

	Chapter	From Page (start)	From Line (start)	To Page (end)	To Line (end)	Comment	Author Annotations
Richard Corlett	General	0	0	0	0	This is an excellent SOD. Congratulations to the author team.	Noted
Severin Tchibo	1	0	0	0	0	All in the text bibliography reference. Example: normally is Rozzi, 2013 not Rozzi 2013	
Katherine Baldock	1	1	3	34	708	This chapter focuses quite heavily on the link between pollinators and food production. This text is from the IPBES website: "The scope of this assessment will cover changes in animal pollination as a regulating ecosystem service that underpins food production"	Not the focus of the document.
USA government	1	1	12	5	13	The explanations of self-pollination and cross-pollination should follow each other; and then the 3rd sentence should be a combined reference to the fact that both systems are often mediated or facilitated (not "done by") animals or wind and sometimes specialized plant morphology.	Done
Anders Nielsen	1	3		4		The Table of content seems not updated! (e.g. 2.2.2.1.4 - 2.2.2.1.9)	Will be fixed.

Mike Garratt	1	3				It might be sensible to combine, or at least follow one from the other, the two sections on Pollinators, traditional knowledge and human well-being (sections 1.5 and 1.9)	Will be fixed.
be done.	1	4	4			Reference needs to be made somewhere giving the definitions for categories of evidence such as 'established'	Will be fixed.
Katherine Baldock	1	5	4	8	108	The structure of the executive summary seems odd in places. Are the bold sentences at the start of paragraphs meant to be headings, or the most important take-home messages? Some of these sections are very long (e.g. lines 34-42).	Bold = most important.
Linda Field	1	5	4	5	5	This says 'three quarters (75%) of the leading global food crops benefit from animal pollination' but on page 9 (lines 112-113) it says 'one third of global food crops benefit from animal pollination'. This is inconsistent.	Done.
Linda Field	1	5	4	5	5	This says 'three quarters (75%) of the leading global food crops benefit from animal pollination' but on page 9 (lines 112-113) it	Done.
Arnon Dag	1	5	8	5	9	The definition of the term 'pollination' is not correct, please use the right term that appear in the glossary, i.e. 'The transfer of pollen from an anther to a stigma'	Done.

Arnon Dag	1	5	10	5	11	There is no 'self vector', it's better to use 'to be spontaneously self pollinated'	Done.
USA government	1	5	11	5	12	This sentence is not saying what I think it is intended to say "It is often mediated by animal pollinators but may occur spontaneously." Even animal-mediated pollination occurs 'spontaneously'. I think you're trying to say that self-pollination is often facilitated or mediated by other influences such as wind or	Done.
Deepa Senapathi	1	5	15	5	16	The sentence, ' <i>Some plants can produce seeds without pollinators or sexual fertilisation</i> ' seems abrupt and does not flow well from previous sentence. There needs to be a sentence inbetween to indicate that there may be exceptions to the	Done.
Akeem Ayofe Akinwale	1	5	20	5	20	There should be a specification of the categories of humans given the reality of cultural differences among people in different parts of the world.	Done.
Akeem Ayofe Akinwale	1	5	20	5	20	A list of the 115 leading global crops should be provided in the appendix to make the information more precise and effective.	Beyond the scope of the executive summary.
Arnon Dag	1	5	20	5	24	The first part of the paragraph (from 'Of 115 leading crops' until 'of animal pollination' ) is bit in contradiction with the second half- the first one give the impression that most of the crop	Done.
Diane Castle	1	5	20	5	27	<b>Comment:</b> There are various statistics on the number crops dependant on pollination in this section. The difference between the figures should be made more clearly to avoid mis-	Beyond the scope of the executive summary.
Jan Axmacher	1	5	20	5	21	While I have no detailed figures on these facts, I assume that the substantial majority of the production mentioned here is actually	Done.
UK Government	1	5	20	5	27	These statistics are confusing. 1st the figures are for "115 leading global crops consumed by humans", and the next sentence gives different figures for "crops directly consumed by humans and traded on the global market". Why are both sets of figures needed? Suggest distinguishing more clearly or choosing one set of figures.	Done
USA government	1	5	20		22	Mt as a unit needs description.	Done
USA government	1	5	20		22	"...seed production from 87 species <i>relies</i> ....., while 28 <i>pollinate without animal pollination services</i> . Last part of the	Done

KR Shivanna	1	5	21	5	521	4*10 <sup>6</sup> Mt Is this 4x10 to the power of six Mt?	Done
Jens Dauber	1	5	22	5	23	"global production volumes" How were those calculated? Is there a unit available such as t/ha? Or does this relate to the proportion of UAA (utilized agricultural area)?	Cannot give details in Executive Summary
Norwegian Government	1	5	23	5	24	It can't be universally true that root crops don't rely on animal pollination? Even if the fruits (i.e. roots) develop without fertilization, their cultivation would most often require seeds	Done
Akeem Ayofe Akinwale	1	5	25	5	25	There should be a specification of the categories of humans given the reality of cultural differences among people in different parts of the world.	Done
Madeleine Chagnon	1	6	12	6	12	spontaneously ( is this a botanical terminology)	Done

Madeleine Chagnon	1	6	18	6	18	is pollination not essential ? Put mediated pollination ? or abiotic pollen vector	Done
Arnon Dag	1	6	34	6	37	to specify- Birds, mammals...	executive summary.
David Cooper	1	6	34	6	34	of formulation, especially in an executive summary. Passive voice	Done
Jan Axmacher	1	6	34	6	38	I would welcome more substantiated facts, but also a clearer indication of prevailing uncertainties, in this otherwise excellent section. Firstly, I would have expected to see more headline figures relating to the global species richness of pollinators according to the current state of knowledge. While some species numbers are now provided for bees and flies (with the latter assumingly including all known Dipteran species, i.e. quite a few	Not for the executive summary.
Barbara Gemmill-Herren	1	6	38	6	39	this is, I believe relying on the Klein data, and since 2007 so many more species have been documented as being important crop	Alexandra will do it about POLLINATORS
USA government	1	6	40	6	40	Species scientific names should be italicized.	Done
David Cooper	1	6	43	6	43	Almost pointless truism. But if we are going to say it perhaps we	Noted
Arnon Dag	1	6	44	6	44	Repetition of lines 34-35	Noted
David Cooper	1	6	45	6	46	"pollinating butterflies .... More abundant ... in tropics". Yes. But can we give a more complete and systematic treatment of the distribution, diversity and abundance of pollinators among biomes, regions and as compared to biodiversity in general. Eg	Not for the executive summary.
Arnon Dag	1	6	49	6	49	I suggest to mention the cockroaches together with the other insects	Done

David Cooper	1	6	50	6	51	"no ... evaluations ...(established but incomplete)" what does the "established but incomplete" refer to???	Editors will establish this meaning in the document.
Sandhya Chandrasekhara	1	6	50	6	51	no quantitative evaluations of the relative importance of the different pollinating taxa: but is there a comprehensive	Not part of the executive summary.
Andreas Kruess	1	6	51	6	52	Less abundant pollinators might play an important role due to provide redundancy (and hence may become more abundant in	Noted
Jan Axmacher	1	6	51	6	51	Unclear what is meant by "less common pollinators"	Done

UK Government	1	6	51	6	52	This is a broad statement - what about palm oil pollination by weevils? Massively important crop	Done
Arnon Dag	1	6	52	6	52	- since we have crops that pollinated by bats for example (like	Done
Arnon Dag	1	6	54	6	55	honeybee for crop pollination, I suggest to add the figure. As for	summary.

Richard Corlett	1	6	55	6	55	Apis mellifera is not really 'ubiquitous' as a managed bee, since it does very badly in the Asian tropics, where A cerana is more common.	Noted
Barbara Gemmill-Herren	1	6	56	6	57	Apis cerana is also managed, and should be mentioned	Done.
Linda Field	1	6	56	6	56	Say what defines a 'high value crop'	Done
Linda Field	1	6	56	6	56	Say what defines a 'high value crop'	Done.
Madeleine Chagnon	1	6	57	6	57	57-57 what is difference between stingless bees and solitary bees ?	See in the glossary.
David Cooper	1	6	58	6	51	"(well established but incomplete)" make your mind up!	Explained in preface.
USA government	1	6	58	6	58	No scientific name included for 'alfalfa leafcutter bee (i.e. <i>Megachile rotundata</i> )	Noted.
government	1	6	60	6	61	<i>kamerunicus</i> ?)	Noted
KR Shivanna	1	6	61	6	61	(established but complete. Should this be established but incomplete?	Done

Madeleine Chagnon	1	7	5	7	5	The basic definition of Pollination should not be linked to the ecosystem service that is very antropocentric	Noted
Arnon Dag	1	7	68	7	86	Before getting into the importance of combining wild with managed pollinators, you need to mentioned what are the main problems with managed pollinators that we can't continue and trust only them (CCD.. competitions...mobility for cross	Done
David Cooper	1	7	68	7	70	Here, or somewhere, there should be a statement in th executive summary, on how high diversity (and abundance) of pollintors	Noted
Deepa Senapathi	1	7	68	7	68	As diveristy refers to biological diversity, it would be better to say ' <b>number of different kinds of species</b> ' rather than ' <i>number of</i>	Done
Diane Castle	1	7	68	7	80	<b>Comment:</b> Ensure clarity regarding the type of crops being referred to in this section	Noted.
Richard Comont/Michael Usher	1	7	68	7	68	the Trust suggests that the word 'abundance' could be included in the glossary. Its definition relates both to the number of populations and to the number of individuals in those populations. It is most frequently defined by some geographical restriction rather than being assessed globally.	Done
Akinwale	1	7	71	7	71	provided	Done in the glossary
David Cooper	1	7	71	7	80	parargaph text does not fully match bold text	Noted
David Cooper	1	7	71	7	80	"intensive agriculture" vs "extensive agriculture". This is a false dichotomy. Eg home gardens are more intensivley managed (but with fewer pesticides) than N.Am wheat and maize cultivation.	Done
Deepa Senapathi	1	7	71	7	71	Sentence starting ' <i>Intensive agricultural...</i> ' needs to read ' <b>Intensive agriculture...</b> '	Noted.
Jens Dauber	1	7	71	7	75	In my opinion this is an overly simplistic description of intensive and extensive agriculture (see also my comment on the preface	Done
USA government	1	7	72	7	75	high and low inputs of what? Seeds? Plants? Pesticides? Clarification needed. I think you mean plants, but please provide	Done

Arnon Dag	1	7	77	7	80	This statement is misleading and must be corrected !! Intensive agriculture almost always increase yield (dramatically) in comparison to extensive agriculture (and this is the reason why	Done
UK Government	1	7	77	7	80	Unclear whether there is enough evidence to support this as a general statement at all. Might be true in one or two systems but has it really been proved?	Noted
Andreas Kruess	1	7	82	7	83	This is somehow in contrast to the statement on p. 6, l.51-52 (see comment above)	Noted
USA government	1	7	85	7	85	Is the sentence about 'high diversity' referring to high diversity of pollinator AND plant species or just pollinators?	Done
David Cooper	1	7	89	7	89	claimte change the drivers occur and impact across all scales.	Done
David Cooper	1	7	89	7	89	drivers". Perhaps soemthing along the lines of: "Pollinator and	Done
USA government	1	7	89		91	Use of the word "impacting" should be changed to "affecting" or "influencing" or to "similarly decreasing" to avoid the appearance	Done
Marina Rosales Benites de Franco	1	8	8		108	Not all pollination-dependant crops have a higher market price, so this statement should be better qualified e.g."because they TEND to have higher market prices"	Implicit
David Cooper	1	8	97	8	98	13.7%, 22.6%: by what measure?	Alexandra to deal with
Arnon Dag	1	8	98	8	98	See that those figure do not contradict those that presented in page 5 lines 18-27	Alexandra to deal with
Arnon Dag	1	8	98	8	100	more and more managed pollinators and use them in improving	Noted
Gemmill-Herren	1	8	98	8	99	open ended and hanging. You could offer some ideas- such as, as	Not for the executive summary.
USA government	1	8	98		101	Because no data or citations are presented to support this assumption that plant production is not changing globally while	Not for the executive summary.
David Cooper	1	8	103	8	103	occur at multiple scales, globally"	Done
Scott Black	1	8	103	8	108	Pesticides should be mentioned as a driver in this paragraph.	Done
German Government	1	8	104	8	104	A footenote would help to understand, what aspects are included in the term "intensification". Is the issue of	Done
Paul Egan	1	8	104	8	107	Refers to diversity/abundance of "pollination services", but could instead refer to diversity/abundance of "pollinators", as the	Done
UK Government	1	8	104	8	107	established at all	established
government	1	8	106	8	106	organisms' here? Aren't they included in 'animals'?	animals.

Arnon Dag	1	8	107	8	108	This sentence should be placed earlier when the importance of pollinators is described	Done
Arnon Dag	1	8	108	8	108	I suggest to finish the summary with the objective of the document- currently it's not clear what is the objective of this paper)	Not the proper place for the objectives
Katherine Baldock	1	9	110	10	160	I would have expected the introduction to the assessment section to outline the main chapters in the report and explain briefly what each one covers and why it is important. I appreciate that the other chapters are not yet finalised but the main purpose of each chapter is clear so can this be added?	Done
Madeleine Chagnon	1	9	110	19	374	Section 1.1, 1.2 and 1.3 lack quality in writing and concepts are often redundant.	Noted
Madeleine Chagnon	1	9	110	19	374	Section 1.1, 1.2 and 1.3 lack quality in writing and concepts are often redundant.	Noted
Rashied Modawi	1	9	110	32	656	This chapter was intended to give an overview of the contents of the document. I think it came to be too elaborate for an introductory chapter, go into detailed but incomplete statements that will be clarified in their respective chapters or sections.	That exactly what as asked to the authors to do.
Arnon Dag	1	9	111	9	112	Why you add 'Biodiversity' here- look again on the title of the chapter and verify that you are following it and do not change	This a IPB(Biodiversity)ES document.
David Cooper	1	9	111	9	112	does not reflect the full intended scope of the assessment ( "The	Done

Madeleine Chagnon	1	9	111	9	111	write 'concerns' instead of is concerned	Done
UK Government	1	9	111	9	112	This first sentence doesn't make grammatical sense	Fixed
Madeleine Chagnon	1	9	112	9	113	One third of global food (in volume), but about 70% in number of food crops	Noted
Linda Field	1	9	113	9	113	After Klein ref insert some examples of crops which do benefit from animal pollination and some that don't. This is in the Summary page 2 lines 10-14	Noted
Linda Field	1	9	113	9	113	After Klein ref insert some examples of crops which do benefit from animal pollination and some that don't. This is in the Summary page 2 lines 10-14	Noted
USA government	1	9	114		115	Delete "although this figure does vary depend on the valuation method used." If the authors want to keep the concept, provide	This phrase was inserted in the previous review round because some
Richard Corlett	1	9	115	9	115	Apis mellifera is not really 'ubiquitous' as a managed bee, since it does very badly in the Asian tropics, where A cerana is more	Done

Andony Melathopoulos	1	9	118	9	118	A more recent reference than Bohart is: Pitts-Singer, T.L., Cane, J.H., 2011. The alfalfa leafcutting bee, Megachile rotundata: the world's most intensively managed solitary bee. Annual Review of	Done
Madeleine Chagnon	1	9	119	9	119	what is a wild introduced bee ?	Wild introduced bees are non-native bees which were introduced
David Cooper	1	9	121	9	122	These statement needs more supporting references.	Noted
Jan Axmacher	1	9	121	9	122	There is a break in the line of argumentation between these two sentences, and the 2nd sentence needs more context (i.e. if	Noted
Arnon Dag	1	9	124	9	126	Strange statement; Almond in CA is completely pollinator dependent and typically hold by large grower, tomato in greenhouses is pollinator dependent and it hold by large grower	Noted
Barbara Gemmill-Herren	1	9	124	9	126	I don't think this is a correct quote; in the paper we said three things relevant to the comparative advantage of smallholders: (1) smallholder farms may be significantly more productive than	Done
German Government	1	9	124	9	125	Cross-referencing between the chapters or the assessment report: It would be helpful, if chapter 1 (but also other chapters) includes references to other chapters of the assessment report D3A, which provide further information/proposals/recommendations on findings relevant for analysing options and actions, such as the one outlined here:	Noted.
Paul Egan	1	9	124	9	126	Not all pollination-dependant crops have a higher market price, so this statement should be better qualified e.g. "because they TEND to have higher market prices"	Done
government	1	9	124			grams of food eaten daily? Please clarify.	Noted
Akinwale	1	9	125	9	128	small scale farmers being referred to because not all small scale	Done
Chagnon	1	9	126	9	129	not have a reduced shelf life	Done
Mike Garratt	1	9	127	9	127	References provided are for almonds not apples	Noted.
Arnon Dag	1	9	128	9	128	The main problems that occur with un-adequate pollination in strawberry is misshapen and small fruit, not shelf life or nutrient composition	Noted.
David Cooper	1	9	129	9	131	across as merely a passing reference.	Done.
David Cooper	1	9	133	9	134	"identified by the MA as currently under threat" check language. Perhaps assessed by the MA as currently declining"	Done.

David Cooper	1	9	133	9	138	"This is in part due to ... commodities". Restructure this argument sequentially. It is confusing and perhaps inaccurate as drafted	Done.
David Cooper	1	9	133	10	143	this whole para needs restructuring. Dissect more clearly between changes in demand and changes in supply, and step through causal links more carefully. (presently it almost reads that nutritious diets is threatening pollination).	Done
Norwegian Government	1	9	133	9	137	The cause-effect is not clear. Is the threat towards pollination caused by "concerns over the security of food"? The MEA would probably turn the causation the opposite way. Given the rest of the paragraph, I would introduce by saying that "pollination services are under increasing strain". This could reflect that supply is threatened, but also, that demand is increasing. The following text would then make more explicit distinctions	Done
government	1	9	133	9	134	Assessment that's "currently under threat" rather than the	Done.
Richard Corlett	1	9	134	9	134	pollination services are 'currently under threat' without some	Done
David Cooper	1	9	138	9	138	"therefore" this doesn't necessarily follow. Argument is incomplete.	Done
UK Government	1	9	138	9	138	Replace 'dependency' with 'dependence'	done
David Cooper	1	9	139	10	143	add ref to IUCN assessment of European Bees	Noted
Alejandro Parra-Hinojosa	1	10	141	10	142	in aggregate or in addition?	Done
KR Shivanna	1	10	141	10	143	In aggregate pollinators .... Vertebrate pollinators (Regan et al. 2015). The sentence is not understandable.	Done

Madeleine Chagnon	1	10	141	10	142	in aggregate ?	Done
Barbara Gemmill-Herren	1	10	142	10	143	incomplete and not comprehensible sentence	Done
Deepa Senapathi	1	10	142	10	143	Sentence about the rate of deterioration of species is unclear. Is the extinction rate of pollinators higher in comparison to vertebrates or are more species falling into the Red List compared	Done
Katherine Baldock	1	10	142	10	143	Can you clarify what this sentence means, it doesn't make sense to me.	Done
UK Government	1	10	142	10	142	Replace 'deteriorating' with 'falling by'	Done
UK Government	1	10	143	10	143	when the assessment already says they are not important as pollinators in food production, which is the theme of this	Done
Barbara Gemmill-Herren	1	10	144	10	153	it seems like this is largely repeating information that has been provided earlier in the chapter	Done
Deepa Senapathi	1	10	144	10	145	Reference required for statement that 87.5% of flowering plants requiring pollination - <i>Ollerton et. al. 2011</i>	Done
Katherine Baldock	1	10	144	10	144	Add reference for the 87.5% pollinated by insects part of this sentence - Ollerton et al. 2011 Oikos 120: 321-326.	Done
Diane Castle	1	10	146	10	150	Same comment as above for Page 5 line 20-27	Done
Jan Axmacher	1	10	146	10	148	See comments above: While I have no detailed figures on these facts, I assume that the substantial majority of the production	Done
Katherine Baldock	1	10	146	10	148	I'm not exactly sure what this sentence is saying, it needs some clarification.	Done

UK Government	1	10	146	10	153	lines 20-27: These statistics are confusing. 1st the figures are for "115 leading global crops consumed by humans", and the next sentence gives different figures for "crops"	Done
Akeem Ayofe Akinwale	1	10	147	10	153	A list of the 115 leading global crops should be provided in the appendix to make the information more precise and effective.	Noted.
Akeem Ayofe Akinwale	1	10	147	10	153	There should be a specification of the categories of humans given the reality of cultural differences among people in different parts of the world.	Done
KR Shivanna	1	10	147	10	147	4*10 <sup>6</sup> Mt. Is this 4x10 to the power of 6 Mt ? (see also my comment on P 5, line 21)	Done
Katherine Baldock	1	10	149	10	150	Is there a reference you can add to support this statement?	Done
Katherine Baldock	1	10	150	10	153	This sentence needs rewording to make it clearer.	Done
Katherine Baldock	1	10	154	10	154	Replace 'pertinent' with 'crucial'.	Noted.
Katherine Baldock	1	10	155	10	155	The word 'necessitates' doesn't sound important enough. Can you include the word 'essential' in this sentence? I think it is essential that there is an assessment of the status of knowledge in this area.	Noted
Chagnon	1	10	155	10	155	replace 'people' by 'human needs'	Done
Madeleine Chagnon	1	10	156	10	157	including.. market, non market, cultural are not included in population trends.	Done

Government	1	10	157	10	158	assessment report will be dealing with the issue of uncertainties	Done
Chagnon	1	10	158	10	158	Policy decision making' instead of ''decision making' ?	Noted
Akeem Ayofe Akinwale	1	10	159	10	160	There should be a brief description of policy.	Noted. In summary for policy makers
Katherine Baldock	1	10	159	10	160	There needs to be more added to this sentence. Who will make the policy interventions? What type of policy interventions will be needed? This is the summary sentence of the overall introduction and it needs to be hard hitting to stress the importance of this whole report.	To be in the Summary for Policy Makers

Akeem Ayofe Akinwale	1	10	160	10	160	There should be a clarification of social, cultural, environmental and economic values of pollinators.	Dealt with in the other chapters and SPM.
Jens Dauber	1	10	163	10	163	Pollination is an ecosystem function. It only becomes an ecosystem service if it supports human well-being. There is enough confusion and confounding of both terms in the	Noted
Madeleine Chagnon	1	10	163	10	163	Idem comment from line 5 .... definition should be as line 171 or as in glossary	Noted.
Katherine Baldock	1	10	164	10	164	Repetition of 'fundamental'.	Done
Katherine Baldock	1	10	164	10	165	Pollination is essential for all plant reproduction, but may be by wind or animals. <b>Animal</b> -mediated pollination is important for	Done
UK Government	1	10	164	10	164	Seems odd to use the Clough reference here as if it's a newly established fact	Done
Katherine Baldock	1	10	165	10	165	The wording makes it sound as if it is the animal that is being pollinated! Change to 'Pollination by animals' or 'Animal-	Done
Arnon Dag	1	10	167	10	167	Pollination is not necessarily resulted in fruit and seed production	Done
Arnon Dag	1	10	170	10	170	It is important to mentioned that in agricultural context, cross pollination many time is the transfer of pollen between verities and not only plants.	Noted
Andony Melathopoulos	1	11	118	22	373	I thought this section did a maverous job of reviewing plant mating systems, in that it is both concise and draws in current	Noted.
Paul Egan	1	11	174	11	175	There is quite some repetition up to this point that 87.5% of flowering plants are animal pollinated. This line is the first that gives the absolutle number and a reference, and is therefore	Done
UK Government	1	11	177	11	177	Figure 1: a generic flower? Need to be clearer because reproductive morphology of them varies so much	Noted

Katherine Baldock	1	11	179	11	179	Rewards doesn't need to be in quotations here.	Done
Katherine Baldock	1	11	179	11	184	The information in brackets would be better put in a table as it makes the sentence difficult to read	Noted
Madeleine Chagnon	1	11	179	11	179	replace "reward" by resources	Noted
Paul Egan	1	11	179	11	184	This is an important paragraph, as it is the only one that describes 'why' insects visit flowers, so perhaps important to represent this diversity. Could better break rewards down into 'nutritive' and 'non-nutritive', with examples of the latter	Too academic. Beyond the scope of the document.
Arnon Dag	1	11	180	11	182	Like you wrote that nectar is source of sugar, you better write that pollen is a source of vitamins, proteins, fatty acids and	Done
UK Government	1	11	180	11	180	pollen as a source of protein	Done
Rodrigo Medellin	1	11	181	11	181	Says: "and beetles, flies, and some bats", should say "and beetles, flies, birds, and some bats"	Done
Katherine Baldock	1	11	185	11	186	Give an example of an intricate method of pollination - figs and fig wasps might be a good example.	Done
KR Shivanna	1	11	190	11	190	egg nucleus and central cell nucleus of the female gametophyte	Done
Hinojosa	1	12	193	12	193	Omit "weeds"	Noted
Gemmill-Herren	1	12	196	12	196	some physiological and others morphological	Done
Katherine Baldock	1	12	198	12	199	Is there a term for this you can add to link the sentence to the Figure - I think it is Xenogamy?	Too academic. Beyond the scope of the document.
Katherine Baldock	1	12	204	12	204	Is 'Plant breeding systems' here the same thing as 'Plant mating systems' mentioned in line 201? It would be better to use one	No. They are different.

Katherine Baldock	1	12	204	15	242	It would be useful to include some information about how important pollinators are for these different mating systems,	Noted
Linda Field	1	12	204	12	204	Change 'plant breeding systems' to plant mating systems' to be consistent with the following text	Noted
Linda Field	1	12	204	12	204	consistent with the following text	Noted
Katherine Baldock	1	12	208	12	209	Figure is not referred to in the text and the legend needs to fully explain what the central part of the figure means (three boxes in	Done
Baldock	1	12	208	14	226	Choose one of these to include, Fig 3 is clearer.	Done
Mike Garratt	1	12	Fig 2	12	Fig 2	The bagged flowers, Emasculated virgin, and Not emasculated virgin treatments need explanation in the legend. Infact I do not think both figure 2 and figure 3 are needed. There is much	Done
Madeleine Chagnon	1	13	210	13	210	this figure is useless since the legend does not explain the diagram in the center. See fig 3 instead	Done
Alejandro Parra-Hinojosa	1	13	212	13	214	Simplify the paragraph	Noted.
Andony Melathopoulos	1	13	222	13	223	For both <i>B. napus</i> and soybean there is evidence that under some contexts (e.g., for certain cultivars), supplemental	Noted
Aparna Kalawate	1	14	227	14	228	In fig.3 pls define A and B in the caption	Done
Arnon Dag	1	14	227	14	227	From this nice figure, one can understand that in self pollination the involvement of bees is not required, which us nit true (take for example melon, it is self pollinated but required insect visit	Done
KR Shivanna	1	14	231	14	231	agamospermy. These days apomixis is more commonly used for this phenomenon. I suggest to include apomixis next to agamospermy in parenthesis: agamospermy (apomixis)	Done
KR Shivanna	1	14	232	14	233	Their embryo and endosperm are produced by the union of cells from within the ovary or ovules. This sentence difficult to	Done
Tchibozo	1	15	234	...	melon	I suggest changing <i>Musa paradisiaca</i> to <i>Musa ssp.</i>	Done

Aparna Kalawate	1	15	235	15	236	Is seedless watermelon is an exmple of stenosperncarpy?	Noted
Deepa Senapathi	1	15	244	15	244	Section 1.3 on the ' <b>Diversity of pollinators and their role in food production</b> ' needs to incorporate the latest data and figures	Refer to Alexandra for amendment
Katherine Baldock	1	15	244	18	332	It would be better to start with a section discussing the diversity of pollinators. And then follow this with a section on important crop pollinators. And maybe add a section on importance of pollinators for wild plants and biodiversity. At the moment this section mixes up all pollinators and crop pollinators which makes this a confusing section to follow.	Done
Katherine Baldock	1	15	244	22	374	I can't see anywhere in these two sections that mention common crops that do/don't need pollinators, For example many crops are grasses and don't need pollinators and it should perhaps be	Beyond the scope of the chapter.
Akeem Ayofe Akinwale	1	15	245	15	245	There should be a reconcilliation between 107 global crops and 115 leading global crops mentioned in pages 5 and 10.	To alexandra
Jan Axmacher	1	15	245	15	255	See comments above:I would welcome more substantiated facts, but also a clearer indication of prevailing uncertainties, in this	Noted, but n reliable detailed information as required and also
Mike Garratt	1	15	245	18	318	Our understanding of which bee pollinators potentially contribute to production, based on visitation at least, has been	To alexandra
Scott Black	1	15	245	15	245	There are many more than 57 animal species that are pollinators. There are 20,000 species of bees. Do you mean groups?	Done
USA government	1	15	246	15	261	For the sake of consistency within the document: I noted that when bees and flies are mentioned in the narrative, their higher	Done
Katherine Baldock	1	15	249	15	249	Name the fly families that play an important role and give references.	Too much detailed and not the scope of the chapter.
Scott Black	1	15	254	15	254	Take out "lowliest" in terms of springtails. Plays into the negative feelings people have of insects.	Done

Katherine Baldock	1	15	256	15	257	How is this relevant to food production?	Done
KR Shivanna	1	15	259	15	260	For references for squirrel pollination, along with Yumoto et al. 1999, Tandon et al. 2003, in which squirrel pollination has been	Done
Katherine Baldock	1	15	263	15	264	Please mention solitary bees too. They may not be as well known but they are an extremely diverse and important group and	Done
USA government	1	15	263	15	263	honey bee' should be plural	Done
Arnon Dag	1	16	266	16	266	Add ' <i>Apis mellifera</i> ' after 'the 'western honey bee'	Noted
Jens Dauber	1	16	266	16	266	Add <i>Apis mellifera</i> after western honey bee	Noted
USA government	1	16	266	16	266	<i>Apis cerana</i> should be enclosed in parentheses i.e. ( <i>Apis cerana</i> )	Done
Arnon Dag	1	16	267	16	267	Replace 'containers' with 'hives'	Done
Akinwale	1	16	268	16	268	and Western Europe around the globe? When and why did such	Done
Arnon Dag	1	16	268	16	268	Omit the word Western from Western Europe	Done
Richard Corlett	1	16	270	16	270	<i>Apis cerana</i> is established as an invasive species outside its natural range in the Cairns region of NE Australia (Hyatt, Shirin (2012) Asian Honey Bee ( <i>Apis cerana javana</i> ) in Cairns, Far North Queensland: Foraging, nesting and swarming behaviour. Technical Report.).	Noted
Akeem Ayofe Akinwale	1	16	272	16	285	Who are the main actors in modern beekeeping and what is their major motivation?	Noted
German Government	1	16	272	16	285	Information (pros and cons) provided on modern and traditional beekeeping is appreciated for analysing options.	Noted
Jan Axmacher	1	16	272	17	302	... and elsewhere: There is a lot of information on bee-keeping in this chapter - some of which appears a bit excessive to me given	Relevant to other chapters

Akeem Ayofe Akinwale	1	16	283	16	285	Why are bee diseases difficult to diagnose? Who should do the diagnoses?	Noted
Arnon Dag	1	16	283	16	285	You missed one of the most important advantage of modern hives (in the context of pollination) and it is the possibility for migration	Done
USA government	1	16	284		284	Where is the citation to this statement?	Done
Arnon Dag	1	16	290	16	290	Please add – and other bee product ‘pollen wax, propolis, royal jelly’	Done
Jens Dauber	1	16	291	16	291	Some examples of agricultural sectors which apply management for pollination would be helpful.	Noted
UK Government	1	16	291	16	292	Need a reference to state that value as pollinators outweighs honey harvest	Done
Arnon Dag	1	16	292	16	292	There are several publication to support this important claim, please add those references	Done
Andony Melathopoulos	1	17	298	17	298	[...] preferred to other managed pollinators because of their highly efficient "buzzing" [...] Bumble bees are the only <i>MANAGED</i> pollinator species that sonicates. Many other wild genera sonicate.	Noted
David Cooper	1	17	298	17	199	"buzzing behaviour" explain.	In the glossary
Arnon Dag	1	17	299	17	299	I suggest to add ‘and under unfavorable weather conditions’	Noted
Jan Axmacher	1	17	304	17	307	important, it is in my view crucial to again clearly acknowledge	Noted
Richard Comont/Michae	1	17	304	17	304	this information appears to be from Appendix 2 of Klein et al 2007, which lists both known pollinators and flower visitors. The	Done
USA government	1	17	304	18	319	How does the importance of the different pollinator groups change, if at all, between agricultural crop flower pollination and	Beyond the scope
Madeleine Chagnon	1	17	306	17	306	write 'non apis bees' (as in the figure) instead of honeybees	Noted

Rodrigo Medellin	1	17	308	17	308	The bat figure is misleading. That is an insectivorous long eared bat. Suggest replace.	Done
Diane Castle	1	17	310	17	311	There should be a comment putting the frequency of pollinator groups occurring on most important food crops in context with	Done
Jan Axmacher	1	17	310	17	312	The comments made above (relating to l. 304ff.) also apply here, i.e. the inherent biases in this figure (relating e.g. to nocturnal vs.	Done
Linda Field	1	17	311	17	311	Change '2. Honey bees' to '2. Apis bees' to be more accurate	Done
Linda Field	1	17	311	17	311	Change '2. Honey bees' to '2. Apis bees' to be more accurate	Done
Sandhya Chandrasekharan	1	17	311	17	312	These pollinator groups need to be reflected in Chapter 5 as well	Up to chapter 5
Mike Garratt	1	17	Fig 4	17	Fig 4	Legend would benefit from being more explicit. Does this represent visitation, species richness?	Done
USA government	1	17	Fig 4			The figure legend is a bit unclear. "Frequency of occurrence of pollination..." may be an appropriate lead-in. Moreover, the	Done
KR Shivanna	1	18	234	18	234	2006 increasing (Aizen et al. 2008). Delete increasing ?	Done
government	1	18	314			by different flower-visiting animal species" is unclear. Please	Done
government	1	18	316	18	316	inside parentheses (i.e. Durian ( <i>Durio zibethinus taxomic</i> ))	Done

USA government	1	18	317	18	318	Recognizing there is a mix of styles for addressing scientific names in this document, see above comment, but in relation to the scientific names included for species here ( <i>Apis dorsata</i> ) and ( <i>Theobroma cacao</i> ). The same style should be used throughout.	Done
Linda Field	1	18	321	18	321	Change "abroad" to 'away from this'	Noted
Linda Field	1	18	321	18	321	Change "abroad" to 'away from this'	Noted
USA government	1	18	321			"Set seed" is jargon and needs definition. Which calls into the question of what successful pollination is. If seed set is a result of pollination, then simple transfer of gametes is not. Thus the	Noted
USA government	1	18	322	18	323	No scientific name included for 'red clover' or 'oil palm'. And 'red' does not need to be capitalized.	Done
USA government	1	18	325			"Hand pollination" needs definition, including if this is considered "abiotic" pollination.	In the glossary
USA government	1	18	327	18	327	Previously referred to as the 'oil palm weevil' in this document (on Pg.6, lines 60-61). Better to use the same common name throughout the same Chapter/Document for consistency.	Done

Arnon Dag	1	18	328	18	332	Another example for hand-pollinated crop; Yellow pitaya (Dag, A. and Mizrahi, Y. 2005. Effect of pollination method on on fruit set and fruit characteristics in the vine cactus <i>Selenicereus megalanthus</i> ("yellow pitaya") J. Hort. Sci. Biotech. 80: 618-622.)	Noted
Arnon Dag	1	18	330	18	332	Are you sure that they were hand pollinated from the beginning ?	Yes, we are sure.
Madeleine Chagnon	1	18	331	18	331	specify crop	Noted
Andony Melathopoulos	1	18	332	18	332	This may be a picky point, but I am not entirely sure the proliferation of hand pollination in Maoxian County is simply the product of "natural pollinator decline". There is some evidence that there are other reasons, particularly the low density of	Done
Rodrigo Medellin	1	18	334	22	374	Bats are virtually absent from the text. I have prepared text to illustrate bats as pollinators and their importance . I believe this	Accepted. Waiting contribution.
UK Government	1	18	334			This section is not full or clear enough for the complexity of the issues	Noted
David Cooper	1	18	335	18	335	"industrialized agriculture" are we clear about definition?	Yes, we are sure.
David Cooper	1	18	335	18	338	"produces large quantities of food per unit area" does it? Certainly does per unit labour. Check comparisons.	Noted
Diane Castle	1	18	336	18	338	This statement should be balanced by a comment on the benefits	Noted

UK Government	1	18	336	18	341	The statements in these two sentences need references	Done
Linda Field	1	18	337	18	338	After 'agriculture' insert is often needed to' and change 'often' to 'maybe a' and change 'high' to 'higher' and 'costs' to 'cost'	Noted
Linda Field	1	18	337	18	338	'maybe a' and change 'high' to 'higher' and 'costs' to 'cost'	Noted
Chagnon	1	18	337	18	337	extensive agriculture produces more. Put all this together	Done
Barbara Gemmill-Herren	1	18	340	18	341	I am not sure this is accurate...please refer to the Foley article, quoted earlier, where he states: This 28% gain in production	To be dealt by Romina.
David Cooper	1	18	341	18	344	% figures. By what measure?	To be dealt by Romina.
Gemmill-Herren	1	19	346	19	347	see comment above	Done
Government	1	19	346	19	351	individuals, but probably not the only one? If so, it would be	Done
USA government	1	19	346		357	The first paragraph introduces the concept that dire consequences are likely. Does the following paragraph offer solutions? Please temper and clarify the writing.	Done
Katherine Baldock	1	19	349	19	351	I would also argue that conserving native pollinators and their habitat is also important, but maybe this is not what you mean by technical solutions? I think this sentence needs rephrasing so that readers don't think technical solutions are the only solutions to the problem. Okay sorry this is mentioned in the next paragraph but these points need to be tied together. I suggest	Done
Barbara Gemmill-Herren	1	19	353	19	355	why not mention changes in application of plant protection products/pesticides explicitly here, possibly the greatest factor?	Done
USA government	1	19	353			In the glossary, set aside fields are defined. Not set aside areas. Are these the same things? All areas are fields?	Done

Jens Dauber	1	19	356	19	356	There is no definition for agro-ecosystem service provided. I would suggest avoiding the term and being more precise, using the established terminology such as regulating ecosystem services (pollination, biocontrol or nutrient cycling) or any of the other services you have in mind here. Furthermore "modern agriculture" does not necessarily lead to land degradation.	Noted
Akeem Ayofe Akinwale	1	19	362	19	363	There should be some examples of environmentally-friendly farming practices	Done
David Cooper	1	19	362	19	366	the refs to "env firendly farming systems" and "organic farms" in the first and second sentances respectively either implies equivalence of these terms or is an incomplete argument.	Definitions will be revised
UK Government	1	19	366	19	368	species richness is higher in organic fields. Organic fields are just one example of environmentally friendly farming methods. Flower visitation and crop yield may be higher	Done

Katherine Baldock	1	19	372	22	373	I am not sure how including this table is relevant to pollinators. Could you add information to this table about pollinators. For example, which systems require pollinators or are good for pollinators?	Table adjusted
Madeleine Chagnon	1	19	372	19	372	is this table relevant ? Considering the objectives of the report	Table adjusted

Severin Tchibozo	1	19	372	Table 1...Example	...The same field	I propose the cowpea or beans in the first example. It is rich for the azote and attractive the pollinators.	Accepted. Waiting contribution.
UK Government	1	19	372	19	372	Table 1: Interesting table, but its relevance has not been thoroughly explained.	Table 1 redrafted
Mike Garratt	1	19	Table 1	19	Table 1	Perhaps an unnessary table. No mention of the impacts of these different agricultural systems on pollinators. A table like this would be more suitable for a review of agricultural production rather than a peice on pollination for food	Table 1 redrafted
Severin Tchibozo	1	20	373	Crop rotation		I propose the cowpea or beans before maize.	Table 1 redrafted
Jens Dauber	1	21	Table 1	22	Table 1	In my opinion "traditional rural landscapes" are not a cropping system. Any type of cropping system described in the table could potentially be practised within a traditional rural landscape. It is also somewhat problematic to assume that social and ecological	Table 1 redrafted
Arnon Dag	1	21		21		Organic farming'; as far as I know, those are not the definition for organic farming – they are using fertilizers, but from natural sources not synthetic ones.	Table 1 redrafted
Arnon Dag	1	21		21		All this issue of site-specific management is not relevant to organic farming but to precise agriculture and IPM management.	Table 1 redrafted
Arnon Dag	1	21		21		What the relevance of 'avoid pest and diseases' - it's completely opposite- in organic farming they allow certain level of of pest and diseases while in conventional, many time they have 'zero tolerance' for pest and diseases	Table 1 redrafted

Arnon Dag	1	22	375	23	416	I'm sorry, but this chapter is need to be rewritten with real information on managed pollinators – what are the species, their origin, their domestication, their adaptation for pollination, their contribution to pollination ect..	Noted and referred
Arnon Dag	1	22	375	23		Currently it just provide 'vague stories' and do not handle the real topic. This part is important since the majority of crop	Refer to Simon Potts
Baldock	1	22	375	23	416	explaining that Ch 5 covers this topic in more detail?	Done
UK Government	1	22	375	23	416	is there, or indeed what it means. Need to be clearer on	See 414-415
government	1	22	375	22	375	knowledge to our scientific understanding of pollinators and	See 414-415
Chandrasekhara	1	22	376	22	377	geographies, examples of their TK)	In chapter 5
Akeem Ayofe Akinwale	1	22	378	22	378	There should be examples of cultural practices which serve as the driving force for local people throughout the world	in chapter 5
Akeem Ayofe Akinwale	1	22	379	22	379	These should be a brief disscusion of an instance or instances where local people had a major destructive influence	Done and cited Diamond 2005
USA government	1	22	379		380	This sentence does not seem to fit in this paragraph.	Done
Katherine Baldock	1	23	379	23	380	Please give an example of this to illustrate the point, referenced if possible.	Done
Akeem Ayofe Akinwale	1	23	389	23	391	How can traditional knowledge strenghten the capacity of human societies to deal with disturbances and to maintain ecosystem services under conditions of uncertainty?	Done
Akeem Ayofe Akinwale	1	23	415	23	416	Why is the knowledge of the role of bees as pollinator not appreciated in many other soceities?	Are not?
Government	1	23	415		416	there is little known about the role of bees as pollinators?	Refer to chapter 5
Melathopoulos	1	24	419	26	476	needs to be made here of the new Kleijn et al. paper in Nature.	Noted
Arnon Dag	1	24	419	26	476	This chapter has very strong 'ecological' perspective (as the whole document has..). In the title you refer to 'pollinator	Send this comments to Chapters 2 and 3
David Cooper	1	24	419	29	559	but are not always easy to follow as further specified in next two	Refer tot he next two

Deepa Senapathi	1	24	419	24	419	Section 1.6 on 'Pollinator behaviour and interactions' needs to incorporate the latest data and figures from <b>Kleijn et .al. 2015 Nature communications</b> paper that can be found at <a href="http://www.nature.com/ncomms/2015/150616/ncomms8414/ful">http://www.nature.com/ncomms/2015/150616/ncomms8414/ful</a>	Noted
Arnon Dag	1	24	422	24	425	impression that <i>Osmia lignaria</i> has significant role in almond	Done
USA government	1	24	424	24	424	No scientific name included for 'California almond'; and 'almond' should either be plural or followed by 'crops' (i.e. ...pollinator California almond ( <i>Prunus (Amygdalus) dulcis</i> ) crops...)	Done
Andony Melathopoulos	1	24	426	24	428	This statement is incorrect and needs to be modified. From Rader et al. 2009: "we found that mean pollen loads deposited on	To be dealt by Romina.
Andony Melathopoulos	1	24	426	24	431	Although it should be mentioned that the general interaction between honey bees and non- <i>Apis</i> species in Garibalidi et al.'s (2013) meta-analysis was not significantly different from zero.	Done
USA government	1	24	429		431	"...impacting fruit set" needs explanation	Noted
Alejandro Parra-Hinojosa	1	24	433	24	434	This has already been said	Done

David Aston	1	24	433	4	449	Reference should be made to complementarity not alternatives	Noted
David Cooper	1	24	433	24	449	concerning the various mechanisms by which high pollinator	Noted
Linda Field	1	24	433	24	434	443.	Noted
Linda Field	1	24	433	24	434	Delete the first sentence of the para. It is repeated on lines 442-443.	Noted
Richard Comont/Michae	1	24	433	24	433	the Trust suggests that the word 'abundance' could be included in the glossary. Its definition relates both to the number of	Done
USA government	1	24	439	24	440	Style consistency: italicize all ' <i>et al.</i> 's in the document.	Noted
Johan van Veen	1	24	446	24	449	should honey bees falter" I consider a more correct conclusion is	Noted
Hinojosa	1	24	447	24	448	"providing" and "provide" seems repetitive	Done
David Aston	1	24	449			What does falter mean in this context? Emotive word	Noted
David Cooper	1	25	451	25	471	I find these two paras difficult to follow	Rewritten
Baldock	1	25	457	25	457	first published pollinator network. Full reference: Memmott 1999	Done
government	1	25	457	25	457	See previous comment RE ' <i>et al.</i> '	Done
Baldock	1	25	459	25	461	does not mke sense where it is.	Done
Montserrat Vilà	1	25	464	26	465	The sentence in parentehsis is not well understood	Done
KR Shivanna	1	26	478	29	559	upon pollinators is rather diffuse and tends to be a bit repetitive.	Noted
government	1	26		Figure 6		the network uncovered during what time period.	Noted
Linda Field	1	27	488	27	488	Insert 'how those' between 'and' and 'that have'	Noted
Linda Field	1	27	488	27	488	Insert 'how those' between 'and' and 'that have'	Noted
government	1	27	492			other assoicated terms.	Done
government	1	27	492			mapping	Noted
Johan van Veen	1	27	493	27	495	publications about pollinator declines in relation with	Done
government	1	27	495	496		Consider defining "declines in traditional beekeeping..."	Noted
David Cooper	1	27	508	28	522	Important section. clarify the various mechanisms: higher chance of presence of a more effective pollinator; redundancy among	Noted
government	1	28	520	28	520	document (i.e. Intergovernmental Panel on Climate Change	Noted

Gemmill-Herren	1	28	529	28	539	originated, and not easily understood in a more generalised way;	Done
German Government	1	28	529	28	529	What about the issue of 'extensification'? Doesn't it affect pollination? Or is it covered by the term 'land use change'? If so, then why is specifically the issue of 'intensification' highlighted separately?	To be dealt by Romina.
USA government	1	28	535		536	Define homgeneous and heterogeneuous landscapes	
Montserrat Vilà	1	28	541			"land-use intensification"	Done
David Cooper	1	28	546	28	548	"social bee spp .... More strongly affected by isolation .... and by pesticides than solitary bee spp." But see Rundolf et al Nature	Done
Sandra Diaz	1	29	173			Replace "the complexity of the structure of human wellbeing" with : the complexity of what a good quality of life entails"	Done
David Cooper	1	29	555	29	556	costs of frequent visitation. Explain how (or cross ref to later part of this or other chapter)	Done
Arnon Dag	1	29	561	30	593	Why not providing here real data from published papers on the economics of pollination (wild and managed pollinators) ?	Done
Linda Field	1	29	561	29	561	Somewhere in section 1.9 there should be a mention of the 'need for sustainable quantities of nutritious food' and ideally it should	Done
Linda Field	1	29	561	29	561	Somewhere in section 1.9 there should be a mention of the 'need for sustainable quantities of nutritious food' and ideally it should	Done
Madeleine Chagnon	1	29	561	34	709	there is ample information on this in chapters 5 and 6	Done

USA government	1	29	563			"Most early pollination valuation studies HAVE centered...."	Done
Andony Melathopoulos	1	29	565	29	570	The predominance of SW approaches is not reflected in this section. One is left with the impression that, for example VP and	Refer to Chapter 5
Linda Field	1	29	570	29	570	Add some refs on SW VP and RC	Refer to Chapter 5
Linda Field	1	29	570	29	570	Add some refs on SW VP and RC	Refer to Chapter 5
Andony Melathopoulos	1	29	572	29	578	"This multidimensional benefit is called value of pollination". There seems to be a paragraph missing. Up until now there have	Refer to economic chapter
Sandra Diaz	1	29	582			Please replace with "Nature (including biodiversity and ecosystems)". this is because the boxes represent the elements, no the values, although the values are imbedded in some of the boxes and their connected arrows (see Díaz et al. 2015, section on values and valuation). The intrinsic value of Nature is indeed	Refer back to Simon
USA government	1	29			32	Modern agricultural ecosystems is unclear. "...there is usually more than....they vary <i>among</i> seasons"	Refer back to Simon

Madeleine Chagnon	1	30	590	30	590	this figure is the same as in Preface p.2 line 47	Done
Arnon Dag	1	30	591	30	592	'Living in harmony with mother earth' 'Nature's gift' looks like poetry not like official/ scientific text	Refer back to Simon
USA government	1	30	591	30	593	Figure 7 - Reference to 'Mother Earth' seems rather unscientific for this document.	Refer back to Simon
Deepa Senapathi	1	30	594	31	627	Section 1.9 - <i>Pollinators, traditional knowledge and human well-being</i> - This entire section uses terminology that is far too specialised for a general audience. Attempt needs to be made to explain the terms or make the language more simple.	Refer back to Simon
Mike Garratt	1	30	594	31	620	Can this section be written in a way that is more understandable to non-specialists. Also more direct reference to pollinators would be helpful	Refer back to Simon

UK Government	1	30	594	31	627	Section 1.9: This section needs to be much more closely aligned to pollinators and pollination.	Refer back to Simon
Andony Melathopoulos	1	30	595	30	598	There is something that is quite problematic about this sentence. Utilitarianism emerges from 19th Century liberalism and is not	Refer back to Simon
Akeem Ayofe Akinwale	1	30	596	30	598	There should be a clarification of the linkages between anthropocentrism and globalization and neoliberalism as well as their consequences on the environment and people	Refer back to Simon
Barbara Gemmill-Herren	1	30	596	30	598	There is a lot of discussion on neoliberal views, and an implied criticism of them (with which I might add, I personally do not disagree). But I think the UN might be shy of such direct criticism	Refer back to Simon
UK Government	1	30	596	30	596	Remove "to" co-inhabit	Refer back to Simon
Sandra Diaz	1	30	606			For the sake of consistency within the assessment, please consider using "indigenous and local knowledge (ILK)" rather	Refer back to Simon
Sandra Diaz	1	30	609	30	627	with the introductory section of Chapter 5. Although probably	Refer back to Simon
Mike Garratt	1	30	Fig 7	30	Fig 7	If this figure is to be included it needs a detailed legend to make clear what it means and what the numbers on the arrows refer to.	Refer back to Simon
German Government	1	30	Fig. 7	30	Fig. 7	Linking the value of pollination with IPBES' conceptual framework is appreciated.	Refer back to Simon
KR Shivanna	1	30	Figure 7			I find this figure difficult to comprehend.	Refer back to Simon

Deepa Senapathi	1	31	600	31	603	Reference required for this statement.	Refer back to Simon
Canadian Government	1	31	606			If ILK is appropriate here it would be best to use terminology consistent with other IPBES documents. Otherwise, an explanation of the differences in the two terms should be provided.	Refer back to Simon
German Government	1	31	606	31	606	The IPBES seems to generally use the term local and indigenous knowledge (ILK). Here the term "indigenous and traditional knowledge" (ITK) is used. Are there any reasons for using ITK and not ILK? If so a footnote explaining the differences between the use of ITK and ILK would be appreciated.	Refer back to Simon
USA government	1	31	606	31	606	The 'ITK' abbreviation seems unnecessary, given that it is only used once on line 626. Better to just use the fully spelled out	Refer back to Simon
Jan Axmacher	1	31	629	32	656	What I am missing in this section is a clear call for the requirement of additional research, particularly into currently	Christian to deal with
KR Shivanna	1	31	629	32	656	I feel that under 1.10 Ensuring pollination services for the future, it is better to highlight points that lack of effective regulations and more importantly lack of effective implementation in most of the developing countries.	Christian to deal with

UK Government	1	31	629	31	629	Section 1.10: This section needs a paragraph on pesticide and pesticide regulation and risk assessment. Surprised the neonic debate and bans have not been considered here as they may well affect pollinators, and food productions separately (and together).	Christian to deal with
Andony Melathopoulos	1	32	630	32	656	This section is problematic as it does not separate features such as honey bee disease legislation (i.e., the North American 'Bee Acts' of the 1920s which were brought about primarily to prevent the spread of <i>Paenibacillus larvae</i> ), pesticide-regulation (beginning in the 1970s) and agri-environmental programs (beginning in the 1990s). These historical dimensions of	Christian to deal with

Barbara Gemmill-Herren	1	32	630	32	632	I would rather say, it is surprising that there is such a dearth of laws, etc....there really are not many, and almost all apply to honey bees alone. You could rephrase this, to say that the coverage is spotty...but this should be coordinated with Chapter six, and their final message, I would think	Christian to deal with
government	1	32	639	32	656	to management, conservation and/or protection of birds, bats,	Christian to deal with
Sandra Diaz	1	33	662	33	663	values, which are instrumental (including monetary and non-	Refer to people in chapter 4
Alejandro Parra-Hinojosa	1	33	668	34	708	Not necessary to describe the content of next chapters.	Noted
Sandra Diaz	1	33	670	33	671	belong more to Chapter 3 than to this Chapter.	Done
Sandra Diaz	1	33	678			concerning the use of the CF and Document 3D categories of	Done
Jan Axmacher	1	34	720	34	720	Check references (although I assume this will automatically be done during final editing)	Noted
Linda Field	1	37	848	37	856	This ref is the same as the one above (lines 839 - 847)	Noted
Linda Field	1	37	848	37	856	This ref is the same as the one above (lines 839 - 847)	Noted
UK Government	1	40	981	40	982	Where is this published?	Will complete reference
Hamid Ahmad	1	562				page 562, General addition on economic value in US \$ of Wild Bees. Latest Paris, France based Study.	Refer to chapter 4 people.

Hamid Ahmad	1	562			Communications 6, Article number: 7414 doi:10.1038/ncomms8414	Refer to chapter 4 people.
Hamid Ahmad	1	562			contributed \$3,251 ha <sup>-1</sup> to production of the examined crops	Refer to chapter 4 people.
Sandra Diaz	1	general			being" with "a good quality of life" to make it more consistent	Done
UK Government	1	General			however it does cover more general work than specifically pollination for food production - but to an extent this is	Noted
David Aston	1	General Comment			Crop yield /quality is not always dependent upon 100% pollination. Rexamples I clude the need to thin fruit such as apples	Noted
David Aston	1	General Comment			Much of the content of this chapter seems irrelevant to food production	Noted
German Government	1	General Comment			Chapter 1 is well structured. In general, the information in this chapter is provided in a user-friendly format. We also appreciate the description of the different forms of knowlege and practices on beekeeping, and the visualisation of information in graphs. We also welcome references made on findings in IPCC assessments. We would appreciate a brief note on how the assessment D3A could benefit the other IPBES deliverables, especially because it is a fast track assessment that is available while the assessments of other IPBES deliverables are still ongoing. This interlinkage between the assessments outlined in chapter 2 of D3A on the impacts of degradation and invasive specis on pollinators and pollination should be reflected in the assessments D3b(i); D3b(ii) and D3b(iii).	Noted
German Government	1	General Comment			It would be appreciated if a list of abbreviations/acronyms for the whole assessment is included.	To be done for entire document

Geoff Hicks	1	page 9	line 110			General comment - this scoping for this assessment made clear the need for other considerations than just food production. We are concerned that critical areas such as interactions with indigenous peoples forest products for non food use eg pharmaceuticals are not given sufficient weight.	Noted
Juan Pablo Torretta	1		58			in Noth America, <u>Argentina (Roig Alsina 2006) and Australia (Pitts-Singer &amp; Cane 2011) Roig-Alsina, A. (2006). <i>Hylaeus punctatus</i> (Brullé) (Colletidae), a palaeartic bee long established</u>	Accepted. Waiting contribution.
Caroline O Akachuku	1		107	108		107-108 Pollinators also contribute to availability of medicinal plants and other raw materials.	Beyond the scope of the document
Juan Pablo Torretta	1		167			compatible stigma (the receptive surface of the female part of a flower)	Flower will be redrawn
Juan Pablo Torretta	1		185			except, specialist cases (e.g., <i>Yucca-Tegticcula</i> )	Noted
Barbara Gemmill-Herren	1		245	246		see comment above - to the effect that since 2007 so many more species have been documented as being important crop pollinators...I think the review is remiss to only use the Klein data, and not take stock of what has been documented since.	Noted

Barbara Gemmill-Herren	1		248		251	There is a review paper underway let by Romina Rader on fly pollination; have you checked with her on what might be used here?	Noted
Caroline O Akachuku	1		273		274	273-274 Mordern beekeeping also allow beekeepers to harvest ripe/sealed honeycombs.	Noted
Caroline O Akachuku	1		283			283 The drawbacks also include difficulties in harvesting only ripe/sealed honeycombs.	Noted
Promila Kapoor	1		359		366	The indigenous and local communities inhabiting extreme environments (with prevailing high or extreme low	For ILK chapter
Caroline O Akachuku	1		382			382 For example, there is a belief in Ariba, Abia state of Nigeria that when honeybees buzz around any piece of land, it signifies that the land is a virgin land and will support agricultural prodcution.	Noted
Caroline O Akachuku	1		526			526 These changes may also reduce the activites of the pollinators especially when certain flowering plants fail to flower at the right period as a result of climate change	Noted
Barbara Gemmill-Herren	1		555		556	This sentence is not easy to understand by non-specialists; could you better explain the implications?	Sentence redrafted
Barbara Gemmill-Herren	1			6	61	these comments on established but not complete are already a bit distracting/annoying - but this one says established but	Noted

Barbara Gemmill-Herren	1				114	varies rather than does vary	Accepted. Waiting contribution.
Barbara Gemmill-Herren	1			12	209	this graph is confusing, and seems to be referring to both breeding systems and experimental procedures (bagged, emasculated virgins). I think it may provoke horror in some non-technical readers, and should not include the boxes in the middle, only on the right and left	Removed
Barbara Gemmill-Herren	1			23	398	are linked, rather than is linked	Accepted. Waiting contribution.
Barbara Gemmill-Herren	1			31	618	problematizes is not a verb in english- the language here needs to be carefully edited	Accepted. Waiting contribution.
Barbara Gemmill-Herren	1			31	629	legalities is not the right word- legal structures?	Noted
Norwegian Government	1					General comment: From an agricultural perspective, it would be helpful if the text distinguished between the production of reproductive material (i.e. seeds), and the production of	Noted

Thomas Brooks	General					Congratulations to everyone involved on this impressive piece of work; the IPBES pollination assessment is shaping up to be a really valuable contribution. I am now comfortable that the assessment builds on and reflects in appropriate ways the various contributions from IUCN on the subject of pollination,	Noted
USA government	General Comment					All chapter headings should be placed at the beginning of each heading. For example, Chapter 1, Background, 1.1 should be at the start of line 4. For example, Chapter 2, Line 3 page 5 should	Noted
USA government	General Comment					As with many group drafted documents, this draft is in need of a good editorial review, for both grammar and style consistencies. In particular, our reviewers have noted many scientific names are	Noted. To be done by the copy editor.
USA government	General Comment					There are sections of the document which speak directly about trying to convince policy makers of something, or to take some action. Our government scientists do not advocate, but strive to	Noted.
USA government	General Comment					I was impressed with the scope & depth of the assessment. Although I devoted most of my time to the Preface and the Summary for Policy Makers, I did look at all chapters and I believe that each provides a very useful global scale synthesis. I think that the Assessment will be very useful in framing discussions going forward.	Noted.