Rainforest Alliance and Corrie MacColl have partnered to carry out a complete supply chain greenhouse gas (GHG) balance assessment on Corrie MacColl's natural rubber plantations, Sudcam and Hevecam, in Cameroon. The main objective of this desk-based study was to develop a baseline and assess the carbon footprint of Corrie MacColl's operations in Cameroon, identify C reduction and removal opportunities within that and define potential opportunities for achieving net zero or carbon neutrality within Corrie MacColl's supply chain which could then be scaled and shared with the natural rubber sector more broadly.

The full report is accessible at: https://www.corrie-maccoll.com/wp-content/uploads/2020/11/Assessing-C-neutrality-opportunities_final.pdf

Scope and Method

Rubber supply chain stages considered within the assessment are cultivation, harvesting, processing and transport to port of export. Emissions associated with supply chain stages beyond the port of export fall outside of the boundaries of this carbon footprint study and are therefore excluded from the calculation. In addition, emissions stemming from past land-use changes (LUC) as well as current C stocks and GHG reductions in the form of avoided deforestation through continued forest protection have been taken into account as part of the assessment.

The assessment was carried out according to the PAS 2050:2011 specification for the assessment of the lifecycle greenhouse gas emissions of goods and services. Data collection occurred in the spring of 2020 and considers the data available at this time, which includes deforestation rates in Cameroon and circumstances that determine the concept of additionality.

Summary Findings

Estimated carbon sequestration in the existing rubber systems at both plantation sites far outweighed the GHG emissions associated with the cultivation and processing of rubber. However, when taking into account emissions from historical land use change this positive balance is quickly negated.

In Hevecam, C sequestration in rubber is around six times the value of the Carbon Footprint. Including land use change emissions we estimate an annual **net GHG balance of 19,843 tCO2e** (5,407 tC).

In Sudcam, the C sequestration rate in rubber is about 10 times the value of the Carbon Footprint. However, due to the large Carbon Footprint caused by land use change associated with the production areas the **annual net GHG balance is negative at -331,790 tCO2e** (-90,406 tC).

Nevertheless, large amounts of C are currently stored in the various land use systems that can be found within the concessions; both existing natural forests and HCVs being actively managed and protected by Corrie MacColl hold significant carbon stocks that contribute to climate mitigation and as such must continue to be protected due to this important benefit.

In recent years, Corrie MacColl has taken actions to implement proactive efforts to halt further land use change and degradation in this region, coupled with the intent to support and implement

activities that will lead to further climate benefits and, more broadly, ecosystem and livelihood resilience through their Outgrower Programme and Community Forest. These efforts are commendable and should be highlighted as a role model for the industry.

Results

The overall carbon footprint (CF) for Hevecam is estimated at 96,632 tCO_2e per year (26,330 tC/yr) which equates to 4.45 tCO_2e/ha/yr (1.21 tC/ha/yr) across the land use systems that are associated with the production of rubber (around 21,725 ha in total) or around 3.42 tCO_2e/tonne of rubber/yr. Around 80% of the total area CF are made up of LUC emissions, due to the past conversion of forest areas to rubber plantation.

For Sudcam, the overall CF is estimated at 413,883 tCO_2e per year (112,775 tC/yr) which equates to 41.90 tCO_2e/ha/yr (11.42 tC/ha/yr) across the land use systems that are associated with the production of rubber (around 9,877 ha in total) or around 43.69 tCO_2e/tonne of rubber/yr. 98% of the total footprint are made up of historic LUC emission alone.

Recommendations

Rainforest Alliance has recommended the following opportunities to further create positive climate impact for Corrie MacColl to consider:

- Continued efforts in the outgrower programme with a long-term vision on how these efforts can expand and evolve to generate additional reach and impact, including also consideration of positive social impact;
- Reduce the carbon footprint through additional cover cropping & improved soil nutrient management;
- Rehabilitation/reforestation of degraded land areas within the concessions to further enhance C mitigation and rehabilitate ecosystems service provision;
- Develop forest products from end of life timber processing for rubber trees instead of treating it as waste.

About the Rainforest Alliance

The Rainforest Alliance is an international non-profit organization working in more than 70 countries at the intersection of business, agriculture and forests. The organization aims to create a better future for people and nature by making responsible business the new normal. By bringing farmers, forest communities, companies and consumers together it addresses some of the most pressing social and environmental challenges of today.