Date: 26th and 27th February 2015

Venue: Capri Hotel, Kuala Lumpur

Dr Gan, Faizal (Co-chair)

Organisation	Status
Musim Mas	Substantive
GEC	Substantive
Bumitama Gunajaya Agro	Alternate
Wetlands International	Alternate
KLK	Alternate
Unilever	Substantive
REA	Substantive
Olam	Substantive
Bumitama Gunajaya Agro	Alternate
GEC	Alternate
Wetlands International	Substantive
Sime Darby/MPOA	Substantive
Rainforest Alliance	Substantive
WWF-Malaysia	Alternate
Musim Mas	Alternate
RSPO Secretariat	Secretariat
	Consultant
	Musim Mas GEC Bumitama Gunajaya Agro Wetlands International KLK Unilever REA Olam Bumitama Gunajaya Agro GEC Wetlands International Sime Darby/MPOA Rainforest Alliance WWF-Malaysia Musim Mas

No.	Description	Main discussion points	Action items
1.	Membership status	The secretariat sent out a call for nominations to fill the empty seat	
		vacated by WWF-Indonesia.	
		Consequently, Rainforest Alliance took up the 2 nd eNGO seat and	
		Joseph Hutabarat attended the meeting representing Rainforest	
		Alliance.	

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		The alternate eNGO seat is filled by WWF-Malaysia, represented by	
		Stephanie Alau Apui	
2.	Progress of the consultancy on carbon sequestration in conservation areas	Following the presentation by the Consultant, it was generally felt that the report as it is, was inadequate for the purpose of the ERWG in fulfilling the requirements of having defaults for conservation areas that can be used in PalmGHG. Some major concerns raised were 1. Section on peat was poorly addressed - impacts of peat rewetting, oxidation, degradation from drainage etc. An option could be to leave peat out altogether 2. Defaults appear to be arbitrary and perhaps too conservative that negates the incentive for growers to want to keep and manage these areas 3. Need to clarify what is required to meet GHG reporting standards and acceptable practice and also how to address local catastrophic changes (e.g. fire), amortisation, etc. How to report and how to manage needs to be separated 4. Lack of differentiation between the set asides i.e. set asides required by law, required by RSPO, and voluntary. Such differentiation will have implications on what can be used for offsets and what can be considered as additional. 5. Better references and more extensive review of sequestration rates in different vegetation cover types are needed 6. The ambiguity in what is considered as no management, passive management, etc. The various practices need to be better defined. Generally, there was some debate on whether or not the work should continue with the Consultant and if the outputs will still be relevant and usable to the ERWG.	Subgroup be formed to discuss next steps to make the best use of the study Any outstanding action points determined by subgroup to be communicated to the Consultant

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		There was also confusion on how the work addresses both the	
		needs of C5.6 and C7.8. The secretariat reminded the group that the	
		ToR was developed with a very narrow focus on C5.6 and at that	
		time the approach for C7.8 was under developed even among ERWG	
		members. That needs to be taken into consideration when assessing	
		the report.	
		It was decided, that some information can still be salvaged from the	
		report and that a subgroup should be formed to have a side	
		discussion on what are the key areas that the Consultant can focus	
		on in the remaining time period and contractual obligation and	
		report back to the ERWG before the meeting closes.	
		A subgroup was formed to discuss on how the WG should approach	
		the Consultant to complete the outstanding errors. The following	
		points were identified to be communicated with the Consultant to	
		revise the draft	
		1. correct the errors in the current report (repeated text, unfinished	
		sentences, etc.)	
		2. complete the main outstanding aspects of the TOR with	
		consideration of the following	
		a. Expand on categories for emission/sequestration from	
		conservation areas (e.g.)	
		- peat re-wetting	
		- existing peatland drainage	
		- deforestation (decrease in area due to conversion)	
		- degradation	
		- fire (peat or non peat)	
		b. Review literature and other information sources (e.g. growth and	
		yield studies from permanent plots for forest management) and	
		identify credible defaults for sequestration in different habitat types	
		of conservation areas	
		c. Clear definitions for basic management, active management,	
		rehabilitation etc this may vary with type of conservation areas.	

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		Conservation areas in plantations are typically HCV 1 - 6 as well as	
		peat areas, areas with fragile soils, riparian zones, steep slopes.	
		d. Further explanation in the report on the predicting and reporting	
		of emissions from conservation area	
3.	Review of minutes of meeting	Outstanding issues raised	
		1. How to address emissions from peat and other organic soils The HCS study group is commissioning a study to look at the emissions from other organic soils and it would be good to refer to their findings before making a decision on how to deal with emissions from non-peat soils. The results are expected in November On the emission factors for peat, a question was raised on Dr. Carlson's paper which was a review of literature on peat emissions. The paper has been submitted to Conservation Letters but a resubmission was required to address the comments from the peer review process. The secretariat does not know the latest progress on the paper. The WG advised the Secretariat to contact Kim on the progress and to check if the paper is not accepted for journal publication, if there is an option to publish as an RSPO publication or for the paper to be shared with RSPO members The question was raised on whether the peat emissions should be estimated based on (i) the assumption that the volume of peat will remain the same over time – in reality there will be losses from oxidation (ii) the assumption that the depth of peat, whether shallow or deep has no influence on emissions – the PalmGHG	Secretariat to contact Dr. Carlson on the status on the paper and to explore other options if the paper is not published. Discussion to be continued by the peat subgroup

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		calculations look only at water table depth to estimate	
		emissions from oxidation and not peat depth	
		It was explained that there is no literature on the differences of emissions from peat based on peat depth. The research only shows that the emissions is influenced by drainage depth. It was suggested to communicate with the HCS study group on these questions in case they will be generating some data on this. It was also raised that several plantations (Sinar Mas for example) have installed their own Eddy covariance towers (Sinar Mas) and have been generating data on emission flux since 2007. So perhaps instead of waiting for Dr. Carlson's paper, there is opportunity to contact the researchers behind these field studies for data as well. It was also noted that root respiration may not be excluded in the measurements by the Eddy covariance towers whereas Dr. Carlson has already done this separation in her paper.	
4.	Operational working group issues	The discussion touched on 3 issues raised by the Secretariat. 1. Adoption of Code of Conduct (CoC) The Secretariat reminded that the WG has accepted and adopted the CoC which was shared and signed by those who attended the last meeting. This CoC will need to be signed by all who attend ERWG meetings whether they be WG members, technical advisors, consultants and observers. The CoC was distributed to new members and those who were absent at the last meeting for signing. 2. Attendance and efficiency of subgroups The secretariat reminded that it was important to maintain consistency in the attendance and representation in order for discussions can move forward and to avoid the need to repeat or to	Secretariat to circulate the form to identify who's in parallel initiatives Secretariat to organise a meeting of ERWG and BHCVWG co-chairs to discuss alignment of processes around the same time as the next BHCVWG meeting Secretariat to circulate a list to identify which WG members sit in other relevant groups and initiatives so that they can be contacted for relevant updates at meetings.

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		start old discussion anew when there is a regular influx of new	
		members.	
		However, there can be geographical constraints. This is an issue that	
		is particularly pertinent to Latin American and African	
		representatives across all WGs under the RSPO. The secretariat	
		updated the group that a regional WG for Latin America is being	
		formed in order to facilitate their involvement in all other ongoing	
		WGs and developments in RSPO. It was also mentioned that Olam,	
		as an ROW representative can act as a conduit to other ROW	
		growers to give input in the ERWG discussions.	
		It was also raised that implementing actions between meetings are	
		also very important compared to just having set piece discussions at	
		physical meeting.	
		Due to the length and technical nature of the discussions, Skype	
		meetings can be complicated. However, if an agenda can be	
		developed to capitalise on subgroups, then meetings over skype can	
		be more manageable as they can be shorter and more frequent. It	
		was agreed that subgroups need to be more efficient in working on	
		outputs between meetings. It was also clarified that subgroups can	
		invite other technical experts (non ERWG members) to contribute.	
		3. Updates on parallel initiatives	
		To improve the cross fertilisation of information between RSPO WGs	
		and parallel external groups or initiatives that are relevant to the	
		RSPO, the Secretariat forwarded a suggestion to include as a	
		standing agenda item, a segment for quick updates from other	
		initiatives. This is because many of the members have overlapping	
		roles in these groups and can be in a position to update on items	
		that are relevant to the work of the ERWG.	
		This was accepted by the WG. Secretariat will write to ERWG	
		members seating in other WGs to prepare short updates prior to	
		each meeting. An update on the ISPO GHG WG was given. The ISPO	

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		calculator which is aligned to the EU-RED is ready for release.	
		However, it is not publicly available yet but a workshop may be	
		organised soon. It was advised to write directly to ISPO for access.	
		A meeting between BHCVWG and ERWG co-chairs will be organised	
		to come up with one common guidance on LUC analysis as there are	
		similar steps and processes in the GHG Assessment procedure (e.g.	
		stratification of vegetation types and the use of remote sensing).	
5.	Submissions on C7.8	Summary of voluntary submissions was presented to the WG. So far	Secretariat to send a couple of
		only one new NPP submitted after 1 st Jan 2015. As the submission fell within the buffer window, no submissions yet that follows the	reports to C7.8 subgroup for review
		latest version of the GHG assessment procedure	Secretariat to send the SNI 7724
		A checklist was prepared by the Secretariat to check if all the	document to C7.8 subgroup for
		required information was submitted. A separate checklist was	review
		developed by the WG to review the reports.	
			Secretariat to finalise and send
		Secretariat has suggested based on discussions in previous meetings	review template to C7.8 subgroup
		to submit a random sampling of the reports submitted for external	
		peer review. Discussions with a local research institute is ongoing	Secretariat to send out reminder so
		and if agreed, an NDA will have to be signed. WG members	that companies are reminded to
		requested that consent has to be obtained from individual	follow the correct reporting format
		submitters to allow their reports for external peer review.	
		The secretariat explained that the results of the peer review will	
		have no bearing on whether the C7.8 report is acceptable or not but	
		the main objective is to inform and advise the ERWG on the	
		acceptability of methodologies being employed and how it will	
		impact the review process of the carbon assessment tool during the	
		implementation period. External peer reviewers will also alleviate	
		the burden of WG members who may not have enough time and	
		resources to review the reports that come in.	

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		Due to the current low volumes of submission, the WG decided that external peer reviews are not necessary for now. Should the volume of submissions increase and becomes unmanageable, then this issue will be revisited. In the interim, WG members will take turns to review samples of reports received based on the checklist that was developed. Turnover time for each review will be 1 month. The secretariat is tasked to first filter the submissions to ensure that they are complete, before submitting to the respective ERWG members for review.	
		Meanwhile a reminder should be sent out to remind members that as of 1 st May 2015, they should already be following the full format for reporting as stated in the GHG assessment procedure.	
6.	Equivalency	Equivalency should be focused on the principles of calculation that are material to the outputs rather than all the others that are less material as well, otherwise it will be like saying that only PalmGHG is allowed. Therefore it was proposed to simplify the criteria to determine equivalence to only focus on key principles.	Cecile and Henry to refine the criteria list and re-circulate to group Secretariat to send out reminders on C5.6 reporting
		However a concern was raised that even if alternative tools comply with the criteria proposed, the results could still be very different. It was recommended that if a company wants to use an alternative tool, the submission should be compared with a similar analysis conducted with PalmGHG so that the differences in results can be seen. It will also mean that as part of the criteria for equivalency, the WG gives an acceptable range of difference in results before the calculator can be considered as an equivalent. There are some parameters that are mandatory and cannot be variable such as treatment of peat, treatment of land use change emissions and time periods.	

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		Above and below ground biomass and peat need to be added to the list.	
		WG agreed with the concept to have a simplified and more flexible	
		approach to determining equivalence but requested the subgroup to refine the list of criteria to reflect the discussion.	
		Companies will need to submit the PalmGHG report summary together with their audit report. There is no restriction on whether the calculation is based on financial, annual or audit periods, however, the company should inform which period they are using. A reminder needs to be sent out for companies to include a section on challenges and problems. For those intending to use an equivalent tool, the submission and approval of that tool needs to happen before the audit.	
7.	Time average carbon vs stock at maturity	P&C encourage new plantation to be developed in low carbon stock areas. Recommendation of the GHG WG 2 plantation should aim to cover the carbon debt by the end of the carbon cycle – stock at maturity	Paper to be developed for discussion at next meeting
		It was agreed that the carbon stock of oil palm at maturity (value to be decided) can be used when comparing whether a certain vegetation type is of a higher carbon stock value or a lower carbon stock value. However there is still no agreement on whether or not the time average carbon stock or the stock of maturity is used for greenhouse gas calculation for estimating the carbon loss when forests are converted to oil palm.	
		WI's position is that the carbon stock at maturity cannot be used as the basis for calculating the loss of carbon stock when forests are converted to oil palm because the carbon stock in an oil palm plantation fluctuates every 25 years (production cycle) while the	

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		forests standing stock is static. Instead a time average stock or the stock at 12.5 years should be used instead. Due to lack of consensus	
		and information, it was requested that a decision should not be	
		made at this meeting but a paper on this issue be prepared to be discussed at the next meeting.	
8.	Decision on choice of static vs dynamic model for crop sequestration	The discussion paper over the pros and cons of adopting either model was presented to the WG. Having a dynamic model can be argued to be more accurate scientifically to represent the growth and sequestration rate of a perennial crop like oil palm which would not be static. At the same time, it proves a communication problem in explaining the fluctuation in emissions which have nothing to do with management practice. It also complicates planning as the effect of management interventions may be masked due to this fluctuation as younger plantations will have a tendency to have a higher sequestration. In that case a static model would be much simpler where an end carbon stock is taken and averaged out over the 25 years. In the end, in terms of emissions, it will not make much of a difference. At the same time, the reason for the peaks in the OPRODSIM and OPCABSIM model especially in the early years of growth is not well understood or explains which throws questions on the validity of the model to represent oil palm growth. It was suggested that the discussion on whether the OPRODSIM model is correct or if there are other dynamic growth models that can be used should be kept separate from the discussion on whether a dynamic model or a static model would serve the function of PalmGHG better.	PalmGHG subgroup to recommend list of default values that need to be updated PalmGHG subgroup to provide list of carbon stock values for OP at maturity and recommend a value for PalmGHG Secretariat to liaise with programmers to make necessary changes as advised by the subgroup and WG. Changes to be made either by mid-april or June depending on the scheduled release of V3

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		A comment was raised that the FFB yield will increase with plantation age and it can be argued that while a very young plantation will have higher sequestration rates, the FFB yield will be low as well bringing up the emissions per ton of CPO produced. Whereas an older plantation while having lower sequestration will have much higher yield and the overall emissions may balance out in the end. This possibility has not been looked into yet as well.	
		It was agreed to switch to the static model however the issue now is to select the appropriate end-point to reflect the carbon stock for OP which is credible and accepted.	
		The change from dynamic to static can be done relatively quickly. Just like how default values are updated, the change can be done and released as a patch. When that patch is downloaded and installed, then the database will automatically be updated. However, it was raised that it is very important that the release of the patch be accompanied by an explanation of the changes made and the implications on the results.	
		The launch of V3 of PalmGHG has been delayed as it was important to compile all the changes needed and implement them in one instance. Multiple patches will only confuse and frustrate users.	
		It was then decided that	
		 PalmGHG subgroup compiles the main references for carbon stock for OP the recommended end value to be used PalmGHG. This will be distributed to the ERWG for endorsement before change is made Subgroup also should compile a list of default values that need updating (if applicable) and distribute to ERWG for 	

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		endorsement. It is best if all the changes to default values can be made together to avoid multiple patch releases 3. If the more major revisions to PalmGHG can be made fairly quickly (e.g. translation, change of 3 year to 1 year, etc.), i.e. in June, then all the changes can be done together. If V3 can only be ready at a much later date, then the changes in the first to items should be done earlier, i.e. by mid-April.	
9.	Brief discussion on smallholder issues	The purpose of this discussion is to brief the co-chairs of the SHWG and to have feedback from the ERWG with regards to 5.6 and 7.8 are taken into consideration earlier on in the consultation process already. A revised draft is currently under discussion and the document will undergo a second round of public consultation. Main points mentioned The difference between small groups vs large groups need to be defined Better clarification on definitions are needed e.g. associated smallholders Responsibilities of the individual smallholder members vs the group managed has to be better presented. Current format is confusing Emissions in 5.6, only generators were identified as an emission source but other sources could come from fertiliser use and oxidation of peat. On the issue of peat and water table management, it can be managed in C4.3 rather than C5.6. Fertilisers are addressed in C4.6 It is in the interest of smallholders to apply best management practices so they should not be exempted from requirements such as water table management. However, smallholders would need to be given sufficient support to do this.	

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		 Scheme smallholders – C7.8 applies Independent smallholders – collectively should avoid planting on primary forest and extensive planting of peat in order to be certifiable (refer to Annex 2 – general guidance) 	
10.	Discussion with SHWG co-chairs and smallholder manager on C5.6 and C7.8	The main concerns regarding smallholders brought up by ERWG were 1. pollution of watercourses from the use of agrochemicals 2. peat oxidation due to drainage and poor water management 3. if smallholders have extensive planting on fragile soils, then they cannot be certified. Mills have a responsibility to communicate with their smallholder suppliers not to grow extensively on peat otherwise their FFB will not be bought. The ERWG also stated that for mills that buy FFB from independent smallholders and other 3rd part suppliers where there is incomplete information on the emissions associated with the cultivation of the fruit, the mills can use an estimate of their own crop emissions to represent the smallholder emissions. Co-chair of SHWG asked if a simplified spreadsheet can be prepared for smallholders to do very simple calculations so that they can have an emission value attached to their FFB. This will give them an appreciation for measures that they can use to reduce emissions rather than have them not do anything. Both groups agree that there should be a simplified mechanism for smallholders for compliance on the GHG matters and that smallholders should not be overburdened due to their limited capacity. However, the peat issue is still a concern that needs to be addressed.	Develop simplified spreadsheet for smallholders based on PalmGHG but delivering results based on tCO2/FFB as per suggestion of SHWG

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		It was suggested that for carbon stock assessment (C7.8), the group	
		can take a similar approach as with the requirement for HCV	
		assessment. It was explained that a simplified HCV assessment	
		toolkit for smallholders has been developed. However it is still being	
		field tested and that there are still areas that are unclear and not yet	
		addressed.	
11.	Next steps	Outcome from the subgroup discussion on the carbon sequestration	Secretariat to communicate on
	·	in conservation areas study was shared and discussed. Feedback to	outstanding matters with the
		the Consultant is compiled and will be distributed to the group again	Consultant
		for further comments.	
		The issue of an incentive mechanism (e.g. monetary, market access,	Secretariat to communicate with
		reputation) needs to be explored to encourage companies to i)	BHCVWG to organise a 1 day
		proactively and effectively conserve their set aside areas and ii) set	workshop between BHCVWG and
		aside and manager areas that are larger than the minimum	ERWG members on incentive
		requirement outlined in the P&C.	mechanisms
		The idea of landscape level certification can be explored. Currently	POME subgroup to prepare paper
		certification is only viewed at the concession level. Riparian reserve	on POME emission calculation
		management is a classic example of going beyond single concessions	
		but can benefit from a landscape level approach.	
		For instance, there is an initiative now in Riau which brings together	
		both private and government sectors as well as several commodity	
		players such as palm oil, pulp and paper and timber.	
		It was also recognised that there should be formal communication	
		and information sharing between the various RSPO WGs especially	
		in areas where there are overlaps in the scope of work. It was	
		recommended by the WG to organise a 1 day workshop for both	
		BHCVWG and ERWG members to explore options for incentive	
		mechanisms. It is important to include BHCVWG as it concerns	
		conservation areas that are set aside and proper management of	

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		HCVs. There could also be lessons learnt or connections with the	
		compensation mechanism. It was suggested for the workshop to be	
		held in the same week as the next BHCVWG meeting. Suggested	
		dates are 4 th May or 8 th May.	
		On the issue of POME, the POME subgroup (to be coordinated by	
		Henry Cai) has agreed to prepare a discussion paper on the	
		calculations for POME in PalmGHG	
12.	Next meeting	Decided to be on June 11 th and 12 th in Putrajaya.	Secretariat to arrange venue for
			meeting