about Thoreau.
2409	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	75	1960		75	1960	existentialism?	We were not sure how to relate this concept to the restructured section on values formation. Overall, we have attempted to 'reduce' the disciplinary concepts (in this case from philosophy) and link to broader ideas that are easier to communicate, but of course also linked to theory.
2410	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	78	1993		78	1993	Quechua concept sumak kawsay. I know that in some Asian countries like Buthan there are similar ideas, the right to be happy. Can you explore other similar concepts?	There was a cross-assessment working group that is preparing a 'case study' on Buen vivir, but also linked to other similar concepts. See this new case study but also associated annex in 50D.
2411	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	78	2004		78	2004	Great the inclusion of environmental education	Thank you!
2412	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	85	2141		85	2141	What about political ideologies and context? And the religions? I believe that both things, politics and religion are determinants of the context and therefore of the values	The issue of religions and 'socio-institutional' context are treated in values formation and change (2.3.3.2). These are also related to the institutional values expression section (2.3.2.3).
2413	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	86	2182		86	2182	fig 2.21 is not clear	The figure was dropped in the new version of the document
2414	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	87	2195		87	2196	It is unnecessary to clarify "A report like this cannot overcome the power relations implicit in the hierarchies of disciplines and the position of different actors with respect to decision-making".	Thanks for your comment. In the new version of text, this sentence was dropped.
2415	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	87	2217		87	2218	You are using "culture" instead of "worldview o context? This three concept must be identified and defined	Thanks for raising this relevant point. In the new version of chapter 2 (2.2) we have delimited the difference between culture, worldviews and knowledge systems in relation to values. See the Values Pyramid figure in 2.1.1.
2416	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	88	2247		88	2249	"For example, as the state adopts more stringent laws in cases of drunk driving or domestic violence, law enforcers may become reluctant to arrest, charge, or convict violators". WHY this is stated, in several cases is just the opposite. I do not understand this. with stricter laws today there are more men accused of femicide in prisons in many countries	This section was edited substantially and the example about stringent laws and enforcement was not included.
2417	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	89	2258		89	2258	It would be interesting to note that feminist movements not only want equality. Feminist movements identify environmental damage with the patriarchal power of dominance over nature, such as the dominance of women's corporality	We agree with your comment. However, this section was edited substantially and the example about feminist movements was not included.
2418	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	91	box 2.6		91	box 2.6	There are several examples of offerings to Pachamama, I can give more references.	Thank you very much. Will will welcome your suggested references
2419	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	92	box 2.6		92	box 2.6	However, a person may conflict with the norm and its values, therefore it will be necessary to provide her with punishments and rewards to obtain desired outcomes. his is very behavioral (conduct), this is the line of the text when talking about psychological aspects?	This section was edited substantially and this example was not included. In the new version of the chapter, along with general approaches of human action (2.3.1.1), we also include a review of behavioral theories pointing that the term behavioral may not be inclusive of other approaches to human action such as practice theory (2.3.1.2).
2420	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	93	2324		93	2331	It is a repetitive text, this has already been said before in the document	Noted. The text is completely rewritten

2421	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	95	box 2.7	95	box 2.7	Understanding "human behavior" is not something that can be done easily in a box. I think the title is too ambitious, thinking the human behavior or reflections on the human behavior	The section is restructured. Now the text in the box appears up front in an extended section on human behavior, emphasizing motivations for actions including values.
2422	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	99	2466	99	2467	he difference is not only between democracy and dictatorship, in democracies there are also differences between populist, left and right governments	The section is completely rewritten
2423	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	100	2478	100	2478	We will illustrate the importance of power relations as influencing outcomes, and CORRUPTION has to be incorporated as it is a real situation in several countries, sorry!	Corruption is now referred to in section 2.3.2.3.
2424	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	103	2582	103	2582	very interesting "crowded out"	Thank you for the comment
2425	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	140	4031	140	4031	I have several papers to send you to use as reference. Pachamama, andean values, resilience, values in environmental management. Do I have to send them to cochairs or CLA?	We now have a cross-assessment case study of Buen Vivir, including an extensive literature search.
2426	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	149	4290	149	4290	No needed to add more detailed descriptions of the Life Framework, what we have in the chapter is ok	Thanks for this recommendation.
2427	Bibi Vilá	NA	MEP/Bureau	No	Ch. 2	General	general	general	general	Chapter 2. VALUES The chapter is very well written and clear and has improved. Congratulations. But my opinion is that it lacks some issues that I believe should be incorporated, they are uncomfortable and difficult to address: Political ideologies, religions, environment movement lines: ecofeminism, environmental justice, growth 0 groups. There is a great variability of values in the people concerned with the environment and biodiversity from a Zen monk to an ecoterrorist. Although they all agree that they all want a healthier environment the actions depend on values and can vary from meditating to burning a transgenic field. I also believe that in a chapter like this, the text should be impregnated more with issues of conflicting values of current reality, for example the "friday strike" (greta) of teenagers or debates on bullfights. I have a lot of material to contribute on the subject of Pachamama and various values on Andean issues, several papers to pass on. I don't know to do it. Do I have to send them to CLAs or co chairs? An important issue: You have to check that different terms are used for the same thing. For example in line 16 says "intrinsic, instrumental, and relational values" but in line 240 says "non-anthropocentric, instrumental and relational values". IS INTRINSIC or NON-ANTHROPOCENTRIC? First Nations or Indigenous? "Culture, context and worldview" sometimes are used as synonymous. It is clear that different authors prefers own language but an effort must be done to homogenize the words or differentiate them clearly "Vivir bien" and "buen vivir" are not synonymous. I consult my friend Vivi Figueroa of the ILK task force.	We thank the reviewer for these detailed comments. To respond systematically: 1) We think that the SOD will show significant improvements on the issues of 'religion', 'power' and 'justice', including the incorporation of two CA's to provide insights from 'religious studies' (Bron Taylor and Chris Ives). These assessments are now explicit in 2.2 and 2.3, and by such specific case studies involving grassroots movements as the Vandata mining in India and the Klamath River watershed management in the USA. 2) In section 2.2, there is now a more consistent treatment of the term 'culture' and overall there has been a prioritization of the concept 'worldview' to distinguish modes of thinking/being/acting, which are also explicitly interchangeable, as is the case of the Life Frames, which are explicitly non-exclusive. 3) We also develop the 'buen vivir' case study, including Alberto Acosta as a CA, not only as a 'thru-chapter' case for Ch2, but as a 'cross-assessment' case being developed by a team from every chapter. Finally, 4) an explicit ILK contribution process has identified literature and also non-academic sources, which are actively being incorporated into the assessment, and will continue post-SOD.
2441	MADHAV KARKI	NA	MEP/Bureau	No	Ch. 2	2662-2671				I think it is possible if we use system thinking and shared well being between humans and non-humans or human and nature	The section referred to is not included in the SOD.
2518	Gorucu Ozden	NA	MEP/Bureau	No	Ch. 2	97	2365	99	2445	Volunteer to pay not available so far in the FOD, whereas it has strong link with VA	Noted. Thank you for the comment. This point has been considered for the SOD.
2587	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	2	26	2	26	These messages are fundamentally academic and don't in any way represent /address the major concerns of countries and decision makers in Africa (and I suppose other regions). I have the feeling that the authors (and maybe IPBES as a whole) understand intuitively that an assessment of values is important or even essential, but do not yet know why (except to say that decisions are related to values, which is totally insufficient - the rest are academic considerations of values - with behaviors, institutions, etc., without ever discussing values and economic value as systems related to human-nature relationships). Capitalism is a tabou never mentioned. This is so abstract! While the processes and facts leading to this concern are so concrete (see global assessment). Unless we quickly resolve this, I am afraid that this whole effort can lead to our fist big flop...	Indeed initial KMs were preliminary. Since the FOD, they have been co-created in 2 specific group sessions in Ch2, as well as presented and considered in SPM workshops across chapters to develop the SPM. Specifically regarding the concerns expressed in this comment, we have undertaken to assess how values can be 'highlighted' or 'observed' in different ways (e.g., issue 'framing', institutions, etc.). We have also more explicitly engaged economics, seeking to point out virtues and defects of these valuation systems with regards to the value concepts they do or do not facilitate, especially in the light of power and justice. We do not fully develop these topics in decision outcomes, but present the concepts for later treatment in their respective chapters (e.g., Ch4 and Ch5).
2588	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2		27	2	27	The first key message should set the stage and identify the problem. This is not about the "values of nature", but rather the type of value system and conflicts of values that explain the current state of biodiversity and NCP around the world. This would bring to the fore key questions related to the difference and relationships between the creation of value in the economic system and the values that animate different belief systems and systems of representation. From the start, key questions about the relationships between the economic system(s), the social ecological system(s), and the system(s) of representation should be raised	We now include a preamble to 'set the problem' before the 'assessment'.
2589	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	2	30	2	30	This is an intrinsic values of human existence. Why make it contingent on conservation and diversity? Surely, it can't be more intrinsic than that.	Thanks for this comment. The idea was to connect to biodiversity and nature. But this KM is re-phrased in the SOD, in which the intrinsic value of Languages in highlighted.

2590	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	2	35			2	43	<p>This opposition between anthropocentric and "non-anthropocentric" views is not very candid; historically, it has been the opposition of biocentric and anthropocentric views. No reason to not name it as such. Biocentric views of conservation have been preeminent among conservation biologists and have tended to exclude local people from protected areas. This historic divide is expunged from this description, an omission that should be corrected. In addition, most World philosophies, beliefs and religions, consider humans to be at the center of creation. That is far from meaning that they believe that nature and non human being are only there to satisfy human needs. The use of a conjunction such as "often (seen)" is misleading. Same with the reference to Sumak Kawsay and Buen Vivir philosophies (philosophy??), which is unclear and a bit problematic: "concern for all earth inhabitants based on reciprocal relations" is widespread in many anthropocentric cultural traditions, which is reflected in myths of creation centered on the people (humans) in relation to the universe. This is true of, perhaps, a wide majority of World cultures.</p>	<p>Many thanks for this comment and input. The text has been revised accordingly. W present results from the literature review, and clarified the distinctions between four main human-nature worldviews: anthropocentric, biocentric, ecocentric and pluricentric, and their connections/ implications to values.</p>	
2591	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	2	44					<p>The assessment (maybe since the scoping) is making this point the center of its analysis. This is problematic. The relation between values and decision-making is not linear. It is individual or contingent only in surface, as it is, in fact, the outcome of a much larger system of relationships and powers, with strong economic and ideological foundations. Value systems fundamentally contribute to the existing system, while carrying leftovers from old systems and seeds of new ones. (distinction to make between ideologies, thought systems and value systems)</p>	<p>We do not think we see the relationships as simply being linear - see also the reference to e.g. power dynamics. We note that the KMs are reformulated this specific formulation is no longer included</p>	
2592	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	2	48			2	49	<p>This can be useful only in the context of addressing the broader relations between ideal values (immaterial mind shapes) and economic value (material and immaterial production of livelihoods, wealth, and power). So far, chapter 1 and 2 are dancing around the issue and not once addressing the nature of capitalist accumulation as the centre of the system of exploiting nature to benefit social elites. Instead we are having vague and imprecise generalities about anthropocentric and "non anthropocentric" worldviews... and values of the decision-makers...</p>	<p>We thank the reviewer for the comment. In Section 2.3 we now recognise that any decision about the prioritisation of values leads to winners and losers and is thus intimately associated with questions of justice and power. We build on these arguments by noting that institutions are power-carriers; they align people's behavior towards particular values and interests. They can also promote specific kinds of interaction through power structures, such as gender, race, ethnicity, class, caste, and capitalist markets</p>	
2593	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	2	53			2	56	<p>I am very puzzled by this distinction and its centrality in the assessment. The broad/specific distinction seems to exonerate the authors from identifying and naming the value systems, from giving them substantive meaning. This take us back to the great divide between formalism and substantivism in economic anthropology (could be worthwhile for the author to read or re-read Karl Polanyi's critique of formalism in his discussion of the economy as an instituted process (1957). It could help come back to a more substantive method for conducting this assessment.</p>	<p>For the purposes of simplicity, have decided to focus on presenting the relationships between world views and values in section 2.2. We then show how different types of values and understandings of NCP can be organised using the Life Frames of Nature's Values.</p>	
2594	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	2	55				3	63	<p>These categories (broad, specific) just do not "talk" to me. It's so much more rewarding to see how different values and measures of value interpenetrate to form a value system, with deep layers of meaning leading to social reproduction</p>	<p>We chose to retain the distinction between broad and specific values in 2.2.3 because these two value classes are dominant in the literature and have implications for how we understand human behaviour and decision-making.</p>
2595	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	3	66						<p>This is a language of only one subfield of economic theory (mostly contingent evaluation). If you consider political economy, institutional economics and non economic social fields, you have very different classifications and theories..</p>	<p>We thank the reviewer for bringing this point to our attention. We have substantially revised the values and economics sub-section to account for the dominant ways that the economic literature presents the multiple values of nature. We focus on the strengths and limitations on eliciting values using preferences and then present a box summarising the scope, strengths and limitations of the TEV framework. We have revised the KM to reflect these nuances.</p>
2596	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	3	68			3	69	<p>Yes. You can even go further and link it to social reproduction.</p>	<p>Thanks for the suggestion</p>	
2597	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	3	70			3	76	<p>Yes</p>	<p>Thank you :-)</p>	
2598	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	3	82					<p>Yes; we can refer to fuzzy logic system and to the "dynamic comparability" of incommensurable values (Diaw 94)</p>	<p>Thanks for this suggestion. We now recognise the potential for fuzzy boundaries between different types of values as opposed to fuzzy logic systems.</p>	
2599	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	3	84			3	86	<p>The framework is limited and biased because of the fundamental omission of the defining relation between economic value creation, value systems and people-nature relationships... This is a key to human history. In addition, neither chapter 1 or chapter 2 positions the assessment of values in the historical evolution of this value complex (creation of economic value -- dominant value system - social relationships and relationships with nature)</p>	<p>We thank the reviewer for this comment. We have since revised the Life Framework to show the relationships between different framings of how nature matters, many of which are based on dominant value systems that have developed over time. We have also re-written the specific values section to more strongly emphasise how relational values are grounded in different understandings of human-nature relationships.</p>	

2600	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	3	92			4	99	What is the policy relevance? Lots of "reflections" with not much relevance to understanding the real problem. To start with, what is the problem? We are not studying values for the sake of understanding values in decision making! We are studying values in the context (and hypothesis) of identifying the type of actions related to values that will change the interface between people and nature (which, I argue, is a relationship among people about nature) by reducing negative impacts and enhancing positive ones (in the long run, not just on the spot - considering the temporality of human-nature impacts and social values).	In reformulating the FOD to the SOD, the mandated information on 'values formation-change' was more explicitly linked to 'values expression-action'. Plus, it was reorganized to highlight the 'entry points' that decision-makers can use to affect these processes.
2601	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	4	100			4	101	Yes. But how can we address the relevance of this observation except in relation to the related discrepancy between subsumed or neglected values and the dominant economic system of value creation?	We now introduce the fact that hegemonic worldviews-institutional structures are the cause of the current "crises". This in the preamble to set-up the problem. Then, we also relate this issue to which value are hindered and highlighted by such concepts as those used in economics (KM4). KM7 also demonstrates how policies that prioritize certain human-nature relationships are also prioritizing particular values or sets of values.
2602	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	4	102					is this the key to the shifts? Re-examine the relationship between these variables (society, ecology, value hierarchies + but the ones not mentioned, e.g. the economy)	We now have specific KM related to economics (KM4), and we also seek to address the issues of "promoting" and "neglecting" values in KMs 7,8,9.
2603	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	4	105					It is far from demonstrable that behavior is fundamentally dictated by values rather than economic strictures, conditions and relationships. In fact, I see very different types of values with respect to history and evolution: Slow values take centuries to transform through erosion and evolution. But the fast ones (fast values), particularly the ones closest to the economy and to politics change much faster. Fast values are mostly a dependent variable of socioeconomic and political relations, though that relation is not exclusive or linear...	In the SOD, we have paid greater attention to the role of economics, and power, in determining the values that are articulated, and not just the values per se. In addition, there is an entire review (2.3.1) about the link between values-behavior, which shows how these are not just issues of individual choice, but societal structures that facilitate or hinder values expressions. These ideas were developed particularly in conjunction with Ch5 for internal assessment consistency.
2604	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	5	125					Very well written introduction. Only missing piece is the consideration of value and values outside the (broadly speaking) sustainability literature. Political economy of value systems and value creation is missing... CD= see most relevant references...	We thank the reviewer for the positive feedback. To attend the suggestion, we have incorporated more emphasis on 'economics' in the environmental context and the broader issue of 'justice' (beyond sustainability per se).
2605	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	7	227			7	228	Tautological... NCP provides... to understand... NCP.	Thanks. Corrected.
2606	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	7	230					yes, thus enlarge the scope of the relevant debates	The broader history is incorporated in Ch1, while here our assessment has identified, described and compared certain key debates that bring to light the important issues at stake or conceptualizations involved, which can then be later more fully treated in subsequent chapters.
2607	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	8	234					Not the primary distinction - economic-ideal, see previous comments. In addition broad vs social values, value hierarchies - more relevant. Broad-specific-contextual make it possible to side-step the fact that some values and value configurations matter more than others in explaining the global scale of impacts of humans on nature...	We do not create a values system 'typology', but instead focus on how people prioritize sets of values in specific contexts. With the life frame heuristic, this is explicitly related to ways of living/being that influence human/nature relationships and thereby values hierarchies. We also have a section in 2.3.2 regarding power dynamics.
2608	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	8	240			8	241	Much less interesting than identifying the value oppositions that have shaped most of the human/social conflicts over nature (acquisitive vs cooperative, etc.)	In 2.1 there is now explicit recognition of socio-environmental conflicts, and we have incorporated case studies on these topics. Plus, there is explicit treatment of justice and power relationships that help to explain and understand these processes in 2.2 and 2.3.
2609	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	9	275					It's incredible that we can have a whole theoretical framework that does not even mention the creation of value (and ideologies) in the economy! We do not even differentiate value from values (see e.g.J. Weber, les valeurs ont-elles un prix?).	We have now included a section on how values are formed and shaped by markets and other economic systems.
2610	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	13	370			13	371	Good until this point. A paradigm is much smaller and transient than a worldview. You can change paradigms 100 times without changing your worldview. Lots of different paradigms have been produced by the same worldviews... Of course, we have to agree on what we mean by worldview and all these concepts	Thanks for this comment. We have re-written the text on worldviews and corrected this mis-information.
2611	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	13	387			13	392	Yes, but without relating this to economic systems and social organization, the quest will be fruitless or incomplete...	Thanks for this comment. We have re-written the text on worldviews, and the reference to Bohm's work is no longer part of the new text in the SOD.
2612	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	14	411			14	412	No connection to the material system of production and exchange...	Thanks for this comment. We have re-written the text on worldviews, and the reference to Bohm's work and model is no longer part of the new text in the SOD.
2613	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	14	415			14	416	Yes, these are the intangibles or "slow tangibles" in values and culture; but the way we consider money, power and influence, for instance, changes slowly but much more quickly in cultures under the influence of a new, dominant economic system and the values that it produces and promotes. There is massive evidence of this and it should be brought to light in this assessment	We address the issue of how institutions not only express values, but can change them. See 2.3.3.2 and 2.3.2.

2614	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	14	418		14	419	I am not totally convinced. What are the references? is the evidence robust? Note that European languages have destroyed a lot of words from native cultures (mostly from the minds and competencies of local speakers)	Thanks for this comment. These color examples are not part of the current SOD, as we decided (also based on reviewers' comments and feedback from the MEP) to focus on examples and concepts directly connected to values of nature and biodiversity. Thus, this comment is no longer applicable to our text.	
2615	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	14	420		14	423	This is typical anthropological exoticism or ethnocentrism. Why not give the myriad words from other languages that do not exist in English (e.g. tabe, ngor, yék, aq, etc.). Because of deep-seated ethnocentrism in the European languages through which this report is going to be disseminated, I advise to use missing words in English to illustrate the point, not the other way around. The assessment should not be diminishing other cultures.	This is a very relevant comment, thank you! We took this feedback into consideration while revising the FOD toward the SOD.	
2616	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	17	708		17	710	yes	Thank you! We are including reference to Values of Nature in Cities and Urban spaces, and this was also evidenced in the ILK lit. review conducted by CH2 authors.	
2617	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	18	538		18	543		This point is well taken, but only partially true. Racism was born out of slavery as an economic system of exploitation, and it was further extended through colonialism. It was not because those people were close to nature. Caricaturing others has always been a means of establishing and protecting social and economic domination.	Thank you for your comment. For the SOD we had entirely revised the section and eliminate most of it. The issue is way more complex than we can represent it in the SOD, indeed. Being represented as closer to nature is for sure not the cause or driver for oppression, but it has been constructed (mostly by the colonizers) as a justification to a certain extent.
2618	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	22	586		22	588		Where is the evidence? I find this section quite rich but also very Eurocentric, including in the exotic way through which "other cultures" are "recuperated" into a new paradigm on nature. It is well intentioned but, perhaps, reductionist.	Thanks for this comment. We have re-written the text to address the concerns of an Eurocentric/Western approach to indigenous peoples and values. Also, the ILK literature review conducted by Ch2 authors brought evidence and illuminated specific claims made in this paragraph.
2619	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	22	606		22	620		I don't like the fuzzyness and paternalism of all this. Too far away from the strategic and fundamental need for transformation in the South.	It is not clear how the descriptions and definitions of these worldview categories is paternalistic. In any case, this section has been more developed in 2.2. It is also linked with values prioritizations via a literature review of both academic and ILK sources
2620	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	23	630		23	633		an alternative to capitalism??? Do we want to sell things that have no ground?	If we understand the essence of this comment, it is to compare the proposed "social-environmental justice" to capitalist approaches. In our revisions, we have addressed this issue in the beginning of this section.
2621	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	27	724		27	724		It's too bad that this has not been done yet. Something as central as understanding what values are and how they could be distinguished from beliefs or moral principles or paradigms, for instance, should have been a priority of the ZOD, not mentioning the FOD. See also my comment on 'the soft boundaries of values'.	We appreciate the comment on 'soft boundaries of values'. We have decided to draw upon the idea of 'fuzzy boundaries' to represent the literature on the diverse values of nature (including potential for overlapping and conflicting concepts). Within this fuzziness we found some consistent signals in the literature, which is presented as the 'core' value types.
2622	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	27	724		27	726		This has already been started by chap 2. However, in both cases, the historical depth sought is way too shallow. The system that needs to be understood goes at least 300 years not a bare 60. The assumption that the values that matter are limited either to a brief span of time since the 60s or strictly to environmental policies (if that is what is meant) is misplaced. In terms of values, the environment sector and policies related to nature and ncp cannot be explained just by themselves. Extra-sectoral factors, particularly, the values that dominate the global economic system and global power relations are probably more significant in explaining what has been happening in the relationship between humans and nature. A clear link with the global assessment should be made from the onset to give concrete ground to the assessment of values.	We appreciate the importances of global power relations and the global economic system. We have since expanded the relevance of economic values to environmental decision-making and expanded our discussion on how value articulating institutions use their power to shape and filter the values that are prevalent in society.
2623	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	27	730		27	731		This is not, in my view, the most important distinction to make about the values. The distinction should be qualifying and get us straight into the subject. E.g. Social values vs. economic value, and their systemic relationships (between them and with the social-ecological system); values vs. value systems and hierarchies; notably the fact that in a value system, certain values dominate and characterize the type of value systems at play...	We thank the reviewer for this comment. We appreciate that the interactions between social values and economic value is important and have now addressed this with respect to value articulating institutions in sections 2.3.
2624	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	27	732		27	735		Strictly speaking, a principle is not a value. It is a norm of action or behavior that is derived from a value system. The value system itself is connected to (not entirely derived from) a belief system. For instance, the sexist principle that women should not speak in public or have a say in public affairs, or xenophobic principles denying certain fundamental rights to immigrants are distinct from the value system and belief systems that inspire them. At the same time, you need the connections linking all these dimensions to understand the value and social systems.	We disagree with the reviewer's comment. Our assessment of the literature clearly showed that broad values reflect a general guiding principle.

2625	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	28	753	28	754	are these values or statuses???? Wealth is not a value in itself; only if linked to a system of meaning that makes it a value! The same for things such as prestige, honor, faith and loyalty... All depend on the overall significance of these moral and material categories. What matters is the value system, the particular articulations and hierarchies that explain and differentiate the potlatch, on one side, from capitalist accumulation on the other.	We have chosen not to focus on value systems in this chapter, but rather to be more lucid about the connections between worldviews, values, principles, indicators and the Life Framework.
2626	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2		29		780	A complicated way of addressing the central conflict in history between "acquisitive" and cooperative values, altruism and egoism... (see e.g. Diaw 94, 2009)	We have removed these complex terms from the text.
2627	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	30	815	30	815	Not everything valued is a value! Tastes are not values, even when underlined by philosophical and ethical principles. Values are higher order moral hierarchies, closely related to belief systems...	Agreed. We have made refinements along those lines in the text.
2628	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2		28		752	This is a mixture of values, principles, attitudes and statuses. I don't think that this enumeration is making things clearer to the readers. I think that we will make more sense by looking at value systems rather than trying to elicit the myriad individual values and proto-values that can be found across societies.	We have chosen not to focus on value systems in this chapter, but rather to be more lucid about the connections between worldviews, values, principles, indicators and the Life Framework.
2629	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	31	858	31	859	Shared and social values are different. Of course, social values are shared, but the term social value expresses the social nature of the emergence of values; the fact that values come into being and consolidate through a social process, a process of socialization. This is different from the notion of shared values, which we use in reference to the specific process of people being brought together around a number of social values. This is a subset of the broader socialization process. I don't think it will help to conflate the two meanings into one.	True, we now clarify that there is potential for shared, plural and conflict values in section 2.3.
2630	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2		31		860	people like, enjoy, prefer, or give particular meaning or importance to. These are not values, even though they may be (conditional) supported by a set of values and a value system. Giving value to something is not a value in itself. In addition, two individuals living and having grown together in the same environment, the same dwelling may have totally different preferences and enjoyments in regard to the examples given. Putting a tag on these preferences along the instrumental-relational-intrinsic continuum that, I hypothesize, reflect the preferences of the authors, will only inflate certain types of preferences and policies under the guise of "specific values". How the assessment will make sure that it does not miss the specific rationality of "other" value systems by forcing disparate, anecdotal components of those systems into a matrix created by culturally grounded scientists is a fundamental question that the assessment must respond to. I am not sure it is the case yet. The current line of thinking favors an individualistic approach to values, despite the limited incursion into the social values literature (lines 847-920); it also projects very traditional conservation objectives such as "species protection" as a 'value', when it is only a management objective linked to the modern conservation paradigm. This has deep roots, but only in one segment of the environmental community. It should not be the default line for looking at values. At least, other, more systemic options should be included clearly and discussed. I am not even sure that you can discuss species protection without considering in the same breadth the welfare of communities living in those areas. In the same way than any policy comes with a trade-off, the analysis of values also needs to be look at from a paradoxical angle. More often than not, values are in conflict in society and in decision-making. They must be considered in a complex,	thank you for the important comment. In reworking the document we will address some of these points. The second part of the chapter addresses value changes and formation and the role of institutions for example. It is not clear which table the reviewer refers to because it does not correspond to the lines indicated.
2631	CHIMÈRE DIAW	NA	MEP/Bureau	No	Ch. 2	32	866	32	869	To me that is a false dichotomy. There is not scientific ground to say that decision-making is group-based in "non western" context, while it would be individually-based in "western" contexts. Note the peculiar phrasing of the sentence, which targets the valuation method in western context but directly the society a whole in "non western contexts". I think the valuation methods (methodological individualism) will show the same bias in both contexts. This reminds me the origins of sociology and anthropology; the first created by western scientists to study western societies and the second created by another group of western scientists to study "other", "primitive" societies... Hence the opposition of methods: surveys and interviews, on one hand, vs. participant observation, on the other. Immersing on these foreign, "far away societ(es) that (meant) nothing to (the ethnologist)" was a prerequisite for understanding them (Claude Levi Strauss 1973). This is all seems behind us now that Western "rituals" are a full part of the anthropological package along with other "exotic" cultures...	We have now reframed this whole section and no longer refer to "group based in non-western context"



2703	Edward Gregr	Canada	University of British Columbia	No	Ch. 2	85	2117			Section 2.7.3: I found this section rather problematic, in that it strives to move beyond the stated goal of the chapter by linking to valuation methods and decision making. While establishing such links across all chapters is necessary, it would be clearer, I think, to have that as a self-contained, high profile section (not mixed in with how institutions influence values).  I suggest the section focus on the role of institutions (e.g., 2.7.3.1, 2.7.3.3, and 2.7.4) and leave the rest to the relevant chapters.	First, this section is reorganized. Second, when based on formal methods, the valuation process is also institutionalized. Therefore we think maintaining also the focus on this process in Chapter 2 is important. New sections 2.3.2 emphasizes the role of institutions in decision-making
2704	Edward Gregr	Canada	University of British Columbia	No	Ch. 2	86	2151			Fig. 2.22 Duplicated from Chapter 1. If this figure is necessary here (e.g., because the chapters are intended to be self-sufficient) then I suggest it's origin in Ch 1 be noted.	Thank you for your comment. We have had communication with Ch1 on the figures.
2705	Edward Gregr	Canada	University of British Columbia	No	Ch. 2	86				Box 2.6 - I struggled to see the connection between this box and the preceding figure.	Thanks for your comment. We agree. In the new version of the chapter we have included the box as main text in the subsection. Now the explanation of implicit and explicit value expression precedes the figure, the latter also edited.
2706	Edward Gregr	Canada	University of British Columbia	No	Ch. 2	89				Fig. 2.23: I found this totally out of place with the rest of the chapter. A similar figure appears in Ch. 4, but it is expected there. I would strongly encourage the authors to limit the background on decision making here, and focus on a high-level conceptualization of the connections between the relevant chapters.	Thanks for your comments. We have substantially edited sections 2.3.2.2 (from values to valuation) and 2.3.2.3 (from values to decision-making) to better reflect the analytical lens offered by our chapter, that provide building conceptual blocks for subsequent chapters (3 and 4). The latter provides an empirical revision of the general topics we outline in Chapter 2.
2707	Edward Gregr	Canada	University of British Columbia	No	Ch. 2	91	2203	91	2205	I would really like to see a focus on what is promised in this sentence. However, I had trouble finding the 'analytic lens' in the subsequent sections.	Thanks for your comment. Section 2.2.3.2 (From values to valuation) 2.3.2.3 (from values to decision making) was substantially edited. The new version provides more concrete examples on how values are articulated by valuation processes and decision-making contexts. We have also included boxes that provide more in depth examples about value-articulation processes.
2708	Edward Gregr	Canada	University of British Columbia	No	Ch. 2	93			95	2.7.3.3, 2.7.3.4 - Chapter 4 is dedicated to decision making so its not clear why these topics are here. I found it a bit confusing.	In the SOD we have maintained emphasis on defining and structuring diverse conceptualizations of values (new 2.2). We have, however, made stronger emphasis on structural issues upfront and the text in the new 2.3 (old 2.6 and 2.7) is substantially developed. We focus on institutional change as a key leverage point for change. That does not imply e.g., losing the opportunity for strengthening the role of 'slow, resilient values based on altruistic rationality'. Rather we see it in the opposite way. While different forms of rationalities were emphasized in the FOD (2.7) – seen as embedded in institutions – we developed the argument much further in the SOD. As an example, we illustrate how different rationalities pertain to different institutional. This way we open the space for e.g., Chapter 5 to discuss how a shift in rationalities underlying action could be fostered.
2709	Edward Gregr	Canada	University of British Columbia	No	Ch. 2	100	2462			Conclusions: Points 1 and 2, while interesting, seem disconnected from the point of the values assessment. Does it really matter what things are called? I would really like to see the main conclusions contributing to addressing that goal, rather than pointing to new work that needs to be done.  Points 4 and 5 are similar, and if well summarized would form a nice bridge to the next chapter.	The conclusion - presented in section 2.4 was re-written. In the new section, we present main findings from the chapter that have implications for other Chapters and for the IPBES CF, as well as summarize gaps of knowledge.
2738	Dr Pankaj Srivastava	India	ICAR-Indian Institute of Soil and Water Conservation (ICAR-IISWC)	No	Ch. 2	14	395	14	395	Kindly check spelling in figure 2.4 behavior as behaviour	Thanks for this comment. We have re-written the text on worldviews, and the reference to Bohm's work and model is no longer part of the new text in the SOD.
2739	Dr Pankaj Srivastava	India	ICAR-Indian Institute of Soil and Water Conservation (ICAR-IISWC)	No	Ch. 2	15	414	15	414	kindly check the sentence	The text was revised.
2740	Dr Pankaj Srivastava	India	ICAR-Indian Institute of Soil and Water Conservation (ICAR-IISWC)	No	Ch. 2	17	476	17	481	correct the reference style	References were checked in the SOD
2741	Dr Pankaj Srivastava	India	ICAR-Indian Institute of Soil and Water Conservation (ICAR-IISWC)	No	Ch. 2	18	506	18	508	correct the reference style	thank you for your note
2742	Dr Pankaj Srivastava	India	ICAR-Indian Institute of Soil and Water Conservation (ICAR-IISWC)	No	Ch. 2	21	551	21	553	correct the reference style	thank you for the note
2743	Dr Pankaj Srivastava	India	ICAR-Indian Institute of Soil and Water Conservation (ICAR-IISWC)	No	Ch. 2	26	691	26	691	correct the reference style	corrected
2744	Dr Pankaj Srivastava	India	ICAR-Indian Institute of Soil and Water Conservation (ICAR-IISWC)	No	Ch. 2	31	804	31	822	correct the reference style	Paragraph has been edited
2745	Dr Pankaj Srivastava	India	ICAR-Indian Institute of Soil and Water Conservation (ICAR-IISWC)	No	Ch. 2	33	863	33	869	correct the reference style	thank you. All references will be taken care of at the end.

2746	Dr Pankaj Srivastava	India	and Water Conservation (ICAR-IISWC)	No	Ch. 2	34	888	34	901	correct the refrence style	thank you for the note
2747	Dr Pankaj Srivastava	India	and Water Conservation (ICAR-IISWC)	No	Ch. 2	35	906	35	917	correct the refrence style	thank you for the note
2748	Dr Pankaj Srivastava	India	and Water Conservation (ICAR-IISWC)	No	Ch. 2	36	946	36	946	correct the refrence style	thank you for the note
2749	Dr Pankaj Srivastava	India	and Water Conservation (ICAR-IISWC)	No	Ch. 2	38	970	38	971	correct the refrence style	thank you for your note
2750	Dr Pankaj Srivastava	India	and Water Conservation (ICAR-IISWC)	No	Ch. 2	49	1217	49	1217	In Figure 2.15 some letter in bold	thank you for your note
2751	Dr Pankaj Srivastava	India	and Water Conservation (ICAR-IISWC)	No	Ch. 2	50	1261	50	1261	correct the refrence style	Corrected
2752	Dr Pankaj Srivastava	India	and Water Conservation (ICAR-IISWC)	No	Ch. 2	54	1333	54	1333	correct the refrence style	Corrected
2767	Habiba Al Marashi	United Arab Emirates	Emirates Environmental Group	No	Ch. 2	11	315	11	315	We are not sure what natal earth means?	Natal earth means place of birth, conneted to homeland. However, this example was cut-off the present SOD.
2768	Habiba Al Marashi	United Arab Emirates	Emirates Environmental Group	No	Ch. 2	19	534	20	534	We recommend providing this information in the form of a figure/timeline for better understanding.	Thank you for your comment. It was noted and taken into consideration in our revision of the FOD.
2769	Habiba Al Marashi	United Arab Emirates	Emirates Environmental Group	No	Ch. 2	33	858	33	858	Under Hedonic well-being, it must also be added that its foundation is based on the idea that increased pleasure and decreased pain leads to happiness. Also, it equates wellbeing with pleasure and happiness (Kahneman et al. 1999; Ryan and Deci 2001)	thank you for the suggestion. We are reworking this entire part for the SOD and will discuss it.
2770	Habiba Al Marashi	United Arab Emirates	Emirates Environmental Group	No	Ch. 2	83	2071	83	2071	It can be mentioned here that there are four types of recognised norms: taboos, laws, folklores and mores.	We are not sure what source the reviewer refers to. There are many different categorizations of norms across the literature. Given the focus of the section we prefer using that from social psychology combined with some basic insights from sociology. We moreover note that there is a distinction between norms and laws laws as the latter demand a third person authority - hence is not a norm according to most definitions
2771	Habiba Al Marashi	United Arab Emirates	Emirates Environmental Group	No	Ch. 2	93	2245	93	2245	It is important to note here that Talking circles are a non-hierarchical form of dialogue	Thanks for the suggestion. This was included in the text
2800	Matilda Baraibar; Miguel Carriquiry; Lydia Garrido; Néstor Mazzeo; Ana Laura Mello; Laura Piedrabuena; Manfred Steffen; Micaela Trimble; Cristina Zurbiggen	Uruguay	South American Institute for Resilience and Sustainability Studies	No	Ch. 2					The chapter is very well structured and the reading is agile and enjoyable. The content is extremely relevant, it shows a great capacity for synthesis and focus. The approach is very interesting, where the importance of worldviews is made explicit.	Thanks.
2801	Matilda Baraibar; Miguel Carriquiry; Lydia Garrido; Néstor Mazzeo; Ana Laura Mello; Laura Piedrabuena; Manfred Steffen; Micaela Trimble; Cristina Zurbiggen	Uruguay	South American Institute for Resilience and Sustainability Studies	No	Ch. 2					This chapter presents the dichotomy between human and non-human (Descola, Latour), which reflects a way of objectifying ourselves in the world, a particular/artificial social construction (not all human groups see/ understand this distinction, nor does its ontology define it in this way). In the document, it clearly emerges that this opposition frames the statement of the general problem and the evaluation proposal, being, perhaps, this configuration, a part of the problem itself. This differentiation would require at least a discussion and a re-framing exercise that contemplates relationships, where the non-human is not only by default 'nature' (the technological/artificial appears as another category), nor is the human outside of nature (moreover, it can become the 'natural' in the natural/artificial opposition). In this context, including new configurations in relation to sustainability (in the context of the 21st century) would seem very relevant. If, for example, we suspended this 'given' supposed division and tried to observe the set of human-non-human relationships and interactions, other figures would appear as 'hybrids' in a continuum of complexity and new 'actors' (actants, to cite to Latour). Perhaps, and only operatively, to objectify ourselves in the responsibility as agents that intervene with conscience and intentionality (or put in another way, with will). From a relational approach, it would be useful to contemplate the differentiation between the 'natural' and the 'artificial' worlds, and humans with the capacity to influence both, and with it, the responsibility in their actions (in their etymological sense as capacity / obligation to answer for actions - or omissions).	Many thanks for your comment and thoughtful input. We have revised the text accordingly, and we refer to "other-than-human" beings, explaining its meaning in the Glossary, and also specifying relationships and implications of such connections and responsibilities connected to specific contexts. In subsection 2.2.4.2 we included a Box with a text from CA Kyle Whyte, who explains these connections further, based on Indigenous peoples philosophies.
2802	Matilda Baraibar; Miguel Carriquiry; Lydia Garrido; Néstor Mazzeo; Ana Laura Mello; Laura Piedrabuena; Manfred Steffen; Micaela Trimble; Cristina Zurbiggen	Uruguay	South American Institute for Resilience and Sustainability Studies	No	Ch. 2					Perhaps some claims about the inherent sustainability of aboriginal societies should be relativized. Sometimes, such sustainability is only a matter of the lack of technological means to exploit the environment and/or related to the size of the human group. In other cases, it is necessary to evaluate some legal advances (such as the recognition of Pacha Mama in a Constitution) with respect to the effective implementation of such "rights".	Thanks for this relevant comment. We have revised the text and the references to IPLCs (Indigenous peoples and local communities) to address this concern.

2803	Matilda Baraibar; Miguel Carriquiry; Lydia Garrido; Néstor Mazzeo; Ana Laura Mello; Laura Piedrabuena; Manfred Steffen; Micaela Trimble; Cristina Zurbiggen	Uruguay	South American Institute for Resilience and Sustainability Studies	No	Ch. 2						A very culturalist / relativistic approach appears in reference to contributions from anthropology, 'cultures' as entities in themselves, 'closed' to their belief systems, values and practices. This, among other things, hinders relations of mutual intelligibility.	Thanks for this comment. We have revised the text and the references to "culture" to address this concern. We recognize the dynamic and nuanced way in which "culture" is re-created and manifested in society, and the important relations of mutual intelligibility involved in cultural encounters.
2804	Matilda Baraibar; Miguel Carriquiry; Lydia Garrido; Néstor Mazzeo; Ana Laura Mello; Laura Piedrabuena; Manfred Steffen; Micaela Trimble; Cristina Zurbiggen	Uruguay	South American Institute for Resilience and Sustainability Studies	No	Ch. 2						Figure 2.1 makes a good conceptualization of the diversity of values, it does not remain in the individual but it raises the structure and how the framings influence ("framings") dominant (this is not replicated later in chapter 6).	In the meetings between chapters, including the final Third Authors Meeting, there should be improved articulation between chapters.
2805	Matilda Baraibar; Miguel Carriquiry; Lydia Garrido; Néstor Mazzeo; Ana Laura Mello; Laura Piedrabuena; Manfred Steffen; Micaela Trimble; Cristina Zurbiggen	Uruguay	South American Institute for Resilience and Sustainability Studies	No	Ch. 2						Figure 2.4 could be made an interesting contribution to how to work on the transformation according to Sohail Inayatullah (Pakistani with Unesco Chair at the University in Malaysia), to make beliefs and values explicit and how they connect with practices. We understand that this aspect is lost and simplified (not pragmatism) in economic and behavioral value.	Thanks for this comment. We have re-written the text on worldviews, and the reference to Bohm's work/ Figure is no longer part of the new text in the SOD.
2806	Matilda Baraibar; Miguel Carriquiry; Lydia Garrido; Néstor Mazzeo; Ana Laura Mello; Laura Piedrabuena; Manfred Steffen; Micaela Trimble; Cristina Zurbiggen	Uruguay	South American Institute for Resilience and Sustainability Studies	No	Ch. 2						In Figure 2.11 the differentiation that it makes at the analytical level (instrumental-relational) is good, but there are values where instrumentality is necessary. The intrinsic is included as something that has value in itself; the relational, rather than being a separate thing, would have to be the frame or framework to understand the instrumental - how to understand the values of the intrinsic from the relational.	We have now unpacked instrumental values of nature with regards to preferences and indicators.