2nd Review Phase of IPBES Deliverable 3c) Fast-track methodological assessment on scenarios and models Chapter 6 'Linking'

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Sandra Luque
Thomas Brooks
David Cooper
Brenda McAfee
UK government
Marina Rosales Benites de Franco

Nr	Chapter	From page	From line	Till page	Till line	Comment	Reviewer Initials	What was done with the comment
1	6	General				Overall: very well written and excellent logical flow of ideas. Connects well with the material presented in Chapter 3 -5 and extends it very usefully. Great pitch for target audience.	Shane Orchard	Thank you.
2	6	General				**Chapters: 2; 3; 4; 5; 6; 8: The issue of dealing with uncertainty in models and scenarios (identifying, managing, communicating) is considered in almost every chapter in an explicit and broader part (see 2.3.4, 2.4.3, 3.5, 4.6, 5.5, 6.5, 8.2.3) This causes overlaps in content. Moreover, chapter-specific aspects of uncertainty are difficult to identify.**	Germany	We addressed the issue of overlap by focussing section 6.5 on the uncertainty generated by linking models and scenarios.
						We propose to deal with general aspects of uncertainty only in one or two chapters. The chapter-specific aspects of uncertainty might be additionally decribed in other relevant chapters.		Agreed. Treatment of uncertainties is now better coordinated in the deliverable, see response to comment above.

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						You may also wish to consider analysing the language used in the IPCC when discussing uncertainty and elaborating further steps in dealing with uncertainty.		A workshop on uncertainty was held by IPBES and a guideline on treatment of uncertainties specifically for IPBES assessment is available. We now follow the IPBES guideline for the sake of consistency.
						The IPCC uses qualitative "levels of confidence (comprised of "levels of evidence and agreement") and quantitative "levels of likelihood", if possible. Please see https://www.ipcc.ch/pdf/supporting-material/uncertainty-guidance-note.pdf. Such terminology might also be helpful for IPBES.		A workshop on uncertainty was held by IPBES and a guideline on treatment of uncertainties specifically for IPBES assessment is available. We now follow the IPBES guideline for the sake of consistency.
3	6	General				This chapter is very flaw; lacking a clear orientation and a constructive message. Does not provide synthesis since key information is missing. Consider updating, lifting, and a significant review	Sandra Luque	We could not address this comment in detail as no specific reason of why the chapter is fundamentlaly flawed or suggestions of how the chapter could be improved were provided. We are confident that by addressing the suggestions provided by other reviewers the chapter is substantially improved.

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4	6	General				This chapter on harmonising scenarios and models starts off well enough. It is the only chapter to give recommendations with lines about what the benefits or advantages would be, but as the reader works through it, there is an increasing tendency to digress and provide overwhelming amounts of detail, when the readers just wants to know what models to harmonise, how to harmonise models, and what the benefits and pitfalls might be.	UK Government	Very many thanks for this comment, which started an internal discussion that profoundly changed (and hopefully substantially improved) our chapter as well as the report in general. In the chapter we substantially reduced the level of detail, rearranged most of the text, and rewrote large sections (e.g. organizational and temporal scales) following the logic "what to link and harmonize, how to do it, what the benefits and pitfalls are". In the report in general, we decided to highlight the most important bits which now stand out of the more detailed text. Overall this comment was very helpful.
						General: More emphasis could be made of the ways that harmonised models can serve multiple policy and decision maker needs- perhaps just list or table a few examples of these with the references.		We hope that the changes described in the response above have increased the emphasis on the usefulness of harmonization.
						Evidence of how harmonisation has worked is presented, but is rather scant. The evidence shows that it is rarely done, sometimes has proved useful, but there are a lot of gaps and needs for some development and standardisation work for IPBES type applications. The scant evidence contrasts to the ideas of what could work. There is not much to motivate others, particularly policy makes, to engage, support and adopt harmonisation work. It will need a much stronger argument based on the benefits and multiple policy applications, at multiple scales (geographical, temporal, governance) or it appears as a very complex and costly exercise for questionable		We hope that the changes described in the response above have increased the emphasis on the usefulness of harmonization.

Nr	Chapter	From page	From line	Till page	Till line	Comment	Reviewer Initials	What was done with the comment
						gains that are linked with the uncertainties and ways of managing them for policy decisions..		
						Pages 635-642 are far too detailed and miss the opportunity to really focus on what the case studies could tell us about the approaches, benefits and pitfalls of harmonisation. The whole chapter could be more useful if it was cut down to around 30 pages, and avoid repeating what is already given in other chapters (just reference them). It does not need to be a handbook of how to harmonise models, just present the evidence of approaches etc.		We reduced the length of Boxes 6.3 to 6.5, using Box 6.1 and 6.2 as reference in terms of level of details. We made sure that all the boxes (including Box 6.1 and 6.2) address questions regarding the approaches used, benefits and pitfalls.
						If the intention is to attract people to embrace, develop and use harmonised scenarios and models, then the argument for using them needs to be really clearly set out as benefits and limitations, and show where quick win possibilities might be from sharing models, and sharing common questions being asked of them by policy makers.		We shifted the focus of the chapter to provide a better assessment of benefit and limitations, see also response to comment 8 above.
						Putting the aims (that are on page 603, line 4 and a few more appear in a few other places) of the chapter before the Key Findings and Recommendations would help to focus the readers' attention.		Thank you for the suggestion, it was uptaken for the entire report.
						Are all the figures really necessary? What do they add to the story, and what level of confusion do they bring? It would be helpful to simply and only use figures that 'sell' the idea of the importance and benefits of harmonisation. The tables are very useful and well-presented.		We removed two figures from the main text and improved several others. Boxes now have only one figure each.
						Style guide- Passive voice.		We understood that the whole report will be corrected by a professional editor who will apply a uniform style throughout.

Nr	Chapter	From page	From line	Till page	Till line	Comment	Reviewer Initials	What was done with the comment
5	6	601	11	601	13	We agree that linking models and scenarios provides a basis to capture complex dynamics that will of course simultaneously increase the uncertainty of outcomes. However, it would be helpful for decision-making, if indications can be provided on whether uncertainties can be classified (small; medium; high) for real world decison making. This aspect could be indicated in chapter 6 or at least referenced where it can be found in the overall assessment report.	Germany	A workshop on uncertainty was held by IPBES and a guideline on treatment of uncertainties specifically for IPBES assessment is available. We now follow the IPBES guideline for the sake of consistency.
6	6	601	10	602	4	Main text seems good, but not well reflected in the KM. These are no clear, and there is no context.	David Cooper	The entire report now uses boxes to highlight important text in the chapter. The key messages now draw directly from the boxes, so the reader is provided with three levels of detail, consistent with each other: 1. the key messages at the beginning; 2. the boxed text that expands on the key messages; 3. the remaning text that provides further detail to the boxed text.
7	6	602	10	602	14	There need a clearer explain for the assessment in global and region scale, not each assessment do multi-scale work.	Fu Bin	The use of a multi-scale approach even for regional assessments is a specific recommendation by IPBES, and we value it.
8	6	602	6	602	32	The Key recommendations in Chapter 2 and 5, are expressed as “we recommend.....”. In this Chapter the way of expressing these recommendations is different, so I am only suggesting that they might be unified.	María Isabel Delgado	We understood that the whole report will be corrected by a professional editor who will apply a uniform style throughout.
9	6	602	3		4	change to' there are few approaches' delete 'are lacking'- otherwise it seems like something about the approaches is lacking	UK Government	Done.
10	6	602	17			IPBES compatible model- links to model development, C5 and C8	UK Government	Added ref to Ch. 5 and 8.

Nr	Chapter	From page	From line	Till page	Till line	Comment	Reviewer Initials	What was done with the comment
11	6	602	30			links to capacity building C7	UK Government	Added reference to Ch. 7
12	6	603	5	603	8	Does Chapter 6 need to link itself to the planetary boundaries concept? It seems that harmonisation of scenarios and modelling is important for many reasons, regardless of how valid the planetary boundaries concept is. Given that it is contested (e.g., Brook et al. 2013 TREE), I'd recommend dropping this mention of planetary boundaries here.	Thomas Brooks	Link removed.
13	6	603	35	603	35	Move "(multiple organizational scales)" to after "plants", and add "(benefits)" after "people". "People" are not an "organizational scale".	Thomas Brooks	The sentence was removed.
14	6	603	5			Where is the glossary? There are a lot of terms that need to be included, and some authors have given their own definitions of terms for their chapters. Need to check consistency	UK Government	A glossary will be provided at the end of the report and we are making sure that all the relevant terms are explained there.
15	6	603	6		7	a benefit is identified- these need to be listed and emphasised instead of being buried in long text blocks. Good use of planetary- could we be heading for intelligent planetary management? Ecosystems operate at different scales, but they are all nested within planetary. There is a lot of talk about scales in all the other chapters- but this point is not really made.	UK Government	Again, thanks for the comment. As detailed above we decided to use highlight boxes to avoid burying important text in long and detailed paragraphs. We also shortened and tightened the chapter in general.
16	6	603	14			Aims are at last revealed- put to start of chapter, before Key findings	UK Government	Done for all chapters.
17	6	603	26		42	very long paragraph, split in two at line 35, it would be simpler to just bullet out what benefits harmonisation brings	UK Government	The text has now changed and this comment is no longer relevant.
18	6	604	16			the main reason for harmonisation is revealed- put this up front at start of chapter	UK Government	We rearranged the logical flow of all sections following the "why, how, what are the pros and cons" scheme. In addition we used highlight boxes to ease reading.

Nr	Chapter	From page	From line	Till page	Till line	Comment	Reviewer Initials	What was done with the comment
19	6	604	27		28	continues this trend-pull out main bits and state the reasons for harmonisation at the start of the chapter.	UK Government	We rearranged the logical flow of all sections following the "why, how, what are the pros and cons" scheme. In addition we used highlight boxes to ease reading.
20	6	605	1	605	6	See Dunford et al. (2014). Exploring scenario and model uncertainty in cross-sectoral integrated assessment approaches to climate change impacts. Climatic Change, DOI 10.1007/s10584-014-1211-3 for a study focusing on scenario and model uncertainty, including error propagation in coupled models.	Paula A Harrison	Thanks, added.
21	6	605	4		6	a caution, buried away in text-need to be clear on limitations of harmonisation, and should draw them all into a list against benefits, or this is all presumptive that harmonisation is the only way and it will deliver all our dreams. Some would argue, why spend all this time and resources doing modelling etc., when we can work it out with a bit of common sense and an educated guess, that would enable us to spend our resources actually making a difference to ecosystems, now.	UK Government	We rearranged the logical flow of all sections following the "why, how, what are the pros and cons" scheme. In addition we used highlight boxes to ease reading.
22	6	605	7			Fig 6.1 the arrows could indicate increasing errors with increasing scales and complexity?	UK Government	This figure was removed altogether.
23	6	606		607		Fig. 6.2 contains many of the same components as Fig. SPM.1. Are they are aligned in terms of arrow direction and linkages? Also, perhaps could a similar colour scheme be used as in Fig. SPM.1 for consistency? Any further methods for simplifying the interpretation of the figure (e.g. making boxes 2D, making links between sub-components using dashed black lines) would be useful.	Derek Tittensor	We reworked the figure to simplify it as much as possible while retaining the information conveyed. Fig. SPM.1 is simplified furher on purpose, to make it easier to understand at a glance.

Nr	Chapter	From page	From line	Till page	Till line	Comment	Reviewer Initials	What was done with the comment
24	6	606	9			See also Harrison et al. (2013). Combining qualitative and quantitative understanding for exploring cross-sectoral climate change impacts, adaptation and vulnerability in Europe. Regional Environmental Change. 13: 761-780 for approaches for hard linking different models through definition of inputs, outputs, units etc in detailed data dictionaries and processes for their standardization. Also includes details of how the linked models were coupled with a participatory scenario development process.	Paula A Harrison	Thank you, we already had some references on hard linking biodiversity models so we decided not to add this one.
25	6	606	33	606	33	Presumably standardisation of classification schemes and taxonomies is also important here? Add a row on standardization of classification schemes and taxonomies into Table 6.1, further to the discussion in the text page 607, lines 4-6. For species taxonomy, the quantitative approach proposed by Tobias et al. (2010) Ibis makes a major step forwards here. Broad consensus in classification of ecosystems, and of ecosystem services, remains lacking.	Thomas Brooks	We added classification schemes and taxonomies to Table 6.1. We felt that the reference on taxonomy was not relevant here as the chapter is about models and scenarios, not species per se.
26	6	606	16		17	This sentence appears to be contradictory to the discussion that follows in the rest of the paragraph especially the example pointing to the MA scenarios of socio-economic development linked to scenarios of climate change.	Brenda McAfee	The sentence was removed.
27	6	607	10	607	11	In the graph there is a biased reference to the conceptual framework since only the concepts of science (in green) are introduced ignoring the concepts of knowledge systems (in blue). Therefore when mentioning to Good quality of life: human well being and LIVING-WELL IN BALANCE AND HARMONY WITH MOTHER EARTH should be included; also in nature's benefits to peoples in addition to ecosystem goods and services, also NATURE'S GIFTS should be included. Finally, when mentioning Nature also biodiversity and ecosystem and concetps of MOTHER EARTH AND SYSEMS OF LIFE should be included. Otherwise, we have a biased understanding of the conceptual framework only towards science which is not the purpose of IPBES.	Diego Pacheco	The figure is already very complex and we felt that adding further text to it would make it confused. Considering that this is a technical report we prefer to stick with the scientific definitions.

Nr	Chapter	From page	From line	Till page	Till line	Comment	Reviewer Initials	What was done with the comment
28	6	607	18	612	34	The analysus should also refer to ecosystem functions and not only to ecosystem services.	Diego Pacheco	A general decision was made to refer just to services, considering that some classifications include among these the supporting services (elsewhere ecosystem functions).
29	6	607	11	607	11	Fig 6.2 is excellent – many congratulations to all involved in developing such an informative, clear, and accurate visualisation.	Thomas Brooks	Thank you
30	6	607	3			change i.e. to e.g.	UK Government	Done.
31	6	607				Fig 6.2-Indirect drivers are very different from those used in IPCC	UK Government	True, but we follow IPBES definition.
32	##	608	8	608	8	Here the Atlantis model is mentioned as a marine ecosystem model without putting it in the list in ch. 5.4.2. This can be seen as an inconsistency.	Ralf Doering	We sent a note to the authors of Ch. 5 to suggest its inclusion in the list.
33	6	608	44			However, a balance may be attempted to develop such models that have functions or ecosystem services directly as well as represent biodiversity.	PS Bhatnagar	The sentence has been removed and this comment does not apply anymore.
34	6	608	24			is really about what to link- so simplify	UK Government	The sentence has been removed and this comment does not apply anymore.
35	6	608	25		33	Links to BD and ES, uses of proxies- almost all ES data comes form proxies- we juts don't have many ways of measuring them directly	UK Government	The sentence has been removed and this comment does not apply anymore.

Nr	Chapter	From page	From line	Till page	Till line	Comment	Reviewer Initials	What was done with the comment
36	6	608				is really about ways of coupling models vs benefits , strengths, limitations and could be sorter if tabulated, with evidence references	UK Government	We rearranged the logical flow of all sections following the "why, how, what are the pros and cons" scheme. In addition we used highlight boxes to ease reading.
37	6	609	18	609	18	Missing reference to the paper on Lpjml-IMAGE coupling	Nicolas Viovy	We simplified the table and don't refer to Lpjml-IMAGE coupling anymore.
38	6	610				Table 6.2 would perhaps fit better in Chapter 4. Consider moving to there. Regardless, make sure that both chapters reference this table in the text.	Derek Tittensor	We have coordinated between chapters and decided that the Table will stay here. However it has been revised and simplified to focus on links between biodiversity and ecosystem service models.
39	6	610				Suggest ensuring that model categories/types are harmonized between chapters 4,5, and 6 for consistency (e.g., no network models class (from Chapter 4 classification) in Table 6.2).	Derek Tittensor	We have coordinated across chapters to use the same model categories.
40	6	610	7	610	7	Could be interesting in table 6.2 on “species distribution models” to add the PHENOFIT model (Morin&Chuine 2005) which is partly process based and then relatively different from others species models.	Nicolas Viovy	Table 6.2 has been substantially revised. The comment is no longer relevant.
41	##	610	Tab. 6.2			Example for global scale richness model assessing possible impact of different climate change scenarios: J.H.Sommer et al. 2010 Proc. R. Soc. B	Jens Mutke	Table 6.2 has been substantially revised. The comment is no longer relevant.
42	6	610	1	611	1	**Table 6.2 this table is very poor and conceptually wrong in many cases as it is presented. The class of “biodiversity models” mix everything at different levels and scales(from richness models to agricultural models?!). Should be consistent with chapter 4!**	Sandra Luque	Table 6.2 has been substantially revised to avoid overlap with other chapter.

Nr	Chapter	From page	From line	Till page	Till line	Comment	Reviewer Initials	What was done with the comment
43	6	610	1	611	1	Table 6.2. It would be good to add a genetic example to this, as well as the species and ecosystem ones, to reflect the span of scales of ecological organization encompassed by “biodiversity”.	Thomas Brooks	Table 6.2 has been substantially revised. The comment is no longer relevant.
44	6	610	1	611	1	Table 6.2. An important addition here would be a row for extinction risk. Cells for this could be along the lines of: Models = “Extinction risk assessment”, Inputs = “Measures of population sizes, trends, and dynamics relative to threshold values”, Outputs = “Extinction risk categorization”, Examples = “IUCN Red List of Threatened Species”, Ecosystem services = “Provisioning, Cultural and Amenity”, Examples = “Trends in pollinator extinction risk (Regan et al. 2015 Conserv Lett)”. The reference to be added to lines 2–8 would be “IUCN Red List of Threatened Species (Mace et al. 2008 Conserv Biol)”.	Thomas Brooks	Table 6.2 has been substantially revised. The comment is no longer relevant.
45	6	610	1	611	1	Table 6.2. Another important addition here would be a row for identification of important sites. Cells for this could be: Models = “Assessment of sites important for biodiversity”, Inputs = “Site populations of species or ecosystem extents meeting thresholds of significance”, Outputs = “Sites contributing significantly to biodiversity persistence”, Examples = “Important Bird & Biodiversity Areas (IBAs), Alliance for Zero Extinction (AZE) sites, and other Key Biodiversity Areas”, Ecosystem services = “Regulating, Habitat, Provisioning, Cultural and Amenity”, Examples = “Climate change mitigation, freshwater provision, cultural services and option values yielded from safeguard of AZE sites (Larsen et al. 2012 PLoS ONE), assessment of multiple ecosystem services at IBAs (Peh et al. 2013 Ecosystem Services)”. The reference to be added to lines 2–8 would be “Key Biodiversity Areas (Eken et al. 2004 BioScience)”.	Thomas Brooks	Table 6.2 has been substantially revised. The comment is no longer relevant.
46	6	610				table 6.2 is a useful table	UK Government	Thank you. We have substantially revised Table 6.2 to further improve its usefulness.

Nr	Chapter	From page	From line	Till page	Till line	Comment	Reviewer Initials	What was done with the comment
47	6	611	1	611	4	The comment that follows the table is equally misplaced. Many concrete published work and examples exist on the important of biodiversity and ecosystem service models direct links. Perhaps a Table showing the relaevance of published work up to date should be presented in this chapter	Sandra Luque	Table 6.2 has been substantially revised. The comment is no longer relevant.
48	6	611	3		4	passive tense, change to there is potential for increasing direct linkages between BD and ES models	UK Government	We have made sure that the use of tense is consistent across chapter.
49	6	612	41			Psycho – social ecological ; as social psychology can play an important role in contrast with socio-ecology alone.	PS Bhatnagar	Here, "social" is meant to in a general sense to include all dimensiosn, including psychology.
50	6	614	1	614	2	Social and psycho-social	PS Bhatnagar	Here, "social" is meant to in a general sense to include all dimensiosn, including psychology.
51	##	615	7	615	9	For decision-making purposes at national levels, the downscaling of information is important. In this regard, there will be a need to classify uncertainties associated with an increase in resolution of the data. Please indicate, how this could be managed for decision-making purposes? (See also page 619, from line 22 to 24 or chapter 6.4.1.2 or chapter 6.5.2, page 630, lines 28 to 39.)	Germany	A note linking scaling error to advice on decision making is now made in section 6.5.2. We also refer to Ch. 2 for further details about uncertainty and decision making.
53	6	616	19			There is some attention for valuation, but no explicit connection discussed to the deliverable on valuation: a missed opportunity. Over all the deliverable on 'diverse values and valuation' is only mentioned once.	Hilde Eggermont, Belgium Government Review	Deliverable on valuation is referred to in the section 6.4.1.1.
54	6	616	36	616	40	pg 616 line 36-40 – some grammar to correct here	Shane Orchard	This is now corrected
55	6.4.1.1	617	37	617	39	Can some examples be provided (e.g., best practices), how building models with stakeholders can be achieved?	Germany	An example is given in Box 6.3
56	6	617	16	617	39	Turner et al. (2012) BioScience provide another example of modification of benefits-transfer approaches to address some of the limitations of ecosystem service measurement and mapping.	Thomas Brooks	We have modified the text in the draft and this is no longer directly relevant.

Nr	Chapter	From page	From line	Till page	Till line	Comment	Reviewer Initials	What was done with the comment
57	6	619	3	619	8	It should be indicated that new generation of "train" satellites (e.g the sentinel-1 and sentinel-2 recently launched) will allow now to have both high temporal (few days) and spatial resolution (10m) at least on some region and then the actual compromise between temporal and spatial resolution will not be a problem in the future.	Nicolas Viovy	We have modified the text in the draft and this is no longer directly relevant.
58	6	619	34	620	21	Another good example is the downscaling of the Red List Index from global to grid cells, ecoregions, and countries – finer spatial, ecological, and institutional scales respectively (Rodrigues et al. 2014 PLoS ONE). Downscaling from global to national scales is also discussed more broadly by Han et al. (2014) PLoS ONE. Both would be useful additions here.	Thomas Brooks	Thank you for the suggestion. Both references are now cited in 6.4.1.
59	6.4.1.2	620	31	620	32	Aerial photographs are another reliable source for supporting scaling up or scaling down processes. Is there a reason, why they are not mentioned here, although in many regions/countries aerial photographs are commonly used?	Germany	The needs for good empirical data such as from remote sensing (e.g., satellite products and aerial photos) is now highlighted in 6.4.3.
60	6.4.1.2	620	31	621	1	Field data and field work can play an important role in the validation process and, thus, for the reliability of models and scenarios. Do examples exist, where cost-benefit analyses examine the use of remote sensing data only, and the combination of remote sensing combined with validation via field data? (see also chapter 6.5.2, page 631, lines 25-27)	Germany	The needs for good empirical data such as from remote sensing (e.g., satellite products and aerial photos) is now highlighted in 6.4.3. Also, an example of how the use of remote sensing data and ground observations improve model performance is presented in Box 6.4.
61	6	620	38	620	36	Also indicate approaches from (Beer et al. 2010) and (Jung et al. 2010) to upscale repectively global GPP and global ETR from the flux tower measurements network (FLUXNET)	Nicolas Viovy	The example is now included in the chapter
62	6	621	41	621	41	See my previous comment on new satellites as sentinel that offer both high temporal and spatial resolution	Nicolas Viovy	See response to previous comment.
63	6	623	30			Allen 2007 missing from references	Brenda McAfee	This is now added.

Nr	Chapter	From page	From line	Till page	Till line	Comment	Reviewer Initials	What was done with the comment
64	##	628	24	628	24	Reasons for uncertainties in model projections are clearly described. However, these reasons do not help decision makers to cope with uncertainties. It could therefore be usefull, if examples are provided, how users can cope with uncertainties emerging from models and scenarios.	Germany	We have added a note to refer readers to Ch. 2 in which the topic of uncertainties in decision making is discussed in details.
65	6	628	24	628	25	A wholenew section 6.5 is missing about the linkages and harmonization about modern science models and ILK models. TO FURTHER DEVELOP.	Diego Pacheco	Box 6.3 illustrates the linkges between model science models and ILK models.
66	6	628	26	632	5	Overlong text on uncertainties- decide why it is important, what benefits are, main evidence points to make, then needs points arising from this, and delete the rest	UK Government	This has now been revised to highlight the most important messages.
67	6	629	17	629	18	This is really the 2nd tier of evaluation and this should be made explicit.	UK Government	This is now revised.
69	6	632	19			Great potential to do what?	UK Government	"to advance our understanding and predictions of biodiversity and ecosystem service". This has been added to the text.
70	6	632	16	632	19	However, the question of whether biodiversity and ecosystem service models should be directly linked depends on the research objectives and societal demands. This relation direct or indirect occur in nature, so decision makers need to take account.	Marina Rosales Benites de Franco	This is now revised to reflect this.
71	6	635	5	637	4	Too much detail in this box. The equations don't need to be replicated, and can simply be cited from the appropriate reference, and the general procedure described here.	Derek Tittensor	This is now simplied and condensed.
72	6	635		636		far too much detail- what does the case study show us about benefits complexities, approaches, limitations, problems and decisions making capabilities of using harmonised models? Shorten, cut the detail- reference so people can look it up if they want to- but tell them succinctly why this is a good case study about harmonisation in practice.	UK Government	We have made these Boxes more concise.

Nr	Chapter	From page	From line	Till page	Till line	Comment	Reviewer Initials	What was done with the comment
73	6	636				Drop the math on pg. 636 and following. It doesn't add to the flow, results in an unbalanced treatment of the other chapters, and interested experts can track it down accordingly	Jason Link	Done
74	6	636	6	636	20	This should just be referenced to source for comparability with other models	UK Government	This has been substantially revised and the comment is no longer releveant
76	6	637	15			insert 'was published'	UK Government	This has been substantially revised and the comment is no longer releveant
77	6	638		642		as for p 635-far too much detail- what does the case study show us about benefits complexities, approaches, limitations, problems and decisions making capabilities of using harmonised models? Shorten, cut the detail- reference so people can look it up if they want to- but tell them succinctly why this is a good case study about harmonisation in practice.	UK Government	This is now simplied and condensed.
78	6	640				Fig B6.4.5 – needs a note to explain the O / S / ? notations – yes, needed	Shane Orchard	Figure B6.4.5 has been removed.
79	6	643		652		a few inconsistencies noted in the reference list.	Shane Orchard	The reference list has been checked.
80	6	651	14			Correct project title in Van den Belt et al. (2012) is Manaaki Taha Moana	Shane Orchard	The text has been revised.