

<Review comments by governments on the Second Order Draft of KP Supplement (Section 2.3.9)>

ID	Government	Chapter /Section	Start Line	End Line	Comment	supplementary documents	Authors' Action	Authors' note
2d_G_001	Austria	2.3.9.	2020	2741	Please use consistent reference to "net credits and net debits" throughout the chapter		Accepted	Accepted
2d_G_002	Canada	2	2020	2020	Suggest referring to "Natural" disturbances, as per 2/CMP.7, as opposed to "disturbances". Text of KP Supplement should be consistent in use of terminology, and consistent with agreed definitions.		Accepted	Accepted with modification. Previous text from GPG was inserted and explanation about the name of the section was given.
2d_G_003	China	2	2020	2020	2.3.9, which addresses “Natural Disturbances”, is entitled “Disturbances”. It is suggested to re-entitle the section as “Natural Disturbances”.		Accepted	Accepted with modification. Previous text from GPG was inserted and explanation about the name of the section was given.
2d_G_004	Finland	2.3.9	2020	2020	Please change heading to "Natural disturbances" to be consistent with the Durban LULUCF decision		Accepted	Accepted with modification. Previous text from GPG was inserted and explanation about the name of the section was given.
2d_G_005	Switzerland	2.3.9.	2020	2020	In the context of the background level of disturbances the margin of the background level seems to be an important issue. I would appreciate more transparent guidance at the beginning of Chapter 2.3.9. on when such a margin is needed and when not. If the issue is treated more extensively in another document (e.g. CMP Decision) clear reference could be given to the respective document.		Rejected	Rejected. The issue is treated in detail in section 2.3.9.6
2d_G_006	Canada	2	Footnote 43		This could refer to 2/CMP.7 in general, as opposed to "paragraphs" of 2/CMP.7 as there are numerous paragraphs and they are not specifically listed.		Accepted	Accepted

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2d_G_007	Spain	2	2027	2033	This paragraph doesn't contain relevant information for the estimation of areas or emissions and removals, and could be deleted.		Accepted	Accepted with modifications. The introduction to section 2.3.9 was revised. Paragraph in its original form don't exist anymore.
2d_G_008	UNITED STATES OF AMERICA	2	2051	2055	It is difficult to determine natural from anthropogenic fire. Of course fire doesn't necessarily "affect the anthropogenic functioning of many forests". Additionally, it is part of maintaining ecological functioning of many fire-dependent ecosystems. The text should be revised to reflect this.		Accepted	Accepted with modification. Text was revised as: "Wildfires occur in many forests and interact with the functioning of the forest ecosystems in which they occur. Wildfires can be important to the functioning of forest ecosystems but can also have undesirable environmental, social and economic impacts. Fire regimes (fire intensity, frequency and season of occurrence (Gill, 1975)) can have significant impacts on forest carbon stocks across considerable spatial and temporal scales (King et al., 2011). Recent studies on wildfires and forest include: Hirsch and Fuglem (2006); Williams and Bradstock (2008); Swetnam and Anderson (2008); Girardin et al. (2010)."

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2d_G_009	UNITED STATES OF AMERICA	2	2056	2060	“diseases and pest insects” should be “Insects and Pathogens”. As for reducing threat and mitigating impacts, it is not specified whether the Parties would have to report that they treated outbreaks. It might be worth clarifying this point in the text.		Accepted	<p>Accepted with modification. Text was revised as: "Diseases (pathogens such as fungi, phytoplasma, or virus, cf. page 4.74 in Chapter 4, Volume 4 of the 2006 IPCC Guidelines) and insect pests can influence ecological processes and substantially affect large-scale regional GHG balances (Kurz et al., 2008; Hicke et al., 2012). Outbreaks of forest diseases and pest insects can also have significant negative economic, social and environmental impacts on forested lands. Recent studies on insect and disease infestations in forest include: Canadian Council of Forest Ministers (2012a, 2012b and 2012c); Raffa et al. (2008); Bentz et al. (2010)."</p> <p>Reject changing the name: The reason for rejection is that we need to be consistent with definitions givne in the 2006 Guidelines (Vol.4, Chapter 4, p.4.74).</p>

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2d_G_010	Canada	2	2063	2065	This could be reworded for clarity, and perhaps an example provided of how extreme weather events produce their own emissions.		Accepted	Accepted with modification. Text was revised as: "Extreme weather events can involve droughts, floods, heavy wet snowfall, avalanches, ice, and strong winds, either as a single event or in combination, e.g. ice storms (Lindner et al., 2010; Yamashita et al., 2002; Allen et al., 2010; Kato 2008, Kramer et al., 2008; Bebi et al., 2009; Phillips et al., 2009; Chambers et al., 2007, Fujimori et al., 1987). Besides causing emissions e.g. through decay of dead organic matter (DOM) following storm damage or stem breakage due to high snow loads, extreme weather events can negatively affect forests and make them more susceptible to other natural disturbances. For example wildfires have higher incidences after drought periods."
2d_G_011	Switzerland	2.3.9.1	2075	2079	Examples given here only concern the reduction of the propagation of the disturbance. There should als be an additional example concerning the occurence itself. Switzerland's suggestion for L2075-2076: "... by preventing measures modifying factors related to the occurence, e.g. public information campaigns or fire bans when fire risk is high, or related to the progagation of the disturbande. Actions taken ..."		Accepted	Accepted

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2d_G_012	UNITED STATES OF AMERICA	2	2075	2075	Reducing the likelihood of a disturbance (fire) may itself be a significant disturbance, putting in fire roads, creating fire breaks, removing fuel. The authors should consider revising the text accordingly.		Accepted	Accepted with modification. Text was revised as: "Reducing the likelihood of the disturbance occurring, by preventive measures or modifying factors related to the occurrence or propagation of the disturbance. Examples include public information campaigns or fire bans during high risk fire seasons. Some actions taken in this regard may themselves cause emissions which need to be estimated as part of management practice. For example thinning to increase stand stability against storm damages, prescriptive burning to reduce the amount of combustible material, or introduction of firebreaks to make the spread of fire less likely."
2d_G_013	Canada	2	2076	2079	Suggest clarifying what is mean by "actions taken in this regard may have a negative initial impact". Assumably, this means that the emissions associated with these efforts are not eligible for exclusion under the provision as they do not meet the definitional requirements of "natural disturbances"; however, information on these efforts remains a requirement of provision in order to exclude the emissions associated directly with the natural disturbance.		Accepted	Accepted with modification. Text was revised as: "Reducing the likelihood of the disturbance occurring, by preventive measures or modifying factors related to the occurrence or propagation of the disturbance. Examples include public information campaigns or fire bans during high risk fire seasons. Some actions taken in this regard may themselves cause emissions which need to be estimated as part of management practice. For example thinning to increase stand stability against storm damages, prescriptive burning to reduce the amount of combustible material, or introduction of firebreaks to make the spread of fire less likely."

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2d_G_014	Spain	2	2085	2093	Bullets one and three should be merged and references to national and/or subnational management plans or strategies should be avoided.		Accepted	Accepted with modification. Merge as done but references to national sub-national were kept.
2d_G_015	Germany	2	2133	2134	Delete in line 2134 "can be" and insert "is". Add after "as beeing disturbed " "via geo-referenced coordinates", see line 2108. The statement should read: "Proportion of area affected is assessed accurately if Reporting Method 1 is used and that each area affected can be identified as being disturbed via geo-referenced coordinates when Reporting Method 2 is used, and..."		Accepted	Accepted with modification. The texts were modified as follows: "i. Proportion of area affected is assessed accurately if Reporting Method 1 is used and that each area affected is identified as being disturbed with geo-referenced location, year and types of disturbances, when Reporting Method 2 is used."
2d_G_016	Austria	2.3.9.2	2145	2148	The IPCC should avoid prescribing a specific level of uncertainty. The current language is too prescriptive with respect to the allocation of resources. The following language is suggested: "Sampling should be designed such that the uncertainty related to forest related emissions under Articles 3.3 and 3.4 is as small as possible, taking into consideration the type of disturbance and associated characteristics (e.g. area size distribution)"		Accepted	Accepted with modification. Text was revised as: "Depending on the type of disturbance and associated characteristics (e.g., area, size, and distribution), it is good practice to intensify sampling to make the estimated uncertainty comparable with the uncertainty in estimating Articles 3.3 and 3.4 forest-related emissions overall."

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2d_G_017	UNITED STATES OF AMERICA	2	2165	2182	It's good to see the text acknowledge that it's not only remote sensing and it's not only NFI, that there must be sampling approaches, which is why SilvaCarbon is working on Optimal Sampling Design. Highlighting this effort might be worthwhile as there are several nations involved at this point.		Rejected	Rejected. Is not for IPCC to mention one specific project.
2d_G_018	Canada	2	2176	2178	Text suggests it is good practice to include information justifying the suitability of the methods and approaches used to identify lands affected by natural disturbance. Decision 2/CMP.7 requires Parties provide "transparent information" showing that all lands subject to the provision are "identified, including their georeferenced location,...". Should it be clarified in the Supplement that this additional information also be provided as part of para 34(a) of 2/CMP.7?		Accepted	Accepted with modification. Text was revised as: "It is good practice for Parties to present information demonstrating the suitability of the methods and approaches used to identify lands affected by natural disturbance, consistent with the requirements of paragraph 34(a) of Annex to Decision 2/CMP.7, and on how the provisions concerning SL and land-use change following such disturbances are monitored."

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2d_G_019	Germany	2	2183	2211	Example 1 should be deleted as it is not in accordance with § 34(a) which demands georeferenced location of all natural disturbances.		Rejected	Rejected. The reviewer apparently applies a definition to "geo-referencing" that is not in accordance with Dec. 15 / CMP.1 nor reflects the many very broad general definitions of "geo-referencing" found in the scientific literature. Example 1 is very well in line with the requirements of para 34 (a) of the Annex to Dec. 2 / CMP.7.
2d_G_020	UNITED STATES OF AMERICA	2	2183	2274	Box 2.3.4 Comment - This is a major flaw in this document. The report outlines 4 approaches for Natural Disturbance. Really what has been asked for in some senses is a land tenure, use and cover spatially-explicit dynamic land information system that should INCLUDE predicting (or at least identifying threats of), detecting and monitoring natural disturbance. Why the authors spell out a separate set of sampling design options is a big big issue. A thoughtful, statistically rigorous sampling strategy (Optimal Sampling Design) would include all of the requirements (NFI, change detection, mapping, calibration, validation, verification and research for the entire suite of phenomena that should be included in a national system: forests, carbon pools, agriculture, fire, insects and pathogens, invasive species, degradation, afforestation). The authors should consider revising the text here accordingly.		Rejected	Rejected. Box 2.3.4 lists "examples of approaches" that can be used in identifying lands affected by natural disturbance pursuant to article 34(a) of Decision 2/CMP.7. The list of examples given here is not exhaustive and this is only a guide for parties wishing to apply this provision. The Optimal Sampling Design is in this case an acceptable example among others that would be used to identify such lands.

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2d_G_021	Japan	2.3.9.2	2220	2222	The guidance on validation here need not be a requirement but a recommendation, and it is suggested to rewrite the sentence as follows; "It is encouraged to validate the estimators using ground truth or equivalent data in the case of register based methods."		Accepted	Accepted with modification. Text was revised as: "Parties are encouraged to demonstrate the suitability of the approaches by presenting well-documented and transparent supplementary information, such as ground truth or equivalent data."
2d_G_022	Austria	2.3.9.2.	2233	2233	The IPCC should avoid prescribing a specific level of uncertainty. The current language is not appropriate because there is no obligation for Parties to adopt acceptable levels of uncertainty and according to our knowledge Parties usually did not adopt such levels. The concept of uncertainties is used in the IPCC GPG as a parameter to optimize the allocation of limited resources of Parties in order to achieve the best result possible. The following language would reflect this: .. and ensuring efficient use of limited resources with the goal to minimize the uncertainties.		Accepted	Accepted with modification. Text was revised as: "Another challenge is the accuracy of estimation models and algorithms and ensuring their uncertainty is within levels aimed for by the Party."
2d_G_023	Japan	2.3.9.2	2261	2263	The guidance on validation here need not be a requirement but a recommendation, and it is suggested to rewrite the sentence as follows; "It is encouraged to validate classification algorithms and estimators using ground truth observations."		Accepted	Accepted with modification. Text was revised as: "Parties are encouraged to demonstrate the suitability of classification algorithms and estimators, such as ground truth observations. "
2d_G_024	Germany	2	2269	2274	Please explain why the potential challenges are the same as for example 2. Please insert as in example 2 after errors in line 2270 "of area estimates".		Accepted	Accepted with modification. Example 4 was deleted.

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2d_G_025	New Zealand	2.3.9.3	2278	2298	In this paragraph, the requirement to "indicate whether the Party intends to apply the provision, in which case it shall provide country-specific information in its national greenhouse gas inventory report for 2015" is missing. Suggest it is added into paragraph up front.		Accepted	Accepted with modification. A clarifying statement on the 2015 submission has been made in an earlier section in response to this comment. This was not duplicated again here as the purpose of the section is more general on the estimation of CO2 emissions whether they be for the background level or for reporting during the commitment period.
2d_G_026	Spain	2	2278	2279	Delete "emissions for accounting" and add an s after disturbance. The sentence will then read "apply the provision for natural disturbanceS for forest management under...".		Accepted	Accepted with modification. Text was revised as: "For the second commitment period, Parties may apply the provision for the treatment of natural disturbance emissions to FM under Article 3.4 and/or to AR under Article 3.3 consistent with Annex to Decision 2/CMP.7
2d_G_027	Spain	2	2278	2284	A mention should be included to the background level included in the FMRL, that, according to 2/CMP.8, has to be included in the report to facilitate the calculation of the assigned amount (para 1.(k)(i) Annex I, 2/CMP.8)		Accepted	Accepted with modification. Text was revised with a inclusion of a footnote: "According to Decision 2/CMP.8 contained in document FCCC/KP/CMP/2012/13/Add.1, in the report to facilitate the calculation of the assigned amount pursuant to Article 3, paragraphs 7bis, 8 and 8bis a Party shall contain an indication of whether it intends to apply the provisions to exclude emissions from natural disturbances for the accounting for afforestation and reforestation under Article 3, paragraph 3, of the Kyoto Protocol and/or forest management under Article 3, paragraph 4, of the Kyoto protocol during the second commitment period in accordance with decision 2/CMP.7."

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2d_G_028	Canada	2	2285	2285	Suggest adding "subsequent" in advance of removals.		Accepted	Accepted
2d_G_029	Canada	2	2291	2291	How is a landslide a "transfer out of the ecosystem" as opposed to a "redistribution"? Would this convert the system to D? Recommend not using this example.		Accepted	Accepted with modification. Text was revised as: "(e.g., from fires), delayed emissions (due to decay processes), and redistribution of carbon among carbon pools (e.g., transfer to the dead wood, litter or soil organic matter pools), which may then also decay causing emissions in subsequent years."
2d_G_030	New Zealand	2.3.9.3	2314		Good approach. Suggest this change to last sentence"emissions in the background level, and if being applied to FM, conduct a technical correction if that is not the case" .		Accepted	Accepted with modification. Text was revised as: "It is also good practice to estimate emissions associated with carbon stock changes from natural disturbance in a manner consistent with the method used for the calculation of emissions in the background level, and to conduct a technical correction of the background level and the FMRL if that is not the case."
2d_G_031	New Zealand	2.3.9.3	2314	2314	Good approach.		Noted	
2d_G_032	Spain	2	2319	2320	a mention to the fact that HWP can't be excluded from the accounting, even if the pool is not a source, should be mentioned here		Accepted	Accepted
2d_G_033	New Zealand	2.3.9.3	2320	2323	Confusing sentence. Suggest: "Although subject to the requirements of the Decision 2/CMP.7, subsequent carbon stock gains that occur on lands affected by natural disturbance and that are excluded from the accounting in the second commitment period, need to be reflected in the accounting of subsequent commitment periods".		Accepted	Accepted with modification. Cross-cutting meeting decision to exclude guidance on subsequent commitment periods. Guidance on subsequent commitment periods deleted and text modified in subsequent sentence.

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2d_G_034	Canada	2	2367	2368	It is not clear what is meant by lands affected will remain in the "disturbance category". Suggest clarifying this statement.		Accepted	Accepted with modification. The text has been changed to improve clarity: "It is good practice to separately identify in reporting, natural disturbance lands and their associated emissions from the year in which the natural disturbance first occurs until the end of the commitment period."
2d_G_035	Canada	2	2404	2410	Difficult to follow.		Accepted	Accepted with modification. This sentence does not add the focus of the box on defining salvage logging, it also duplicates guidance given in the estimation of CO2 emissions section, therefore it was deleted.
2d_G_036	Canada	2	2433	2434	Further explanation as to why the estimation methodology for FM would be "appropriate" here would be helpful.		Accepted	Accepted. Sentence was deleted.
2d_G_037	Spain	2	2442	2442	Is the concept of "equivalent amount of removed carbon stock" in reference to salvage logging clear? The word "equivalent" adds some confusion. This sentence could be redrafted.		Accepted	Accepted. Word "equivalent" was deleted.
2d_G_038	Canada	2	2443	2443	Not clear why identifying lands where one disturbance is followed by another disturbance event would be necessary. It could be assumed that the lands affected by the initial disturbance would already be monitored and any subsequent disturbance would trigger the application of the provision regardless.		Accepted	Accepted with modification. Text was revised as: "identify lands where the natural disturbance is followed by another disturbance event to avoid double-counting. "

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2d_G_039	New Zealand	2.3.9.5	2464		General comment, this seems to come along a bit late in the section. Would prefer this was up front as none of the rest of the section can be implemented if this has not already taken place.		Rejected	Rejected. The current sequence was decided to be the best one.
2d_G_040	Germany	2	2466	2466	Please clarify footnote 57. There can't be a previous announcement of intention in NIR 2015, which report in which year is meant?		Accepted	Accepted with modification. The whole section was revised. New text take into consideration the comment.
2d_G_041	Canada	2	Footnote 57		Should clarify what Parties announce in their "intention", i.e. that they intend to apply the natural disturbance provision and provide country-specific information in the 2015 national GHG inventory report on a forest management 'background level' of emissions associated with annual natural disturbances that were included in the FM RL.		Accepted	Accepted with modification. The whole section was revised. New text take into consideration the comment.
2d_G_042	Spain	2	2466	2466	add, after "parties whcih have previously announced their intention" the sentence "to use the natural disturbances provision". The sentence, without this addition, seems to be incomplete.		Accepted	Accepted

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2d_G_043	Spain	2	2470	2470	the BGL isn't the level of disturbance emissions in the FMRL, specially taking into account that FMRLs were estimated before the rules for NDs were agreed. The BGL is defined in decision 2/CMP.7, footnote 7: "the average of a consistent initially complete time series....", and it is related with the statistical possibility (based on historical data) of the occurrence of extreme events than with the FMRL. This definition should be reconsidered or deleted.		Rejected	Rejected. The conceptual description is correct. The reviewer apparently overlooked that the FMRL already submitted may have to be corrected for the inclusion of a Background Level in case the Party wants to apply the natural disturbance provisions set out in Decision 2/CMP.7. The default method given in the cited footnote is also not the only possible method to estimate a Background Level, as stated in the second sentence of said footnote.
2d_G_044	Canada	2	2472	2473	Should specify here that the background level is used by countries where separating out the effects of natural disturbances from the time series is difficult, and therefore, applies to countries where some level of 'background' disturbances is considered included, even if it cannot be accurately quantified. As a result, for these countries, a background level and margin are necessary to ensure that Parties are not excluding more emissions (by including some portion in the reference level) than may actually occur during the commitment period and thereby receiving net credits.		Accepted	Accepted with modification. The whole section was revised. New text take into consideration the comment.
2d_G_045	Canada	2	2481	2481	It may be useful to mention again in this section that calibration periods (or time series, as per above comment) may be longer than the 1990-2009 period - this may facilitate the inclusion of rare disturbance events, such as geological disturbances.		Accepted	Accepted with modification. The whole section was revised. New text take into consideration the comment.

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2d_G_046	Canada	2	2481	2512	From this sentence, it is not clear that there may be different "calibration periods" depending on the disturbance type. It is, however, partially clarified in line 2497-2498, and appears possible in Table 2.3.2. I am thinking of an example where fire data is available back several decades, but pest data is not - therefore, there would be different calibration periods for each disturbance type, in this case. As a result, it may be clearer to simply refer to the time series for each natural disturbance type rather than 'calibration periods'.		Accepted	Accepted with modification. The whole section was revised. New text take into consideration the comment.
2d_G_047	Spain	2	2488	2488	Parties could define the disturbances in the 2015 inventory, but it seems logic that, if all the emission related to the establishment of the BGL, and other relevant information related to the requirements for the application of NDs provision is going to be reported in the Initial Report, this information should also be included there (report to facilitate the calculation of the assigned amount). Having all this information together in one report would help reporting and would help reviewers.		Accepted	Accepted with modification. The whole section was revised. New text take into consideration the comment.

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2d_G_048	Canada	2	2495	2546	This section implies that the calibration period must be the same for every natural disturbance (ND) type. This is not necessary. The basic requirement is that the period encompass 1990-2009 but, beyond that, flexibility in choosing the calibration period would make sense according to the ND type. For example, the period that may make sense, or for which there is good data, could vary for regular but fluctuating disturbances like fire, versus episodic infrequent events like volcanos, versus events with some degree of cyclic periodicity like some insect infestations. The country can decide the best period beyond the requirement to include 1990-2009. The implication of having different periods is that producing a single sum of emissions across all ND types will not work well with the default method for developing the background level. One approach is to say that IF the default method is used then the same calibration period must be used for every ND type, but this is not required of alternative methods. More generally, a country should be able to apply either method to EACH ND type to determine a background level for that type, and then sum these to derive a single overall background level.		Accepted	Accepted with modification. The whole section was revised. New text take into consideration the comment.
2d_G_049	Canada	2	2495	2546	How does this approach work where there is normally a low endemic level of a natural disturbance (ND), such as insect activity or minor storm damage that is implicitly captured in forest inventory or other growth and yield data? In the case of such endemic levels of ND, it should be permissible to use zero annual emissions since it may be not possible to explicitly derive the emissions.		Accepted	Accepted with modification. The whole section was revised. New text take into consideration the comment.

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2d_G_050	Canada	2	2500	2501	Why would one enter a zero time series for the calibration period?		Accepted	Accepted with modification. The whole section was revised. New text take into consideration the comment.
2d_G_051	Finland	2.3.9.5	2502	2503	The text is policy prescriptive. The IPCC should not interpret when a Party is eligible and when not. Please revise the text to include only the option to supplement reporting on background information if not provided in the report submitted in 2015 when national circumstances not foreseen by the Party occur.		Accepted	Accepted with modification. The whole section was revised. New text take into consideration the comment.
2d_G_052	Canada	2	2507	2511	It is not clear from 2/CMP.7 that the background level need be a sum of the various natural disturbance types that occur in the 'calibration period'. Rather, the background level could be derived from a single natural disturbance type, and as long as the Party is clear that the approach avoids the expectation of net credits or debits (i.e. by being conservative), the Party would still be able to exclude emissions from other natural disturbance types not included in the background level, provided these other disturbances also met the requirements of the provision. It is, therefore, unclear why emissions occurring during the calibration period would be summed.		Accepted	Accepted with modification. The whole section was revised. New text take into consideration the comment.
2d_G_053	New Zealand	2.3.9.5	2511	2512	Table 2.3.2. Table is required separately for FM and AR (as it says on line 2506) - perhaps for clarity the Table should include a field to record which of these the data apply to.		Accepted	Accepted with modification. The whole section was revised. New text take into consideration the comment.

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2d_G_054	China	2	2520	2520	According to Decision 2/CMP.7, the exclusion of natural disturbances needs to be supported with full time series. To avoid being significantly random, it is suggested to specify the number of years that are allowed to be absent in "most but not all years within the period 1990 to 2009".		Accepted	Accepted with modification. The whole section was revised. New text take into consideration the comment.
2d_G_055	Finland	2.3.9.5	2528	2530	Please use "estimating missing data" instead of "gap filling" to be consistent with IPCC Guidelines. Please delete also the prescriptive language "should be done in ..., or an equivalent body" . The IPCC should not give "requirements" (should) on how a Party organises its data collection - this is dependent on national circumstances.		Accepted	Accepted with modification. The whole section was revised. New text take into consideration the comment.
2d_G_056	New Zealand	2.6.1	2558	2559	Comment: The sentence "Natural disturbance followed by re-establishment of forest is not counted as Deforestation and disturbance emissions may be excluded from accounting following the methodologies in Section 2.3.9." seems a bit loose - should it instead say that "Natural disturbance followed by re-establishment of forest is not counted as Deforestation and disturbance emissions may be excluded from accounting provided the provisions of Decision 2/CMP.7 are met, as explained in the methodologies in Section 2.3.9."? Action: Revise sentence to tighten up wording.		Noted	Comment is misplaced. Should be considered by other cluster authors (section 2.6.1.)
2d_G_057	Canada	2	2559	2560	Not clear what impact the use of proxy estimates or gap filling of the time series may have on the calculation of the background level using the standard deviation approach. It seems as though this may not result in an 'averaged average' which was the intention of the standard deviation approach. Any effect of the use of proxy data and gap filling would also be compounded by the use of the margin.		Accepted	Accepted with modification. The whole section was revised. New text take into consideration the comment.

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2d_G_058	Sweden	2	2559		equation 2.3.1: A technical detail - this formula is said to provide the standard deviation of the mean, while it actually provides the standard deviation for the observations (not for the mean value; the formula for the standard error of the mean would be divided by the square root of N). The formula should remain as it is but the title should be modified.		Accepted	Accepted with modification. The whole section was revised. New text take into consideration the comment.
2d_G_059	Canada	2	2565	2570	Perhaps explain why outliers are excluded from the background level calculation?		Accepted	Accepted with modification. The whole section was revised. New text take into consideration the comment.

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2d_G_060	New Zealand	2.3.9.5	2571	2571	Alternative methods. The Durban Decision says that the relevant natural disturbances are "those that cause significant emissions in forest" - emissions from these events can be excluded from accounting. The default approach then appeared to define "significant" - some emissions from natural disturbances do still have to be accounted for, while the outliers (beyond 2 sd) do not. But this is apparently not the case at all, because the alternative methods seem to allow ALL emissions from natural disturbance to be excluded from accounting. The Default method appears to be superfluous - has it only been described because it was included within the Durban text? The implications of using it need to be spelled out - it is much easier to just use the lowest level found in the calibration period as the BL with a margin of zero (or easier still to just use a zero baseline) so if there is any reason to do something different it should be made explicit. Perhaps the method used is irrelevant for FMRL accounting, but not for AR accounting?		Accepted	Accepted with modification. The whole section was revised. New text take into consideration the comment.

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ID	Government	Chapter /Section	Start Line	End Line	Comment	supplementary documents	Authors' Action	Authors' note
2d_G_061	China	2	2576	2581	As requested in Decision 2/CMP.7, Annex I countries, which should be accounted for in accordance with the default method, are allowed to do so using self-developed methods or country specific methods (see Footnote 7 of Decision 2/CMP.7). But it was clearly noted at the same time that “All approaches of background level establishment shall avoid the expectation of net credits during the commitment period”. However, the historically lowest annual emission given by “Alternative methods” here as an approach of background level will expand the exclusion of emissions as well as discount direct human emissions by a big margin, which does not comply with the decision of 2/CMP7, hence should be deleted. Similarly, in example 2, Line 2631-2641, the historically lowest annual emission is also used as background level. It is suggested to delete Line 2576-2581 and Line 2631-2641 (example 2) both.		Accepted	Accepted with modification. The whole section was revised. New text take into consideration the comment.
2d_G_062	Canada	2	2586	2591	This section is difficult to understand.		Accepted	Accepted with modification. The whole section was revised. New text take into consideration the comment.
2d_G_063	Canada	2	2588	2588	Is there a reason this only refers to avoiding the expectation of debits, and not also credits?		Accepted	Accepted with modification. The whole section was revised. New text take into consideration the comment.

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ID	Government	Chapter /Section	Start Line	End Line	Comment	supplementary documents	Authors' Action	Authors' note
2d_G_064	New Zealand	2.3.9.5	2593	2593	FMRL accounting. A typical situation would be that some level of natural disturbance is implicitly captured within the FMRL, for example because growth models assume a level of mortality or growth loss due to attritional effects of weather, pests and diseases. But major (catastrophic) disturbance is not included. It would be helpful if the Guidance could explain how to treat this situation.		Accepted	Accepted with modification. The whole section was revised. New text take into consideration the comment.
2d_G_065	Canada	2	2595	2599	Suggest clarifying timing here, i.e. that the process of calculation of anticipated net credits or debits occurs at the beginning of the CP, when Parties are establishing their background levels (and/or margins) for reporting in their 2015 national inventory reports (as per 2/CMP.7).		Accepted	Accepted with modification. The whole section was revised. New text take into consideration the comment.
2d_G_066	Canada	2	2595	2599	Is the recalculation done at the end of CP2?		Accepted	Accepted with modification. The whole section was revised. New text take into consideration the comment.
2d_G_067	Canada	2	Box 2.3.6	2610	Add "black line" following (shown by a thin...) in line 2619. Title for "Figure b" should be moved to the top of the next page. Should also clarify in line 2625 and 2641 that the emissions equivalent to the height of the grey part of the same bar in Figures (b) and (c) (which are equal to the background level) will also be effectively excluded as these will cancel out when the emissions from the commitment period are compared with the emissions included in the background level.		Accepted	Accepted with modification. The whole section was revised. New text take into consideration the comment.
2d_G_068	New Zealand	2.3.9.5	2619		missing word 'line' should read "... (shown by a thin line...."		Accepted	Accepted
2d_G_069	Spain	2	2619	2619	Instead of "by a thin" write "by a thin line"		Accepted	Accepted

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2d_G_070	New Zealand	2.3.9.5	2628		Figure b) title separated from its figure		Accepted	Accepted
2d_G_071	Germany	2	2629	2643	<p>If the procedure is followed, which is described in example 1(a) and illustrated in example 1(b), no overestimation of emissions from natural disturbances occurs. In 9 cases emissions are lying below the background level and 11 times (including the outliers) above. In example 2 figure (c) in 20 cases the emissions are lying above the background level. This leads clearly to an underestimation of emissions and to an exclusion of almost all natural disturbances which was not the intention of 2/CMP.7. This allows additional emissions to be excluded.</p> <p>The only way example 2 could be possibly function, is if it can be proven that natural disturbances were already filtered out while calculating the FMRL. This example should however be deleted since it seems inconsistent with good practice.</p>		Rejected	Rejected. The reviewer apparently overlooked that, by using a background level as described by the default method, emissions equal to the BL from natural disturbances are excluded implicitly from accounting for each year of the commitment period in example 1 (because they are included in the FMRL), while in example 2, they are excluded explicitly on a year-by-year basis. In addition, nowhere in Decision 2/CMP.7 it is detailed that not all natural disturbance related emissions could be excluded from accounting.
2d_G_072	China	2	2631	2641	Based on the above comment, it is suggested to delete example 2.		Rejected	Rejected. The reviewer apparently overlooked that, by using a background level as described by the default method, emissions equal to the BL from natural disturbances are excluded implicitly from accounting for each year of the commitment period in example 1 (because they are included in the FMRL), while in example 2, they are excluded explicitly on a year-by-year basis. In addition, nowhere in Decision 2/CMP.7 it is detailed that not all natural disturbance related emissions could be excluded from accounting.

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2d_G_073	Finland	2.3.9.5	2631	2642	Example 2 may result in a very low background level, and we do not understand the reasoning for the margin = 0. Therefore, we would prefer deletion or revision of this example.		Rejected	Rejected. The reviewer apparently overlooked that, by using a background level as described by the default method, emissions equal to the BL from natural disturbances are excluded implicitly from accounting for each year of the commitment period in example 1 (because they are included in the FMRL), while in example 2, they are excluded explicitly on a year-by-year basis. In addition, nowhere in Decision 2/CMP.7 it is detailed that not all natural disturbance related emissions could be excluded from accounting.
2d_G_074	Canada	2	2648	2648	Should note that, under Kyoto Protocol rules, the FM land area can only decrease due to deforestation.		Rejected	Rejected. Forest areas can increase or decrease. However the reasons for rejection is that this box is about correcting for the area change not the reasons for the change.
2d_G_075	Spain	2	2648	2656	Review the symbols "BL" "BLcal" "BLcomm" and "bl" to make sure that they are correctly used in this paragraph (it seems to be some inconsistencies)		Accepted	Accepted
2d_G_076	Germany	2	2650	2653	Please qualify BL in line 2650 and 2653, it seems to be BLcal?		Accepted	Accepted

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2d_G_077	Germany	2	2655	2655	If Acomm is smaller than Acal, then BLcomm can't be equal to BLcal as $bl = BLcal/Acal$ that means $BLcomm = Acom * bl$ and $BLcom = Acom * BLcal / Acal$ or $BLcom = BLcal * Acom / Acal$ that means BLcom is smaller than BLcal. Please clarify.		Accepted	Accepted
2d_G_078	Spain	2	2655	2655	Instead of "Blcom = Blcal" write "Blcom < Blcal"		Accepted	Accepted
2d_G_079	New Zealand	2.3.9.5	2661	2662	Box 2.3.7 How can you demonstrate that a projection of area change "will not lead to net credits or debits"?		Accepted	Accepted with modification. The whole section was revised. New text take into consideration the comment.
2d_G_080	New Zealand	2.3.9.5	2666	2667	Edit: "Note that the above approach assumes that the probability of natural disturbances occurring will not change over time".		Accepted	Accepted with modification. The whole section was revised. New text take into consideration the comment.
2d_G_081	New Zealand	2.3.9.5	2666	2667	Where is the approach described for the case where the probability IS clearly changing over time (e.g. shown as a trend in background level data).		Rejected	Rejected. This is part of the example and not a text on detrending.
2d_G_082	New Zealand	2.3.9.5	2668	2669	Edit: "The same approach may be needed [DELETE THIS NEXT PART? when not the default method is used,] if the area of land under FM increases, and if the area of land under AR is expected to increase (or decrease)."		Accepted	Accepted with modification. The whole section was revised. New text take into consideration the comment.

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ID	Government	Chapter /Section	Start Line	End Line	Comment	supplementary documents	Authors' Action	Authors' note
2d_G_083	New Zealand	2.3.9.5	2670	2672	Edit: "Where this or similar approaches are necessary, it is good practice to report the methodology and data used and to show how the approach ensures that the expectation of net credits or net debits during the commitment period is avoided.		Accepted	Accepted
2d_G_084	New Zealand	2.3.9.5	2672	2672	There is much mention of avoiding an expectation of net credits or debits when setting the Background Level - it would be useful to have a box showing examples where applying the default or alternative methods do not avoid this. For example: in CP2 the AR forests will obviously be older than they were during the calibration period, but probably younger than FM forests were during that period and also younger than FM forests are during CP2. They would therefore have a different risk profile and contain a different level of biomass. Compensating for age-dependent risk is covered by the paragraph starting at line 2535 - what else might cause an expectation of net credits/debts?.		Accepted	Accepted with modification. The whole section was revised. New text take into consideration the comment.
2d_G_085	New Zealand	2.3.9.5	2672	2672	Edit: "...how the approach ensures that its application ensures ..." DELETE "that its application ensures"		Accepted	Accepted
2d_G_086	Spain	2	2689	2689	delete "in order to restore or secure forest functions and to prevent degradation of forests". Not needed, and the efforts to rehabilitate the land cover can have other motivations than these.		Accepted	Accepted

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2d_G_087	Spain	2	2689	2703	Delete this paragraph. Not relevant information for the estimation of areas and emissions/removals. In addition, it makes some judgements that can't be applied to all countries. Rehabilitation and restoration are very country-specific issues. Avoid including generalities in the text.		Accepted	Accepted with modification. The whole section was revised. New text take into consideration the comment.
2d_G_088	Spain	2	2712	2714	Not relevant for the elaboration of the inventories. It can't be good practice providing this kind of information in a national GHG inventory. Delete the bullet point.		Accepted	Accepted with modification. Text has been revised. However, this kind of information has to be provided in order to show that rehabilitation is undertaken and to allow for a distinction between e.g. rehabilitation and land use-change.
2d_G_089	New Zealand	2.3.9.7	2719		instead of "there is no other land-use" prefer to say "there is no land-use change"		Accepted	Accepted
2d_G_090	New Zealand	2.3.9.7	2722	2723	Perhaps be clearer here on the definition of deforestation, and in these situations this will be classed as deforestation. It is a little open to interpretation as its written.		Accepted	Accepted with modification. Text was revised as: "...may have to be considered as Deforestation (see decision trees in Sections 1.3 and 2.6)."
2d_G_091	Austria	2.3.9.8	2724	2741	Para 36 of decision 2/CMP.7 states that "The treatment of emissions and removals that occur on the lands referred to in paragraph 33 above in the subsequent commitment periods shall be reflected in land use, land-use change and forestry accounting for those commitment periods." The text contained in this chapter preempts the accounting framework for LULUCF in subsequent commitment periods and should therefore be deleted.		Accepted	Accepted with modification: the text of the Durban decision was quoted; and revisions were made to remove possible pre-emption.