



CO₂-PRESTATIELADDER

Moyee Coffee
2024 Part 1 Version 2



Certification process

Author: Eleana Boziki
Consulted: Jake Midgley

Table of contents

1. Company background.....	2
2. Reasoning for Performance Ladder Certification.....	2
3. Extensive summary on the reduction objectives, measures and initiatives...	3
4. Additional information on the preceding steps in the certification process..	6
4.1. Organizational boundaries.....	6
4.2. Scopes.....	8
4.3. Emissions.....	9
4.4. Reduction objectives.....	11
5. Action plan towards a more sustainable Moyee.....	14

1. Company background

Since our inception in 2012, Moyee FairChain Coffee has been a trailblazer in sustainable and ethical coffee production, redefining traditional models through FairChain principles.

By prioritizing trade over aid, Moyee empowers coffee-producing communities by relocating value-adding activities to origin countries like Ethiopia, increasing local farmers' earning capacity while reducing dependency on external assistance.

Renowned for our commitment to quality, Moyee competes as a premium coffee brand, celebrating diversity and excellence in each cup. Moyee is a catalyst for positive change, setting new standards for ethical and sustainable production, including reducing its CO2 footprint.

Embracing technological innovation, Moyee ensures transparency and accountability across its value chain, supporting Sustainable Development Goals. Corresponding with sustainability goal, 'Responsible production and consumption (12)', aligning with the purpose of this document, we as Moyee want to create more awareness among you, consumers and other stakeholders, through forming transparency about the Performance Ladder Certification process, and being open about our plans towards more sustainable and efficient production.

2. Reasoning for Performance Ladder Certification

Moyee FairChain Coffee seeks certification as a testament to its unwavering commitment to ethical and sustainable practices within the coffee industry. Certification serves multiple critical purposes within Moyee's overarching goals:

First of all, 'credibility and trust', this certification provides assurance to consumers, partners, and stakeholders that Moyee's commitment to FairChain principles is genuine and verifiable.

Second, 'market access', by obtaining certification Moyee can tap into the new markets and consumer segments, which actively seek out certified

products supporting ethical and sustainable practices. This will differentiate Moyee from our competitors.

Furthermore, 'stakeholder expectations', as various stakeholders are expecting from us, consumers, investors, and regulatory bodies. Working towards certifications, demonstrating our proactive approach to our social responsibility and environmental stewardship.

Additionally, 'continuous improvement', through the processes of getting certified for the Performance Ladder, it is important to stay innovative and up to date with the effectiveness of applied measures and initiatives. Certification serves as a mechanism for continuous learning and enhancement of Moyee's sustainability efforts.

Finally, 'impact measurement and reporting', going through such a process you gain new knowledge, access to tools and methodologies in order to measure our social, environmental and economic impact on the countries from which our coffee originates from. Tracking and reporting on our performances, being able to be as transparent as possible with all stakeholders.

3. Extensive summary on the reduction objectives, measures and initiatives

Moyee Coffee has set objectives in terms of the company's CO₂ emissions, concluding that Moyee is aiming to maintain its scope 1 and 2 **emissions below the total sequestration levels** while simultaneously **reducing emissions per kilogram of coffee** produced. This dual focus on the short term highlights the necessity, taking action towards operational efficiency enhancements. Looking forward, future thinking, Moyee Coffee aspires to achieve a substantial **reduction of 50%** in terms of the **emissions per kilogram of coffee produced**, within 2035.

Within these objectives goals have been set ensuring the reduction of emissions, these measures include a reduction of 520 kg of CO₂eq/yr within scope 2 starting from 2024. Additionally, in terms of scope 1 the goal states that there will be a reduction of around 25%, which is a CO₂ reduction of around 1,500 kg CO₂eq/yr. The management has stated that the company's interests lie with the reduction and mitigation of emissions in scope 3, as they have more meaningful impact, through investments towards the many carbon sequestration projects currently running in Ethiopia.

The measures and initiatives the company has decided to act upon include:

- 1) Scope 1: Installing a wall in between the storage space and common area
- 2) Scope 2: Installing LED bulbs
- 3) Scope 3: Invest into the carbon sequestration projects:

1. Outgrower program Ethiopia

Moyee is working on agroforestry projects, engaging with farmers and helping coops build more sustainable ways in terms of coffee production.

Within this initiative several training sessions are given on the topic climate smart agriculture, including education and coaching given on the increase of land use efficacy, the protection of forests, the increase of soil organic carbon, and agroforestry optimization. Additionally, there is a compost project which is combined with the distribution of agroforestry tree seedlings. Lastly, there is a great involvement of different stakeholders including the local producers, local government, and the Ethiopian coffee authority.

2. Mizan farm

The Mizan farm is working on a new project regarding the application of biochar onto the soil, stimulating carbon sequestration and microbial activity, improving soil health, and reducing GreenHouseGas (GHG) emissions.

The Mizan farm also focuses on increasing above ground biomass production and promoting regenerative agricultural practices.

3. The republic of everyone

Moyee has proudly been working on a groundbreaking initiative referred to as "The Republic of Everyone", which is a multifaceted project focusing on improving the direct investments in coffee plantations. It's a direct investment heavily focussing on the Sustainable Development Goal's. It includes endeavors aimed at sequestering large amounts of CO₂, via reforestation with agroforestry. These initiatives are not just a glimpse into the future; they are a bold endeavor that aims to reshape the world of coffee and beyond. The mission within these two projects is clear: to forge a direct and meaningful connection with the local community, ensuring that every cup of coffee purchased leaves a positive impact on both the people of Bench Sheko and the environment. Bench Seko is a region with significant potential being rich in biodiversity and nurturing an extraordinary genepool of coffee varieties, despite that it's been often overlooked having a lack of basic services and opportunities. These challenges have resulted in coffee farmers facing issues, struggling to reach the market with their beans, thus falling victims to traders that give unfair prices to these farmers.

The mission kicked-off on a remarkable forest coffee plot of 240 hectares. Together with FairChain, Moyee aims to rejuvenate the area, empowering local

coffee farmers. The forest canopy not only grows high quality coffee under it, it also fosters prosperity, sustainability and stability for the community. Driven by expertise and passion, Moyee's local team is dedicated to establishing a farm that sets the standard for quality while simultaneously enhancing productivity. Nonetheless, Moyee's aspirations extend beyond the coffee product, encompassing the preservation of biodiversity and carbon stocks. Having a steadfast commitment to the local community, Moyee is determined to achieve balance between scale and empowerment of the individual, unlocking boundless potential and opportunities.

4. Compost

Moyee Coffee's composting program in Africa is a testament to their commitment to sustainability and environmental stewardship. Through this initiative, Moyee Coffee aims to minimize waste and maximize the use of organic materials in coffee production. By composting organic matter such as coffee pulp and other agricultural residues, Moyee Coffee not only reduces the environmental impact of its operations but also creates nutrient-rich soil amendments that benefit local farmers and ecosystems.

Compost boosts soil and plant health, which can simultaneously boost processes like carbon sequestration. In addition, compost introduces beneficial microbes which enhance the process of storing carbon compounds into the soils. When crop residues are returned to the soil, they can provide nutrients, and serve as a cover crop protecting soil and other plants from water overflows and wind degradation. By using residue crops as compost, burning is avoided, thus those emissions as well as any pollution associated with leaching into waterways and affecting sensitive ecosystems.

This program not only promotes sustainable farming practices but also empowers local communities by providing them with a valuable resource for improving soil fertility and crop yields. Overall, Moyee Coffee's composting program serves as a model for sustainable agriculture in Africa, demonstrating how environmentally responsible practices can positively impact both people and the planet.

4. Additional information on the preceding steps in the certification process

The following chapters will elaborate more on the certification process and the preceding required steps that had to be taken in order to complete the preparation and obtain the certification.

4.1. Organizational boundaries

Throughout the growth process of the plants the farmers make use of bio-fertilizers and compost in order to make sure that the coffee plants absorb enough nutrients to produce high quality beans and in addition to that also to boost the soil's biodiversity. MoyeeCoffee only works with the best farmers that produce Arabica coffee, as this specie of coffee is more flavorful, milder and aromatic in comparison to the other coffee specie Robusta (Coste, R., January 2024). Arabica is a richer coffee, however in addition to that it is also more delicate and thus more vulnerable to various pests. This specific species must be grown at higher elevations and requires a cooler subtropical climate. Arabica requires quite some rainfall annually along with a two- or three-month dry period (Coste, R., January 2024).

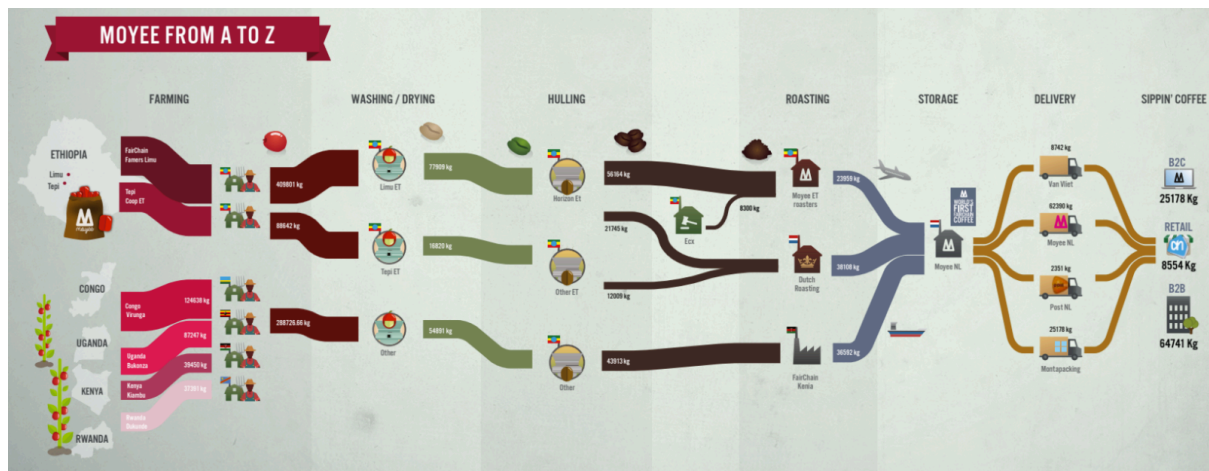
After the coffee beans are harvested, they go through either wet-milling or dry-milling before they are transported to the roasting and packaging facilities. Within the process of wet milling the coffee fruit of the coffee cherry is separated from the bean. This process requires a significant amount of water, which is important information, since fresh water is a scarce product. In the separation process the beans are dried. If the coffee goes through a dry milling the fruits separated from the beans through a process called hulling.

When the beans are separated and dried, they are transported towards the next value adding process. They are transported from the farm and processing regions to the roasting facilities.

At the roasting and packaging facilities the beans are prepared for the market. When the coffee beans are packaged and ready for retail, they are shipped to the MoyeeCoffee headquarters in Amsterdam, the Netherlands.

Finally, downstream transportation, MoyeeCoffee sells their products through B2B and B2C channels. Within the B2C channel the coffee products are either distributed through Albert Heijn or PostNL. Figure 3.1, shown below, illustrates Moyee's supply chain step by step.

Figure 3.1: MoyeeCoffee supply chain



Source: Moyee Coffee (December, 2023)

In regards to the level 3 certification, we are only required to calculate the emissions in our scope 1, scope 2, and business travel regarding scope 3 emissions. So, when consulting figure 3.1, we are only including the energy consumption at the MoyeeCoffee HQ in the Netherlands, the office in Kenya, and Ethiopia. The scopes will be further elaborated into the next chapter 'Chapter 4 Scopes'.

The following figure illustrates the organizational structure and boundaries we have chosen, required for the Performance Ladder Certification. There are multiple ways to determine the organizational structure, we chose the equity-share approach, while additionally consulting the Dutch 'KVK-uittreksels'.

Figure 3.2: Moyee Coffee Organizational boundaries



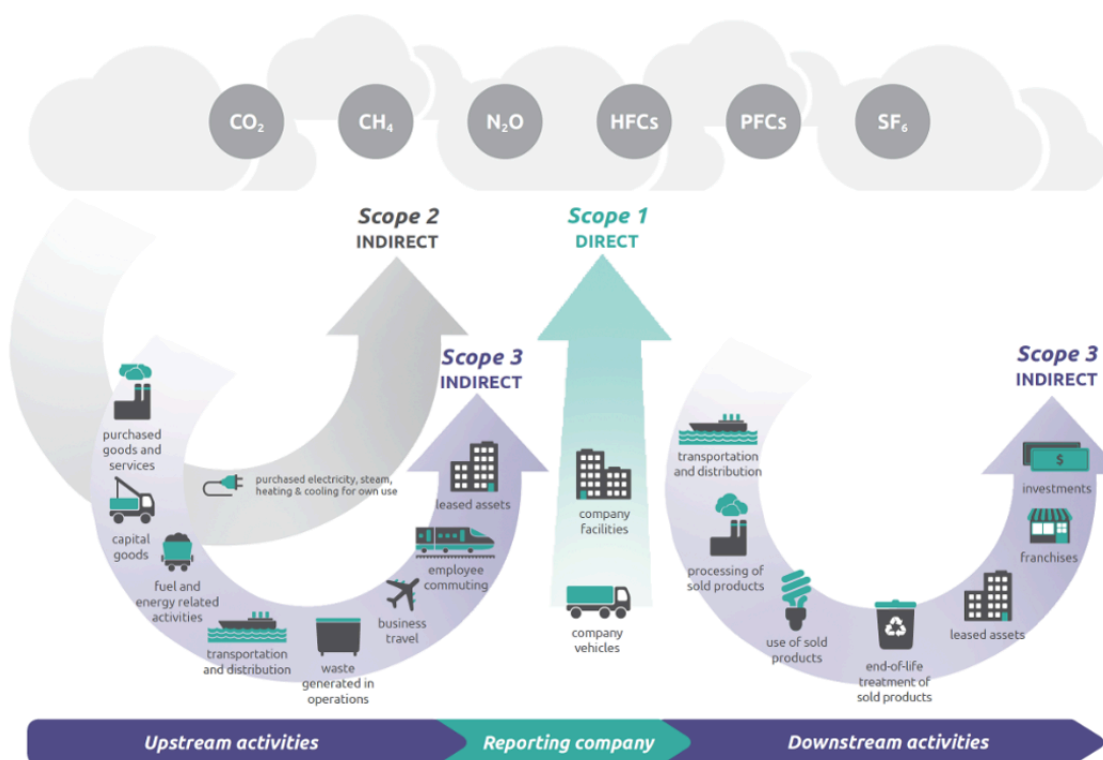
Source: Moyee Coffee (2024)

4.2. Scopes

It is important to define the boundaries included through the three emission scopes. As figure 4.3 shows, there are three scope emissions, which represent the various emissions emitted through the supply chain of a certain service or product (USA EPA, March 2024).

Scope 1 comprises the direct GHG emissions which transpire through sources which are owned or controlled by a company or organization (USA EPA, March 2024). These associated direct emissions include vehicles, furnaces, combustion from boilers, etc. Scope 2 on the other hand regards the emissions emitted associated with the emissions from generating energy like, electricity, gas, or fuel purchased and used by the organization (USA EPA, March 2024). Lastly, scope 3, this scope includes all indirect GHG emissions, which are neither controlled nor owned by the company. Nevertheless, these emissions are still an indirect result from the companies activities within their supply chain, up- and downstream, also not included in scope 1 and 2 (USA EPA, March 2024).

Figure 4.1: Scope emissions



Source: CO2 Performance Ladder Handbook (June, 2020)

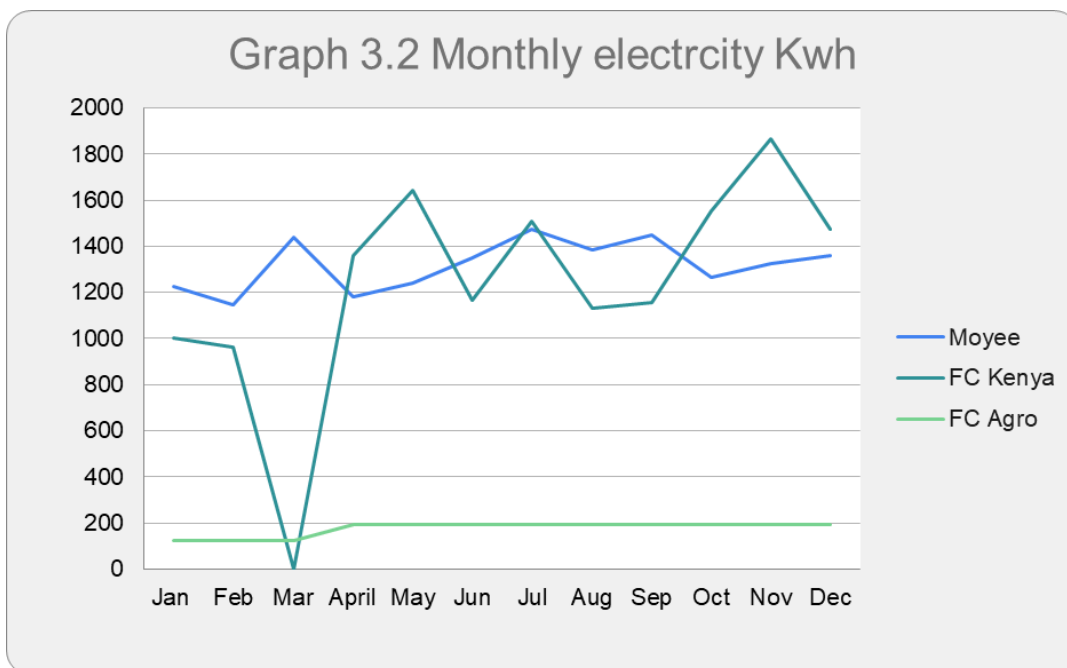
4.3. Emissions

Through the collection of energy invoices, an inventory was made, that data was used for the calculations involving the emissions within scope 1 and scope 2.

Those invoices included bills and monthly energy consumption overviews from Eneco, the gas and electricity providers for the Moyee HQ. Furthermore, they also included overviews, receipts, and bills, from fuel consumption and other energy usages in Kenya and Ethiopia.

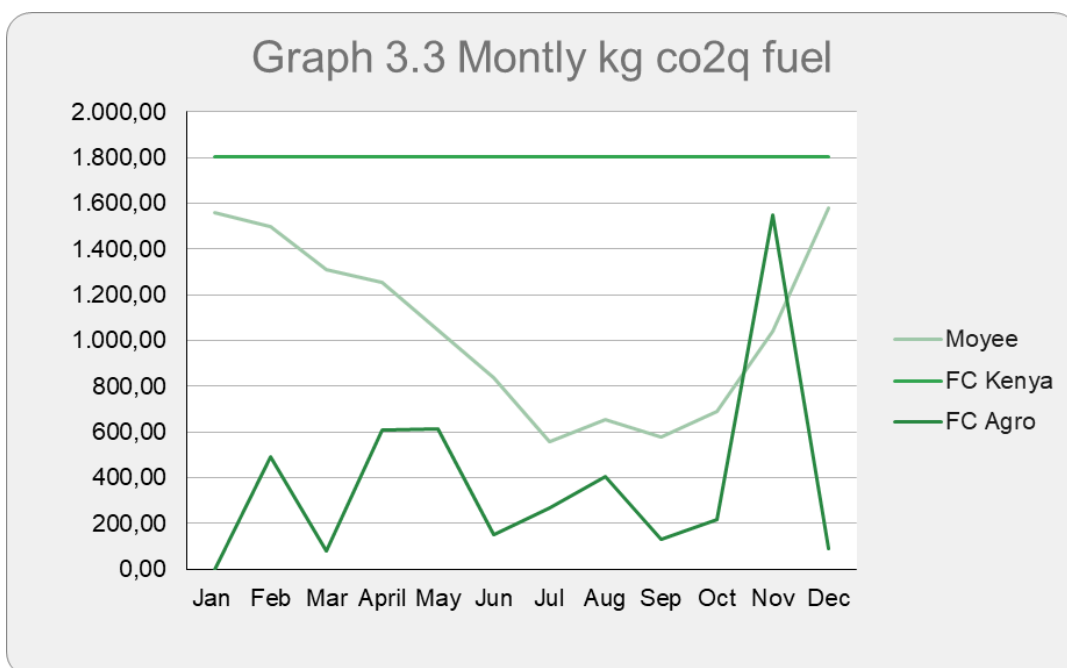
Through the calculations made, we can conclude the following emissions being made;

1. Moyee HQ (NL): Electricity, **8,489.70 kg CO₂**. Fuel usage, **12,600.48 kg CO₂**.
2. FC Kenya: Electricity, **1,496.21 kg CO₂**. Fuel usage, **21,640.07 kg CO₂**.
3. FC Agro (ET): Electricity, **1,131.50 kg CO₂**. Fuel usage, **4,601.44 kg CO₂**.



The total CO2 emissions within scope 1 and scope 2 are:

1. Moyee HQ (NL): **21.090,18 kg CO2**
2. FC Kenya: **23.136,28 kg CO2**
3. FC Agro (ET): **5.732,94 kg CO2**



The emissions emitted at the Moyee HQ are caused through the usage of electricity for lights and office devices, gas for heating, and fuel for the company vehicles.

Furthermore, the emissions emitted in Kenya are caused through the usage of LPG as a fuel for the roasteries, and electricity usage for lights and other devices.

Lastly, the emissions emitted in Ethiopia are caused through the use of electricity used for various purposes, and fuel used for the vehicle at the farms within the communities.

Grand Total: 48,880.69kgCO₂eq

4.4. Reduction objectives

Through consulting the measurement list provided by the performance ladder and conducting brainstorming sessions, Moyee had compiled a list encompassing all potential reduction options. From this list an analysis was made taking into consideration the measure's feasibility, and efficiency outlining the awareness strategies to be employed, as well as how the effects will be monitored and communicated.

Possibilities	Energy type	Effectiveness	Feasibility	Priority
LED bulbs	Electricity	3	3	9
Dim lights system	Electricity	2	3	6
Solar panels	Electricity	3	2	6
Double paned glass	Natural gas	3	2	6
Door installations	Natural gas	2	3	6
Insulation	Natural gas	2	2	4
Climate control system	Natural gas	2	2	4
Switch off system (for after hours)	Electricity	1	3	3
Solar boiler	Natural gas	3	1	3
Smart desk planning (office spaces)	Electricity / Natural gas	1	3	3
Conduct energy audit	Electricity / Natural gas	1	3	3
Electric roasting machines	LPG	3	1	3
Get electric van/delivery vehicle (NL)	Diesel/benzine	3	1	3

Instal more windows (natural lighting)	Electricity	1	2	2
Get new model/vehicle which is more efficient (ET)	Emissions	2	1	2

5. Action plan towards a more sustainable Moyee

The energy management report presents a comprehensive analysis of energy consumption patterns and identifies significant opportunities for improvement within the organization.

As is mentioned within chapter 4, a list was made consisting of all possible measures that can be taken by Moyee in order to reduce the emissions within scope 1 and 2. After the goals and measures were established it was important to make critical choices. Through careful consideration of the costs and benefits of these possible measures a small selection of measures is made that are feasible and realistic to apply on the short-term. These measures are then incorporated into an action plan towards achieving a more sustainable Moyee.

Actions that will be taken are shown in the table below:

Measure	2024	2025	2026
Scope 1	Replace 25% benzine special with benzine e10	Replace 75% benzine special with benzine e10	Finish room partition to reduce natural gas usage
Scope 2	Replace 25% of bulbs with LED	Replace 25% of bulbs with LED	Replace 50% of bulbs with LED

Other measures discussed are a little more challenging to apply, however that does not mean that they will not be applied. The management will contact the necessary parties to further explore these options.

These targets demonstrate the organization's proactive stance towards environmental stewardship and its dedication to fostering sustainable practices across all aspects of its operations. By closely monitoring progress and aligning efforts with key operational metrics, the organization remains

steadfast in its pursuit of reducing its environmental footprint while ensuring continued business growth and success.

Once the costs and benefits are finalized it is important to discuss those matters with management. Gaining their view, knowledge, expertise, and approval is very important for this process and these measures to succeed.

Due to several factors surrounding the feasibility of the measures some are not possible to apply on a short-term basis, however, that does not mean that Moyee will not try to achieve them in the long-term.

After conducting a priority and cost & benefit analysis, and several brainstorming sessions, the management had concluded that two measures are to be implemented, leaving more opportunities for investments to be made towards carbon sequestration projects. These developments are discussed within chapter 3.

6. Internal and external communication

Agreements have been made and deadlines have been set regarding the communication around the Performance Ladder and Moyee's progress made in terms of the reduction measures and initiatives that have been put into action.

Moyee Coffee shall communicate about its CO₂ reduction progress, internally and externally, with all team members and other stakeholders on a biannual basis. Every 6 months a comparison and analysis shall be made, comparing the current year to the reference year, and assess whether the implemented measures and initiatives are showing the desired results set in the company's reduction objectives.

In order to be able to share results that are as accurate as possible and the emissions inventory (including scope 1 & 2 & 3) the calculations of the emissions inventory will be recalculated at least twice a year.

Within Moyee's communication plan the company has stated that there will be biannual meetings informing the team of the progress made, creating a space for brainstorming about future measures/initiatives, and creating a nice atmosphere where everyone can voice their concerns or comments. Additionally, newsletters will be written and sent to all colleagues within the organizational boundaries. In terms of the external communication Moyee will be uploading updates on all social platforms,

additionally updating the website and of course a similar up to date version of this public document.

Detailed agreements and deadlines have been discussed within the Performance Ladder communication plan.