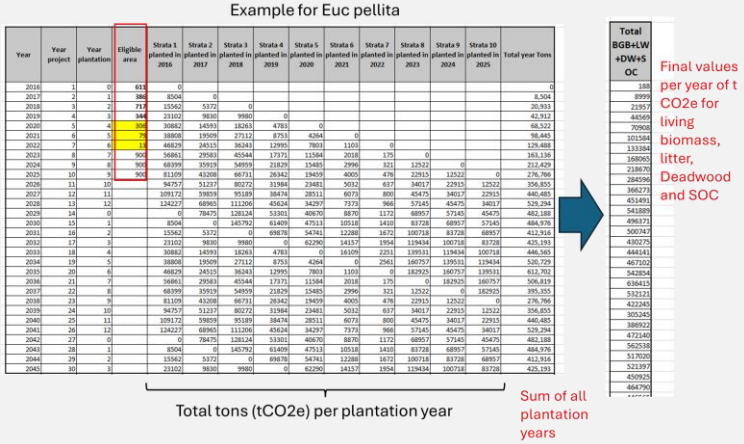
PROJECT REVIEW REPORT

This project review report includes findings raised during Verra's review of the project specified below. The VVB must address the findings before the project request can be considered for approval by Verra. The project review report will be made publicly available on the Verra Registry. Confidential information may be provided in separate attachments.

Project ID	2410
Project name	Reforestation of degraded forest reserve areas in Ghana, West Africa
Review Type	Verification Approval
Program(s)	VCS Program
Verification Period	02 November 2020–19 September 2022
Project Proponent	Miro Forestry Developments Ltd.
Methodology	AR ACM0003, Afforestation and reforestation of lands except for wetlands, *v2.0*
VVB	KBS Certification Services Ltd.
Assessment Criteria	*VCS Standard v4.4*
Date of First Issue	10 October 2023
Review Conclusion	Approved
Date of Final Issue	4 April 2024

FINDINGS

#	Finding Description	VVB Response	Status
1	**Inconsistencies in the crediting period**		
	Issue The crediting period differs in the MR, VR, and validated PD. i.e., 24/03/2016 - 23/03/2046 in the MR (*v3.0*) and VR (*v02*), and 24/03/2016 - 30/06/2045 in the validated PD (*v4.0*). Action Required 1. The VVB must ensure that Section 3.2.2 of the MR is updated to include a PD deviation reflecting the change in the crediting period, justification of the deviation, when the change occurred, and the reasons for the change. 2. The VVB must update Section 3.3 of the VR accordingly and must provide the detailed steps of their assessment for the above update. Program Rule(s) *VCS Standard, v4.4*, Section 3.20	**Round 1** **VVB Response** 1. The crediting period for the project activity has been re-confirmed from the registered PD and is stated as (24/03/2016 - 30/06/2045). This was an editorial error which has now been rectified in the revised MR (section 1.6) and in the Verification report (under section 1.1) The crediting period is now consistent in the revised MR and VR and is in line with the crediting period dates in registered PD. Hence there is no such deviation required. 2. As stated above, there is no deviation required as this is an editorial error done by PP, which has now been revised in the MR and VR. Hence, it is not added to Section 3.2.2 of MR. **PP response:** The crediting period dates in MR and the VR are updated to the dates defined by the registered PD (24/03/2016 - 30/06/2045	Closed

		Example for Euc pellita  Verra Response The crediting period has been amended in the corresponding sections of the MR and VR and is now in line with the PD. The VVB and PP's responses are sufficient to close the finding.	

2	Unclear justification and verification for the Non-permanence Risk Report (NPPR)		
	Issue 1. *Project Management (d):* It is unclear how the VVB assessed the constant presence of a highly skilled management team within the country. 2. *Land Tenure and Resource Access/Impacts (f):* The perpetuity of the lease agreement with traditional landowners in the long term is	**Round 1** **VVB Response:** 1. a. KBS assessed the project management team by both a quantitative and qualitative analysis to ensure that they are able to undertake all project activities based on the experience of the Miro Team During on site assessment and with interviews of the monitoring team on site the verification team confirmed that the highly skilled management team of Miro forestry is present within the country. Verification team had interviewed the monitoring personnel on sites and also the higher management team to ensure that the Miro forestry has a skilled team and has enough capabilities to monitor and implement the management procedures. Verification team also reviewed the organizational management report to understand that all employees were	Closed

	unclear. 3. *Land Tenure and Resource Access/Impacts (c) and (d):* It is not clear if there will be disputes over land tenure due to the following activities in the project area: ● Teak plantations ● Established plantain and maize farms and ● Cattle grazing by illegal migrant settler farmers 4. *Natural risk (c):* Lack of evidence to demonstrate that water scarcity and extreme heat, considered very likely to the project, are insignificant for plantations. <u>Action Required</u> 1. The VVB must describe how they assessed *Project Management (d), Land Tenure, and Resource Access/Impacts (a), (c), and (d).*	experienced and also employed at the plan for a significant tenures confirming the same. b. It has been assessed during the onsite inspection and during interviews with management team that MIRO Forestry has signed a land lease agreement for 50 years[1] with traditional landowners and the Government of Ghana for the reforestation of the project area to restore the productive forest in the degraded forest reserves, under current legal framework of the country. Also this was confirmed by verification team by assessing the Land Lease and Benefit Sharing Agreement with the Forestry Commission (FC)[2] and hence was able to conclude that A forestry project such as MIRO with a clear management plan and a FSC certification[3] are more robust guarantees of this permanence, compared even with restoration/conservation projects. c. Verification team has assessed the "Environmental and Social Risk Assessment for 2018 Land Development[4]", done by Miro Forestry Company," to verify the risk for *Land Tenure and Resource Access/Impacts.* This was also substantiated during onsite assessment that the communities were willing to lease their lands to Miro to operate without disturbances and no disputes have been noted. There is also a grievance mechanism in place which allows any participating stakeholders to record and share any dispute they may have which will be attended to by expert team of Miro. 2. The extreme weather risk was assessed by the Miro forestry based on continues research and field monitoring trials and found that Appropriate management can reduce the risk and ensure that forests and plantations can capitalise on potential beneficial aspects of climate change for trees. If there are any benefits to be had	

[1] Supporting documents/PO Information/Land Leasing

[2] Supporting documents/PO Information/Land Leasing

[3] Supporting documents/PO Information/PO Information/FSC Retrieved from: https://www.miroforestry.com/sustainability

[4] 01_Supporting documents/PO Information/MFC Land Development – Identifying People at Risk Ghana 2020.03.12

	2. The VVB must describe how they assessed the Extreme Weather risk and justify the validity of the significance score. 3. The VVB must update Section 4.6 of the VR as per Action 1 above. Program Rule(s) *AFOLU Non-Permanence Risk Tool,* v4.0	by trees, forests and plantations from any aspect of climate change, then pursuit of best-practice sustainable forest management is critical (Battaglia and Bruce, 2017). Elevated CO2 levels tend to increase the productivity of tree crops, but higher temperatures and lower precipitation are likely to induce stress on plants that are sensitive to extreme In accordance with AFOLU Non-Permanence Risk Tool, v4.0 The validation team has assessed and describe the extreme weather risk and justify the validity of the significance score in section 4.6.3 pf revised validation report. Section 4.6 of the Verification report is now updated and revised accordingly, PP Response: **a. Issue 1. Project Management (d): It is unclear how the VVB assessed the constant presence of a highly skilled management team within the country.** In the non-permanence risk report (1. Internal risk. Risk factor c) Management team did not include individuals with significant experience in all skills necessary to successfully undertake all project activities) it was assessed as 0. KBS assessed the project management team by both a quantitative and qualitative analysis: 1.Quantitative: years of experience of the relevant members from Miro forestry to ensure that they are able to undertake all project activities. 2.Qualitative: analysis based on the experience of the Miro Team was carried out. The inclusion of only 3 members (**Coenraad Vermaak, Graeme Harrison, and Paul Ayambila)** from Miro Forestry was the conclusion to a thorough analysis of all the Miro organigram[5] and personnel. The assessment was done following the rules by the Non-Permanence Risk Tool v.4.0 by establishing a minimum of 5 years in each	

[5] See support in the next route: 01_Supporting information/PO information/Miro Organigram/Ghana_Organigram

		of the activities that have been performed by Miro Forestry. Below it is depicted a table with the assessment (Table 2). The conclusion is that the Miro Forestry is well capacitated to undertake all the activities of the project based on their experience in a variety of positions and their experience. The requirement of a minimum of 5 years of experience by activity is more than covered by the actual Miro Team. Miro employs 1,739 in Ghana and they have over 10 managers with over 5 years' experience in forestry (with some like e.g. Coen having over 35 years' experience alone). Furthermore, it is important to highlight that most of the employees have been working for Miro Forestry for more than 5 years which creates a solid structure and ensures the good quality of the project (**Finding 2. Action 1**). **b. Issue 2. Land Tenure and Resource Access/Impacts (a): The perpetuity of the lease agreement with traditional landowners in the long term is unclear** As explained in the NPRT for the 2nd verification of Miro Forestry in Ghana. MIRO Forestry has signed a land lease agreement for 50 years[6] with traditional landowners and the Government of Ghana for the reforestation of the project area to restore the productive forest in the degraded forest reserves, under current legal framework of the country. Also it includes a Land Lease and Benefit Sharing Agreement with the Forestry Commission (FC) and other relevant stakeholders. Miro Forestry has a lease which is 50-year renewable – therefore as we approach year 50 we will negotiate renewal for another 50 years. Therefore, the project and company is evergreen (it has no finite life and is designed to last forever). A forestry project such as MIRO with a clear management plan and a FSC certification are more robust guarantees of this permanence, compared even with restoration/conservation projects, supported mainly by the carbon market and subject to changes on prices. A forestry project where the carbon credits play a key role on the first implementation years and the expansion capabilities of the company, is a more robust guarantee of a business model that at the later years the management plan will continue based not just on carbon credits but also on	

[6] See the support in the next route: NPRT_2020/1_Internal_risks/ Land Lease

		other revenues such as the timber. Even if the crediting period is until 2045, the standards and the market are expecting a longevity that can guarantee a permanence towards 100 years. It is not explicit that there is a 100-year agreement, but it is presumed that it may continue to be extended given the commitment of the parties. (**Finding 2. Action 1**) **c. Issue 3. *Land Tenure and Resource Access/Impacts (c) and (d):* It is not clear if there will be disputes over land tenure due to the following activities in the project area** Within all the project area human settlement is not conflicting, according to the "Environmental and Social Risk Assessment for 2018 Land Development", done by Miro Forestry Company, showed that the communities are willing to lease their lands and allow Miro to operate without disturbances. The community members are willing to move any previous land use to other areas which have been identified. They also see it as a potential source of new employment and development. Furthermore, the reduced number of disputes was one of the reasons to initially select the degraded areas of protected forest zone instead of lands outside of it[7]. In case some minor disputes could happen the Company has a Grievance Mechanism that provides an open and neutral mechanism for grievances to be raised and ensures appropriate mechanisms to resolve any disputes. This is established in "MFC Land Development - Policy, Implementation Framework and E_S Risk Assessment Guidelines"[8]. Due to the legal land status in Ghana no habitation is allowed in the reserves. According to the Social Risk Assessment in Ghana there are 4 types of minor activities within them that could create disputes over the land. Here is the explanation of these activities and way to solve them in each scenario:	

[7] See the support in the next route: NPRT_2020/2_External_risks/Preliminary Environmental Report 2021
[8] See the support in the next route: NPRT_2020/2_External_risks/MFC Land Development - Policy, Implementation Framework and E_S Risk Assessment Guidelines

		• Scenario 1 - Subsistence farmers living on the reserve: Typically, these are small homesteads of one to two families who have moved to the area to make the most of the 'free land'. These are generally vulnerable people who have no other form of income. Following the initial research, the company will offer options to assist the people with alternative incomes and relocation assistance for mobile assets, this is the most complex situation, an in-depth Household Survey was used to capture appropriate mitigation measures. • Scenario 2 - Commercial farmers growing cash crops on the reserve: In this instance it is generally wealthy business men who are growing cash crops for sale in the cities. In this situation the company tries to obtain details of the person funding the planting, this is done by asking people who have been employed by the businessman (see scenario 3). Once the company has acquired the details they are passed on the Forestry Commission who liaise directly with the business man. • Scenario 3 - People employed by the commercial farmers and seasonally residing on the reserve: This is generally a case of people who have been employed from the nearby villages, they live on the reserve seasonally, based on planting and harvesting times. These people may be from the local area or from further afield, the Household Survey is conducted in this scenario to decipher the status of the settlements. Mitigation measures will generally be easier in this scenario as people will have a home to return to, the household survey will capture this data. • Scenario 4 – People living in the local villages and subsistent farming on the reserve: In this scenario local community members are often farming on a small scale on the reserve closest to their village. In this instance the community team will simply gather detail of crops being grown and their harvest so that the Company can be assured that all small scale farmers are given adequate time to harvest the year's crop and are fully aware of the Company's planting plan. This information will be acquired on a simple 'Rapid Farming Survey'. Therefore, the following guidelines are used depending on the case: • Excluding Ananekrom, which is a legal settlement within the reserve, all other settlers must be moved on (situation 1 and 3 above). Miro makes this process as easy as possible for those involved, where possible the	

		Company will assist with moving mobile assets. Unfortunately, there will be instances of loss, MFC endeavours to limit this. ● Alternative livelihoods will be offered when possible, this includes employment with the Company and intercropping especially for scenario one. ● The whole process involves relevant stakeholders, this includes the Forestry Commission and Traditional Councils. Stakeholders will be engaged from the beginning of the land development process when land leases are signed. ● Miro assures that those that need to move will be given adequate time to do so and that communication channels between those affected and the company are open throughout this time. The **Household Survey** (See Figure 1 below) is conducted for each homestead, the main aim of the questionnaire is to capture what moveable and unmoveable assets the settlement has, it will also signify the start of consultation between the Company and the settlers ● In a case where it is a large-scale commercial farmer using reserve lands (situation 2), Miro contacts the Forestry Commission deals with the businessmen directly This was the data used by the VVB to assess the *Land Tenure and Resource Access/Impacts (c) and (d)* (**Finding 2. Action 1**) **d. Issue 4. Natural risk (c): Lack of evidence to demonstrate that water scarcity and extreme heat, considered very likely to the project, are insignificant for plantations.** Appropriate management can reduce the risk and ensure that forests and plantations can capitalise on potential beneficial aspects of climate change for trees. If there are any benefits to be had by trees, forests and plantations from any aspect of climate change, then pursuit of best-practice sustainable forest management is critical (Battaglia and Bruce, 2017)[9]. Elevated CO2 levels tend to	

[9] Battaglia, M., & Bruce, J. (2017). Direct climate change impacts on growth and drought risk in blue gum (*eucalyptus globulus*) plantations in Australia. *Australian Forestry*, *80*(4), 216–227.

		increase the productivity of tree crops, but higher temperatures and lower precipitation are likely to induce stress on plants that are sensitive to extreme temperature and water scarcity. The higher temperatures in an area with an already high mean annual temperature suggest that the toughest, well-adapted species and clones should be considered (Smith & Brink, 2022)[10]. Miro Forestry has obtained FSC certification, which is an indicator of their efforts and implementation of sustainable forestry practice. Miro Forestry has applied the fundamental silvicultural practices of plantation management: the provision of quality seedlings, good planting techniques and intensive early vegetation management which results in good early survival, rapid growth and stand uniformity which are three pillars of establishment success. Miro has also carefully considered the planting species that it has planted across its plantations and researched and explored species that are more successful for its plantation efforts, these efforts provide some flexibility in species deployment should extreme weather events occur or droughts from water scarcity occur more frequently (Brink & Smith, 2022). This along with the continued research and field trials to monitor and evaluate the performance of their trees and plantations allow Miro forestry to respond to the potential impacts of extreme weather conditions and water scarcity. Due to the complexities and uncertainties of predicting the impacts of climate change on forest plantations, the broader literature emphasises that adaptation is a continuous process, involving a process of "adapting well" to continuously changing conditions (Tompkins et al., 2010)[11] as such Miro's ongoing sustainable forest management and forestry practices on their plantations is to respond to the potential impacts of extreme weather events and water scarcity.	
		<u>Verra Response</u> It has been clarified how the VVB assessed: a. constant presence of a management team within the country b. perpetuity of the lease agreement, and c. impact on natural resources. The validity of the significance score has been	

[10] Smith, C., & Brink, W. (2022). Technical review of plantation assets: forest inventory and woodflows prepared for Miro Forestry Developments Ltd. *Paperbark Forestry Consulting*

[11] Tompkins, E.L., Adger, W.N., Boyd, E., Nicholson-Cole, S., Weatherhead, K., Arnell, N. (2010). Observed adaptation to climate change: UK evidence of transition to a well-adapting society. Global Environmental Change: Human and Policy Dimensions *20*, 627–635.

		justified and Section 4.6 of the VR has been updated. However, this finding cannot be closed. <u>Issue:</u> 1. Insufficient information is provided on how MIRO's mitigation measures for the farmers living inside the reserve (i.e., developing agroforestry schemes such as controlled intercropping) will be implemented (see PP response in Finding 5) and what percentage of farmers are reached in Scenario 1. <u>Action Required:</u> 1. The VVB must ensure that Section 2.4 of the MR is updated to clarify how the mitigation measures proposed by the project proponent will be implemented if any of the four activities, likely to create land disputes occurs. 2. The VVB must raise a FAR requiring the potential disputes and mitigation measures assessed at subsequent verifications. 3. The VVB must assess the information and update Section 4.3 of the VR and the NPRR *Land Tenure and Resource Access/Impacts (d)* accordingly <u>Program Rules:</u> *AFOLU Non-Permanence Risk Tool, v4.0*, *VCS Standard, v4.4*, Sections 3.18.2 and 3.18.5. <u>Background</u> During the current monitoring period, no stakeholders have been impacted, but a conflict is anticipated in the future.	
		Round 2	
		<u>PP Response</u> <u>Section 2.3 of MR is updated.</u> **Issue 1** The company has developed some procedures and steps to mitigate land development-associated risks like the **MFC Land Development - Identifying People at Risk Ghana** [12] that addresses all the scenarios:	

[12] 01_Supporting Information\PO Information\ESIAMFC Land Development - Identifying People at Risk Ghana 2020.03.12 (2).pdf

		• Scenario 1 - Subsistence farmers living on the reserve, • Scenario 2 - Commercial farmers growing cash crops on the reserve, • Scenario 3 - People employed by the commercial farmers and seasonally residing on the reserve, • Scenario 4 – People living in the local villages and subsistence farming on the reserve, and • Scenario 5 – Nomadic Herdsmen (moving through the reserve) Regarding Scenario 1, it is important to note that Miro only encountered this situation at the beginning of the project. At this early stage (2014-2015), according to the Livelihood Study and Development Plan[13] approximately 100 ha of farms were identified on the ground (in some cases with people living close by) by stakeholders' meetings (See example on first image below). However, aerial studies suggest that another 150-200 hectares may exist in other parts, summing a total of 300 ha (accounting a 7.15% of the project area) (See second image below). However, for the sake of conservativeness, Miro assumed that they were 10% of the total project area (corresponding to 387.1 ha). This value (10% has been used for accounting leakage in the project area as activities displaced to other nearby locations outside of the project area (For more information on leakage see the report[14] and calculations[15])	

[13] 01_Supporting information/PO Information/ESIA/NMFC Livelihood Study _ Development Plan (2014.08.06).pdf
[14] 01_Supporting Information\Estimations\Leakage\Leakage Miro Ghana 2nd verification.pdf
[15] 01_Supporting Information\Estimations\Leakage\Leakage_Miro_Ghana.xlsx

LOCATED FARMERS SOCIO ECONOMIC DATA					
Key Parameters	**Daniel Moam**	**Azuma Adams**	**Jampang Adi**	**Atingani Adi**	**Nsoyaba**
Age	40	50	43	27	25
Sex	Male	MALE	MALE	MALE	MALE
Marital Status	Married	Married	Married	MARRIED	MARRIED
Partner living with farmer	1	1	1	1	1
Number of Children	2	6	4	2	2
Ethnic Origin	Naashon	Agogo	Upper East	Bolgatanga	Bolgatanga
Current Place of Residence	Settlement	Agogo Zongo	Bahankra, Kumawu	Bahankra, Kumawu	Bahankra, Kumawu
HOUSING, HEALTH AND EDUCATION					
House Type	Mud Hut	Kiosk	Mud Hut	Mud Hut	Mud Hut
Source of Water	River	Well	Rivers	River	River
Source of Energy	None	Electricity	None	None	None
Access to Toilets	None	Public Toilet	Public Toilet	None	None
Access to Health Services	Agogo Hospital	Agogo Hospital	Agogo Hospital	Agogo Hospital	Agogo Hospital
Common Diseases encountered annually	Malaria	Malaria	Malaria	Malaria	Malaria
Educational Level	Primary	Primary	Primary	Primary	Primary
Education Status of Children (if any)	Primary	Primary	Primary	Primary	Primary
SUBSISTENCE					
Main Source of Income	Farming	Farming	Farming	Farming	Farming
Length of stay in Reserve (years)	4	3	2	2	4
Rent Paid for land, If any (Cash/Crops)	5 bags maize	Non Declared	3 bags of Onions	Non declared	Non declared
Main Produce for source of income	Maize	Onions	Onion/Plantain/Maize	Maize/Plantain	Maize/Plantain
Size of Land farmed on (hectares)	4.8	0.33	1.6	1.6	1.2
Planting Months	March/April	March/April	March/April	March/April	March/April
Harvesting Months	Aug	Aug	Aug	Aug	Aug
Average price per bag of produce (GHC)	60	150-200	150-300	60	60
Average earnings per harvest (GHC)	2400-3600	2500-3000	3400-5400	2500-3000	1500-2000
Market where produce is sold	Roadside	Agogo	Agogo	Roadside	Roadside
Route to Market for produce	None	Hires Transport	Hires Transport	Hires Transport	Hires Transport
OTHER					
Main farming Tools	Hoe and Cutlass	Hoe and Cutlass	Hoe and Cutlass	Hoe and Cutlass	Hoe and Cutlass
Type of weed control/land Prep	Weedicides/Fire	Weedicides/Fire	Gramazole	Gramazole	Gramazole
Source of chemicals	Agogo	Agogo	Agogo	Agogo	Agogo

51 | Page

NICOL MIRO FORESTRY COMPANY

to help it gain valuable information for effective planning and communication; as well as identifying any risks to the project.

The study has identified the following:

- ✓ Approximately 100ha of farms were identified on the ground, but studies of aerial maps suggest that another 150-200 hectares may exist in other parts.

Once the project started, and during all its life time (2016- present) Miro has not encountered this scenario (people living inside the reserves) happening inside the project. This is because (i) the prohibition to do farming activities in the reserves, and (ii) the easier way to develop a farm outside of them because it is

		composed of grasses that farmers tend to burn and start new crops[16]; proved by: • Clause 3.5 of the Benefit sharing agreement for a public private partnership in commercial forest plantation development[17] in which is explained how any structure erected on the reserve requires the permission of the lessor (hence implying that permanent structures are not allowed – and not allowed by people who are not leasing the land (illegal individuals). • Where the Forest Services Division has ejected farmers and Miro Forestry subsequently planted its trees, the illegal farmers have not returned to the area, stated in 2014 in the NMFC Livelihood Study _ Development Plan (2014.08.06)[18]. Some of the measures taken to avoid illegal farming settlements were: o Access to plantation: control access at all entry points to the plantation where practically possible. In conjunction with the Forestry Commission will only allow permit holders, beyond the control points o Promotion of Awareness of Environment Issues: Awareness may be increased by using notice boards, maps or handouts. o Security: For the security and protection of the plantation's natural values, access must be controlled and can be integrated with recreation activities on the plantation by (i) limiting access to certain times of the year, (ii) providing forest guards, (iii) collaborating with local stakeholders in ensuring that locals are properly educated about how the reserve can be used to meet their traditional rights and way of life. If Miro permits people to remain in the reserve the Company is in breach of its agreement with the Forestry Commission and national law. This also means that it	

[16] Referring to PDD Miro Ghana, in section 1.17. (Referenced as PDD Supports/1.2 PO Information/ESIA/NMFC Livelihood Study_Development Plan (2014. 08.06))
[17] 01_Supporting Information\ PO Information\CARs\CAR 2\LVD-FC-ASR-1503-16_MFGH_BSA_Signed_825ha.pdf
[18] 01_Supporting Information\ PO Information\CARs\CAR 2\ NMFC Livelihood Study_Development Plan (2014. 08.06).pdf

		is illegal for Miro to pay compensation to any of the groups identified below and is not appropriate for Miro to be involved in the identification of alternative lands as this is a matter for the traditional authorities. As previously explained this situation is not happening any longer. However, Miro Forestry keeps tracking this by engaging with more than 20 percent of households within the 20 km boundary and all communities are regularly engaged[19]. Miro designed the following mitigation measures to reduce the activity displacement to other lands: An exposure-sensitivity analysis of risk and impacts has been created. Moreover, a system (More information found in the report[20]) with 2 stages was designed to reduce the risks and impacts for **Scenarios 1 to 4** (for Scenario 5 a specific roadmap has been developed): **Exposure and sensitivity to risk and impacts:** The scenarios detailed above touch on the potential vulnerabilities of five groups of people that Miro has encountered on the Forest Reserves. The driver to risk exposure is Miro's (or any other company's) current and future land development, which will affect different groups in different ways. In these situations, the exposure to risk will be affected by one of the following situational changes: ○ Change of access to nearby/free/convenient farming land ○ Change of access to grazing land or water ○ Change of access to land being used for residence and farming This has the potential to expose these groups to: ○ Compromised food security or to lifestyle (nomadic – Fulani) ○ Compromised income generation options and capacity ○ Compromised ability to care for a family/gendered roles ○ Compromised climate resilience (particularly during extreme weather events) This system is designed to practical and to be place and situation based and tailored for the situation on the ground. It can also be adapted to fit other situations or scenarios if they arise. It will predominatly be used for scenarios 1-4 as a specific Fulani Roadmap has been developed to improve understanding and mitigating measures for scenario 5 which will be added as solutions are identified. The system will be implemented in two clear stages: • Stage 1: General information gathering using a questionnaire and closed question formats leading to a high level assessment according to set criteria • Stage 2: Detailed assessment through open questions to build a clear picture of the lives of the individuals to allow for a tailored approach to address vulnerability.	

[19] Referring to NPRR, in section 2. External risk (Community engagement)
[20] 01_Supporting Information\PO Information\ESIA\MFC Land Development - Identifying People at Risk Ghana 2020.03.12 (2).pdf

Stage 1: General information gathering using a questionnaire and closed question formats leading to a high-level assessment according to set criteria

For this, data is collected (First image below), then people at high risk are identified (Second image below), and a vulnerability assessment through a severity-likelihood matrix is performed (third image below).

Stage 1: Initial information gathering & high level assessment		
Question	Information	Assumptions / next steps
1 Name		
2 Gender	Male / Female	All females proceed to stage 2.
3 How old are you?		Over 55 - proceed to stage 2.
4 Where do you originate from?		
5 Where do you live now?		No fixed abode - proceed to stage 2.
6 If migrated: Why did you leave your home and move here?		If forced to leave - proceed to stage 2
7 Do you have a spouse?		No - Proceed to stage 2 if also has dependents listed (Q8)
8 How many dependents do you have?		Over 5 - proceed to stage 2
9 How many of them go to school? Primary / Secondary		
10 Are you or any of your dependents ill? How serious?		Yes - proceed to stage 2
11 How many meals do you eat every day?		1 or less, proceed to stage 2
12 How much land are you farming here?		Less than 2 acres - proceed to stage 2 More than 5 acres - commercial - not vulnerable despite other answers
13 Are you allowed to farm in forestry compartments?	Yes / No	
14 Do you pay anyone to farm here?	Yes / No - whom?	
15 Are you farming for yourself or someone else?	Someone else - whom?	Farming for someone else and not farming elsewhere (Q17) proceed to stage 2
16 Where else do you farm?	List	
17 If you want to farm elsewhere, where would you go?		
18 What are you growing?		
19 Would you be interested in working for Miro?	Yes / No	
20 What other businesses do you have?		

Criteria to move to stage 2 to assess the risk of :

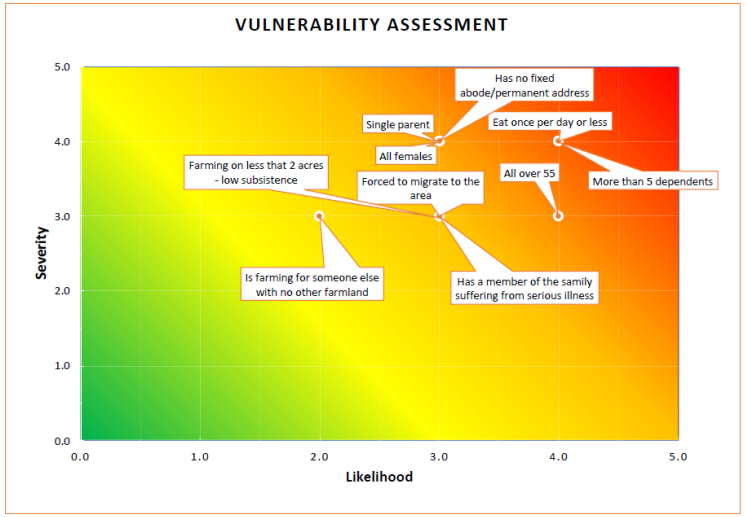
- Compromised food security
- Compromised income generation options and capacity
- Compromised ability to care for a family

Persons considered as High Risk requiring further investigation:	Risk	Potential Adverse Impacts	Adaptive Capacity	Likelihood	Severity
All females	Loss of food security/economic security	Household food security and basic livelihoods risk	Lower adaptive capacity due to gender biases, lack of access to land and finance	3	4
All over 55	Loss of food security/economic security	Household food security and basic livelihoods risk	Lower adaptive capacity due to age limitations on for employment	4	3
Single parent	Loss of food security/economic security	Household food security and basic livelihoods risk, increased pressure on household	Lower adaptive capacity due to limited ability to work and be a carer	3	4
More than 5 dependents	Loss of food security/economic security	Household food security and basic livelihoods risk, increased pressure on household - correlation with poverty	Lower adaptive capacity due to reduced ability to work and be a carer and provide sufficient food for a large family	4	4
Has a member of the samily suffering from serious illness	Loss of food security & earning ability	Household food security and basic livelihoods risk, increased pressure on household	Lower adaptive capacity due to limited ability to work and be a carer	3	3
Eat once per day or less	Inability to provide sufficient food	Increased hunger & poor nutrition - correlation with poverty	Low adaptive capacity as increased hunger reduces the capacity of the individual to adapt and grow	4	4
Has no fixed abode/permanent address	Loss of home and safe living environment	increased migration and homelessness, incresaed poverty	Low adaptive capacity to manage any change or adverse situation	3	4
Forced to migrate to the area	Loss of home and safe living environment	increased migration and homelessness, incresaed poverty	Low adaptive capacity to manage any change or adverse situation	3	3
Farming on less that 2 acres - low subsistence	Loss of economic security	Household food security and basic livelihoods risk	Low adaptive capacity to manage any change or adverse situation	3	3
Is farming for someone else with no other farmland	Loss of food security/economic security	Household food security and basic livelihoods risk	Low adaptive capacity to manage any change or adverse situation	2	3

It is considered that:

- a person farming less than 2 acres is very much a subsistence farmer with low access to inputs
- a person farming on 2-5 acres must have some, albeit limited, access to funds to be able to procure inputs and therefore is more resilient
- a person farming on >5 acres is farming on a commercial basis and has access to funds for inputs and is therefore resilient to changes.

After a matrix severity-likelihood is made to assess the risks (See figure below).



Severity		Likelihood
catastrophic	5	frequent
significant	4	probable
moderate	3	occasional
low	2	remote
negligible	1	improbable

Stage 2: Detailed assessment through open questions to build a clear picture of the lives of the individuals to allow for a tailored approach to address vulnerability (See an example of these questions in the image below).

		Sample open questions: • What do you treasure about your life • What are your main worries and concerns about your life? • Tell me the difference between a good and bad year/day? • What are the biggest influences to a good or bad year/day? • How have things changed in your life and your community over the last 5-10 years? • What about your life would you like to be different in 5 years? • What is stopping you from changing/reaching that? • What are your biggest hopes and fears (aspirations) for your children • How will you help your children to achieve this? • How do you access land in your community? • What could you do to help improve your life? After these 2 stages, mitigation measures are proposed, for example: • Full or Part time employment with Miro when vacancies arise. The individuals (or specified family members) will be informed of where and how vacancies will be advertised and how applications can be made. They will be on a priority list (See Social Risk Assessment of 2020[21], 2021[22], 2022[23] - Images below showing examples) held within the human resources department. Here it is included the type of illegal activity, the sources of income, and if they were interested in working for Miro Forestry. Furthermore, when vacancies become available, the communities are notified through their chiefs, community notice boards or local information centres. A representative of the social team also joins the HR for recruitment exercises in the communities. Access to childcare can be made available to support single parents or those with large families to work[24]; 75% of Miro employees come from within 20 km of site[25].	

[21] 01_Supporting Information\ PO Information\CARs\CAR 2\Social Risk Assessment for 2020.xlsx
[22] 01_Supporting Information\ PO Information\CARs\CAR 2\Social Risk Assessment for 2021.xlsx
[23] 01_Supporting Information\ PO Information\CARs\CAR 2\Social Risk Assessment for 2022.xlsx
[24] 01_Supporting documents/PO Information/MFC Land Development – Identifying People at Risk Ghana 2020.03.12
[25] 01_Supporting Information\ PO Information\CARs\CAR 2\Miro-Annual-Report-2021_V5_LR.pdf

SOCIAL RISK ASSESSMENT FARMER DATA 2020 (BOUMFOUM 122, 126, 144, 147 & 150)

NO.	DATE	NAME	AGE	HOMETOWN	SOURCE OF INCOME	OTHER SOURCE OF INCOME	LAND LEGAL STATUS	MAIN CROPS	ACREAGE	ACCESS TO LAND ELSEWHERE	KNOWLEDGE OF IMPENDING LAND PREPARATION	IF NO, WHY?	JOB INTEREST WITH MIRO
1	5/10/2019	Brako Joseph	52	Agogo	farming	No	Illegal	plantain, maize	8	No	Yes		No
2	5/10/2019	Daniel Awatey	46	Bubra	farming	No	Illegal	plantain,	7	No	Yes		Yes
3	5/10/2019	Philip Afrane	45	Assin Fosu	farming	No	Illegal	platain	7	No	Yes		Yes
4	5/10/2019	Kwame Ayirebi	61	Agogo	farming	No	Illegal	plantain	20	No	Yes		No
5	5/10/2019	Apina Osman	49	Tamale	farming	No	Illegal	plantain, maize	15	No	Yes		No
6	5/10/2019	Anaba Zeba	62	Bolga	farming	No	Illegal	plantain, onion	12	No	Yes		No
7	5/10/2019	Kwabena Amoako	53	Agogo	farming	No	Illegal	plantain	6	No	Yes		No
8	5/10/2019	Kwabena Agyapong	54	Agogo	farming	No	Illegal	plantain, onion	10	No	Yes		No
9	5/10/2019	Kwaku Koduah	44	Ejura	farming	No	Illegal	plantain	10	No	Yes		Yes
10	5/10/2019	Addo Kofi	60	Agogo	farming	No	Illegal	platain	10	No	Yes		No

SOCIAL RISK ASSESSMENT- FARMER DATA 2021 (AWURA COMPARTMENTS 276, 27, 29 & 34

NO.	DATE	NAME	AGE	SEX	HOMETOWN	MAIN SOURCE OF INCOME	OTHER SOURCE OF INCOME	MAIN CROPS	ACREAGE	ACCESS TO LAND ELSEWHERE	KNOWLEDGE OF IMPENDING LAND PREPARATION	IF NO, WHY?	LAND LEGAL STATUS	JOB INTEREST WITH MIRO
1	20/4/2021	Adamu Patrick	28	Male	Paga	farming	No	Maize, Beans	10	No	Yes		Illegal	Yes
2	20/4/2021	Kwaku Labik	40	Male	Ejura	farming	No	Maize, Beans	8	No	Yes		Illegal	No
3	20/4/2021	Musah Toroma	28	Male	Ejura	farming	No	Maize, Beans	5	No	Yes		Illegal	Yes
4	20/4/2021	Taimah Charles	37	Male	Ejura	farming	No	Maize, Beans	7	No	Yes		Illegal	Yes
5	20/4/2021	Laari Nbalaba	31	Male	Ejura	farming	No	Maize, Beans	5	No	Yes		Illegal	Yes
6	20/4/2021	Amos Barge	23	Male	Ejura	farming	No	Maize, Beans	5	No	Yes		Illegal	Yes
7	20/4/2021	Peter Tenwenge	29	Male	Ejura	farming	No	Maize, Beans	5	No	Yes		Illegal	Yes
8	20/4/2021	Kwaku Yamoga	32	Male	Ejura	farming	No	Maize, Beans	7	No	Yes		Illegal	Yes
9	20/4/2021	Liwaal Cliffford	28	Male	Ejura	farming	No	Maize, Beans	6	No	Yes		Illegal	Yes
10	20/4/2021	Joseph Aniah	28	Male	Ejura	farming	No	Maize, Beans	7	No	Yes		Illegal	Yes
11	20/42021	Jacob Bogwee	28	Male	Ejura	farming	No	Maize, Beans	9	No	Yes		Illegal	Yes
12	20/4/2021	Paul Bogwee	25	Male	Ejura	farming	No	Maize, Beans	6	No	Yes		Illegal	Yes
13	20/4/2021	Thomas Bragani	26	Male	Ejura	farming	No	Maize, Beans	12	No	Yes		Illegal	Yes

SOCIAL RISK ASSESSMENT - FARMERS DATA (SOUTH FORMANSO)- 2022

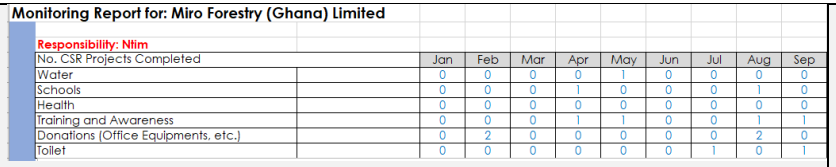
NO.	DATE	NAME	AGE	HOME TOWN	SOURCE OF INCOME	LAND LEGAL STATUS	ACREAGE	KNOWLEGDGE OF IMPENDING LAND PREPARATION?	IF NO, WHY?	JOB INTEREST WITH MIRO
1	16/8/2022	Mercy Nyarko	59	Asuboa	farming	Illegal	5	yes		No
2	16/8/2022	Joyce Nyakora	50	Formangso	farming	Illegal	4	yes		No
3	16/8/2022	Stephen Frimpong	47	Formangso	farming	Illegal	12	yes		No
4	16/8/2022	Thomas Osei	38	Formangso	farming	Illegal	10	yes		Yes
5	16/8/2022	Kwame Nyamekye	42	Kwahu	farming	Illegal	10	yes		Yes
6	16/8/2022	Kwame Okyere	40	Formangso	farming	Illegal	2.5	yes		Yes
7	16/8/2022	Emmanuel Mensah	34	Nkawkaw	farming	Illegal	1	yes		Yes
8	16/8/2022	George Owusu	55	Formangso	farming	Illegal	6	yes		No
9	16/8/2022	Mary Nkansah	60	Formangso	farming	Illegal	10	yes		No
10	16/8/2022	Janet Serwaa	60	Formangso	farming	Illegal	4	yes		No
11	16/8/2022	Joseph Boadi	48	Jamasi	farming	Illegal	4	yes		Yes
12	16/8/2022	Destin Oware	63	Kwahu	farming	Illegal	4	yes		No
13	16/8/2022	Kwabena Marfo	60	Kwahu	farming	Illegal	5	yes		No
14	16/8/2022	Felcia Agyeiwaa	56	Asempanaye	farming	Illegal	4	yes		No
16	16/8/2022	George Manu	52	Formangso	farming	Illegal	4	yes		No
17	16/8/2022	Florence Nkansah	54	Formangso	farming	Illegal	10	yes		No
18	16/8/2022	Yaw Boateng	52	Formangso	farming	Illegal	8	yes		No
19	16/2022	Stephen Ofori	49	Formangso	farming	Illegal	4	yes		Yes
20	16/8/2022	Samuel Nyarko	50	Formangso	farming	Illegal	6	yes		Yes
21	16/8/2022	Kwabena Osei	54	Kwahu	farming	Illegal	6	yes		Yes
22	16/8/2022	Mary Animwaa	46	Formangso	farming	Illegal	4	yes		Yes
23	16/8/2022	Grace Anima	71	Kwahu	farming	Illegal	4	yes		No
24	16/8/2022	Rose Frimpong	64	Formangso	farming	Illegal	4	yes		Yes
25	16/8/2022	Kwame Nyamekye	54	Formangso	farming	Illegal	6	yes		Yes
26	16/8/2022	Kwaku Somuah	36	Formangso	farming	Illegal	10	yes		Yes
27	28/8/2022	Mercy Nkansah	62	Formangso	farming	Illegal	4	yes		No
28	16/8/2022	Elizabeth Nsomaa	42	Formangso	farming	Illegal	2	yes		Yes
29	16/8/2022	Charles Kiofi Ampadu	49	Formangso	farming	Illegal	2	yes		Yes
30	16/8/2022	Paul Chobitey	23	Wa	farming	Illegal	2	yes		Yes
31	16/8/2022	Emmanuel Bekoe	49	Formangso	farming	Illegal	6	yes		Yes
32	16/8/2022	Isaac Ofosu	50	Formangso	farming	Illegal	6	yes		Yes
33	16/8/2022	Yaa Kyeraa	64	Formangso	farming	Illegal	1	yes		No
34	16/8/2022	Kofi Sem	62	Pra River	farming	Illegal	1	yes		No
34	16/8/2022	Diana Wiafewaa	63	Kwahu	farming	Illegal	1	yes		No
35	16/8/2022	Alex Siaw Koranteng	32	Pra River	farming	Illegal	0.5	yes		Yes
36	16/8/2022	Eric Opoku	36	Pra River	farming	Illegal	0.5	yes		Yes
37	16/8/2022	Mary Serwaa	37	Pra River	farming	Illegal	3	yes		Yes

- Access to smallholder projects; Miro developed community trust farms on their less optimal land within their compartments which may provide opportunities to vulnerable individuals. Evidence of access to smallholder projects are:
  - In January 2019 (See report[26]) Miro signed agreements with IDH (the Sustainable Trade Initiative) and FMO for match grant funding for a three-year smallholder project in both Ghana and Sierra Leone. The aim of the first 11 years (2019) of this project is to design a

[26] 01_Supporting Information\ PO Information\CARs\CAR 2\ESG Q1 -2019 Quarterly Report (2019.01.31).pdf

		smallholder project for both countries, to be rolled out in 2020. At the beginning of the research year, three employees from Miro; Stephanie Doig, Eric Buedi (Planning and HR Manager SL), and Ofori Lartey (Business Manager, Ghana) traveled to Uganda for a workshop/study tour with New Forests Company (NFC) and Global Woods. ○ Agreements with outgrower farmers from 2021 are shared[27]. ○ Also, Miro is trackinga track record of this projects • Access to CSR projects; where Miro supports specific projects such as women groups or economic activities, identified individuals could be introduced into the projects. ○ Some examples of it are reported in the Monthly monitoring report[28] (See example of 2022 and Image below): ■ Street lights have been erected on the road from the Drobonso Township to the Miro site. ■ A borehole has been drilled for the Drobonso community, yet to be mechanized. ■ A Water Closet toilet facility renovated at Drobonso ■ A Kindergarten School block renovated at Ananekrom ■ A Kindergarten School block renovated at Serebuoso ■ Donated a cheque of ghc 2,500 to Agogo Traditional Council to support the sporting competition ■ Donated a cheque of ghc 2,500 to Salt Media towards the quiz competition amongst Schools in Asante Akyem North ■ Donated ghc 4210 to support the funeral rites celebration of the Chief nad Queen mother of Kwamang Traditional Council ■ Donated 60 pieces of Knapsack sprayers to support Farmers' Day celebration across the operational district	

[27] 01_Supporting Information\ PO Information\CARs\CAR 2\agreement with outgrower farmers.pdf
[28] 01_Supporting Information\ PO Information\CARs\CAR 5\2022-04-31 MFGH Monthly Monitoring Sheet.xlsx

		 **Monitoring Report for: Miro Forestry (Ghana) Limited** **Responsibility: Ntim** ○ Another example was the one happening on 17 and 18 of June 2023: *The MISPA entrepreneurship training centre was selected among a few others. The centre primarily focuses on teaching trainees' practical skills such as soap making, shower gel, washing powder, bar soap, bead making, after wash, bread making, brown sugar, meat pie, power zone, make-up, wig making, ice cream, fresh yoghurt, 3D epoxy, biodigester, fascinators, and bridal fans*. The full information is shown in the report on Livelihood Enhancement Training[29].	

No. CSR Projects Completed	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Water	0	0	0	0	1	0	0	0	0
Schools	0	0	0	1	0	0	0	1	0
Health	0	0	0	0	0	0	0	0	0
Training and Awareness	0	0	0	1	1	0	0	1	1
Donations (Office Equipments, etc.)	0	2	0	0	0	0	0	2	0
Toilet	0	0	0	0	0	0	1	0	1

[29] 01_Supporting Information\ PO Information\CARs\CAR 2\2023-06-17 & 2023-06-18 Report on Livelihood Program.docx

- Access to financial literacy training for those wishing to start small businesses (focused on women´s groups). In these meetings on how to start a small business structure followed is an explanation of a 6-step process (1: Inquiries and Market Research, 2: Start capital, 3: Location, 4: Business structure, 5: Business name, 6: Registration) followed by an issues and responses round and finalizing with a conclusion. Example of

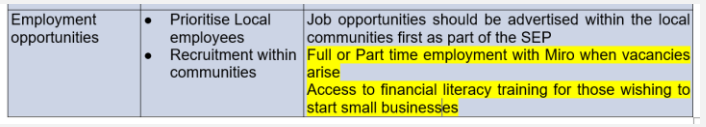
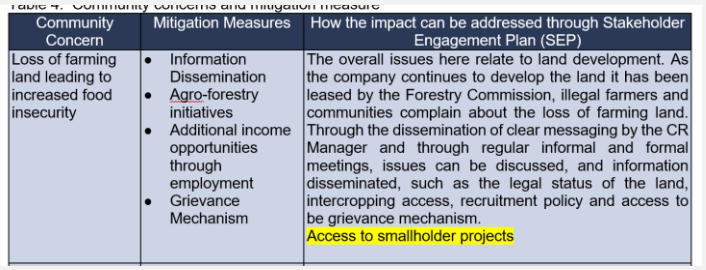
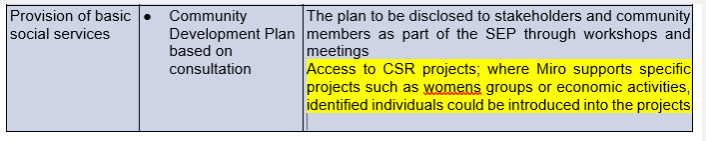
		these meetings (Full report and minutes could be found in the referenced files): ○ Drobonso Women's Group (15 of July 2023)[30]  ○ Jamestown Women's Group (29 of July of 2023)	

[30] 01_Supporting Information\ PO Information\CARs\CAR 2\2023-08-15 Drobonso Women's Group on Business Establishment.doc

The 2 step procedure was already included in the MR[31] Section 2.3. AFOLU-Specific Safeguards. Furthermore, the additional mitigation measures were included in the monitoring report[32] (**Action 1**):

Community concern	Mitigation measures added (highlighted in yellow)

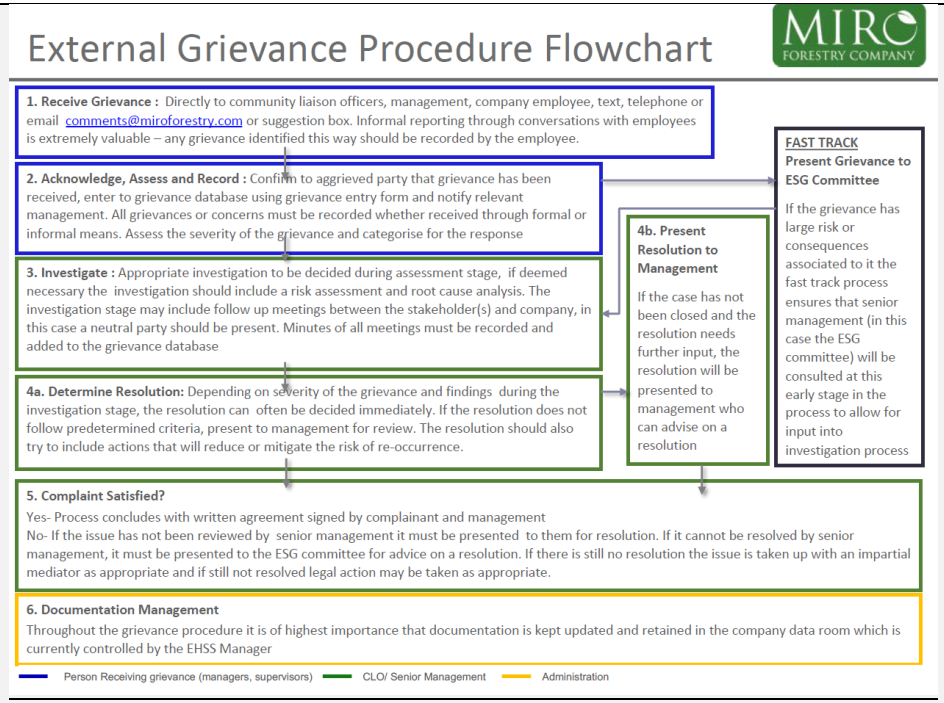
[31] Referring to the 20240209_Monitoring-Report_V4.3_MIRO Ghana, in section 2.3 AFOLU-Specific Safeguards
[32] Referring to the 20240209_Monitoring-Report_V4.3_MIRO Ghana, in section 2.3 AFOLU-Specific Safeguards

		On employment opportunities		
		Loss of farming land leading to increased food insecurity		
		Provision of basic social services		

Furthermore, together with these mitigation measures, Miro Forestry also has a Grievance Mechanism[33] that provides an open and neutral mechanism for grievances to be raised and ensures appropriate mechanisms to aim to resolve any disputes[34] (See Image below).

[33] Supporting documents/PO Information/ ESIA/MFC Grievance Procedure 2020 external small.pdf

[34] 01_Supporting Information\PO Information\ESIA\MFC Grievance Procedure 2020 external small.pdf



Miro tacks the progress of each grievance in the Monthly monitoring report[35] (See example of 2022 in the Image below).

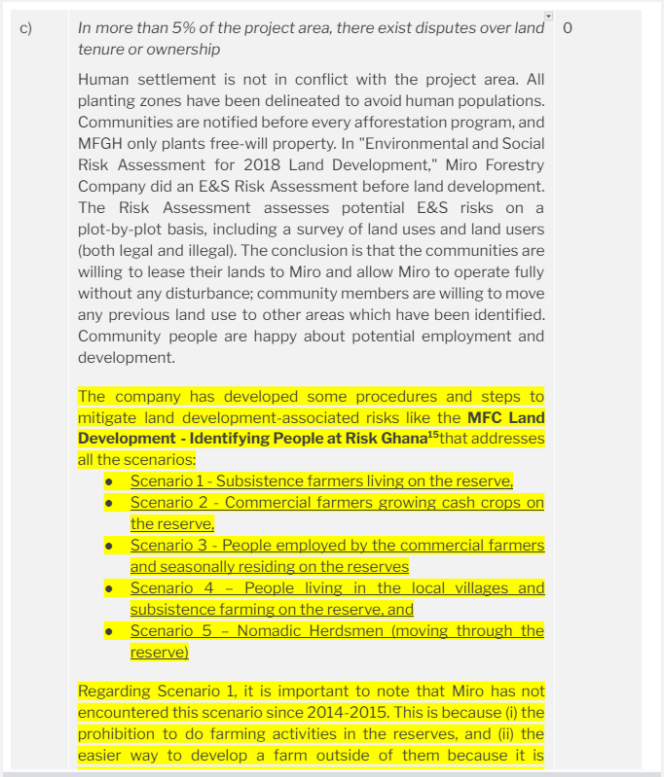
Responsibility: Ntim

Community Grievance Register	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Carried forward	0	0	0	0	0	0	0	0	0	0			
Opened	0	0	0	0	1	0	0	1	0	1	1	0	4
Closed	0	0	0	0	1	0	0	1	0	1	1	0	4
Currently Open	0	0	0	0	0	0	0	0	0	0	0	0	0

31st may- Miro caused power outage at Nhyiaeso. Issues completely resolved
5th August- Alleged crop destruction by Rita Evelyn. Issue completely resolved
15th October- Drobonso St vincent Clinic complained of power outage by Miro contractor. Issue dealt with completely
1st November- Danso Poku alleges of compartment trespassing. Issue resolved completely

The section 2.1, and 2.3. of the MR[36] were updated accordingly (**Action 1**).

[35] 01_Supporting Information\ PO Information\CARs\CAR 5\2022-04-31 MFGH Monthly Monitoring Sheet.xlsx
[36] Referring to the 20240209_Monitoring-Report_V4.3_MIRO Ghana, in sections 2.1. and 2.3

		All the relevant information was included in the NPRR[37] (See image below). 	

c) *In more than 5% of the project area, there exist disputes over land tenure or ownership* — 0

Human settlement is not in conflict with the project area. All planting zones have been delineated to avoid human populations. Communities are notified before every afforestation program, and MFGH only plants free-will property. In "Environmental and Social Risk Assessment for 2018 Land Development," Miro Forestry Company did an E&S Risk Assessment before land development. The Risk Assessment assesses potential E&S risks on a plot-by-plot basis, including a survey of land uses and land users (both legal and illegal). The conclusion is that the communities are willing to lease their lands to Miro and allow Miro to operate fully without any disturbance; community members are willing to move any previous land use to other areas which have been identified. Community people are happy about potential employment and development.

The company has developed some procedures and steps to mitigate land development-associated risks like the **MFC Land Development - Identifying People at Risk Ghana**[15]that addresses all the scenarios:

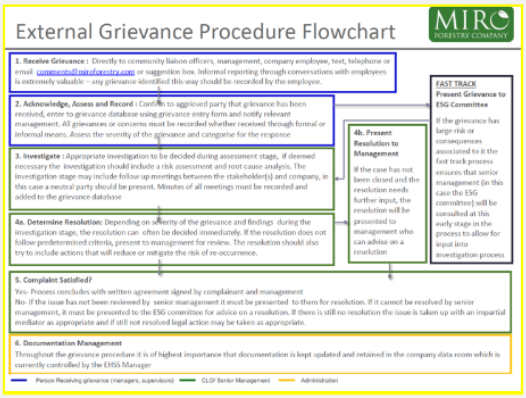
- Scenario 1 - Subsistence farmers living on the reserve,
- Scenario 2 - Commercial farmers growing cash crops on the reserve,
- Scenario 3 - People employed by the commercial farmers and seasonally residing on the reserves
- Scenario 4 – People living in the local villages and subsistence farming on the reserve, and
- Scenario 5 – Nomadic Herdsmen (moving through the reserve)

Regarding Scenario 1, it is important to note that Miro has not encountered this scenario since 2014-2015. This is because (i) the prohibition to do farming activities in the reserves, and (ii) the easier way to develop a farm outside of them because it is

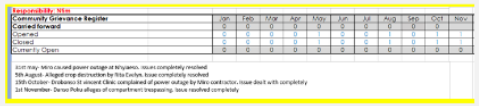
[37] Referring to the 20240209 Miro Ghana VCS-Non-Permanence-Risk-Report-v4.0 3, Land TENURE AND Resource Access/Impacts, risk factor c)

The grievance redress process includes[22] (See Image below):

- Receive/ Accept Grievance
- Investigate
- Determine Resolution
- Complaint Satisfied? (closed/pending)
- Documentation management.



Miro tacks the progress of each grievance in the Monthly monitoring report[23] (See example of 2022 in the Image below).



VVB Response

FAR 01 is been raised to ensure in the future verification, the audit team will check for any potential disputes related to the land ownership and leakage caused by the local community.

Section 4.3 of FVR is revised to include VVB assessment and how migration measures are established by the projects. It also includes what was practically verified during the site visit.

Verra Response

		It has been clarified how the mitigation measures will be implemented. The VVB has asessed Miro's mitigation measures considers them appropriate. A FAR (01) has been raised in the VR for subsequent verifications. The NPRR has been updated. This response is deemed sufficient, and the finding is closed.	

Table 2. (Finding 2. Issue 1) Expertise in the Miro Ghana's organigram for the different project activities

Activity	Sub-activity	Personnel	(Sum) Years of experience	Qualitative assessment of experience
MANAGEMENT SYSTEMS	Land mapping and planning Management of natural areas Conservation areas Management of commercial areas	• **Francis Bouwer** • **Zvikomborero Sami** • **Dr. Menason Essakku** • **Samuel Mensah Opoku**	31	• Francis and Zvikomborero are proficient in GIS and planning of forest resources. Also for commercial areas they are expert users of the tool Microforest, the main tool to manage the plantations. • The experience of Dr. Menanson and Samuel is relevant in the management of natural areas or conservation. • Also, previous experience (before Miro Forestry) in Ghana is found within the Team due to Francis Bouwer previous work in FORM Ghana, and Samuel Mensah experience in another of Ghana's plantation forestry companies.
SILVICULTURE	Nursery Planting target Slash management	• **Coenraad Vermaak** • **Godfrey Sithole** • **Lukas Prinsllo**	39	• The large experience of Coenraad Vermaak during his career ensure that all the silvicultural activities are well-planned and following the maximum quality criteria (See description provided in the NPRR for more information). • Furthermore, Godfrey Sithole as nursery

	Land preparation Marking and pitting Planting Survival survey and blanking Weed control Use of cover crops Fertilising Pruning			manager provides excellent work due to his background in nursery management in Southerland Seedlings in South Africa for many years • Some of the activities that required heavy machinery are coordinated by Lukas Prinsllo with more than 30 years in as Construction and Workshop Engineer for Scan Farms Limited, in Ghana.
FOREST PROTECTION	Fire protection Pest and disease control	• **Francis Bouwer** • **Godfrey Sithole** • **Enoch Totimeh**	23	• A combination of forest planning together with nurseries control is essential for the forest protection. Together with the research and development department. A combination of experience from different Teams is required for this activity.
HARVESTING	Forest roads Singling/stem reduction	• **George Tatham** • **Paul Ayambila**	31	• George offers all the experience in all the processes involve harvesting practices, from planning to harvesting, until wood extraction due to his jobs in the forestry

	Thinning			industry, in silviculture, harvesting, logistics, short-haul transport and sawmilling. • Paul has experience in plantations and team management. Also he has received several training courses by external consultants in South Africa
RESEARCH	Research and development	• **Dr. Menason Essakku** • **Enoch Totimeh**	14	• Dr. Menason and Enoch are well placed in to achieve this activity due to their backgrounds in academia, as Senior Research Fellow at the Institute of Forestry Genetics and Tree Breeding; and project officer for the Institute of Tropical Agriculture, Forest Research Institute of Ghana, respectively.
PROJECT STAKEHOLDERS ACTIVITIES		• **Ofori Lartey** • **Dennis Abilba**	14	• The large experience offered by Offori in West Africa is essential for all the project stakeholder activities, including Ghana (Samartex Timber & Plywood Company in Ghana)
(*) Have into account that these classification is not fixed and the personnel in each activity are dynamic. Therefore, for some of the project activities more than the abovementioned people support them.				

Figure 1. (Finding 2. Issue 3) Issue Example of the Household Survey

Household Survey

- This survey is to be conducted for each household for scenarios 1 and 3 in Ghana (as per the Company Environmental and Social Risk Assessment Guidelines). Information will be transferred to a register where all further communication will be recorded.
- **NB: Whenever possible photographs should be attached**

Date:	Name of Interviewer:
Location:	Reference on map:
Route (how to find the dwelling):	
Are you aware of the operations of Miro Forestry within your community?	If Yes, how have you been affected?
Household Information	
Name of head of Household: Name of Respondent *(if not head of household):*	
Age (date of birth): Male/ Female:	Where were you born? Where were your parents born?
How long has the household been at that location/length of stay in reserve (years):	Previous Location:
Household Composition [Including those not present] *State age of children when possible*	
What is the legal status of the land?	
Source of water:	Source of energy:
Access to Health Services:	Education Level:
Common Diseases:	Education Status of children:
Main Source of Income:	Any other residences?

Household Survey

Farming and Income Generation Information	
Does your household have access to arable land that you use for cultivation?	Are you a resident on-farm or do you commute to farm?
What type of labour is used on the farm?	What are the two main food crops used by the household?
Name the two main crops bartered or sold by the household	Where are the crops sold?
Does the household have any livestock? If so, where do they graze?	Does your family have other sources of income generation? If so, what?

Detailed Farming Information					
Plot	**Main crop grown on land**	**Size** *(acres)*	**Distance** *(Miles from homestead)*	**Month of harvest**	**Ownership/Land tenure rights** *Belonging to household = 1* *Renting from another household= 2* *Sharecropping with another household = 3* *Other (specify) = 4*
A					
B					
C					
D					

Household Survey

Detailed Structure Information			
Type of building/structure e.g. house, kitchen, storage area	**Materials used**		**Status of utilisation**
	Walls *Wood & mud = 1* *Stones & mud = 2* *Stones & cement = 3* *Cement blocks = 4* *Wood poles = 5* *Blocks = 6*	***Roof*** *Thatch = 1* *Tin = 2* *Poles = 3*	*Used = 1* *Not used, complete = 2* *Not used, incomplete = 3*

Looking forward	
Are you aware of impending land preparation?	When you are moved from here where are you going to go?
Do you have titled land elsewhere? If so where and how much?	What are your plans/hopes for the future?
If you qualified for employment by the company (dependent on health checks and job availability) would a full time job be of interest to you or any adult members of your family? If not why?	
Interviewee Notes/ Summary:	

3	**Insufficient assessment of AFOLU safeguards**		
	Issue 1. The VR does not describe the steps the VVB has taken to assess the activities implemented by the PP to mitigate risks to local stakeholders due to project implementation. Action Required 1. The VVB must assess the information and update the verification report accordingly. Program Rule(s) *VCS Standard, v4.4*, Section 3.18.2	**Round 1** VVB Response In accordance with paragraph 3.18.3 of VCS standard v 4.4 and based on the on-site assessment, the verification team assessed the mitigation risk, and detailed steps were taken to assess the activities implemented by the PP to mitigate the risk to local stakeholders due to project implementation, and the same has been described in the **revised validation report.** The verification team has interacted with local stakeholders and discussed risks and mitigation processes. Verra Response The Verification Report (VR) has been updated with information on risks to local stakeholders and the proposed measures taken by the PP. However, this finding cannot be closed. Issue It remains unclear in the VR how the VVB assessed the activities implemented by the PP to mitigate risks due to the following threats: • bushfires/ wildfires • illegal logging activities • charcoal production, and • open animal grazing Action Required: 1. The VVB must ensure that section 4.3 sufficiently discusses whether reasonable steps have been taken to mitigate such impacts. Program Rule(s) *VCS Standard, v4.4*, Section 3.18.2, *VCS Verification Report Template, v4.2*, Section 4.2.1 **Round 2** PP response	Closed

		Issue 1 **Bushfires/ wildfires** On bushfires/wildfires, there are 2 ways of dealing with them: 1. Prevention measures • The prevention measures include the following: As stated in the monitoring report[38] according to the Preliminary Environmental Report 2021[39] some of the prevention measures include the following (See some images below): ○ *"Creation of buffer zones/fire belts between and around planting units within the plantation to prevent possible threats resulting from bushfire from the surrounding communities/activities.* ○ *A well-demarcated boundary of about 10-m width will be provided and will serve as access routes within the plantation.* ○ *Moreover, compartment roads, external boundary roads, and valley bottom cut-off roads will also serve as fire breaks.* ○ *Slash or vegetation are managed to reduce the risk of fire spread".* ○ *That also includes fire watch towers, firefighting resources, fire reaction points and locally appointed fire marshals.*	

[38] Referring to the 20240209_Monitoring-Report_V4.3_MIRO Ghana, in section 2.2
[39] 01_Supporting documents/PO Information/Preliminary Environmental Report _Abrimasu Forest Reserve.pdf

		Photo 1-19: **Roads are formed around planted blocks and extended with firebreaks for forest protection. Miro do not manage most open areas in and around its plantation as these belong to local communities who burn them seasonally increasing fire risk.** 	

		Photo 1-21: **During the fire season water tankers are placed at various standby points such as this village close to D Block. Miros biggest single loss event to date was in 2019 of 14 ha's.** 	

		Photo 1-20: **Fire is the biggest forest risk. Miro appears well prepared with 3 manned observation tours, regional community fire marshals 6 tractor drawn water tankers, a fire tender and 8 mobile units for staff vehicles (as pictured).** 	

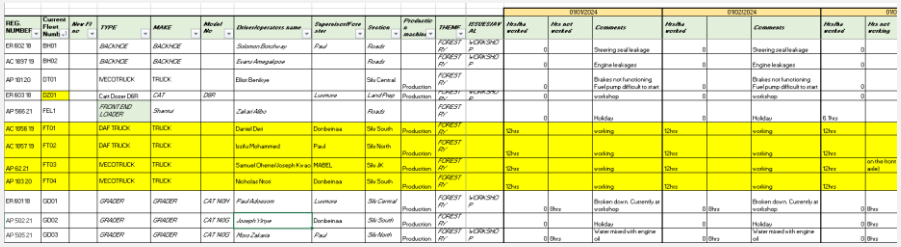
		Photo 1-21: **A fire watchtower with good sight lines of much of the plantation represents a significant investment in fire prevention. The site also houses a radio repeater providing coverage of the northern parts of the plantation.** 	

		Photo 1-15: **A controlled burn carried out by Miro staff for fuel reduction as part of prevention activities.**  • Furthermore, community meetings for education and sensibilization on the preventive methods/mechanisms could be found in the supporting information (18 examples of educational meetings with pictures[40] - See some pictures below).	

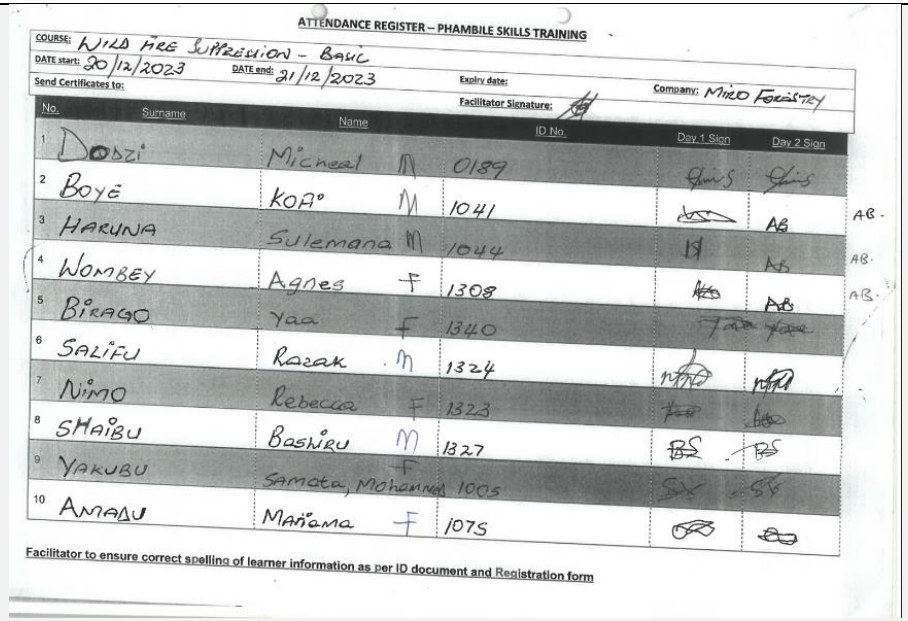
[40] 01_Supporting documents/04_NPRT\3_Natural risks\C'tty meeting minutes Fire Mitigation November 2021

		 E.g. Dida community engagement on bushfire (12 November 2021) 2. Operational procedures in case it happens • The project will liaise with the traditional authorities and the district security personnel and Forestry Commission's rapid response in case of detection of forest fires[41]. • All the state of all the machinery, equipment, and vehicles is updated every day. This includes the truck's maintenance depicted in the first image below (Also an excel file as	

[41] 01_Supporting documents/PO Information/Preliminary Environmental Report _Abrimasu Forest Reserve.pdf

		supporting information[42]) • The risk in case a wildfire happens in the area is mitigated by the preparation of a formal fire management plan[43]. The plan includes the objectives, responsible people, precise instructions, and operational procedures in case a fire starts o *"This will include the training of workers in the use of fire suppression equipment and evacuation. Procedures may include coordination activities with the Forestry Commission and local authorities."* (Attached find evidence of the training records and attendance of the participants[44] – See second Image below as example)) 	

[42] 01_Supporting Information\ PO Information\CARs\CAR 3\Machine Breakdown Update.xlsx
[43] 01_Supporting documents/04_NPRT\3_Natural risks\Fire Management Plan 2022.pdf
[44] 01_Supporting Information\ PO Information\CARs\CAR 3\Fire management training participants records.pdf



ATTENDANCE REGISTER – PHAMBILE SKILLS TRAINING

COURSE: WILD FIRE SUPPRESSION - BASIC
DATE start: 20/12/2023 DATE end: 21/12/2023 Expiry date: Company: MIRO FORESTRY
Send Certificates to: Facilitator Signature:

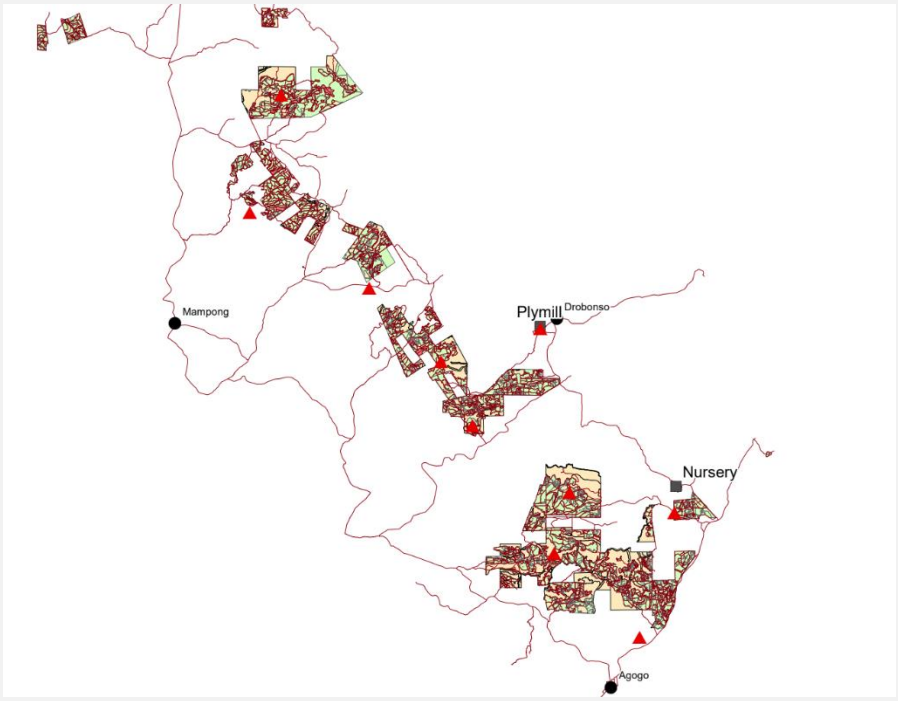
No.	Surname	Name		ID No.	Day 1 Sign	Day 2 Sign	
1	Dodzi	Micheal	M	0189			
2	Boye	KOFI	M	1041		AB	AB.
3	HARUNA	Sulemana	M	1044		AB	AB.
4	WOMBEY	Agnes	F	1308		AB	AB.
5	BIRAGO	Yaa	F	1340			
6	SALIFU	Razak	M	1324			
7	NIMO	Rebecca	F	1323			
8	SHAIBU	Bashiru	M	1327			
9	YAKUBU	Samata, Mohammed	F	1005			
10	AMADU	Mariama	F	1075			

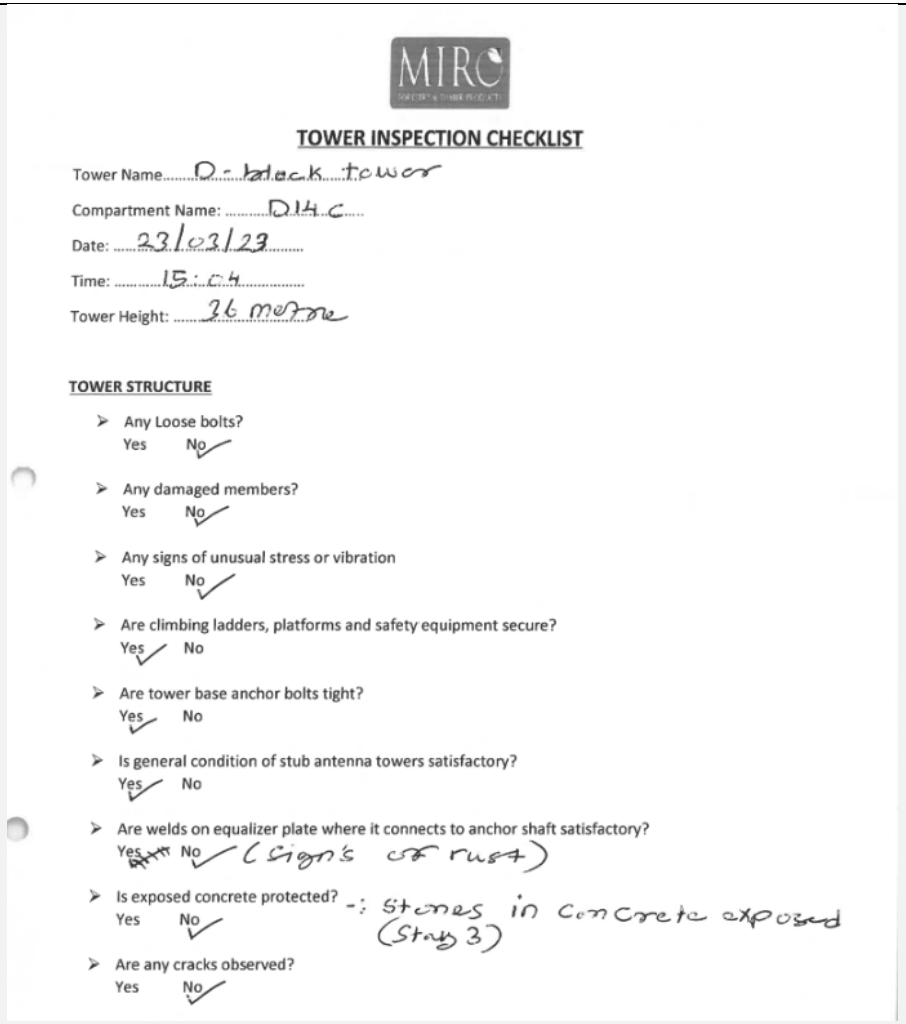
Facilitator to ensure correct spelling of learner information as per ID document and Registration form

All of this was corroborated by Margules Groome and the report[45] elaborated that Margules Groome observed:

- "*Significant fire suppression activities undertaken by Miro staff including controlled burns, maintenance of fire breaks, fire watch towers, and firefighting resources*". There are a total of 10 towers (See map[46] as supporting information, and below – red triangles), and periodical inspections are done every month to detect anomalies using a checklist[47] (See Image below).
- *"During the field visits substantial investments in fire*

[45] 01_Supporting Information\ PO Information\CARs\CAR 3\Margules Groome Miro Plantation Management Review 14.04.20 FINAL.pdf
[46] 01_Supporting Information\ PO Information\CARs\CAR 3\Miro Ghana Plantation Map.pdf
[47] 01_Supporting Information\ PO Information\CARs\CAR 3\Fire Tower inspection list.pdf

		suppression were observed."  	



MIRC

TOWER INSPECTION CHECKLIST

Tower Name: D-block tower

Compartment Name: D14c

Date: 23/03/23

Time: 15:04

Tower Height: 36 metre

TOWER STRUCTURE

- Any Loose bolts?
  Yes No ✓
- Any damaged members?
  Yes No ✓
- Any signs of unusual stress or vibration
  Yes No ✓
- Are climbing ladders, platforms and safety equipment secure?
  Yes ✓ No
- Are tower base anchor bolts tight?
  Yes ✓ No
- Is general condition of stub antenna towers satisfactory?
  Yes ✓ No
- Are welds on equalizer plate where it connects to anchor shaft satisfactory?
  Yes ~~No~~ No ✓ (Signs of rust)
- Is exposed concrete protected? -: Stones in concrete exposed (Stay 3)
  Yes No ✓
- Are any cracks observed?
  Yes No ✓

Illegal logging (mainly for charcoal production)

In the case of illegal logging or charcoal production the project liaised

with the traditional authorities and the district security personnel and Forestry Commission's rapid response taskforce to tackle any illegal logging activities.
Even though commercial logging activities do not seem to exist currently in the reserves, illegal logging activity in the reserves is a source of concern to the project. Miro Forestry is tracking the illegal activities using a record database[48] (Example of 2023), including illegal timber harvesting (First Image below) and charcoal production (Second Image below). This measure ensure the right monitoring of illegal activities to evaluate mitigation measures and propose new ones if needed.

ILLEGAL LOGGING RECORDED WITHIN MFGH COMPARTMENTS 2023

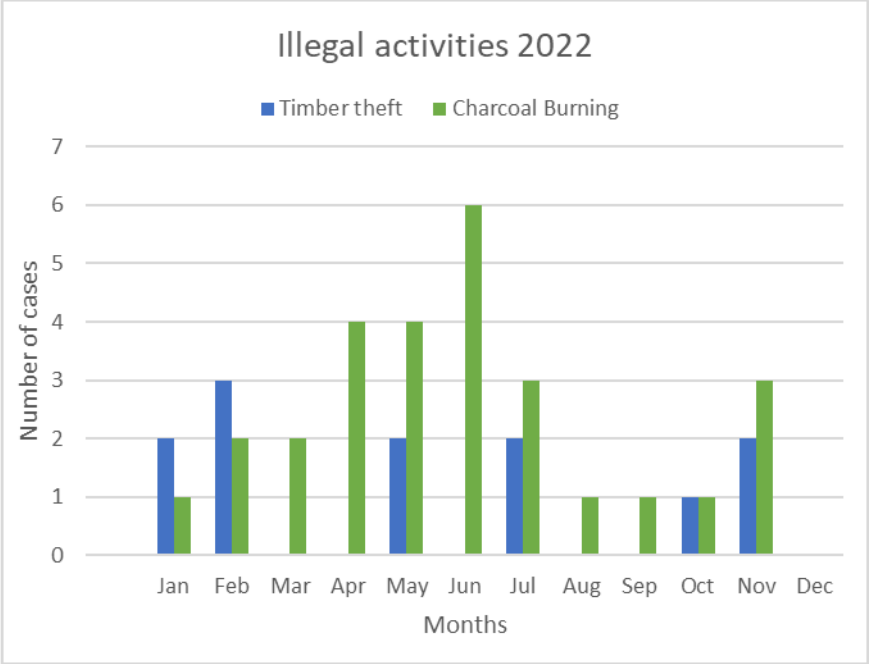
#	Date	GPS coordinate	Forest Reserve	FC Compt #	Tree species	Pictures
1	20/02/2023	6°55'41.78" N 1°5'36.56" W	Boumfoum	54	Rosewood *Pterycarous erinaceus* Kane *Anogeissus leiocarpus*	
2	20/02/2023	6°55'38.32" N 1°6'28.69" W	Boumfoum	73	Ceiba *Ceiba pentandra*	
3	20/02/2023	6°55'38.35" N 1°6'28.71" W	Boumfoum	64	Ceiba *Ceiba pentandra*	

[48] 01_Supporting Information\ PO Information\CARs\CAR 3\2023 MFGH Illegality records.docx

7	6/7/2023	6°55'1.28"N, 1°8'33.68"W	Awura	62	
8	11/7/2023	7°13'26.12"N, 1°18'24.19"W	Boumfoum	89	
9	1/7/2023	6°54'37.42"N, 1°6'40.92"W	Boumfoum	135	

For example using the information from the Monthly monitoring report[49] (See number of cases of 2022 in the Image below)

[49] 01_Supporting Information\ PO Information\CARs\CAR 5\2022-04-31 MFGH Monthly Monitoring Sheet.xlsx

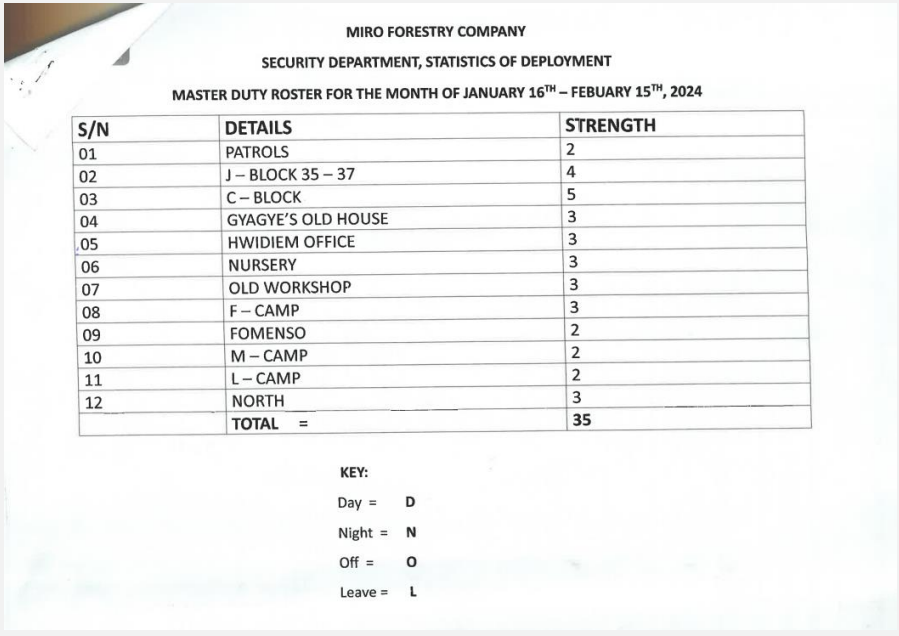


Some implemented mitigation measures (both for illegal logging and charcoal production) are:

- According to the Livelihood Study Development Plan[50]at the beginning of the operational phase of the project, the number of illegal logging and charcoal production in the area were reduced considerably due to:
  - **Access to plantation:** control access at all entry points to the plantation where practically possible. In conjunction with the Forestry Commission will only allow permit holders, beyond the control points
  - **Security:** For the security and protection of the

[50] 01_Supporting Information\ PO Information\CARs\CAR 2\ NMFC Livelihood Study_Development Plan (2014. 08.06).pdf

			plantation's natural values, access must be controlled and can be integrated with recreation activities on the plantation by (i) limiting access to certain times of the year, (ii) providing forest guards (See Patrol timetables below, also as supporting information[51]), (iii) collaborating with local stakeholders in ensuring that locals are properly educated about how the reserve can be used to meet their traditional rights and way of life.	



MIRO FORESTRY COMPANY

SECURITY DEPARTMENT, STATISTICS OF DEPLOYMENT

MASTER DUTY ROSTER FOR THE MONTH OF JANUARY 16TH – FEBUARY 15TH, 2024

S/N	DETAILS	STRENGTH
01	PATROLS	2
02	J – BLOCK 35 – 37	4
03	C – BLOCK	5
04	GYAGYE'S OLD HOUSE	3
05	HWIDIEM OFFICE	3
06	NURSERY	3
07	OLD WORKSHOP	3
08	F – CAMP	3
09	FOMENSO	2
10	M – CAMP	2
11	L – CAMP	2
12	NORTH	3
	TOTAL =	35

KEY:

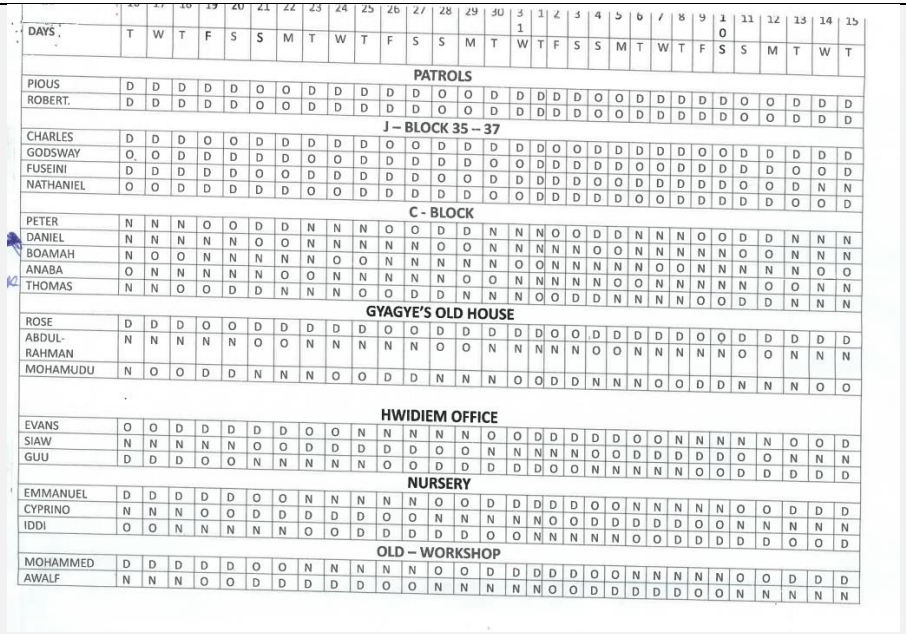
Day = D

Night = N

Off = O

Leave = L

[51] 01_Supporting Information\ PO Information\CARs\CAR 3\Security Patrol Duty rooster.pdf



DAYS	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T
PATROLS																															
PIOUS	D	D	D	D	D	O	O	D	D	D	D	D	O	O	D	D	D	D	D	O	O	D	D	D	D	D	O	O	D	D	D
ROBERT.	D	D	D	D	D	O	O	D	D	D	D	D	O	O	D	D	D	D	D	O	O	D	D	D	D	D	O	O	D	D	D
J – BLOCK 35 – 37																															
CHARLES	D	D	D	O	O	D	D	D	D	D	O	O	D	D	D	D	D	O	O	D	D	D	D	D	O	O	D	D	D	D	D
GODSWAY	O	O	D	D	D	D	D	O	O	D	D	D	D	D	O	O	D	D	D	D	D	O	O	D	D	D	D	D	O	O	D
FUSEINI	D	D	D	D	D	O	O	D	D	D	D	D	O	O	D	D	D	D	D	O	O	D	D	D	D	D	O	O	D	N	N
NATHANIEL	O	O	D	D	D	D	D	O	O	D	D	D	D	D	O	O	D	D	D	D	D	O	O	D	D	D	O	O	D	N	N
C - BLOCK																															
PETER	N	N	N	O	O	D	D	N	N	N	O	O	D	D	N	N	N	O	O	D	D	N	N	N	O	O	D	D	N	N	N
DANIEL	N	N	N	N	N	O	O	N	N	N	N	N	O	O	N	N	N	N	N	O	O	N	N	N	N	N	O	O	N	N	N
BOAMAH	N	O	O	N	N	N	N	N	O	O	N	N	N	N	O	O	N	N	N	N	N	O	O	N	N	N	N	N	O	O	O
ANABA	O	N	N	N	N	N	O	O	N	N	N	N	N	N	O	O	N	N	N	N	N	O	O	N	N	N	N	N	O	O	O
THOMAS	N	N	O	O	D	D	N	N	N	O	O	D	D	N	N	N	O	O	D	D	N	N	N	O	O	D	D	N	N	N	N
GYAGYE'S OLD HOUSE																															
ROSE	D	D	D	O	O	D	D	D	D	O	O	D	D	D	D	D	O	O	D	D	D	D	D	O	O	D	D	D	D	D	D
ABDUL-RAHMAN	N	N	N	N	N	O	O	N	N	N	N	N	O	O	N	N	N	N	N	O	O	N	N	N	N	N	O	O	N	N	N
MOHAMUDU	N	O	O	D	D	N	N	N	O	O	D	D	N	N	N	O	O	D	D	N	N	N	O	O	D	D	N	N	N	O	O
HWIDIEM OFFICE																															
EVANS	O	O	D	D	D	D	D	O	O	N	N	N	N	N	O	O	D	D	D	D	D	O	O	N	N	N	N	N	O	O	D
SIAW	N	N	N	N	N	O	O	D	D	D	D	D	O	O	N	N	N	N	N	O	O	D	D	D	D	D	O	O	N	N	N
GUU	D	D	D	O	O	N	N	N	N	N	O	O	D	D	D	D	D	O	O	N	N	N	N	N	O	O	D	D	D	D	D
NURSERY																															
EMMANUEL	D	D	D	D	D	O	O	N	N	N	N	N	O	O	D	D	D	D	D	O	O	N	N	N	N	N	O	O	D	D	D
CYPRINO	N	N	N	O	O	D	D	D	D	D	O	O	N	N	N	N	N	O	O	D	D	D	D	D	O	O	N	N	N	N	N
IDDI	O	O	N	N	N	N	N	O	O	D	D	D	D	D	O	O	N	N	N	N	N	O	O	D	D	D	D	D	O	O	D
OLD – WORKSHOP																															
MOHAMMED	D	D	D	D	D	O	O	N	N	N	N	N	O	O	D	D	D	D	D	O	O	N	N	N	N	N	O	O	D	D	D
AWALF	N	N	N	O	O	D	D	D	D	D	O	O	N	N	N	N	N	O	O	D	D	D	D	D	O	O	N	N	N	N	N

- **Limiting illegal allocation of forest lands to migrant farmers who acquired portions of the degraded forest with the objective of establishing private commercial plantations** rather engaged in the illegal practice of allocating portions of the reserve lands to migrant settlers and farmers for financial reward. This explains the presence of abandoned and poorly managed mosaics of old Teak and Gmelina plantations; as well as the presence of illegal maize farms within the reserve. Therefore, the allocation of some of these lands to MFGH for plantation development will limit the presence of illegal migrant farmers on the reserve and bring back the degraded area into forest production[52].
- **Interested illegal loggers may be encouraged to participate in**

[52] 01_Supporting documents/PO Information/Preliminary Environmental Report _Abrimasu Forest Reserve.pdf

		the reforestation project as a more sustainable income generation/ livelihood venture[53]. • **Limiting access to the reserve to reduce access routes (forest roads) for future illegal logging activities**[54]. • **Forest guards are employed to assist with security and identify problems across the plantation.** The security guards are also responsible for environmental issues, including; poaching, encroachment, and charcoal production. A team of forest guards currently patrol the Plantation weekly, on random days, to ensure that there is no traceable pattern. Their main priority is encroachment on both the reserve and conservation areas, poaching control, and illegal charcoal manufacturing control[55]. • **The Forestry Commission sends a team of six people on a yearly basis from their Rapid Response Team to support the company in control of illegal activities within the forest reserves**. **<u>Open animal grazing</u>** The nomadic cattle herdsmen (popularly known as the Fulani) also use the reserve as a grazing area for their cattle[56]. Cattle guards keep the cattle away from the young trees and Miro inform the Fulani where they can move where the trees are mature. Despite Miro not interfering with the Fulani and having an open relationship attending some community meetings Miro needs to ensure that no conflict is arising between them and nearby communities as well as ensure that no fire is caused by them within the reserves. For that	

[53] 01_Supporting documents/PO Information/Preliminary Environmental Report _Abrimasu Forest Reserve.pdf
[54] 01_Supporting Information\PO Information\EHSS and Reports\Adaptive_Management_Plan_2019.pdf
[55] 01_Supporting Information\PO Information\EHSS and Reports\Adaptive_Management_Plan_2019.pdf
[56] 01_Supporting Information\PO Information\EHSS and Reports\Adaptive_Management_Plan_2019.pdf

		Miro has designed the following mitigation measures[57,58]: ● **Collaboration with Rapid Response Task Force**: to prevent animal grazing within the young compartments of the Forest Reserve. Forest guards are currently employed to assist with security by patrolling the reserve (See below security personnel on duty in a compartment (to the right) and security point at the entrance (to the left)), please find ID cards of the patrolling guards as Supporting information[59,60,61]).   ● Guidance through the more mature compartments (See images	

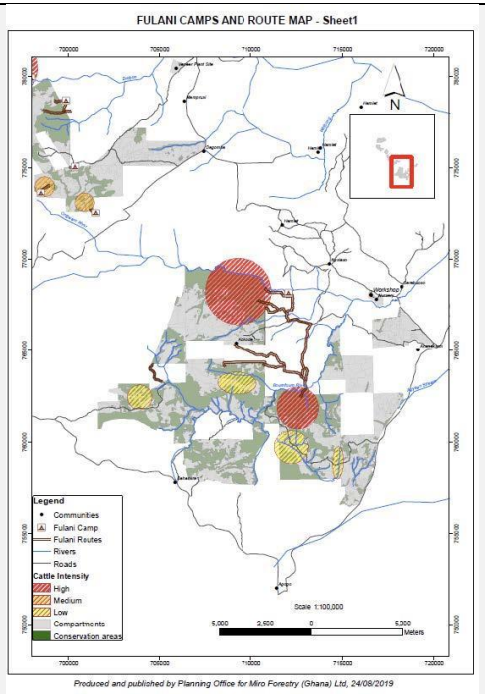
[57] 01_Supporting Information\PO Information\ESIA\MFGH Stakeholder Mapping and Analysis 2020 small.pdf
[58] 01_Supporting documents/PO Information/Preliminary Environmental Report _Abrimasu Forest Reserve.pdf
[59] 01_Supporting Information\ PO Information\CARs\CAR 3\security personnel by the tent_Prosper.pdf
[60] 01_Supporting Information\ PO Information\CARs\CAR 3\Adambula_Security patrol team member.pdf
[61] 01_Supporting Information\ PO Information\CARs\CAR 3\Ayaba_Security patrol team member.pdf

		below), this measure avoids the cattle passing to the new planted areas eating the young seedlings. • 	

		 • **Attempt to engage with Fulani:** Developed a roadmap to improve their understanding of and engagement with the Fulani and other vulnerable groups[62]. • **Creation of a map where this seasonal routes take place and where the cattle intensity is concentrated** (See Map below[63]).	

[62] 01_Supporting Information\PO Information\ESIA\MFC Land Development - Identifying People at Risk Ghana 2020.03.12 (2).pdf
[63] 01_Supporting Information\PO Information\ESIA\Fulani routes 2019



- Finally, **when the direction of the patrols is not followed Miro Forestry will pro-actively work with the FC and their rapid response task force to prevent animal grazing within the non-desired areas (young stands) of the Forest Reserve.** Forest guards are currently employed to assist with security by patrolling of the reserve[64]. When this happens, it is included in a registry where illegal activities occur within the reserve, in this case grazing.

[64] 01_Supporting documents/PO Information/Preliminary Environmental Report _Abrimasu Forest Reserve.pdf

		All the information was updated in the section 2.1. of the MR[65]. VVB Response The assessment is updated in the FVR section 4.3 Activities implemented to mitigate risks from the local stakeholders due to project implementation as identified are the risks like bushfires/ wildfires, illegal logging activities, charcoal production, and open animal grazing. The mitigation measures by the PP and audit team confirmations during the site visit are updated in the FVR section 4.3.	
		Verra Response The VVB detailed how the activities implemented by the PP have been assessed and cross-checked. Section 4.3 of the VR sufficiently discusses the steps to mitigate the impacts. This response is deemed sufficient, and the finding is closed.	

4	**Long-term average not reported or updated with ex-post monitored data**		
	Issue 1. The LTA is not reported in the MR or VR 2. The LTA is not updated with the ex-post monitored data. Action Required 1. The VVB must ensure the LTA is reported in the MR and VR	**Round 1** PP Response: The LTA calculation was included both in the MR[66] and VR[67], as part of the supporting documents, in concrete the one named Ghana Ex-ante[68] (**Action 1**). In this file the values from the ex-post were used for the calculations of the Long-term average (LTA). The value of the LTA was 1,535,607 tCO2e. The LTA has not been reached in the current verification (**Action 2.a**) given that the current VCUs in the second verification is 472,294 tCO2e after buffer, so there are 909,749 tCO2e remaining. This information can be confirmed by: ● Values from the ex-post (0-6 years) in the tab named "4.MAI". (Table 3)	Closed

[65] Referring to the 20240209_Monitoring-Report_V4.3_MIRO Ghana, in section 2.3. AFOLU-Specific Safeguards
[66] Referring to the 20240209_Monitoring-Report_V4.3_MIRO Ghana, in section 1.1.
[67] Referring to the VCS.22.VER.049_2nd Verification Report, in APPENDIX 2: FINDINGS (pages 56,59,60, and 69)
[68] 01_Supporting Information\Estimations\Ghana Ex-ante.xlms

	2. The VVB must indicate whether the LTA has been reached for the current verification. Program Rule(s) *VCS Standard, v4.4*, Section 3.2.25, Sub-section 7	• Checking into the individual species tabs that the values used correspond to the ex-post (See the column E in the tabs: 6. Euc pellita, 7. Aman, 8. Gmel, 9. Teak, 10. Cory, and 11. Other, for more information) While looking at this information, it was found that one of the plantation total areas was not corresponding to the reality. In concrete the plantation surfaces per species for 2022. It stated that there were 1500 hectares planted when using data from the PO, only 75 hectares accounted for this year. This information has been updated in the file named "Ghana Ex-ante UPDATED"[69] (Figure 3). Using this data, the LTA result is 1,122,992 tCO_2e, given that the total VCUs in the second verification is 481,955 tCO_2e, there are 641,037 tCO_2e remaining until reach the LTA. Therefore, the LTA has not been reached in the current verification (**Action 2.b**). However, this lower value of the updated version of the ex-ante is expected to increase due to the commitment of the PO to reach an average annual planting volume of 1500 ha. VVB response The LTA calculation was included in FVR under section 4.4. The calculations have been detailed and assessed by assessment of project excel sheet which has been updated to reflect LTA result as 1,290,706 tCO2e since the current VCUs in the second verification is now reported as 472,294 tCO2e after buffer, there are 689,341 tCO2e remaining until reach the LTA. Therefore, the LTA has not been reached in the current verification. Verra Response The VVB indicated that the LTA has not been reached for the current verification and it is 1,290,706 tCO_2e. However, this finding cannot be closed. Issue: 1. The information in this PRR on VCUs generated in the second verification after buffer adjustment, i.e., 472,294 tCO_2e, contradicts Sections 4.4 of the VR (i.e.,	

[69] 01_Supporting Information\Estimations\Ghana Ex-ante UPDATED.xlsm

		285,880 tCO_2e) and 5.5 of the MR (i.e., 293,759 tCO2e) 2. Per the VVB's response above, "there are 689,341 tCO_2e remaining until the LTA is reached". More information is needed to understand how this was determined. Action Required: 1. The VVB must ensure that the information on VCUs generated in the second verification after buffer adjustment is correct and reported consistently throughout the different project documents. 2. The VVB must describe how it determined that there are 689,341 tCO_2e remaining until the LTA is reached. Program Rule(s) *VCS Standard, v4.4*, Section 3.2.25, Sub-section 7	
		Round 2 PP response The Root-to-shoot ratio was changed to have a more conservative value of 0.232[70], this has made some of the calculations to be different from the presented in the previous answer. Here are the final values according to it: • Total Carbon by 2022[71]: 481955 t CO2 eq • LTA from the ex-ante[72]: 1,122,992 t CO2 eq • Space till reaching the LTA is 641,037 tCO_2e The full calculation process is detailed below. **Issue 1.**	

[70] 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories (TABLE 4.4 (UPDATED) RATIO OF BELOW-GROUND BIOMASS TO ABOVE-GROUND BIOMASS (R) [TONNE ROOT D.M. (TONNE SHOOT D.M.)-1])

[71] 01_Supporting Information\Estimations\Ghana Ex-post 20022024 updated.xlsx
[72] 01_Supporting Information\Estimations\Ghana Ex-ante UPDATED.xlms

Accounting for the Leakage[73] (See also Finding No. 5) which is 15758 tCO_2e, the VCU´s generated in the second verification from the ex-post file[74] were calculated the following way (See Figure below):

	A	B	C	D	U	V	W	X	Y	Z
1										
2										
3	Plantation Year	Species	Stratum	Eligible area (ha)	Total Carbon by 2022 (ton/strata)	Total Carbon 1st verification (ton/strata)	Leakage (See Leakage tab for more info) (ton/strata)	Total Carbon 2nd verification (ton/strata) (2022 - 1st verification)	Buffer (10%) Second verification (ton/strata)	Net carbon /strata - Buffer 10% NPRT
4	2016	Aman	1.1	183.6	30964	23191	747	7026	703	6324
5	2016	Eucs	1.2	611.2	59770	33329	2488	23953	2395	21558
6	2016	Teak	1.3	227.1	30116	9816	924	19375	1938	17438
7	2016	Corym	1.4	130.2	25829	18153	530	7146	715	6432
8	2017	Aman	2.1	129.4	18560	16482	527	1551	155	1396
9	2017	Eucs	2.2	386.1	35615	17578	1572	16465	1646	14818
10	2017	Teak	2.4	48.4	6154	323	197	5634	563	5071
11	2017	Corym	2.5	49.7	10559	3817	202	6540	654	5886
12	2017	Gmelina	2.3	6.8	2729	6218	28	-3517	-352	-3165
13	2018	Aman	3.1	188.0	25639	14966	765	9908	991	8917
14	2018	Eucs	3.2	717.3	45136	23961	2920	18256	1826	16430
15	2018	Corym	3.5	131.1	16675	3107	534	13035	1304	11732
16	2018	Gmelina	3.4	77.2	23996	4913	314	18769	1877	16892
17	2018	Other	3.6	6.4	892	6985	26	-6119	-612	-5507
18	2019	Aman	4.1	33.3	5474	3545	136	1793	179	1614
19	2019	Eucs	4.2	343.8	24712	11716	1400	11597	1160	10437
20	2019	Gmelina	4.4	511.0	109463	22315	2080	85068	8507	76561
21	2018	Teak	3.3	56.4	6938	0	230	6708	671	6037
22	2019	Teak	4.3	17.4	1116	0	71	1045	105	941
23	2019	Corym	4.5	13.6	1317	0	55	1262	126	1136
24	2019	Other	4.6	2.9	301	0	12	289	29	260
25				3871	481955	220414	15758	245784	24579	221205

1. Total tons of CO_2 eq per strata from the verification in 2022 were calculated (Column U), total = 481,955 tCO_2e
2. Total tons of CO_2 eq from the first verification per strata (Column V), total = 220,414 tCO_2e
3. Total leakage per strata (in tCO_2e) was added in Column W (See calculations[75] and report[76] for more information), summing a total of 15758 tCO_2e

[73] 01_Supporting Information\Estimations\Leakage\Leakage Miro Ghana 2nd verification.pdf
[74] 01_Supporting Information\Estimations\Ghana Ex-post 20022024 updated.xlsx
[75] 01_Supporting Information\Estimations\Leakage\Leakage_Miro_Ghana.xlsx
[76] 01_Supporting Information\Estimations\Leakage\Leakage Miro Ghana 2nd verification.pdf

4. The total carbon for the 2nd verification is calculated per strata by subtracting to the 2nd verification the 1st verification and the leakage (in tCO_2e). Column X = Column U-Column V-Column W. It gives a total of 245,784 tCO_2e
5. Then, the buffer (10%) was applied to the total carbon of the 2nd verification calculated in Step 5 (Column Y). This is Column Y=Column X*0.1. It summed a total of 24,579 tCO_2e
6. Finally, the net carbon after buffer for the second verification was calculate per strata by subtracting to the total carbon for the 2nd verification, the buffer (Column Z). **Therefore, the total VCUs generated in the second verification after buffer adjustment is 221,205 tCO_2e**

Therefore, the final result of the VCU´s generated in the second verification after buffer adjustment is 221,205 tCO_2e as depicted in this image from the summary Ex-post calculations[77].

Quantifications of net change in carbon stocks for the current monitoring period

Vintage Year	Baseline emissions or removals (tCO_2e)	Project removals (tCO_2e)	Leakage emissions (tCO_2e) Already accounted in ER Ct	VCUs past verification (tCO2e)	Net GHG emission reductions or removals (tCO_2e) second verification	Buffer pool allocation (tCO2e)	VCUs eligible for issuance (tCO2e)	Number of days for vintage year (from start of the monitoring period)	Key dates
2016-2020 to 01/11-2020	0			220414					First verification period 24/03/2016-01/11/2020
2020	0	42092	15758		21466	2147	19319	60	Last verification (02/11/2020) - to the end of the year (31/12/2020)
2021	0	256061			130584	13058	117526	365	1 entire year (2021)
2022	0	183802			93734	9373	84361	262	From 1/01/2022 till the monitoring date: 19/09/2022
Total	**0**	**481955**	**15758**	**220414**	**245784**	**24579**	**221205**	**687**	total monitored days

(Note that leakage was not accounted in the summary because it was already accounted in the strata)

The relevant documents have been updated (**Action 1)** using this data:

- Ex-post calculations[78] (See picture above)
- MR[79](See picture below)

[77] 01_Supporting Information\Estimations\Ghana Ex-post 20022024 updated.xlsx
[78] 01_Supporting Information\Estimations\Ghana Ex-post 20022024 updated.xlsx
[79] Referring to the 20240209_Monitoring-Report_V4.3_MIRO Ghana ((Updated file: Miro Ghana VCS-monitoring-report-v4.2-final Updated 19 01 2024), section 5.5 Net GHG Emission Reductions and Removals

Table 19: Net GHG emissions for the second monitoring period.

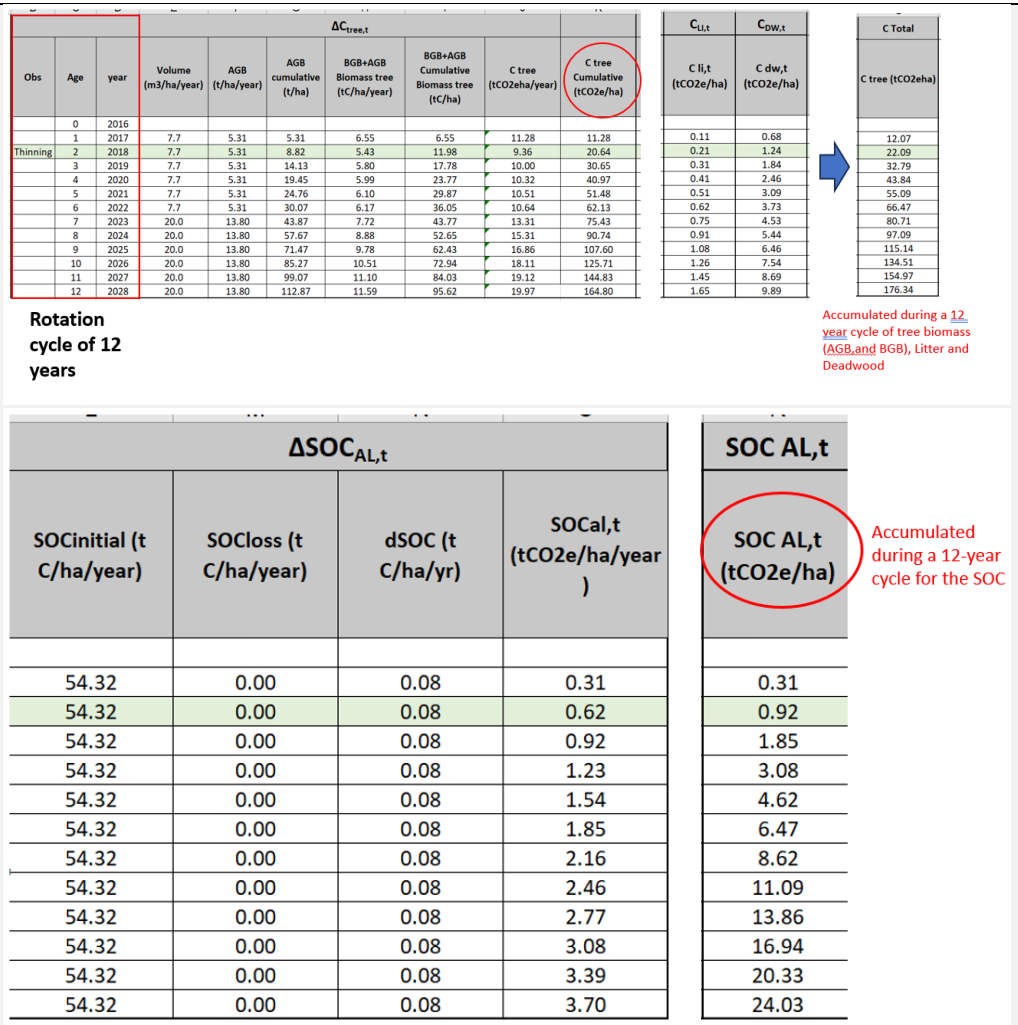
Year	Baseline emissions or removals (tCO_2e)	Project emissions or removals (tCO_2e)	Leakage emissions (tCO_2e)	VCUs past verification (tCO2e)	Net GHG emission reductions or removals (tCO_2e) second verification	Buffer pool allocation (tCO_2e)	VCUs eligible for issuance (tCO_2e)
24-03 2016 to 01-11-2020	0			220,414			
02-11-2020 to 31-12-2020	0	42,092			21,466	2,147	19,319
01-01-2021to 31-12-2021	0	256,061			130,584	13,058	117,526
01-01-2022 to 19-09-2022	0	183,802	15758		93,734	9,373	84,361
Total	**0**	**481,955**	**15758**		**245,784**	**24,579**	**221,205**

Note that, the leakage has been updated and discounted to the 1st verification and 2nd verification (summing a total of 15758 t CO_2e)[88] before the buffer adjustments per strata.

Issue 2.

The LTA ex-ante[80] was calculated by creating cycles of management for the Living biomass, litter Deadwood; and SOC. The tCO2e/ha for the cycle (See Images from example for Euc. pellita 12 years cycle) are calculated first for the Living biomass+litter+deadwood (First Image below), and for the SOC (2nd Image below).

[80] 01_Supporting Information\Estimations\Ghana Ex-ante UPDATED.xlms

$\Delta C_{tree,t}$									$C_{LI,t}$	$C_{DW,t}$	C Total
Obs	Age	year	Volume (m3/ha/year)	AGB (t/ha/year)	AGB cumulative (t/ha)	BGB+AGB Biomass tree (tC/ha/year)	BGB+AGB Cumulative Biomass tree (tC/ha)	C tree (tCO2eha/year)	C tree Cumulative (tCO2e/ha)	C li,t (tCO2e/ha)	C dw,t (tCO2e/ha)	C tree (tCO2eha)
	0	2016										
	1	2017	7.7	5.31	5.31	6.55	6.55	11.28	11.28	0.11	0.68	12.07
Thinning	2	2018	7.7	5.31	8.82	5.43	11.98	9.36	20.64	0.21	1.24	22.09
	3	2019	7.7	5.31	14.13	5.80	17.78	10.00	30.65	0.31	1.84	32.79
	4	2020	7.7	5.31	19.45	5.99	23.77	10.32	40.97	0.41	2.46	43.84
	5	2021	7.7	5.31	24.76	6.10	29.87	10.51	51.48	0.51	3.09	55.09
	6	2022	7.7	5.31	30.07	6.17	36.05	10.64	62.13	0.62	3.73	66.47
	7	2023	20.0	13.80	43.87	7.72	43.77	13.31	75.43	0.75	4.53	80.71
	8	2024	20.0	13.80	57.67	8.88	52.65	15.31	90.74	0.91	5.44	97.09
	9	2025	20.0	13.80	71.47	9.78	62.43	16.86	107.60	1.08	6.46	115.14
	10	2026	20.0	13.80	85.27	10.51	72.94	18.11	125.71	1.26	7.54	134.51
	11	2027	20.0	13.80	99.07	11.10	84.03	19.12	144.83	1.45	8.69	154.97
	12	2028	20.0	13.80	112.87	11.59	95.62	19.97	164.80	1.65	9.89	176.34

Rotation cycle of 12 years

Accumulated during a 12 year cycle of tree biomass (AGB,and BGB), Litter and Deadwood

$\Delta SOC_{AL,t}$				SOC AL,t
SOCinitial (t C/ha/year)	SOCloss (t C/ha/year)	dSOC (t C/ha/yr)	SOCal,t (tCO2e/ha/year)	SOC AL,t (tCO2e/ha)
54.32	0.00	0.08	0.31	0.31
54.32	0.00	0.08	0.62	0.92
54.32	0.00	0.08	0.92	1.85
54.32	0.00	0.08	1.23	3.08
54.32	0.00	0.08	1.54	4.62
54.32	0.00	0.08	1.85	6.47
54.32	0.00	0.08	2.16	8.62
54.32	0.00	0.08	2.46	11.09
54.32	0.00	0.08	2.77	13.86
54.32	0.00	0.08	3.08	16.94
54.32	0.00	0.08	3.39	20.33
54.32	0.00	0.08	3.70	24.03

Accumulated during a 12-year cycle for the SOC

After, the planted areas (past and future) are used to calculate the total number of tCO2e for the planting year (In the picture below it is shown the calculations for the living biomass+litter+deadwood accumulation in t CO2e but for the SOC is the same procedure)

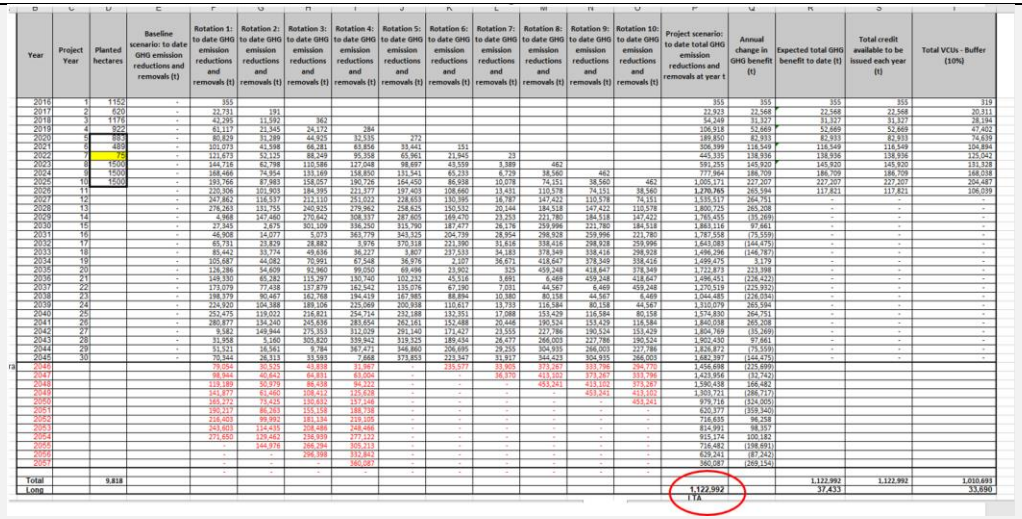
Year	Year project	Year plantation	Eligible area	Strata 1 planted in 2016	Strata 2 planted in 2017	Strata 3 planted in 2018	Strata 4 planted in 2019	Strata 5 planted in 2020	Strata 6 planted in 2021	Strata 7 planted in 2022	Strata 8 planted in 2023	Strata 9 planted in 2024	Strata 10 planted in 2025	Total year Tons	Total BGB+LW +DW+S OC
2016	1	0	611	0										0	188
2017	2	1	386	7378	0									7,378	7873
2018	3	2	717	13501	4661	0								18,162	19186
2019	4	3	344	20043	8529	8659	0							37,230	38888
2020	5	4	306	26794	12661	15845	4150	0						59,450	61836
2021	6	5	79	33670	16926	23522	7595	3699	0					85,412	88551
2022	7	6	13	40630	21269	31445	11274	6770	957	0				112,345	116240
2023	8	7	900	49333	25666	39515	15071	10050	1751	152	0			141,538	146467
2024	9	8	900	59343	31164	47682	18939	13435	2599	278	10864	0		184,305	190546
2025	10	9	900	70371	37488	57896	22854	16883	3474	413	19881	10864	0	240,124	247953
2026	11	10		82212	44454	69645	27750	20373	4366	552	29514	19881	10864	309,609	319027
2027	12	11		94718	51934	82586	33381	24736	5269	694	39454	29514	19881	382,167	393173
2028	13	12		107780	59834	96483	39583	29756	6397	838	49579	39454	29514	459,219	471813
2029	14	0		0	68085	111161	46244	35285	7695	1017	59827	49579	39454	418,349	432532
2030	15	1		7378	0	126490	53279	41223	9125	1224	72643	59827	49579	420,768	436539
2031	16	2		13501	4661	0	60626	47494	10661	1451	87384	72643	59827	358,248	375608
2032	17	3		20043	8529	8659	0	54043	12283	1695	103622	87384	72643	368,900	387848
2033	18	4		26794	12661	15845	4150	0	13976	1953	121058	103622	87384	387,443	407979
2034	19	5		33670	16926	23522	7595	3699	0	2222	139474	121058	103622	451,788	473913
2035	20	6		40630	21269	31445	11274	6770	957	0	158707	139474	121058	531,584	555297
2036	21	7		49333	25666	39515	15071	10050	1751	152	0	158707	139474	439,719	465021
2037	22	8		59343	31164	47682	18939	13435	2599	278	10864	0	158707	343,012	369902
2038	23	9		70371	37488	57896	22854	16883	3474	413	19881	10864	0	240,124	268603
2039	24	10		82212	44454	69645	27750	20373	4366	552	29514	19881	10864	309,609	339676
2040	25	11		94718	51934	82586	33381	24736	5269	694	39454	29514	19881	382,167	413823
2041	26	12		107780	59834	96483	39583	29756	6397	838	49579	39454	29514	459,219	492463
2042	27	0		0	68085	111161	46244	35285	7695	1017	59827	49579	39454	418,349	453181
2043	28	1		7378	0	126490	53279	41223	9125	1224	72643	59827	49579	420,768	457189
2044	29	2		13501	4661	0	60626	47494	10661	1451	87384	72643	59827	358,248	396257
2045	30	3		20043	8529	8659	0	54043	12283	1695	103622	87384	72643	368,900	408497

Final values per year of all the C pools

Total tonnes (CO_2eq) per plantation per year

Accumulated of all plantations per year

The same procedure is repeated for all the species (See individual species tabs) in the project and the total values are summed for all the project. Despite the crediting period ends in 2045 (30/06/2045) the LTA is calculated as the average of all the project length (from 2016 till 2057) (See figure below)



Year	Project Year	Planted hectares	Baseline scenario: to date GHG emission reductions and removals (t)	Rotation 1: to date GHG emission reductions and removals (t)	Rotation 2: to date GHG emission reductions and removals (t)	Rotation 3: to date GHG emission reductions and removals (t)	Rotation 4: to date GHG emission reductions and removals (t)	Rotation 5: to date GHG emission reductions and removals (t)	Rotation 6: to date GHG emission reductions and removals (t)	Rotation 7: to date GHG emission reductions and removals (t)	Rotation 8: to date GHG emission reductions and removals (t)	Rotation 9: to date GHG emission reductions and removals (t)	Rotation 10: to date GHG emission reductions and removals (t)	Project scenario: to date total GHG emission reductions and removals at year t	Annual change in GHG benefit (t)	Expected total GHG benefit to date (t)	Total credit available to be issued each year (t)	Total VCUs - Buffer (10%)
2016	1	1152	-	355										355	355	355	355	319
2017	2	620	-	22,731	191									22,923	22,568	22,568	22,568	20,311
2018	3	1176	-	42,295	11,592	382								54,249	31,327	31,327	31,327	28,194
2019	4	922	-	61,117	21,345	24,172	284							106,918	52,669	52,669	52,669	47,402
2020	5	883	-	80,829	31,289	44,925	32,535	272						189,850	82,933	82,933	82,933	74,639
2021	6	489	-	101,073	41,598	66,281	63,856	33,441	151					306,399	116,549	116,549	116,549	104,894
2022	7	75	-	121,873	52,125	88,249	95,358	65,961	21,945	23				445,535	138,936	138,936	138,936	125,042
2023	8	1500	-	144,716	62,798	110,586	127,048	98,697	43,559	3,389	462			591,255	145,920	145,920	145,920	131,328
2024	9	1500	-	168,466	74,954	133,169	158,850	131,541	65,233	6,729	38,560	462		777,964	186,709	186,709	186,709	168,038
2025	10	1500	-	193,766	87,983	158,057	190,726	164,450	86,938	10,078	74,151	38,560	462	1,005,171	227,207	227,207	227,207	204,487
2026	11		-	220,306	101,903	184,395	221,377	197,403	108,660	13,431	110,578	74,151	38,560	1,270,765	265,594	117,821	117,821	106,039
2027	12		-	247,862	118,537	212,110	251,022	228,653	130,395	16,787	147,422	110,578	74,151	1,535,517	264,751	-	-	-
2028	13		-	276,263	131,755	240,925	279,962	258,625	150,532	20,144	184,518	147,422	110,578	1,800,725	265,208	-	-	-
2029	14		-	4,968	147,480	270,642	308,337	287,805	169,470	23,253	221,780	184,518	147,422	1,765,455	(35,269)	-	-	-
2030	15		-	27,345	2,875	301,109	336,250	315,790	187,477	26,176	259,996	221,780	184,518	1,863,116	97,661	-	-	-
2031	16		-	46,908	14,077	5,073	363,779	343,325	204,739	28,954	298,928	259,996	221,780	1,787,558	(75,559)	-	-	-
2032	17		-	65,731	21,829	28,882	3,976	370,318	221,390	31,616	338,416	298,928	259,996	1,643,083	(144,475)	-	-	-
2033	18		-	85,442	33,774	49,636	36,227	3,807	237,533	34,183	378,349	338,416	298,928	1,496,296	(146,787)	-	-	-
2034	19		-	105,687	44,082	70,991	67,548	36,976	2,107	36,671	418,647	378,349	338,416	1,499,475	3,179	-	-	-
2035	20		-	126,286	54,609	92,960	99,050	69,496	23,902	325	459,248	418,647	378,349	1,722,873	223,398	-	-	-
2036	21		-	149,330	65,282	115,297	130,740	102,232	45,516	3,891	6,469	459,248	418,647	1,496,451	(226,422)	-	-	-
2037	22		-	173,079	77,438	137,879	162,542	135,076	67,190	7,031	44,567	6,469	459,248	1,270,519	(225,932)	-	-	-
2038	23		-	198,379	90,467	162,768	194,419	167,985	88,894	10,380	80,158	44,567	6,469	1,044,485	(226,034)	-	-	-
2039	24		-	224,920	104,388	189,106	225,069	200,938	110,617	13,733	116,584	80,158	44,567	1,310,079	265,594	-	-	-
2040	25		-	252,475	119,022	216,821	254,714	232,188	132,351	17,088	153,429	116,584	80,158	1,574,830	264,751	-	-	-
2041	26		-	280,877	134,240	245,636	283,654	262,161	152,488	20,446	190,524	153,429	116,584	1,840,058	265,208	-	-	-
2042	27		-	9,582	149,944	275,353	312,029	291,140	171,427	23,555	227,786	190,524	153,429	1,804,769	(35,269)	-	-	-
2043	28		-	31,958	5,160	305,820	339,942	319,325	189,434	26,477	266,003	227,786	190,524	1,902,430	97,661	-	-	-
2044	29		-	51,321	16,561	9,784	367,471	346,860	206,695	29,255	304,935	266,003	227,786	1,826,872	(75,559)	-	-	-
2045	30		-	70,344	28,313	33,593	7,668	373,853	223,347	31,917	344,423	304,935	266,003	1,682,397	(144,475)	-	-	-
2046				79,054	30,525	43,838	31,767	-	235,577	33,905	373,267	333,786	294,770	1,456,698	(225,699)			
2047				98,944	40,642	64,831	63,004	-	-	36,370	413,102	373,267	333,786	1,423,956	(32,742)			
2048				119,189	50,979	86,408	94,222	-	-	-	453,241	413,102	373,267	1,590,438	166,482			
2049				141,877	61,460	108,412	125,628	-	-	-	-	453,241	413,102	1,303,721	(286,717)			
2050				165,272	73,425	130,632	157,146	-	-	-	-	-	453,241	979,716	(324,005)			
2051				190,217	86,293	155,158	188,738	-	-	-	-	-	-	620,377	(359,340)			
2052				216,603	99,992	181,134	219,105	-	-	-	-	-	-	716,835	96,458			
2053				243,603	114,435	208,486	248,486	-	-	-	-	-	-	814,991	98,157			
2054				271,650	129,462	236,939	277,122	-	-	-	-	-	-	915,174	100,182			
2055				-	144,976	266,294	305,213	-	-	-	-	-	-	716,482	(198,691)			
2056				-	-	296,398	332,842	-	-	-	-	-	-	629,241	(87,242)			
2057				-	-	-	360,087	-	-	-	-	-	-	360,087	(269,154)			
Total		9,818		-	-	-	-	-	-	-	-	-	-			1,122,992	1,122,992	1,010,693
Long														1,122,992 LTA		37,433		33,690

The value of the LTA (Ex-ante[81]) is 1,122,992 tCO_2e (See Image above inside of the red circle).

This value has been updated in the MR[82] (See Image below) and VR.

[81] 01_Supporting Information\Estimations\Ghana Ex-ante UPDATED.xlms

[82] Referring to the Referring to the 20240209_Monitoring-Report_V4.3_MIRO Ghana (Updated file: Miro Ghana VCS-monitoring-report-v4.2-final Updated 19 01 2024), section 5.3. Project Emissions Calculation of tCERs and lCERs

Calculation of tCERs and lCERs

According to the standard requirements, for those projects where harvesting practices are contemplated on project activities, the loss of carbon due to harvesting shall be included in the quantification of the project emissions. Due to the project activities contemplate an increment on project area with different rotation periods per specie, the long-term average (LTA) GHG benefit was calculated as follows:

$$LA = \frac{\sum_{t=0}^{n} PE_t - BE_t}{n}$$

Where:

LA The long-term average GHG benefit

62

PEt The total to-date GHG emission reductions and removals generated in the project scenario (tCO_2e). Project scenario emission reductions and removals shall also consider project emissions of CO_2, N_2O, CH_4 and leakage.

BEt The total to-date GHG emission reductions and removals projected for the baseline scenario (tCO_2e). Accounted

t Year.

n Total number of years in the established time-period

The LTA[72] was calculated accounting a total of 1,122,992 tCO2e. As the rotation cycles have not changed during the 2nd verification the only data modified (compared to the 1st verification) was the addition of the new planted areas to the project.

Given that the current total VCUs from the second verification is 481,955 tCO_2e

(total carbon in 2022 from the ex-post[83]- See image below)

Total Carbon by 2022 (ton/strata)
30964
59770
30116
25829
18560
35615
6154
10559
2729
25639
45136
16675
23996
892
5474
24712
109463
6938
1116
1317
301
481955

Therefore the space till reaching the LTA is 641,037 tCO_2eq (1,122,992 - 481,955) before applying the leakage or buffer discounts. Therefore, the LTA has

[83] 01_Supporting Information\Estimations\Ghana Ex-post 20022024 updated.xlsx

		not been reached in the current verification (**Action 2**). VVB Response (Pending) The inconsistency in the report with respect to values are corrected. The LTA is updated under section 4.4 of FVR .	
		Verra Response The VVB confirms the information on VCUs generated in the second verification is accurate and that it has been reported consistently throughout the different project documents. The VVB considers that the LTA reported is correct and has not been reached.	

Table 3. (Finding 4) MAI tab in the ex-ante Excel file. This tab contains the updated MAI taking into account the growth for the first 6 years obtained from the ex-post calculations.

G9 Data from a plantation in Sierra Leone

N°	Species	Common name	Age range	MAI	Reference	Comment	Link
1	*Eucalyptus pellita*	Eucalyptus	0-6	7,7	From Ex Post calculations 2022	Data from plantation in Ghana	Supporting can be found in the ex-post estimation sheet
			from 6 years ontward	20,0	Yepes et al. (2011). Protocol for national and subnational biomass-Carbon estimation in Colombia. Table 11.	There was not found information specifical for the country or for the region. This value was selected considering the study area similarities with the project area	http://www.ideam.gov.co/documents/13257/13548/Protocolo+para+la+estim
2	*Acacia mangium*	Acacia	0-6	15,2	From Ex Post calculations 2022	Data from plantation in Ghana	Supporting can be found in the ex-post estimation sheet
			from 6 years ontward	26,0	Yepes et al. (2011). Protocol for national and subnational biomass-Carbon estimation in Colombia. Table 11.	There was not found information specifical for the country or for the region. This value was selected considering the study area similarities with the project area	http://www.ideam.gov.co/documents/13257/13548/Protocolo+para+la+estim
3	*Corymbia citriodora*	Corymbia	0-6	15,8	From Ex Post calculations 2022	Data from plantation in Ghana	Supporting can be found in the ex-post estimation sheet
			from 6 years ontward	16,0	FAO - Forest Resources of Tropical Africa (The MAI value employed is an average between 12 and 20 m3/ha/yr)	Information for Tropical Africa (The document names Eucalyptus citriodora. This species is synonym of Corimba citriodora). MAI Ranges from 12 to 20 m3/ha/yr. A value of 12 was taken to be	http://www.fao.org/3/ad909e/AD909E09.htm
4	*Gmelina arborea*	Gmelina	0-6	36,4	From Ex Post calculations 2022	Data from plantation in Ghana	Supporting can be found in the ex-post estimation sheet
			from 6 years ontward	13,7	UST, P. (1994). Growth and biomass production of Gmelina arborea in conventional plantations in Ghana. Ghana Journal of Forestry, 1, 5.	Data from a plantation in Sierra Leone	https://fornis.net/sites/default/files/documents/growth_biomass_production.p
5	*Tectona grandis*	Teak Gr1 (0-5yr)	0-6	10,1	From Ex Post calculations 2022	Data from plantation in Ghana	Supporting can be found in the ex-post estimation sheet
			from 6 years ontward	10,3	Mattia, S. B., & Sesay, S. (2020). Ground Forest Inventory and Assessment of Carbon Stocks in Sierra Leone, West Africa. In Natural Resources Management and Biological Sciences. IntechOpen.	Data from a plantation in Sierra Leone	https://www.intechopen.com/online-first/ground-forest-inventory-and-assess
			0-6	17,1	From Ex Post calculations 2022	Data from plantation in Ghana	Supporting can be found in the ex-post estimation sheet

1. Index | 2. DB | 3. GIS_strata | 4. MAI | 5. KeyData | 6. Euc. pellita | 7. Aman | 8. Gmel | 9. Teak

SUM of Area_ha	Year			
Spec	2020	2021	2022	Grand
Aman	4.735488			4.735488
ctor		3.191058		3.191058
Edgl	3.264373	3.066532		6.330905
Egxu	193.007779	66.902645	11.515583	271.426007
Emix	2.543481	7.375991	1.087089	11.006561
Epel	60.887755	0.958175		61.84593
Euro	46.766485	0.954508		47.720993
GMEL	571.666154	402.519767	62.732729	1036.91865
Pmixed		1.439967		1.439967
Spar		2.234		2.234
Grand Total	**882.871515**	**488.642643**	**75.335401**	**1446.84956**

Updated information from the 2nd verification (real planted areas)

(For more information see: 01_Supporting information/GIS, Enumerations and Land Information/GIS Eligibility analysis/03_Documents/20220901_Miro_Ghana_2daVerification

Tab 4. GIS_Strata

Year	Project Year	Planted hectares	Baseline scenario: to date GHG emission reductions and removals (t)
2016	1	1152	-
2017	2	620	-
2018	3	1176	-
2019	4	922	-
2020	5	883	-
2021	6	489	-
2022	7	75	-
2023	8	1500	-
2024	9	1500	-
2025	10	1500	-
2026	11		-
2027	12		-
2028	13		-
2029	14		-

Tab 12. LTA

Figure 3. (Finding 4) Ex-ante UPDATED file tabs showing the real plantation areas

5	**Insufficient evidence for zero leakage assumption**		
	Issue	**Round 1**	Closed

	1. It is unclear how the project can be reasonably assumed to have zero leakage if the baseline scenario is subsistence agriculture. Action Required 1. The VVB must describe what evidence was assessed to determine that the project has zero leakage. 2. The VVB must assess the evidence and determine if it can be reasonably assumed that the project will not displace agricultural activity. Otherwise, the VVB must ensure leakage is calculated according to *CDM AR-Tool 15, v2.0.* Program Rule(s) *CDM AR-Tool 15, v2.0,* Para 9-11	PP response: The leakage was not expected to happen due to activity shifting in the reserves because of several reasons: ● First, Ghana's policy prohibits[84] farming activities within the reserves, even the regulation was not perfectly enforced and some farmers were found illegally inside the reserves. This situation is less common than in other areas that do not have this legal protection. ● Second, the leakage caused by people moving into the project area is limited because of (i) the prohibition to do farming activities in the reserves, and (ii) the easier way to develop a farm outside of them, because it is composed of grasses that farmers tend to burn and start new crops[85]. ● Third, even with the non-legal situation of the farming activity within the reserves Miro design the following measures to reduce the activity displacement to other lands: ○ The agreements made between the landowners and the forest reserves and Ghana's Forestry Commission, including the intercropping activities. Therefore, some of the farmers employed by the company have legal access to land and can benefit the local communities with the land leasing and benefits agreement. One of the measures Miro planned to implement is to develop agroforestry schemes such as controlled intercropping within its allocated areas. These would happen in small patches where tree planting is not occurring and could help the small subsistence farming, always under the permission of the Forestry commission and strict monitoring[86].	

[84] Supporting documents/PO Information/ MFC Land Development - Identifying People at Risk Ghana 2020.03.12

[85] Referring to PDD Miro Ghana, in section 1.17.
[86] Referring to PDD Miro Ghana in section 2.3. Environmental Impact (Main outcomes from the ESIA), from the file Final Environmental Impact Statement for Proposed Reforestation of 5,000 hectares of Degraded Forest Lands in Boumfoum Forest Reserve, Near Agogo, Ashanti.

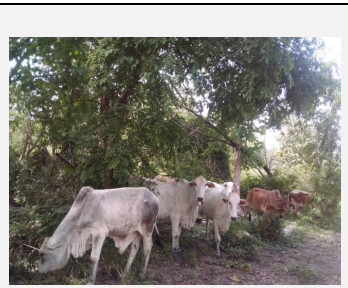
	Background VCS Project 2410, Project Description, Section 3.4: The subsistence agriculture, which was a common practice before the project, will continue to exist even if it is not permitted under the current denomination of the land as a forestry reserve. The subsistence agriculture is one of the most important economic activities that can be developed by rural communities that do not have access to other livelihood and development opportunities.	○ Miro Forestry has policies that contribute to leakage management trough stakeholder engagement: ■ Miro Forestry also has a Grievance Mechanism[87] that provides an open and neutral mechanism for grievances to be raised and ensures appropriate mechanisms to aim to resolve any disputes[88]. ■ The company made efforts to identify the subsistence farmers within the reserve but it was a difficult challenge, as the farmers will probably disappear and remain scarce, as they know they are illegally present in the reserve. Miro Forestry has to date engaged more than 20 percent of households within the 20 km boundary and all communities regularly engaged[89]. Note that concerning the presence of cattle in the Forest Reserves, the Fulani[90] a nomad herdshed group from Burkina Faso. Miro ensured that the Fulani can still move through the area with no negative impact to Miro seedlings by going through the more mature compartments. This activity will not lead to any leakage because the grazing activities are not permanent but seasonal, and since they still take place within the project area. This can be demonstrated as Miro records[91] their presence in the project area and it has not decreased. Therefore, none of the conditions of the AR Tool 15 apply to the project because this activity has been present and still exist in the project without influencing the plantation.	

[87] Supporting documents/PO Information/ ESIA/MFC Grievance Procedure 2020 external small.pdf
[88] Supporting documents/EHSS and Reports/MFGH ESIA Awura Chirimfa Reforestation Project 2018
[89] Referring to NPRR, in section 2. External risk (Community engagement)
[90] https://en.wikipedia.org/wiki/Fula_people
[91] See supporting information on: Supporting Information\PO Information\ESIA\Grazing

		VVB Response The assessment of Leakage has now been revised and attuned based on Verra observations and now 2 main activities that occurred in the pre-project scenario have been considered for any Leakage calculation- cattle ranching and small-scale subsistence agriculture. From above 2 only the small-scale subsistence agriculture is considered for leakage due to activity displacement to other lands outside of the project area. The first (cattle ranching), does not cause any leakage because this activity has not been displaced. Verification team has assessed the statement by PP and recalculation OF Leakage is deemed to be conservative approach. As per the clarification and supporting evidences provided by the PP and as per the applied methodology validation team confirms that the leakage calculation emission is conservative nature. Verra Response The VVB assessed the evidence for cattle and agricultural activity and identified leakage of 7,879 tco_2e from 193.55 ha of intercropping areas susceptible to displacement. These data are included now in the verified GHG emission reductions and removals for the current verification period. However, this finding cannot be closed. Issue: 1. Per Section 4.4 of the verification report, leakage from displacement of cattle ranching has been assessed through a statement by PP. It is unclear how independency has been guaranteed. 2. There is a risk that implementing the proposed leakage mitigation measures will not be assessed by the VVB, considering sections 6 and 7 of the AR-TOOL 15 v02.0 do not have provisions for monitoring leakage mitigation measures. Action Required: 1. The VVB must justify how independency is guaranteed using the PP statement to assess leakage from the displacement of cattle ranching. 2. The VVB must raise a FAR requiring that the leakage mitigation measures proposed by the project are assessed by the VVB at subsequent verifications. Program Rule(s) *CDM AR-Tool 15, v2.0,* Para 9-11	

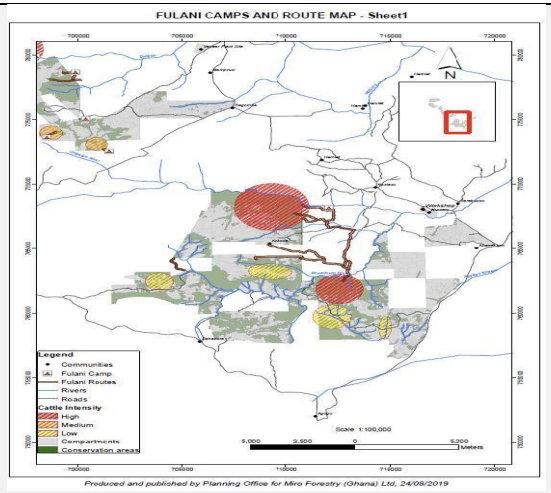
		Round 2 PP Response **Issue 1** Regarding the displacement of cattle ranching, there is cattle grazing with the presence of Fulani, a nomad herd shed group from Burkina Faso that moves their cattle inside of degraded Forest Reserves under Miro Forestry permission. As explained in the Leakage report[92]: • The nomadic cattle herdsmen (popularly known as the Fulani) also use the reserve as a grazing area for their cattle[93]. Cattle guards keep the cattle away from the young trees and Miro inform the Fulani where they can move where the trees are mature (See first 3 pictures below) with no negative impact on Miro seedlings (See CAR 3 and/or Section 2.1. No net harm in Open grazing animals section to see more records, some images of cattle inside mature compartments below). Forest guards are currently employed to assist with security by patrolling the reserve (See 4th and 5th pictures below: security personnel on duty in a compartment (to the right) and security point at the entrance (to the left)) and guide the Fulani through these more mature compartments.	

[92] 01_Supporting Information\Estimations\Leakage\Leakage Miro Ghana 2nd verification.pdf
[93] 01_Supporting Information\PO Information\EHSS and Reports\Adaptive_Management_Plan_2019.pdf




- Furthermore, these activities are not linked to the forest reserve areas because it is not permanent but seasonal activity. So during the times of the year when the Fulani crosses the project area, Miro provides them a route to not cause harm to the trees but without displacing their movement across the reserves. For that a map (See Image below) was created where this seasonal routes take place and where the cattle intensity is concentrated (See CAR 3 and the map[94] in Section 2.1. No net harm in Open grazing animals sub section for more information) showing evidence of them moving inside the reserves.

[94] 01_Supporting Information\PO Information\ESIA\Fulani routes 2019



Therefore this proves that the activity is not shifting anywhere and it is continuing on the same land. Furthermore, there is no displacement of grazing activities, since these activities are not permanent but seasonal, and when it happens inside of the project area (as depicted on the map above) Miro allow them to cross the reserves as explained above. It can be concluded there will be no leakage due to cattle ranching (**Action 1).**

As stated the leakage was assessed using the AR-TOOL 15[95] applied to the project (**Excel file**)[96] together with a **report**[97]. The final value is a total of 15757 t CO2 eq (See Image below).

[95] AR-TOOL15 A/R Methodological tool: Estimation of the increase in GHG emissions attributable to displacement of pre-project agricultural activities in A/R CDM project activity Version 02.0
[96] 01_Supporting Information\Estimations\Leakage\Leakage_Miro_Ghana.xlsx
[97] 01_Supporting Information\Estimations\Leakage\Leakage Miro Ghana 2nd verification.pdf

Final results

The final leakage due to agricultural activities considering a 10% of the activity shifting data would have been displaced to the surrounding lands is:

Equation	Eq (2)	Eq (3)	Eq (1)
Parameter	**$\Delta C_{Biomass,t}$**	**$\Delta SOC_{LUC,t}$**	**$LK_{AGRIC,t}$**
Value	3770	527	**15757**

				10%		Eq (2)	Eq (3)	Eq (1)
Name	**Planting Year**	**Eligibility**	**Area (Ha)**	**A disp (Ha)**	**Strata**	**ΔCBiomass,t**	**ΔSOCLUC,t**	**LKAGRIC,t**
Acacia	2016	Eligible	183.6	18.4	1.1	178.8	25.0	747.4
Eucalyptus	2016	Eligible	611.2	61.1	1.2	595.2	83.3	2488.0
Teak	2016	Eligible	227.1	22.7	1.3	221.2	30.9	924.5
Corymbia	2016	Eligible	130.2	13.0	1.4	126.8	17.7	530.0
Acacia	2017	Eligible	129.4	12.9	2.1	126.0	17.6	526.8
Eucalyptus	2017	Eligible	386.1	38.6	2.2	376.0	52.6	1571.7
Gmelina	2017	Eligible	6.8	0.7	2.3	6.6	0.9	27.7
Teak	2017	Eligible	48.4	4.8	2.4	47.1	6.6	197.0
Corymbia	2017	Eligible	49.7	5.0	2.5	48.4	6.8	202.3
Acacia	2018	Eligible	188.0	18.8	3.1	183.1	25.6	765.3
Eucalyptus	2018	Eligible	717.3	71.7	3.2	698.5	97.7	2919.9
Teak	2018	Eligible	56.4	5.6	3.3	54.9	7.7	229.6
Gmelina	2018	Eligible	77.2	7.7	3.4	75.2	10.5	314.3
Corymbia	2018	Eligible	131.1	13.1	3.5	127.7	17.9	533.7
Other sp	2018	Eligible	6.4	0.6	3.6	6.2	0.9	26.1
Acacia	2019	Eligible	33.3	3.3	4.1	32.4	4.5	135.6
Eucalyptus	2019	Eligible	343.8	34.4	4.2	334.8	46.8	1399.5
Teak	2019	Eligible	17.4	1.7	4.3	16.9	2.4	70.8
Gmelina	2019	Eligible	511.0	51.1	4.4	497.6	69.6	2080.2
Corymbia	2019	Eligible	13.6	1.4	4.5	13.2	1.9	55.4
Other sp	2019	Eligible	2.9	0.3	4.6	2.8	0.4	11.8
	TOTAL		**3871**	**387**		**3770**	**527**	**15757**

Plantation Year areas	Sum of LKAGRIC,t
Plantation areas in 2016	4689.9
Plantation areas in 2017	2525.5
Plantation areas in 2018	4788.8
Plantation areas in 2019	3753.2
TOTAL	**15757.5**

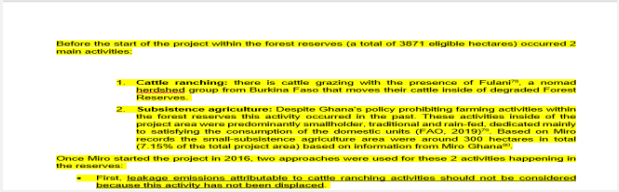
The Leakage section (5.4) in the MR[98] has been updated accordingly.

5.4 Leakage

➢ **Introduction**

The project is located in Ghana's Ashanti region, in the Asante Akim North, Sekyere East and Sekyere West districts. The most common land uses are agriculture (39.76%), degraded forest (22.91%) and savannah (22.86%)[74]. These land uses are connected trough a mosaic in the landscape.

[77] Supporting information/Estimations/Ghana Ex-ante UPDATED.xlms
[74] Supporting information/Estimations/Fire Report and Analysis Ghana
[75] Supporting information/Estimations/ Ghana Ex-post
[76] Supporting information/Estimations/ Ghana Ex-post
[74] Khan, Sazzad. (2019). ASHANTI REGION IN GHANA Köln, 2020 PROJECT I REPORT CONTENT.



Before the start of the project within the forest reserves (a total of 3871 eligible hectares) occurred 2 main activities:

1. **Cattle ranching:** there is cattle grazing with the presence of Fulani[74], a nomad herdsher group from Burkina Faso that moves their cattle inside of degraded Forest Reserves.
2. **Subsistence agriculture:** Despite Ghana's policy prohibiting farming activities within the forest reserves this activity occurred in the past. These activities inside of the project area were predominantly smallholder, traditional and rain-fed, dedicated mainly to satisfying the consumption of the domestic units (FAO, 2019)[75]. Based on Miro records the small-subsistence agriculture area were around 300 hectares in total (7.15% of the total project area) based on information from Miro Ghana[76].

Once Miro started the project in 2016, two approaches were used for these 2 activities happening in the reserves:

- First, leakage emissions attributable to cattle ranching activities should not be considered because this activity has not been displaced.

Issue 2.
The only activity that was displaced was the subsistence farming (measured in hectares of subsistence farming inside of the reserve before the project starts). It was calculated for the planting areas under the current verification (3,871 ha[99]). As the project forecast in the future is to reach approximately 14,000 ha[100]. Therefore the new areas to the project need to monitor the hectares of subsistence farming happening inside of them before the plantation starts, to afterwards calculate the leakage due to activity displacement.
Because of that, a new monitoring parameter was added to the MR[101], below

[98] Referring to the 20240209_Monitoring-Report_V4.3_MIRO Ghana, in section 5.4 Leakage
[99] 01_Supporting Information\Estimations\Ghana Ex-ante UPDATED.xlms

[100] Referring to PDD Miro Ghana, in section 1.11
[101] Referring to the 20240209_Monitoring-Report_V4.3_MIRO Ghana, in section 4.2.

see the table depicted (**Action 2**):

Data / Parameter	Subsistence farming activity displaced $A_{\text{disp.subistence farming}}$
Data unit	Hectares (ha)
Description	Total area of subsistence farming displaced before the plantation starts
Source of data	PP field monitoring
Description of measurement methods and procedures to be applied	It will be measured by field identification by the PP, stakeholder consultations. After aerial maps would be used to complement this information
Frequency of monitoring/recording	Every time that new areas included in the verification are planted
Value monitored	Variable (always in hectares)
Monitoring equipment	-
QA/QC procedures to be applied	Cross-checking the information collected on the field with aerial maps
Purpose of the data	This parameter is measured for the leakage calculation.
Calculation method	N/A
Comments	N/A

VVB Response

FAR are raised for monitoring leakage from agriculture land expansion and also from the illegal cattle incidents

Section 4.4 under leakage is detailed out – how audit team has cross verified the controls established for cattle grazing. Audit team also had interactions with the

		guards, employees and cowboy regarding the cattle grazing. Audit team had also check the mitigation measures established by the Miro on site of capturing the illigal activities. Thus FAR is estabilished to ensure the monitoring at each subsiquent verifications.	
		Verra Response The VVB confirms the leakage from displacement of cattle ranching has been assessed independently. A FAR (03) has been raised in the VR for subsequent verifications.	

6	**Clarification is needed on the sampling approach**		
	Issue 1. Under Section 2.4 of the VR, it is unclear how the VVB has guaranteed the sample's representativeness in quality without interviewing the community stakeholders. 2. It is unclear how the random selection of the PP's established permanent sample plots (PSPs) guarantees the independency of the audit. Action Required 1. The VVB must justify how the sample's representativeness in	**Round 1** VVB Response 4. The validation team interviewed the community stakeholder during the on-site assessment and same has been stated in the verification report. Interviews with stakeholders were done and the details have been reported in FVR under sec 2.4.	Closed

Dates:	Audit team: Ms. Shikha Sharma Ms. Shilpa Swarnim	
Key points discussed:	**Name of person, interviewed**	**Designation, Organization**
VCS requirements, Operational data, Field assessment data	Graeme Harrison:	Planning Manager , Miro Forestry
	Dennis Abiba:	Planning Forester, Miro Forestry

	quality was guaranteed without interviewing the community stakeholders. 3. The VVB must justify how the selection of sample plots guarantees the independency of the audit. Program Rule(s) *VCS VVB Manual, v3.2, Section 3.3.1.2, VCS Standard, v4.4*, Section 4.1	SOP Procedures Monitoring equipment, Data collection, storage, Archiving QA/QC procedures Training of monitoring personnel Calculation of ER	Moses Donbeina	Enumerator, Miro Forestry	
			Moro Tijani	Enumerator, Miro Forestry	
			Hugh Brown	Plantations Director, Miro Forestry	
			Ms. Maria Fernanda Buitrago Acevedo Mrs. Roxanne Chetty	South Pole Carbon Asset Management Ltd	
		Grievance procedure Ongoing grievances and communication with PP Project Implementation Grievance procedure Ongoing grievances and communication with PP	Dr Nana Agyei Frimpong Joshua Ayaba Afred Bagadu Lydia Mensah Nana Ankobiahene Nana manu Okyame yaw Amponsah Opani Kwaku Anane	Stakeholders Interviewed President, ASOKORE MAMPONG MUNICIPAL ASSEMBLY, Ghana Local stakeholders	
		5. Verification team did random sampling approach and identified 15 sample plots were sampled and selected form PP's established PSPs covering all 4			

stratums divisions which were visited and re-measured. The inspection of sample plots was done to assess the input values for calculations of ERs.

6. The following sampling plan was drawn covering all 4stratums divisions from PP's Permanent sampling plots.

Verra Response

The VVB confirmed that 15 random plots were selected from the PP's PSP based on covering 6 strata divisions. Also, the VVB clarified how the local stakeholders were taken into the sampling design through on-site interviews, which included ongoing grievances and communication with PP. However, this finding cannot be closed.

Location	Total areas for second verification (2020-2022)	Sample Plots identified by PP	Stratum division is based on year of plantation (As inferred from submitted draft MR)	Number of strata selected under each group	Number of Plots installed by PP under each stratum	Number of plots sampled by VVB (15) amongst the sample plots)	Total
GHANA	3871 ha	173	2016	1.1	10	1	4
				1.2	11	1	
				1,3	5	1	
				1.4	5	1	

					2017	2.1	5	0	4	
						2.2	22	0		
						2.3	8	1		
						2.4	5	1		
						2,5	5	2		
					2018	3.1	8	1	4	
						3.2	17	1		
						3.3	8	0		
						3.4	5	0		
						3.5	5	0		
						3.6	5	2		
					2019	4.1	5	2	3	
						4.2	12	1		
						4.3	5	0		
						4.4	19	0		
						4.5	5	0		
						4.6	3	0		
		Total			15 plots to be sampled form 173 sample plots covering all 6 stratums divisions.			15 plots to be sampled form 173 sample plots covering all 6 stratums divisions.		

		Issue: 1. It is unclear how the VVB selected the 15 plots sampled during this verification, considering there are 173 PSPs. 2. The criteria used by the VVB to choose the community members (local stakeholders) interviewed is unclear. Action Required: 1. The VVB must describe the sampling approach used to select the 15 sampled plots and the documents examined to confirm the accuracy and representativeness of that value. 2. The VVB must discuss how impartially was guaranteed in selecting the local stakeholders interviewed. Program Rules: *VCS Standard, v4.4*, Section 4.1.2 **Round 2** VVB Response The sampling approach has been explained in detail in the section 2.4. The verification team, guided by the standard (Sampling and surveys for CDM project activities and programmes programs of activities V 09.0, Section 6), employed a random sampling strategy, which is based on acceptance number, AQL, UQL, and producer and consumer risks. While the final sample size was determined to be 14, the VVB chose to use 15 (14+ 1) samples for a more conservative approach from PP's established 173 PSPs. The addition sampling of 1 was selected at the site visit to keep the independence in sampling and there is no influence from the external sources. Verra Response	

		The VVB clarified in the VR that the random sample approach utilized is conservative, reliable, and provides a reasonable level of assurance in sampling. The VR has been populated with discussion of how impartially was guaranteed in selecting the local stakeholders interviewed. This response is deemed sufficient, and the finding is closed.	