

Date: 11th & 12th June 2015

Venue: **PUTRA 3, IOI Palm Garden, Putrajaya**

Dr Gan, Faizal (Co-chair)

Name	Organisation	Status
Gan Lian Tiong (co-chair)	Musim Mas	Substantive
Faizal Parish (co-chair)	GEC	Substantive
Lim Sian Choo	Bumitama Gunajaya Agro	Alternate
Arina Schrier	Wetlands International	Substantive
Jason Foong	KLK	Alternate
Audrey Lee	Olam	Substantive
Mukesh Sharma	Asian Agri	
Julia Lo	GEC	
Shahrakbah Yacob	Sime Darby/MPOA	Substantive
Joseph Hutabarat	Rainforest Alliance	Substantive
Melissa Chin	RSPO Secretariat	Secretariat

No.	Description	Main discussion points	Action items
1.	Summary of PalmGHG submissions (trends & comments from users)	<p>The secretariat shared the update on the PalmGHG submissions received and the results for each submission. The mills and company names were kept anonymous.</p> <p>In total 37 mill submissions were received. All used PalmGHG except for one mill which submitted their ISCC GHG calculations.</p> <p>The secretariat also shared the main comments received from the companies on PalmGHG.</p> <p>Comments were raised that the Secretariat should try to also include more information on the results analysis such as including OER rates and FFB yield rates as that may influence the final GHG value as well.</p> <p>From the results, it is clear that plantations with peat will usually have significantly higher emissions but the magnitude of emissions</p>	<p>Secretariat to continue analysing the submissions received and to incorporate feedback from the WG in including more comparison parameters such as productivity and peat hectareage.</p>

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		<p>vary greatly. The WG asked that more information be gathered on the planted areas on peat so that the results can be compared in a more meaningful manner.</p> <p>The secretariat explained that the detail in the information varies from case to case due to the reporting style. Some companies submit the entire accdb file while others submit only the PalmGHG pdf. In the cases where only the pdf is submitted, the Secretariat can go back to the company to ask them to volunteer the extra information.</p> <p>However, from this exercise, it is clear that the PalmGHG pdf report needs to be revised to capture several more key information. This will be communicated for the next PalmGHG revision</p>	
2.	Comparison with ISCC (and other EU-RED calculation methodology)	<p>The secretariat presented the main conclusions from a comparison study conducted by Cecile Bessou from CIRAD on ISCC and PalmGHG.</p> <p>Both ISCC and PalmGHG methodologies follow a life-cycle approach and encompass the same major sources of GHG emissions in biomass production and transformation. ISCC is more generic and provide a framework and default values for a broad range of feedstock; it also includes further processing steps up to the distribution of final biofuels, whereas PalmGHG focus on the palm oil production and stops the assessment at the mill gate.</p> <p>Differences are mostly minor but cumulated marginal effects may affect the final balance significantly and several examples of the differences were presented to the ERWG.</p> <p>Minor differences consist of the inclusion or not of pesticides, seed production or input transport, some defaults parameters such those concerning POME emissions. More important differences concern</p>	Secretariat to communicate to companies and auditors that the ISCC calculation is not considered an equivalent

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		<p>carbon stocks included in LUC assessment and calculation of peat cultivation emissions.</p> <p>Results based on ISCC and PalmGHG methodologies can be compared and differences in final GHG balances pointed out. However, the comparison is not straightforward and an adaptation must be done each time results have to be compared. In the case where the producer wants to calculate the GHG balance up to palm biodiesel production both calculations may be compatible provided that adjustments are done to inject PalmGHG results into an ISCC/RED-based tool such as Biograce</p> <p>For GHG assessment of palm oil, PalmGHG is more adapted to the analysis of palm production (much more precise to account for field management and improvement opportunities). PalmGHG is being updated and upgraded continuously by the RSPO ERWG, whereas ISCC/RED methodologies and tools are not supposed to evolve especially regarding a specific crop or production context.</p> <p>One possibility is to allow companies to report their GHG balances either with PalmGHG or ISCC, but that RSPO should never provide or compare results from "the two groups" all together. For reporting purpose, ISCC may be ok, but for communication RSPO should stick to PalmGHG results where every detailed calculations can be checked if needed and to avoid contradictory and confusing messages. However, there is much less transparency in the ISCC calculation overall and especially regarding which part of the whole supply area is assessed. There is no specific record of the detailed blocks analysed and producers may use ISCC only to assess the supply area that they will use to provide oil for biofuel sells to Europe. Given the cut-off year and the criteria related to forbidden</p>	

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		<p>land areas there is no guarantee that the whole area is assessed and that no trade-off occurs.</p> <p>Another way would be to combine calculations by adding some LUC and peat emissions as in PalmGHG, but there might be still some remaining inconsistencies.</p> <p>After discussing the main findings from the study on the similarities and differences between the ISCC calculations and PalmGHG, it was decided that in order to comply with C5.6 of the RSPO P&C, PalmGHG will have to be used. A transition period can be given to the companies currently submitting their calculations based on ISCC but they will need to start using PalmGHG for all future submissions.</p>	
3.	Peat subgroup discussion	<p>The peat subgroup had a discussion on the following issues,</p> <p>i) guiding text on collating periodic subsidence measurements and periodic surveying changes in peat extent and possible reclassification of peat areas in aging plantations on peat.</p> <p>ii) debate possibility of introducing a cut-off/grandfathering clause for peat emissions - eg Nov 2005 as baseline.</p> <p>iii) guiding text on what constitutes i) good water management ii) partial iii) none.</p> <p>Outcomes and recommendations can be found in Annex 1.</p>	Secretariat to communicate the agreed guidance on i) good water management ii) partial iii) none.
4.	Subgroup Discussion on how to move forward on conservation areas	<p>It was decided to put the consultancy on carbon sequestration to a close. It is important to figure out how to move forward on the discussion and at the same time drawing on whatever useful elements from the study.</p> <p>Outcomes and recommendations can be found in Annex 2.</p>	Secretariat to follow up on possible consultants or access to relevant studies
5.	Submissions on C7.8	At last meeting, 5 submissions but one retracted due to issues with NPP. Since then, 6 submissions were received from 3 different	Secretariat to follow up with Dr. Gan and Henry if the report

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		<p>companies. Only one company's submission was reviewed. Secretariat still following up with remaining companies to close the info gap in their submissions.</p> <p>From the reports received thus far, common issues that were observed were,</p> <ul style="list-style-type: none"> • the report did not fully meet the reporting requirements as outlined in the GHG assessment procedure • does not describe how or whether the HCS assessment together with the other related assessments such as HCV, influenced the outcome of plantation plan and design. • scenario testing and mapping overlay section are missing <p>Some observations by Secretariat Scenario testing less applicable for</p> <ul style="list-style-type: none"> • Brownfield conversion • Ongoing operation <p>This is because there is less flexibility to play around with land use choices. Question was raised on whether scenario testing is still required but focus on mill (brownfield)? The WG felt that scenario testing is still applicable but perhaps with less options and this can be easily justified by the company.</p> <p>Higher reliance on usage of default values which may require the ERWG to expand range of defaults in PalmGHG especially for degraded and secondary forests.</p> <p>Main comments received thus far</p> <ul style="list-style-type: none"> • Limited land cover types are provided in the RSPO GHG Assessment Procedure for New Plantings. This could pose problem for new areas where there are many land cover types especially the forest area. 	<p>submitted can be used as a sample reference for others (with sensitive information removed).</p>

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		<ul style="list-style-type: none"> • Cultivated area has a higher carbon stock default value than oil palm in PalmGHG which would result in higher GHG emission when cultivated areas are converted to oil palm • Default value for GHG emission from peat does not consider the age and thickness of the peat. The emission from old and shallow peat is assumed to be the same as young and deep peat. • The exclusion of mineral soil carbon change due to development makes this assessment less complete than it can be. • The absence of guidance or default value for set aside area 	
6.	Results from review of Indonesian SNI document	From the results of the internal ERWG review, it was recommended that the SNI document can be a useful reference and can be included as an Annex to the GHG Assessment Procedure or as a supplementary material	
7.	HCS approach toolkit – perceptions and feedback on inclusion (as an equivalent?) in C7.8	<p>Questions have been raised by RSPO members on whether they can use the HCS Approach toolkit to meet the requirements of C7.8. A C7.8 submission has also been received by the RSPO Secretariat using the HCS Approach toolkit.</p> <p>It was generally felt that the GHG Assessment Procedure is flexible enough to accommodate the HCSA as options are allowed. However, the GHG assessment procedure goes further than the HCSA as companies are required to estimate potential GHG emission (not just the carbon stock) and develop a management and mitigation plan. Therefore, companies may use the HCSA to develop their map of potential HCS areas and areas to be set aside. However, they would still need to conduct the scenario setting to select ways to minimise net GHG emissions and develop a plan.</p>	Audrey and Joseph to review HCS+ study draft report Siew Theng and Joseph to review HCSA toolkit

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		<p>At the same time, it was recommended that ERWG members are assigned to systematically review both the HCSA and HCS+ study interim report.</p>	
8.	Update on NPP	<p>The NPP draft for the planned public consultation in August and September is still not fully ready. As such, the Secretariat circulated sections of the NPP draft that was relevant to the ERWG. The Secretariat shared with the ERWG the main updates/changes in the NPP draft and asked for feedback on the elements of the updated NPP that is relevant to C7.8. The ERWG members are also free to comment on other portions of the NPP but that should be done during the public consultation period. The main purpose of this session is to vet the text relevant to C7.8 so that the NPP draft for public consultation can be finalised.</p> <p>Among the issues that were discussed were,</p> <ul style="list-style-type: none"> • Text on assessor competency • Text clarifying that the C7.8 reporting is public as of 1st Jan 2017 but needs to be submitted as a standalone document together with the NPP in the interim. It was recommended that the exact same text drafted by the ERWG and used for public announcement late last year be used. • 3 year validity period for the carbon stock and GHG assessment submitted. 	Secretariat to incorporate the edits suggested by the ERWG
9.	Planning of workshop on incentive mechanism (follow up with BHCVWG)	<p>We have agreed with the BHCVWG to co-organise a workshop on incentives. A concept for the workshop needs to be ready and circulated by 17th June. Target date for workshop is 3rd August in Kuala Lumpur to coincide with the week that the BHCVWG is having their meetings. Organising committee from ERWG will comprise of Faizal, Sian Choo, Arina/Marcel and Melissa. The BHCVWG has also formed a coordinating committee on their side.</p>	Melissa to coordinate with Soo Chin (BHCV Manager)

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		<p>Objective of the workshop is to kickstart the development of a mechanisms that can encourage or reward companies to i) enhance management of existing conservation areas in order to improve its values ii) set aside areas beyond the minimum required by HCV assessments and also carbon assessments. There is a strong win-win scenario by linking up with colleagues working on HCV because HCS areas can have biodiversity benefits and HCV areas could also have carbon sequestration benefits</p> <p>In view of that the idea was to invite organisations with experience in carbon trading and similar conservation financing type projects to speak of their experiences as case studies. A one day workshop was discussed with the first half being on case study presentations followed by break out discussions on options for OP companies.</p> <p>Suggested participants to be invited (beyond members of WGs) - Financial institutions e.g. HSBC, IDH, IFC, etc. and Consumer Goods Manufacturers - Unilever, Nestle, etc.</p> <p>Potential presenters of case studies - REDD+ projects/Forest Climate Initiative, Gold Standard (Climate Smart Agriculture), Malua Biobank</p>	
10.	RT13 plans	<p>RT13 will be held in Shangri-La Bangkok, from 17th -19th November. A prep cluster session is being organised to discuss issues pertaining to carbon stock and GHG emissions. The Secretariat asked for further guidance on possible topics for the prep cluster. One option is to explore opportunities for integration with HCS+ and HCS Approach especially since the HCS+ study would have been completed by then. It is also expected that the HCS+ study group would want to share their main findings at RT13.</p>	Secretariat to follow up on RT 13 preparations and the agenda setting

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		<p>Aside from the main RT programme, the Secretariat also proposed to have a one day GHG workshop on 16th November. Suggested topics include</p> <ul style="list-style-type: none"> • PalmGHG training • Sharing session on PalmGHG and C7.8 submissions • Presentation on data from PalmGHG 	
11.	AOB – Practical guidance for implementing RSPO Principles and Criteria in relation to peatlands	<p>Arina gave an update on the development of the practical guidance. The document has been circulated for review and feedback however response was poor. It was agreed that the draft be re-circulated to the ERWG to be shared with the individual networks to see if more feedback can be obtained.</p> <p>It was suggested that a presentation by Peter Lim on drainability assessments be used as a reference for a section of the practical guidance. Mukesh to forward the presentation to Secretariat and Arina.</p> <p>A training workshop based on the practical guidance was also proposed.</p>	Secretariat to distribute the draft “Practical guidance for implementing RSPO Principles and Criteria in relation to peatlands” to ERWG
12.	Next meeting	<p>3 options were discussed and proposed.</p> <ol style="list-style-type: none"> 1. 12th &13th Nov (Thursday and Friday in KL) 2. 13th &14th Nov (Friday and Saturday in KL) 3. 14th & 15th Nov (Saturday and Sunday in Bangkok) 	Secretariat to send a Doodle poll for members to vote their preference and to make the necessary arrangements

ANNEX 1

Recommendations by peatland sub-committee of ERWG

1. Changes in peatland extent.

As a result of decomposition, the layer of peat in an oil palm plantation on peat is gradually lost over time. Therefore some portions of the peatland in a plantation will first become organic soil (peat layer less than 50cm thick) and eventually after loss of the organic matter layer will become mineral soils. It is further recognized that the emission rate from the organic soil will likely be less than that of the peat while that from mineral soils will be considered zero for the purpose of the PalmGHG calculator.

It is therefore recommended that existing plantations on peatland which was less than 1m thick at the start of the plantation cycle undertake periodic surveys to verify the extent of peat that has become organic soil (less than 50cm thick and no longer classified as peat) and mineral soil. It is suggested that such periodic surveys be undertaken at 5 year intervals.

Those portions of peat that have become mineral soil should be removed from the specified area of peatland used in PalmGHG for calculation of GHG emissions. The emissions for those portions which have become organic soil should be calculated using a different emission factor. Further work is needed to develop an emission factor for drained organic soils. It is hoped that information from the HCS study will assist in this regard.

For companies who want to calculate the emissions from shallow peat soil in more detail – they may use a combination of subsidence poles (placed through the peat and into the mineral soil below) to determine the rate of subsidence and periodic measurements of peatland bulk density (at 10cm depth intervals) over the whole peat profile between the surface and mineral soil. Such assessments can calculate the carbon content in the whole profile and then be used to monitor reduction in carbon content over the lifetime of the plantation with the difference being the emission. It may then be possible to multiply the subsidence by the fraction of the peat oxidized to estimate the emission. This has potential to be an alternative method to calculate CO₂ emissions from peat for companies with shallow peat soil. Such work may also assist in developing new emission factors. The subgroup will further check the literature and propose specific guidance.

2. Cut-off or grandfathering clause for peat emissions

The peatland subgroup considered the pros and cons of introduction of a grandfathering clause for peatlands developed prior to a certain date e.g. 2005. Under such a concept the emissions from peatlands developed prior to this date would be ignored in the calculation of GHG emissions. The peatland subgroup recommended that this be not allowed for the following reasons:

- a) Peatland emissions are a very significant portion of emissions from plantations developed on peat as well as in the industry as a whole. Given that this is already recognized by many

- stakeholders – a proposal to ignore such emissions would seriously affect the integrity and reputation of the Palm GHG and RSPO CSPO as oil palm grown in areas with high emissions from peat could not be differentiated from those grown on mineral soil.
- b) RSPO has already recognized the need for adoption of best management practices for peat related to water management etc. and these are part of the certification process. It would not be logical that an important aspect of peat management i.e. reduction of GHG emissions be removed from the requirements. This would remove any incentives for companies to improve management and reduce emissions.
 - c) The introduction of the changes in point 1 will reduce the emissions recorded in palm GHG for older plantations on peat.
 - d) Cut off dates/grandfathering is usually used for one off events (e.g. forest clearing) whereas peat drainage is a continuous event so emissions will continue. Grandfathering is not used for such events.

3. Guiding text on water management for Palm GHG

Good water management will include the following: Water control structures placed in such a way as to have one stop-off/weir for every 20cm drop in elevation (i.e. the drop across the face of the stop-off should be not more than 20cm) where possible. Water management and monitoring plan should be in place and water monitoring undertaken and results recorded at least once per month. There should be demonstrated management response based on monitoring to ensure that water levels are maintained in the range 50-70 cm below surface in collection drains and 40-60cm in piezometers/field drains.

No water management will include either no water control structures or no monitoring program.

Partial water management will involve water control structures and monitoring program in place but not adequate to meet standards for good management and ensure water levels on between 50-70 cm in collector drain and 40-60 cm in field.

WG recognizes that there are constraints of long term emission reduction once all the best management practices have been implemented whether it is for fuel efficiency, peat management, set-asides, etc.

ANNEX 2

Subgroup Discussion on how to move forward on conservation areas

Approach to estimate carbon sequestration

Estimation shall be based on management practices. There can be 2 types of management

- 1) Protection – monitoring and patrolling the demarcated area, prevention of encroachment and fire
- 2) Protection, rehabilitation and enhancement – efforts to enhance or rehabilitate degraded portions of the conservation area

It was suggested that there are 2 defaults for each management type. For protection, one can refer to default values for regeneration of forests in Insular Asia derived from IPCC default biomass accumulation rates (see below). However, it was also recognised that this is very generic and the defaults need to vary across the different regions and that there should also be more differentiated values for the various degrees of disturbed forest and also vegetation types in between disturbed forest and shrubland and grassland.

This same approach and defaults can be used for C5.6 and C7.8. There shall be no distinction between legal and voluntary set asides when considering emissions/sequestration.

Table 1

Land cover type	Forest type	Regeneration (tC/ha/yr)
Undisturbed forest	Rain forest	1.7
	Moist deciduous forest	1.5
	Dry forest	1.0
	Mountain systems	1.0
Disturbed forest	Rain forest	6.5
	Moist deciduous forest	5.5
	Dry forest	3.5
	Mountain systems	3.7
Shrubland		0.75

Source: IPCC (2003). *Good Practice Guidance for Land Use, Land-Use Change and Forestry*. Penman J., Gytarsky M., Hiraishi T., Krug, T., Kruger D., Pipatti R., Buendia L., Miwa K., Ngara T., Tanabe K., Wagner F. (Eds). Intergovernmental Panel on Climate Change (IPCC), IPCC/IGES, Hayama, Japan. 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 4.

Data gaps in this approach

There is little information on how regeneration rates will vary based on management interventions. More work needs to be done to get data on regeneration rates for rehabilitation and enhancement efforts. It was suggested that the WG engage a consultant to work with the following parties to develop a guidance on regeneration rates for the different vegetation types and disturbance levels (SEA, Africa and Latin America)

The consultant should identify the realistic default for i) protection and ii) rehabilitation and enhancement

The WG should also check if there has been any publications by the Forest Research Institute Malaysia who has been doing some research on forest regeneration in some permanent plots in Lambir and Pasoh Forest reserve for addition insights.

Other than data on forest regeneration rates, the group should also as a start, collect information on management practices that are available to growers from the grower members in ERWG to be able to formulate some guidance on what should constitute as “active management”.

Monitoring and verification

Companies have to subscribe to a certain level of rigour and assurance for how the sequestration claimed can be validated. There are a combination of methods that can be used such as remote sensing (only detects forest cover loss but not degradation) and sampling plots. Usage of drones and LiDAR to estimate the biomass can also be used depending on the resources and capacity of the company to employ more sophisticated tools. There should be evidence that the company is carrying out the management activities that can enhance sequestration in order to claim the higher default. Companies are recommended to have permanent sampling plots in their conservation areas to monitor the forest health and growth.

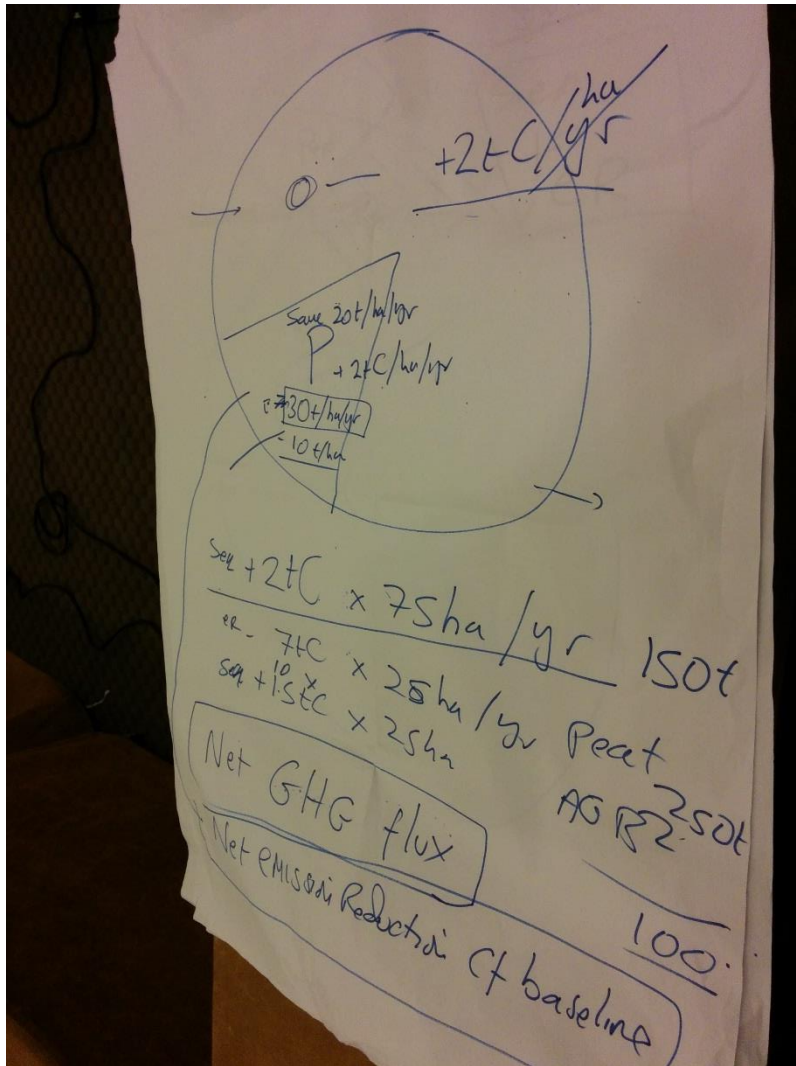
Complications with peat set asides

It was also recognised that there are challenges when it comes to peat. Firstly, the type of activities will differ from mineral soil covering fire prevention, drainage, canal blocking/canal gates, water level maintenance, etc. These activities are always combined with re-vegetation measures.

Furthermore if a disturbed peat area is set aside as a conservation area, it is likely to be a net emitter for a long time. Active management can reduce the emissions from a BAU scenario but it will likely take a very long time for the area to become a net sequester (if ever). The challenge is to find a way that can record the reduced emissions (from a baseline scenario) in order to incentivise growers to keep managing the peat set asides. PalmGHG is an accounting and reporting tool that is developed to report on annual emissions and does not take into account reduced/avoided emissions based on a baseline scenario.

Therefore, it was suggested that the reporting on set asides and the reporting on production be separated. There needs to be a method to be able to account for the net GHG flux taking into account the sequestration of set asides on mineral soil combined with the reduced emission of the peat set asides (if managed well). There should also be some deliberation as to whether the value from the net GHG flux can somehow be combined with the final value of production emissions without affecting the integrity of the PalmGHG calculations. This needs to be elaborated further before the next meeting.

It was also noted that in keeping the sequestration calculations separate from the production calculations maintains the transparency on how the final emission value is derived. If embedded in the PalmGHG calculations, it can raise questions as to how much the sequestration value has impacted the final emission value because the level of subjectivity and assumption in estimating the sequestration value is still quite high.



Hypothetical example:

There are 2 set asides in the concession, 1 peat (25ha) and 1 mineral (75ha)

Mineral: We consider the baseline to be zero, neither emitting nor sequestering. However if managed by company, we estimate a sequestration of $2tC/ha/yr$

Peat: Prior to the company setting up the plantation, it was already emitting $30tCO_2/ha/yr$ ($8tC/ha/yr$) as it was a disturbed peat area. With active management by the company, the emission can be reduced to $10tCO_2/ha/yr$ ($3tC/ha/yr$). Therefore it was considered that there is a reduction of $5tC/ha$

And then the overall reduction using the weighted average of the peat and mineral soil area is $5 \times 25ha + 2 \times 75ha = 275 tC/100ha/yr$ or $2.75tC/ha/yr$