

LIFE IS UNFAIR

THE ANNEX



INTRODUCTION

Welcome dear Moyeesta,

You've arrived at the serious part of Moyee's Impact Report 2015. Here you'll find all the details, methodology, thorough explanations and calculations we did not want to bombard the average reader with. We chose to split our report in two, in order to maximize our reach using only the most important facts and stories. As an insider, your curiosity will be fed much more in this document full of background and clarification. In the event that you have additional queries, we would be honored to receive you at Moyee HQ for a cup of coffee and a good conversation. <

*Creating an
Impact Report
is serious business*

MATERIALITY ASSESSMENT

Our impact strategy is informed by an assessment amongst our stakeholders, in which we collected the most relevant items to address in our report. This is called a materiality assessment. A materiality assessment is an analysis that plots the interests of our stakeholders against the strategic interests of the business. The result is that we get to identify the issues that our customers and partners think are important for us to address, that also fit in our short and long-term vision for the company. We selected our biggest and most involved B2B clients and expert partners and interviewed each of them to find out which economic, social and environmental issues they thought were most important for us to tackle as a coffee company. The results from these interviews with our key partners have been condensed and described below.

Impact Hub Amsterdam is a 'partner and client' that believes in Moyee's mission of fair chain; this is the primary reason they buy our coffee. The sustainability issues they think are most important to address are:

- a)** Unequal distribution of economic value
- b)** Gender-based discrimination
- c)** Carbon footprint
- d)** Water scarcity
- e)** Waste production through packaging

Impact Hub, just like us, believes in full transparency and expects the same from us. In addition, Impact Hub wishes to see the fruits of our labor at the farmer level and see their lives improve. This continues to be our focus and we will remain so in the future.

Anthos is a Moyee customer and – as an investor in projects with clear social benefits - an impact expert itself. Anthos cares deeply about social impact and the economic wellbeing of the labor force of Ethiopia. In their opinion, taste and impact are inseparably connected and both need to be excellent. "Show what you stand for: high quality coffee with a fair supply chain." Also Anthos would like Moyee to choose a very limited number of indicators and be as specific as possible.

The focus of Rockstart, a company offering support to start-ups, was the same. They are keen on supporting social impact of the farmers and factory workers and want them to improve their livelihoods. Social Impact Ventures is an expert on impact of social enterprises, and at the same time, a Moyee customer. They chose Moyee to supply their coffee beans, firstly because of the impact and secondly because of the taste. Social Impact Ventures is mostly interested in the social impact Moyee created in the lives of people involved in the supply chain. Economic impact should lead to social impact. Also, Social Impact Ventures would like to know the carbon footprint of Moyee's logistics and the awareness that Moyee creates amongst its customers regarding the issues in coffee production.

RVO (Rijksdienst voor Ondernemend Nederland¹) has a different role than a B2B customer and hence expects slightly different things from us. They would like to see a clear monitoring system to ensure that the premium actually reaches the farmer. How exactly does this premium improve the livelihoods of farmers? In the 2015 report, we have addressed both of these points through our living wage agenda and farmer programs.

In summary, we found four issues that are highly important for our stakeholders and align with the company's strategic goals—

1. Economic fairness
2. Social justice — specifically fair wages
3. Transparency
4. Carbon footprint.

As a result, we decided to focus more on this in our 2015 impact report. Some of the issues that our stakeholders still thought were important but not urgent are water scarcity, water pollution and packaging waste production and toxicity of soil and water bodies. These will be part of our longer-term impact strategy, as is described in our impact framework. <

MOYEE IMPACT FRAMEWORK

METHODOLOGY

The below outlines our approach:

1. Our DNA

Firstly, we established our goals of impact measurement, by reminding ourselves of what we're here for: our so-called Theory of Change.

2. Materiality assessment

We interviewed Moyeestas and Moyee stakeholders to choose the relevant items to address in our analysis. The most important earned a spot in our Impact Framework.

3. Impact Measurement Plan

Next, we defined how to measure and value the indicators we chose in step 3.

4. Mapping the Chain

We only do coffee beans. Still, it proved to be quite a puzzle to map our entire supply chain and all its relevant phases. However, this step was essential to be able to say smart things about the value distribution and carbon footprint in our chain.

5. Data Gathering and Analysis

Together with our colleagues and partners in Ethiopia, we collected loads of information about all sorts of stuff, like the machines used to process our coffee, prices paid to various people involved in our supply chain, means of transport, etc.

6. External Assurance

For our first impact report, while a formal external assurance process was not followed, our friends at EY were kind enough to give a second opinion, making our report as precise as possible.

7. Impact Management

This is what McKinsey means with Learning Driven Assessment: we measure to optimize our FairChain operations. Where in the supply chain should we focus our attention?

MOYEE IMPACT FRAMEWORK			
GOAL			
The Holy Grail: Balance in the Chain			
OUTCOMES	Industrialization: shift to secondary economy GDP growth & Relative increase in share of coffee of total GDP Scalability: Other brands using Fairchain model	Higher standard of living (IWI score & GDP/capita) Skilled labor force	Under construction
OUTPUTS	FairChain export (kg) # of Jobs created Awareness (cups) Roasted in Ethiopia (kg) FairChain export (€) Clipit Brand Value Clipit Social Reach Investments going concern (€) Building (€)	IWI score smallholders Premium paid (€) % of employees above market conform salary # of employees completed training module # of trained smallholders % of employees above minimum living wage % green beans checked on food safety and quality	Under construction
INPUTS & ACTIVITIES			
Creating a global brand, selling high quality coffee, roasted and packaged in western standard roasting facility in the country of origin			
ECONOMIC		SOCIAL	ENVIRONMENTAL

FIGURE 1 MOYEE IMPACT FRAMEWORK

EXPLAINER

It's no rocket science and we're not the first ones to apply an impact framework to measure its performance; we obviously did not want to reinvent the wheel. So we went through the global standards for impact measurement frameworks, including those of McKinsey, EY, Natural Capital Coalition, Center for Social Impact and World Business Council for Sustainable Development. As simple as it may look in our main Impact Report, it was a daunting task to come up with the accurate numbers in this first official impact framework. The complete version you see here is by no means the final framework for the years to come and it will mature as we learn more and more.

We identified four steps in our 'impact pathway' and defined them as follows:

- Input and activities: business decisions and material inputs that are directly responsible for desired output
- Output: internal, directly quantifiable results of our inputs and activities.

- Outcome: our impact. Quantitative and qualitative changes to economic system on a macro level that we are responsible for.
- Goal: What we want in the end. Our ambitions that are achieved due to the outcomes. Effect on society.

We started-off formulating our Theory of Change. What are we here for? Well, we want to rebalance the coffee value chain, hence improve the lives of all involved in producing countries, by creating a global brand, selling high quality coffee -roasted and packaged in a western standard roasting facility in the country of origin. There you are!

Then, we matched our own goals with the UN Sustainable Development Goals (SDG's) and made sure we align with these, because, these form a comprehensive and universally agreed on framework, very relevant for our impact ambitions in coffee producing countries. Although Moyee's impact is linked to various SDG's, the main match

is with goal number 10: reducing Inequalities. Specifically, this paragraph:



10.b. Encourage official development assistance and financial flows, including foreign direct investment, to States where the need is greatest, in particular least developed countries, African countries, small island developing States and landlocked developing countries, in accordance with their national plans and programmes.

We agree, but go a step further.... As we have made clear in our report, we want to end dependency on development aid by enhancing the economies of coffee producing countries.

Next, we started filling in our framework. We are contributing to our goal and Holy Grail - Balance in the Chain - through some key outcomes. We assume we contribute to these macro indicators with the outputs of our own inputs and activities. The concept of 'additionality' is important here, meaning that without our presence the impact would not be created. Our impact claim described below explains how Moyee actually contributes to the positive outcomes that it claims to contribute to:

- Industrialization: directly by building our own roasting facility.
- GDP growth: FairChain export increases export earnings, very important because Ethiopia needs the foreign currency.
- Scalability: we are setting the example for Big Coffee. If we are

competitive and create awareness, our model will be replicated and FairChain will multiply its impact.

- Higher standard of living: we create quality jobs, pay above market conform salaries, pay a better rate to farmers.
- Skilled labor force: we train our staff at the roasting facility and we train farmers.

Initially, we focused on the core of our impact model. Of course this is a very narrow vision; there are many positive externalities (indirect effects of Moyee's efforts) we can think of that we might be responsible for, but we are not measuring these yet. In other words, our impact is not limited to the 18 jobs at the roasting facility. We believe our roasting facility will have spin-off effects, like jobs created at suppliers of Moyee. In the report, we chose to add anecdotal facts on the externalities, like the story about the freelance opportunities for our maintenance guy Yohannis and the growing interest for ISO certification in Addis Ababa. This also helps to add 'depth' to the 'scale' of our impact. The scale-part of it shows the numbers; depth describes what it leads to: stories about how lives change of Ethiopians involved in Moyee's chain.

So it's clear we made a good start, but at the same time there's much work to do in order to further advance our impact management in the coming years. ◀

MOYEE SANKEY DIAGRAM

In order for us to actually assess the economic, social and environmental impacts of Moyee Coffee, we first needed to map the flows of material and energy that go in and out of our system. Based on this, we quantified all of our impact metrics and calculated our overall impact. The supply chain mapping step is described in an illustrative “Sankey” diagram. A Sankey diagram is often used to show origin and distribution of streams of materials or energy. Our reference for all calculations is 1 kg of Moyee coffee sold. The scope of our system does not include what happens to the coffee after the point of sales – that is, use phase (making and actually consuming that delicious cup of Moyee coffee!) and end of life (waste or recycling) is not considered.

The vertical columns in the diagram below indicate process steps in our value chain. Each of these processes adds value to the coffee and gets it closer to the final value of coffee sold at the stores. The icons show the stakeholders and partners involved in the respective processing stages of the value chain; the size of streams indicates the volume of coffee flowing between two value adding processes. The beans on top of the arrow streams for the first few steps (until packaging) show the state of our coffee beans as they move from one step to the next. For example, the dirty white/light brown colored beans that come out of the de-pulping stage indicates that there is a layer of parchment around the coffee seeds.

The Moyee coffee value chain is as follows –

- 1. Farming / Agriculture** – This is where the coffee plantations are grown and includes sub-steps like sowing, irrigation and harvesting. The coffee we source originates mainly from the regional states of Oromia and Southern Nations, specifically

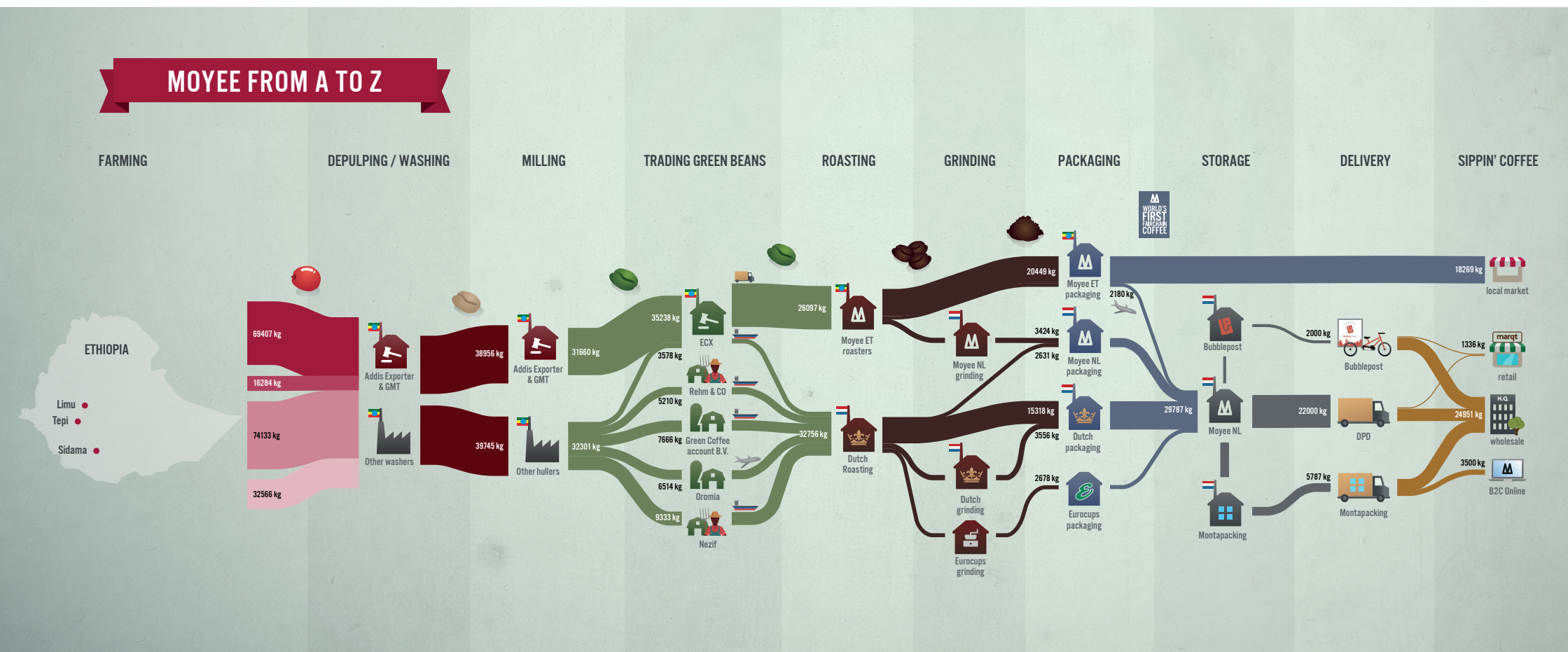
from the coffee regions Limu, Tepi and Sidama. The Limu and Sidama variants make up the bulk of the coffee we sold in 2015 – the respective kilograms of each kind can be seen on the arrow streams. The colors of the dots correspond with the colors of the arrow streams.

- 2. De-pulping / Washing** – This is the step where the pulp of the harvested red coffee cherries is removed and the coffee beans are extracted. This step usually includes de-pulping through a machine and then drying in sunlight to get rid of the wetness. In some cases, the cherries are directly left to dry out in the sun for weeks until nothing but the seed, along with a layer of parchment remains. This step usually takes place in the region of origin.
- 3. Milling** – The stage where the layer of parchment is removed from the coffee seeds using a hulling or milling machine. The seeds are then sorted by quality, size etc. The product that comes out of this process is called the “green bean”. We have two partners – Addis Exporter and GMT that process the cherries for us; they handle the de-pulping and milling steps for us in Addis Ababa. We also source green beans directly from other players that use other hullers, as is shown in the diagram above.
- 4. Trading green beans** – The stage where green beans move from smallholders to ECX and then to customers like us. We also source green beans from our European partner roasters, who get it directly from mid-sized farmers and cooperatives in Ethiopia.
- 5. Transportation** – Most of our beans are shipped. The roasted beans are actually air transported to retain freshness; hence the quality of the roasted beans.

6. Roasting – In this step, the selected green beans are then roasted in a roasting machine. Primarily, this happens in two locations – Moyee Ethiopia roasting facility and our European roasting partner Royal Taste in Soest, NL.
7. Grinding – In this step, the roasted beans are ground using a grinding machine. Not all of our coffee is ground. In fact, most of it is sold as whole beans. The portion that is ground is done at our European roasting partner, our facility in Ethiopia or, if it concerns coffee in cups, Eurocaps.

8. Packaging – Once the beans are roasted and potentially ground, they are packaged in various types of packages, sizes and colors, both in Ethiopia and the Netherlands. A small portion of our coffee is also packaged in cups by our partner Eurocaps.
9. Storage + Delivery – The packaged coffee comes to our office here in the Netherlands and from here it is sent to local partners that handle the fulfilment and delivery of orders. Our delivery in 2015 was done by DPD, Bubble Post and Montapacking and a lot of it, as is shown in the diagram, is done through bikes, e-trikes and electric vans. ◀

FIGURE 2 MOYEE SANKEY DIAGRAM



ECONOMIC IMPACT CALCULATION

In the Economic section, we presented 'The Naked Facts'. Here we give you the full details:

ECONOMIC - NAKED FACTS	2015 plan	2015 actual	2016	2017	2018	2019
Kilos roasted in Ethiopia	28.000	35.000	105.561	247.790	426.429	673.295
FairChain export (kg)	16.669	2.180	63.336	148.674	255.858	403.977
FairChain export earnings	€162.527	€35.000	€617.529	€1.449.571	€2.494.612	€3.938.774
People Employed	12	18	18	28	29	30
Awareness	-	4.077	11.920	36.048	62.159	98.780
Clipit Brand Value	-	€1.824.318	-	-	-	-
Clipit Social Reach	-	50.000.000	-	-	-	-
Investments going concern	€518.903	~ €600.000	€684.642	€477.000	€602.200	€844.000
Building	-	-	-	€800.000	-	-

FIGURE 3 ECONOMIC - NAKED FACTS

- We roasted more kilo's in Ethiopia than expected, thanks to the high demand within Ethiopia.
- FairChain export is expected to grow quickly, partly due to improving efficiency and capacity of the roaster, and fairly because of the growing demand in the Netherlands.
- Export earnings in 2015 are higher than what one might expect from the quantity exported to the Netherlands. The reason for this is there has been occasional export to US and Qatar as well.
- We sold 30,000 kilograms of coffee in the Netherlands. One kilo of coffee produces approximately 125 cups of coffee, resulting in 3.7 million cups of Moyee FairChain being consumed. Of course these 3.7 million cups do not represent 3.7 million unique customers, but for now, it is a quick indicator of Moyee's reach. The assumption is that everyone who drinks a cup of Moyee is in some way aware of the unfair coffee chain.
- According to the brand value experts at Clipit, we have created brand value of 1.8 million euro and a social reach of 50 million people, based on all publicity in social media and other media.
- Investments going concern: everything that has been invested in Moyee Ethiopia, either through working capital or assets.
- Building: we are planning to build an even bigger production hall in the near future, to keep up with the growing demand. ◀

SOCIAL IMPACT CALCULATION

In the Social section, we presented 'The Naked Facts'. Here we give you the full details:

SOCIAL - NAKED FACTS	2015 plan	2015 actual	2016	2017	2018	2019
€ premium paid	-	€6.000	€76.000	€130.000	€244.000	€352.000
# of employees completed training module	-	12	18	28	29	30
# of trained smallholders	-	96	100	200	300	500
IWI score 100 smallholders	-	7.4 / 100	onto rural avg kenya (2014: 28,2)			
% of employees above minimum living wage	-	29%	90%	90%	90%	100%
% of employees above market conform salary	-	53%	100%	100%	100%	100%
% green beans checked on food safety and quality	-	17%	100%	100%	100%	100%

FIGURE 4 SOCIAL - NAKED FACTS

- Premium paid: In 2015, we have paid more FairChain premium than the year before. That makes sense, we bought more beans. However, since we needed to buy mostly through the ECX, the central marketplace, we have not been able to actually spend €20.000. Instead, our accountant made a reservation and we will spend it on training of farmers in 2016.
- # of employees completed training module: 3 employees involved in roasting completed the coffee expertise training (cupping, green bean quality and roasting skills). We've trained 9 employees on food safety, for which they received a personal HACCP certificate. Other training topics: process awareness, ISO 9001, production planning, supply chain management, business case management. We believe in quality. Not only for our beans, but for the entire company and supply chain; hence we invested in ISO certification. Furthermore, by offering business training to our employees, we invest in human capital: our people increase their own 'market value' by completing our training modules.
- # of trained smallholders: we set down and talked to 100 smallholder farmers, look at their page (Farmer Profile) for details. 96 of them we've trained for Rainforest Alliance certification.
- IWI score: International Wealth Index (details in 4. Results Interviews)
- % of employees above minimum living wage (6.000birr or €260 per month): We checked if we complied with the bar we set for ourselves. We based this benchmark on wageindicator.org. While for higher skilled work it is a modest standard, for lower skilled work this is actually very high. Actually, the Dutch governmental RVO department set the bar at 1.800 birr per month, 90% of our staff was above this standard in 2015. Anyway, it turned out a decent compensation plan was needed, which is being implemented in 2016, resulting in a 90% score (related to wageindicator.org) this year.
- % of employees above market conform² salary: the minimum is not always realistic; it can be either too low (for higher skilled workers) or too high (for lower skilled workers). So we checked the market and took the higher end of the spectrum. With the new compensation plan, the goal is to pay everyone market conform or above.
- % of green beans checked on food safety and quality: we only do radically good coffee. We make sure not one bean escapes our Ethiopian roasting facility without being thoroughly controlled. This policy was only fully operational in November 2015, hence the 17% in 2015. ◀

FAIRCHAIN PREMIUM CALCULATION

In the 'Social' chapter, we have shown the amount of FairChain premium paid. How did we calculate these numbers?

First of all, what's the baseline? Our official FairChain premium policy dictates 'primary market price' as the benchmark to base our 20% premium on. In reality, it appeared to be rather difficult to determine a primary market price, since this price is only locally registered by local authorities. When we buy through ECX, we cannot know which primary market beans are from. While we are still trying to get our hands on complete ECX price data, we will use New York Stock Exchange (NYSE) Arabica coffee future contracts for now. It is a global average price for Arabica beans, on top of which buyers and sellers determine a final price based on a quality differential. In 2015, on average we paid 33% above NYSE price level. Partly this is a quality differential, partly our FairChain premium.

2013 AND 2014

Origin: Nezif Ababiya

Kilograms: 22.200

FairChain Premium: €9.790,20

Clarification: in the beginning, we had a partnership with the farm of Nezif Ababiya in the Beleta Forest area. We have been able to pay a 15% direct premium. As they could not justify the way this premium was shared with the smallholders, we withheld 5%.

2015

Origin: Oromia Cooperative Union

Kilograms: 6.000

FairChain Premium: €4.429,02

Clarification: Oromia is a cooperation of coffee farmers. The kilo price

we agreed to pay for the coffee from these farmers was 22% higher than the NYSE market trading price, of which 20% or €4.429,02 is FairChain premium.

Origin: Ethiopian Commodity Exchange

Kilograms: 26.990

FairChain Premium: €19.965,90

Clarification: in 2015, we seemingly paid more FairChain premium than the year before. That makes sense; we bought more beans. However, since we needed to buy through the central marketplace, we have not been able to actually spend the 20k. Instead, we made a reservation and will spend it on training of farmers in 2016. We bought 26.990 kilograms of green beans at the Ethiopian Commodity Exchange in 2015. For every single kilo we made a 20% reservation on top of the purchase price, resulting in a total FairChain premium of €19.965,90. This is a reservation and will be spent on farmer training in 2016. On average, the price we paid for these beans was 29% above NYSE Arabica price level.

Origin: Tega & Tula

Kilograms: 7.000

FairChain Premium: €6.281,92

Clarification: Tega & Tula is a 400-hectare coffee farm with around 200 smallholder farmers connected to it. The kilo price we agreed to pay for the coffee from these farmers was 49% higher than the NYSE market trading price, of which 29% was a quality differential, and 20% or €6.281,92 was FairChain premium.

Origin: various traders (Greencof B.V., Green Coffee Agro Industry Plc, Rehm & Co)

Kilograms: 16.606

FairChain Premium: not registered

Clarification: Part of the beans we purchased in 2015 comes from so called traders. We pay a price including handling, shipping and do not know the original green bean price nor the exact origin. Hence, our FairChain premium policy is not applicable to these purchases; it's part of the existing chain approach that we try to avoid on our road to FairChain.

To sum it all up, the total fairchain premium in 2015 amounts to €26.248. This is 85% more than last year and we strive to do much better next year.

2016

We expect to spend €56.000 on FairChain premiums in 2016 – on top of spending the reserved premium money from 2015. We will preferably purchase our beans from Tega & Tula, where we have the possibility to directly pay out the FairChain premium and can arrange with T&T on how the premium will be spent, and partly directly distributed to the farmers. For practical reasons explained in this report, we will also be buying beans from the ECX; for these purchases, we will make a reservation as we did in 2015. Occasionally we will buy beans from traders. Since our FairChain premium policy is not applicable to these purchases, we will keep these purchases to a minimum. Fortunately, in these situations Moyee creates economic impact by roasting and packaging locally. <

FAIR CHAIN ANALYSIS

GOAL: The goal of this analysis is to determine how much of the value generated in our coffee's life cycle is added to producing countries – in our case Ethiopia, and how much is added in the consuming countries – in our case the Netherlands.

SYSTEM SCOPE: Our system boundary starts at coffee cultivation and ends at the point of sales. The use phase and end of life are not a part of our system for the fair chain and environmental analyses. The coffee chain contains all value adding steps in from coffee agriculture all the way to sales and delivery.

METHODOLOGY AND ASSUMPTIONS:

Our coffee beans are grown mostly by smallholders in Limu, Tepi and Sidama regions in Ethiopia. Sowing, irrigation and harvesting are a part of this step. Red coffee cherries are then washed and dried in the de-pulping process. The resulting parchment coffee is then sent to a huller who removes the parchment layer, polishes the coffee and sorts it. This is called the green bean.

The beans that Moyee exports as green, which are then bought by an intermediary and transported by ship or air to our roasters in the Netherlands. For the beans that are roasted and packaged in Addis Ababa, these were air transported to the Netherlands; in the Netherlands, at Moyee or at a contractor, some of the beans are ground. The packaged coffee is then sent to our distributors who make sure that it reaches our customers on time.

In 2015, most of our coffee that was consumed in the Netherlands was roasted in the Netherlands. A batch of 2,180 kg (7.3% of our total sales volume) was roasted in our Ethiopian roasting facility and air shipped. That being said, it is important to remember that Moyee Coffee Ethiopia sold the same volume of coffee in Ethiopia

as we did in the Netherlands. Therefore, they roasted quite a lot of coffee, which was sold with the Moyee brand in the local market. This volume is not included in the scope, as it is not export coffee. Only the coffee that was exported (be it green beans or roasted) and consumed in the Netherlands is a part of our system scope.

In our fair chain analysis, we have used our cost price and volume at each of the above stages and calculated what percentage of the total revenue it contributes to. The following table shows the various stages where value is added in the coffee chain along with the region that benefits from the value adding process.

PROCESS	NL	ET
Agriculture		●
De-pulping and Drying		●
Hulling and Sorting		●
Roasting	●	●
Transportation	●	●
Grinding	●	
Packaging	●	●
Fulfillment + Delivery	●	
Sales + Overhead + Margins	●	●

FIGURE 4 SOCIAL - NAKED FACTS

A few points to note are –

- The value added in the roasting step – A small batch of 2,180 kg is roasted at Moyee Ethiopia and the proceeds from that stay in Ethiopia. The rest of the roasting happens in the Netherlands and the corresponding value added stays here in The Netherlands.
- The value added in the transportation step – 80% of air trans-

ported coffee is handled by Ethiopian companies and 50% of all shipped coffee is handled by Ethiopian freight forwarders.

- In the packaging step, the beans roasted in Ethiopia are packaged there and sent directly to the Netherlands. However, all the ground beans are packaged in the Netherlands since grinding happens here. So some of the packaging value is added in Ethiopia.

RESULTS

The Fair Chain analysis led to some interesting insights. It shows three important things – a) the amount and percentage of value generated that stays in Ethiopia and the Netherlands b) the share of the final price of coffee that is added by each step in the value chain and c) different ways of pushing more value add to Ethiopia thus balancing the chain and improving the equity between Ethiopia and the Netherlands.

The average final sales price of coffee was close to €18 in 2015.

The average price covers various prices, like retail, wholesale but also free samples. In Fig. 5 below, we can see that the biggest portion of value, almost 30%, is added at the final stage of sales. The next most important steps in our chain are agriculture, transportation, de-pulping, packaging, delivery and roasting respectively. Of these, transportation, packaging and roasting are the steps where the value is split between Ethiopian and Dutch service providers currently; therefore, we shall look at ways to move these processes completely to Ethiopia.

As you can see in Fig. 6, in the current state of operations, the value of coffee that stays in Ethiopia is about 34% of final value of coffee sold. This is already much better than big coffee companies where the Ethiopian share is closer to 14% of the final sales value³. The maximum possible share of total coffee value that can be generated in Ethiopia stands at 61.5%. This would happen if every single step in the chain, except for fulfillment, delivery and sales happens in Ethiopia.

As you can see in Fig. 6, the global average of value generated in producing countries for regular coffee that is exported, is about 14%. In this case, most of the value is generated in the consuming countries.

When it comes to direct trade with farmers and specialty coffee, the global average for share of total value that stays in the producing countries is 24.6%. Moyee decided to take a strategic decision to source specialty coffee through direct trade to make sure the farmers get paid living wages and also to satisfy its high quality standards. We pay our farmers 20% more than the average prices of specialty green beans on the commodity market. Because of this, we already score better than the direct trade average. Moyee coffee without any of its additional Ethiopian value addition processes like roasting and packaging, already scores at 33.2% - which is about 50% better than the estimated average of specialty coffee (direct trade) brands.

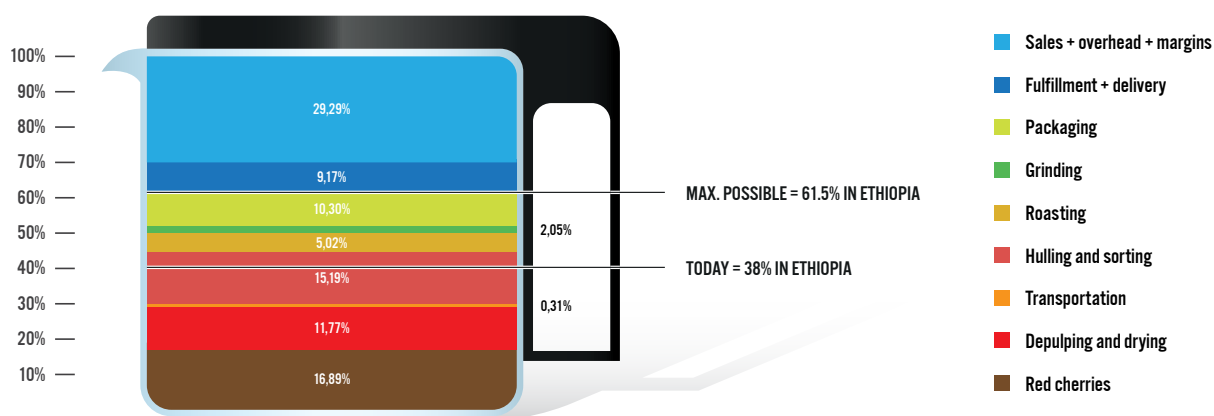


FIGURE 5 MOYEE BALANCING THE CHAIN

Moyee looks beyond the agricultural stage to balance the equity between us and the producing countries, so we started looking at the other stages. In our goal to keep tilting the scales, we built a roasting facility and roasted a small batch of our beans in Ethiopia, adding even more value to the Ethiopian economy. So far, in 2015, we managed to get it from a global average of 14% to 34% through our efforts.

In the next few years, our plan is to get Moyee coffee's value to be equally divided between Ethiopia and the Netherlands. We know that after transportation, where a majority of the value is already generated in Ethiopia, roasting and packaging are the steps where we can push value almost instantly to Ethiopia. That is why roasting is our holy grail. Roasting adds value and hence roasted beans are worth more than green beans. Now, there are many factors influencing how much more roasted beans can be compared to green beans.

1. Price of the green bean itself – Since the green bean prices fluctuate so much, prices can change from the time you plan the procurement, to the time they actually get delivered. This means that what one assumes is a fair price + 20% can actually end up being lower than the assumed fair price.
2. Exchange rate – While coffee beans are sold in euros in the Netherlands, the green beans are purchased in dollars, which puts us at the mercy of global currency exchange rates. This can affect the real price of coffee sold and hence the Fair Chain split.
3. Roasting fee – While the roasting fee is relatively stable, it definitely decreases with scale. This again puts us in a tough situation because as we roast more and more locally in Ethiopia with the goal of adding to the Ethiopian economy, the incremental value added is far lower as the roasting fee decreases. As a result, the value associated with it drops.

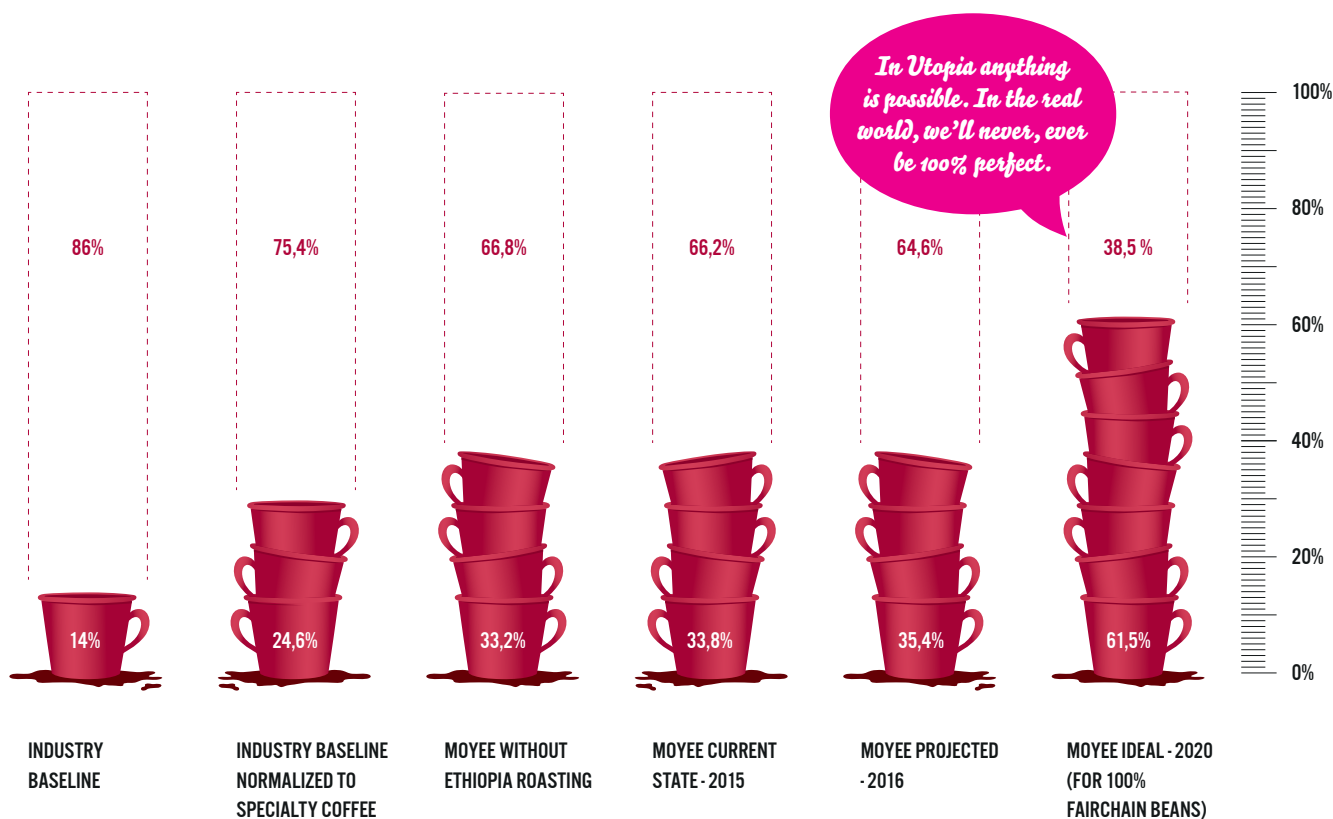


FIGURE 6 CONTRIBUTION OF EACH STEP TO THE FINAL PRICE OF COFFEE


□ NETHERLANDS

■ ETHIOPIA

Below, we have outlined a few strategies to achieve an equitable 50-50 split of value between us and Ethiopia -

1. Roast and package more in Ethiopia - In our traditional Fair Chain model, we plan to roast and package about 40% of all our beans in Ethiopia in 2016 and it goes all the way to 70% by 2020. This will take our ratio from 33.8% value added in Ethiopia today to 35.8% in 2016 and 61.5% in 2020 for an ideal 100% Fair Chain beans scenario.
2. Local packaging facility - Source packaging material from Ethiopia or even set up a local packaging facility.
3. Selection of Ethiopian transportation companies – While the

majority of our transportation already happens through Ethiopian owned freight forwarders and air transporters, we can take this even further and ensure that 100% of shipping of our roasted and green beans to the Netherlands happens through strategically selected Ethiopian owned shipping companies; otherwise, we might help them develop their business by generating demand for transportation services.

4. Ethiopian brand with sales agents in the Netherlands - An even better model than the current Moyee FC model is to have the whole company in Ethiopia, with only a sales agent in The Netherlands. This could push the value division beyond the above mentioned 61.5%. 

CARBON FOOTPRINT CALCULATION

GOAL: The goal of the environmental impact analysis is to quantify the greenhouse gas emissions in terms of CO₂ eq., benchmark it with competitors and find ways to reduce the carbon footprint of Moyee coffee.

Scope: To be holistic and thorough with our analysis, we have assumed scope 3 on our system boundaries. In other words, we consider all the direct and indirect emissions that our value chain activities are responsible for. We look at the entire fuel cycle to arrive at the primary energy and embodied energy (upstream emissions of energy and material production, resp.). For example, the emissions of 1 kWh of electricity at the roasting facility is not just the emissions associated with 1 kWh of electricity, but also the energy that is lost in transmission and distribution, as well as the efficiency losses of the power plant where electricity is generated. This ultimately leads to the energy required in the form of raw materials (like coal) to produce the 1 kWh of final electricity that was consumed at the roasting facility. This is called primary energy in U.S. EIA (Energy Information Administration) convention.

SYSTEM BOUNDARIES: As with our fair chain analysis, our system boundary is the same – it starts at coffee cultivation and ends at the point of sales. The use phase and end of life are not a part of our system for the environmental analysis. The coffee chain entails all value adding steps from coffee agriculture all the way to the point it reaches the consumer (incl. sales and delivery).

So our coffee is assessed from “Crop-to-shop” + general analysis of use phase and disposal.

FUNCTIONAL UNIT: The functional unit is the reference around which we make all our calculations and comparisons. Our functional

unit is - Total kg of coffee sold in 2015.

METHODOLOGY AND ASSUMPTIONS:

For each stage in our supply chain, the type and amount of energy used was determined. The various types of energy used were – diesel, electricity, LPG (butane + propane), natural gas and jet fuel. The upstream energy use for each fuel type is then calculated based on the energy production and consumption and heat rate of power plants in Ethiopia⁴ for each of those fuel types. For electricity, the sources of energy used at the generation sites reflect the actual grid mix in Ethiopia – 86% hydro, 13% diesel, 1% geothermal⁵.

THE ASSUMPTIONS MADE PER STAGE ARE AS FOLLOWS:

1. Cultivation / Agriculture

- a. Irrigation - The coffee beans that we source are not irrigated. They are rain-fed and as such, use no irrigation energy.
- b. Harvesting - While all our beans are hand-picked, about 20% of the total beans sold are sourced from Tega & Tula farms, where a Ferguson 470 tractor is used for 10 hours/day during the 3-month harvest season.

2. Processing

- a. De-pulping – A 35 kW diesel generator is used to generate electricity for the de-pulping machine that runs at an efficiency of 30% for 4-5 hours/day for about 3 months. All red cherries, except the Jimma and Sidama batches that are sun-dried, are processed through this method.
- b. Washing – A part of the Moyee beans are washed. A 3-4 kW water pump runs for about 2 hours/day for 3 months. In addition, a canal is used to gravity power the rest of the water to the washing stations. The efficiency of this diesel powered pump is 30%.

- c. Hulling – A huller is used solely to process the sun-dried cherries to remove the thick parchment layer from them.
 - d. Sorting and selection – All Moyee beans go through a sorting process where a 2.2 kW de-stoner is used to sort the good beans out.
3. Roasting
 - a. An inventory of all electrical and gas-powered equipment was obtained from our roasting facility in Ethiopia. Our roasting machine in Ethiopia roasts 15 kg of green beans into 12.5 kg roasted beans in 20 minutes. 20 of these batches take up one tank of LPG (60:40 mix of butane and propane). The two 1.48 kW Toper NK TKMSX-15 roasting machines use a bit of electricity as well.
 - b. Our coffee beans roasted by Royal Taste used two roasting machines – the Probat G120 and the Probat R800 that process about 100 and 150 kg every 15 min respectively.
 4. Grinding
 - a. A 1.7 kW Ditting grinder (KFA 1403, 380 V, 50 Hz) was used in our Ethiopian facility to grind beans.
 5. Packaging
 - a. Sealing machine - A 0.525 kW 300 TTS-2 sealing machine was used to seal the coffee bags.
 - b. Packaging material production – 33,000 pieces or 450 kg of Matte varnish PET/MET is used to package our coffee (we ordered PETAllox, however, our provider actually delivered material with a metal film coating that cannot be recycled).
 6. Transportation
 - a. The different modes of transportation used to move green and roasted beans around were – air, sea, rail and road (trucks). The two main batches of beans that were air transported are the green beans from Oromia and roasted beans from Moyee Ethiopia roasting facility. These total up to around a quarter of all beans moved from Ethiopia to the Netherlands in 2015. For each batch moved, the appropriate emission factors were multiplied with the ton-miles to find the overall emissions. 80% of all air transported coffee and 50% of all sea freight were done by Ethiopian owned companies. In the final delivery stage, in December 2015 we started working with Bubble Post. They deliver half of all their packages by bike and the rest by truck.

CARBON FOOTPRINT RESULTS

In our spirit of radical transparency, we have published our carbon footprint numbers for each kg of coffee we sell. A carbon footprint benchmarking showed us that Moyee Coffee scores much better than many other coffees out there. The big players out there – like Douwe Egberts and Illy - do not actually publish the life cycle carbon emissions intensity of their coffees. There is a severe lack of transparency when it comes to publishing the numbers even on the most basic environmental performance metrics like carbon footprint.

However, we did an estimate of how good or bad the big coffee companies might fare on this scale based on an estimation of the types of coffee they grow and lifecycle analysis studies done for those kinds of coffee. What we found was that Moyee, with its Scope-III carbon intensity of 3.92 kg CO₂ eq./kg of roasted coffee is twice as good as the unshaded and shaded monocultures that commercial coffee companies like Douwe Egberts tend to grow. Of course, we do not know for sure that DE's footprint is 8kg CO₂ eq./kg of roasted coffee; since they did not publish anything, we needed to make an estimate.

CARBON FOOTPRINT: MOYEE VS. OTHER COFFEES

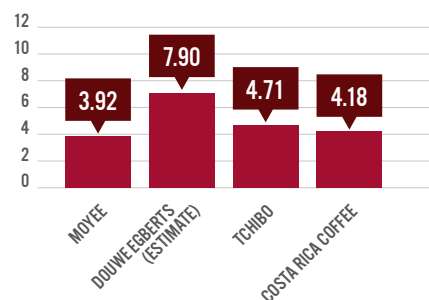


FIGURE 7 CARBON FOOTPRINT: MOYEE VS. OTHER COFFEES

What happens if we replace all of our air transport with sea transport? Our overall footprint drops to an incredible 2.43 kg CO₂ eq. per kg of coffee sold. This is lower than most benchmarks, making us one of the least carbon intense coffees there is. However, what happens if we air transport everything? Our total carbon footprint increases to 8.3 kg CO₂ eq. per kg of packaged coffee sold, still the same or less than some alternatives out there like the Indian Darjeeling coffee and tea, or monocultures (be it shade-grown or unshaded) like Douwe Egberts.

EFFECT OF AIR TRANSPORT ON MOYEE COFFEE'S CARBON FOOTPRINT

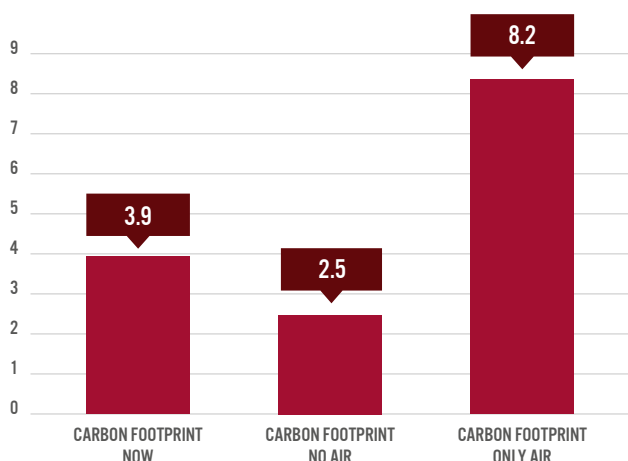


FIGURE 7 EFFECT OF AIR TRANSPORT ON MOYEE COFFEE'S CARBON FOOTPRINT

In the main report we published a 'Carbon footprint breakdown for the Moyee supply chain. In the graphic below, this is shown in more detail and in absolute numbers (kilograms of CO₂ equivalents).

CARBON EMISSIONS (KG CO₂ EQ)

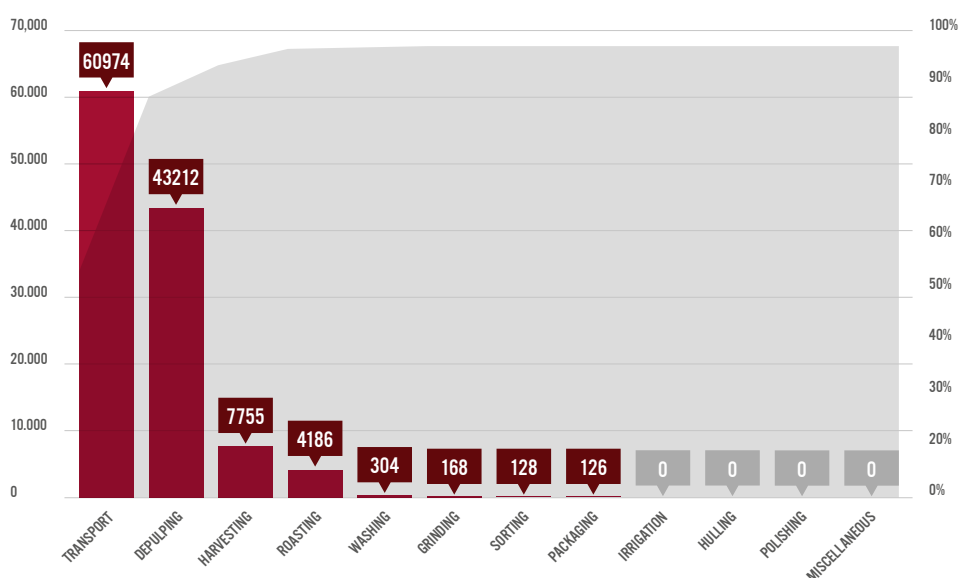


FIGURE 8 CARBON EMISSIONS (KG CO₂ EQ)

GLOSSARY

1. Direct emissions - Direct GHG emissions are emissions from sources owned or controlled by the reporting entity.
2. Indirect emissions - Indirect GHG emissions are emissions that are a consequence of the activities of the reporting entity, but occur at sources owned or controlled by another entity.
3. What does "emissions scope" mean?

Scope 1: All direct GHG emissions.

Scope 2: Indirect GHG emissions from consumption of purchased electricity, heat or steam.

Scope 3: Other indirect emissions, such as the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, electricity-related activities (e.g. T&D losses) not covered in Scope 2, outsourced activities etc. ◀

QUESTIONNAIRE - 100 FARMERS

Here are the complete results of the questionnaires issued to 100 smallholder farmers. Prior to working with these smallholders, we conducted a baseline study in order to determine their needs and ambitions, as opposed to confronting them with a one-size-fits-all training program. This questionnaire was conducted in October 2015, just before the 2015 harvest, when already more farmers brought their beans to Tega & Tula farm.

These are all the quantifiable answers from the questionnaire: a few qualitative questions like 'what do you need in 5 years?' and 'what are your dreams?' have two diverse responses and are left out of this table for the sake of clarity. As you can see, farmers claim to have a yield per hectare of 776.6 kilos. In our report, we use 300kg of cherry per hectare, because we know that this is a more accurate number. The high numbers in the responses are due to the fact that farmers exaggerate quite a bit, because they feel like the questionnaire is kind

TOPIC	ANSWER	RESULT	ANSWER	RESULT	ANSWER	RESULT
Total Ha	Avg	1.2	Mediaan	1		
Village	Gera	8	Gura	37	Tega	31
	Mecha	22	Zingaj	2		
Sexe	M	97	F	3		
Family size	Avg	6.9	Mediaan	7		
Literacy	Yes	66	No	34		
Participation in Community	Yes	32	No	68		
Clean Water	Yes	4	No	96		
Electricity	Yes	0	No	100		
Distance to Main Road	Yes	55	No	45		
Distance to Main Road minutes	Avg	9.00	Avg filter	90		
Mobile Phone	Yes	65	No	35		
Charger	Yes	64	No	36		
Lamp	Yes	99	No	1		
Coffee Land in Hectare	Avg	1.2				
House	Mud-Iron	83	Tukul	15	Other	2
# Coffee Tree	Avg	2,176	Tree/ha	1,777		
Total Yield in Quintal and kg	Avg (quintals)	7.8	Avg (kg)	779		
Yield/tree (kg)	Avg	0.6				
Yield/Ha (kg)	Avg	776.6				
Livestocks	Yes	66	No	32	Other	2
Coffee Income in Birr/Year, €/yr	Avg	6938	Avg €	310.28		
Other Crop Income	Yes	26	No	74		
Other Crop Income Birr/Yr	Avg	822	Avg filter	4,567		
Total income (avg coffee + avg other crop)	Avg	7760	Avg €	347.0		
Livestock Income (once in many years)	Yes	19	No	81.0		
Livestock Income (Birr/once in many years)	Avg	620	Avg filter	3,647		
Remittance	Yes	6	No	94		
Coffee Sold to Tega & Tula y/n	Yes	2	No	93	Other	5
Coffee Sold To	Merchants	84	Union	11	Other	5
Pick Red Cherries y/no	Yes	82	No	1	Blank	17
Do you bring your Coffee to the Station in 24 Hour?	Yes	1	No	89	Blank	10
Do you want to enroll in a training program? (What if you have to pay a little?)	Yes	19	Yes if	29		
	Other	7	Blank	45		
What would you buy first if you get rich?	Vehicle	38	Grinding mill	16	TV	3
	Better house	4	House and Vehicle	3	Blank/Other	36

FIGURE 9 CARBON EMISSIONS (KG CO₂ EQ)

of a job interview. 4 farmers answered they have access to clean water, but this is shared pipe water; that is why we reported that none have easy access to clean water. 'Distance to main road' means whether farmers have direct access to a main road, leading to a village and market place. 45 farmers do not have such direct access; this group has to travel 90 minutes on foot on average to reach the nearest main road.

We have applied the International Wealth Index of Nijmegen University to our results. The wealth index is designed to universally compare living standards in developing countries. In a country like the Netherlands, most people would score an optimal 100, check for yourself whether you own or have access to the items listed below. A farmer in China scores approximately 70; inhabitants of Addis score 57. The IWI score for our farmers is as low as 7.4 and is calculated using the IWI framework:

CONSUMER DURABLES	WEIGHT	RESULT	SCORE
Television	8,612657	0%	0
Refrigerator	8,429076	0%	0
Phone	7,127699	65%	4,63300435
Car	4,651382	0%	0
Bicycle	1,846860	2%	0,0277029
Cheap utensils	4,118394	50%	2,059197
Expensive utensils	6,507283	0%	0
HOUSING CHARACTERISTICS			
FLOOR MATERIAL			
Low quality	-7,558471	100%	-7,558471
Medium quality	1,227531	0%	0
High quality	6,107428	0%	0
TOILET FACILITY			
Low quality	-7,439841	89%	-6,62145849
Medium quality	-1,090393	11%	-0,11994323
High quality	8,140637	0%	0
NUMBER OF ROOMS			
Zero or one	-3,699681	100%	-3,699681
Two	0,384050	0%	0
Three or more	3,445009	0%	0
PUBLIC UTILITIES			
Access to electricity	8,056664	0%	0
WATER SOURCE			
Low quality	-6,306477	100%	-6,306477
Medium quality	-2,302023	0%	0
High quality	7,952443	0%	0
Constant			25,004470
IWI SCORE			7,41834353

FIGURE 10

The average IWI score for Ethiopia is 15.3. The average score for rural areas is 8.1 (2011, based on data from Demographic and Health Surveys (DHS)).

Our IWI Impact approach and goals

1. Identify and interview a group of smallholders in a certain area.
 - a. Minimal group size 50
2. Establish IWI score
3. Compare IWI group score with:
 - a. Rural Ethiopia
 - b. Rural Kenya
4. Extrapolate IWI growth last 10 years to +5 and +10 years for rural Ethiopia and Kenya.
5. Goal:
 - a. Short term 2020 – 2025: 90-100% of average rural IWI Kenya + 4 other top African countries at that moment;
 - b. Medium term 2035: 70-80% of urban IWI Ethiopia at that moment;
 - c. Long term 2050: to an IWI of 100 > towards a situation where measuring IWI is no longer relevant;
 - d. Monitor every 5 years: relate IWI scores of our farmer groups with average rural Ethiopia at that moment.

"IWI is a simple, understandable and stable indicator of the economic situation of households, regions and countries across the developing world. This index is a useful instrument for tracking improvements and measuring the impact of social enterprises." Jeroen Smits, Associate professor, University of Nijmegen.

Please visit www.globaldatalab.org/iwi/ for more details.

TERM	DEFINITION
Water supply	high quality is bottled water or water piped into dwelling or premises; middle quality is public tap, protected well, tanker truck, etc.; low quality is unprotected well, spring, surface water, etc.
Toilet facility	high quality is any kind of private flush toilet; middle quality is public toilet, improved pit latrine, etc.; low quality is traditional pit latrine, hanging toilet, or no toilet facility.
Floor quality	high quality is finished floor with parquet, carpet, tiles, ceramic etc.; middle quality is cement, concrete, raw wood, etc. low quality is none, earth, dung etc.
Cheap utensils	any cheap (roughly under 50 US Dollar) item that is present in the data
Expensive utensils	the possession of expensive (roughly over 250 US Dollar) items, like having a washer, dryer, computer, motorbike, motorboat, airconditioner or generator
Electricity	whether (1) or not (0) the household has access to electricity.

FIGURE 11

WALK THE TALK

Moyee has social entrepreneurship in its DNA. We feel it is our duty to cooperate and share our knowledge with likeminded organizations. That is why we are affiliated with the leading social entrepreneurship network organizations in the Netherlands.

B CORP

Moyee is a certified B Corp since October 2014. For that, we have made the following declaration:



DECLARATION OF INTERDEPENDENCE

We envision a global economy that uses business as a force for good.

This economy is comprised of a new type of corporation – the B Corporation – Which is purpose-driven and creates benefit for all stakeholders, not just shareholders.

As B Corporations and leaders of this emerging economy, we believe:

That we must be the change we seek in the world.

That all business ought to be conducted as if people and place mattered.

That, through their products, practices, and profits, businesses should aspire to do no harm and benefit all.

To do so requires that we act with the understanding that we are each dependent upon another and thus responsible for each other and future generations.

Our first score is 91 out of 200. Please visit www.bcorporation.net/community/moyee-coffee for details on our score. In the process of recertification in 2016, Moyee will be improving its B-score.

SOCIAL ENTERPRISE NL

Moyee is a member of Social Enterprise NL. Its mission:

“Social Enterprise NL is a driver for the growing movement of social entrepreneurs, enabling it to create more social and economic impact.”

Please visit www.social-enterprise.nl for more details.

DE GROENE ZAAK

Moyee is a partner of De Groene Zaak, and Moyee's founder Guido van Staveren is one of the members of the board. The mission of De Groene Zaak:

“Partners of De Groene Zaak together aim to realize the transition to a sustainable economy and society in the highest acceleration possible.”

Please visit www.degroenezaak.com for more details.

MVO NEDERLAND (CSR NETHERLANDS)

Moyee is a partner of MVO Nederland: “CSR Netherlands is the Centre of Excellence for Dutch companies that are striving towards corporate social responsibility. More than 2000 companies are affiliated with this networking organization.”

Please visit mvonederland.nl/csr-netherlands for more details.

NATURAL CAPITAL COALITION

The Natural Captains programme helps companies get started with natural capital in a cooperative learning environment and by promoting shared initiatives. Moyee is a proud participant of the ‘NatCap’ program. ◀

OWNERSHIP STRUCTURE

Moyee Coffee Holding BV comprises Moyee Coffee Nederland BV, Moyee Coffee Automaten BV and Moyee Ethiopië (figure 12). Moyee Holding PLC is our roasting facility in Ethiopia, which is a joint venture between Ahadu Woubshet (42%) and Moyee Holding BV (58%).

Moyee was founded by Guido van Staveren van Dijk. Initially funded by himself, family and friends, he later brought in private investors to expedite growth. Currently, Moyee has 18 shareholders (figure 13). For clarity, Middle Europe Capital BV is Van Staveren; Vrederijk Holding is Rijkman Groenink; Friendship BV is Jan Hein van Joolen; STAK Moyee comprises a number of senior Moyee team members; Verdi Consulting BV is Jan Groenen. The remaining 13 shareholders equal less than 5% of the company.

WHAT THE HECK?! RIJKMAN GROENINK?

Honestly, many people question the involvement of the former – and controversial -- ABN Amro top man Rijkman Groenink in Moyee. After introducing him at our first Roast Party in 2015, we received 6 very explicit complaints. One Moyee customer said: “I feel this gentleman is the textbook example of everything that is (and was) wrong in the world of banking... It stings me that Moyee teams up with this gentleman.

If he now invests his (unfairly earned) money in better purposes, that’s fine, but let him do that modestly and silently. Now you offer him the chance to rehabilitate.” To this complaint, Moyee’s Van Staveren replied: “Moyee is a 50/50 company. We strive for balance, also between ideals and capital. Sure, we would like to carry out our plans independently, but I feel we shouldn’t reject outside support just because investors pursue their own commercial goals. 50/50 means looking beyond perception. George Clooney (Nestlé) is not a priori good and Rijkman is not a priori bad. Easy answers are absent.” To another complaint, Van Staveren replied: “Like him or hate him, Groenink is one of a handful of investors who are opting ‘all-in’ on the success of FairChain. It’s a ‘motley crew’ of ideologues and capitalists, creatives and social do-goodniks. We are a brand that provokes; putting Groenink on the stand furthers the FairChain discussion beyond just another cute niche coffee brand.”

To the point, as a small start-up Moyee was unable to tap into impact investment funds, and to grow we turned to private investors willing to use their networks and money to finance our dream. In both cases, Groenink has been generous, but most of all Groenink’s defection to a social-driven brand like Moyee is a repudiation of the old paradigm of profit maximization. The man who, to many, represents this old paradigm has come to his senses and is now helping us realize a new paradigm altogether.

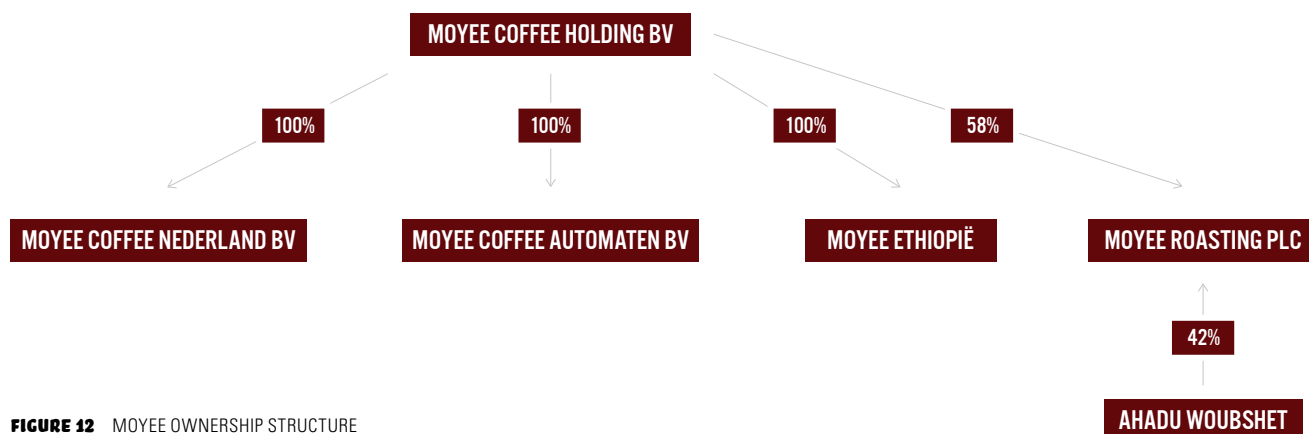



FIGURE 12 MOYEE OWNERSHIP STRUCTURE

SHAREHOLDER	% OF SHARES
Middle Europe Capital BV	29,20%
Vrederijk Holding BV	16,67%
Friendship BV	11,13%
STAK Moyee	9,42%
Verdi Consulting BV	6,91%
J.C. Oeberius Kapteijn	3,46%
L.J. Frankenhuis Holding BV	3,33%
Phavorite BV	3,33%
Van Essen Consult BV	3,17%
A. Woubshet	2,43%
A.L. Oeberius Kapteijn	2,30%
D. Mogueuse	2,30%
M.J. Wisselink	2,30%
B.A. van der Reijt	1,15%
T.T.M. Stok	1,15%
A.L.H. Stok	1,15%
J.E. Pronk	0,58%
Total	100,00%

FIGURE 13 MOYEE SHAREHOLDERS

For all the financial details of Moyee, please come over to B Amsterdam for a cup of delicious FairChain coffee and take a look at our balance sheet and profit & loss statement of 2015. 

BIBLIOGRAPHY

¹ Dutch governmental department for entrepreneurship

² From Compensation Plan Moyee Ethiopia Roasting PLC:

Moyee's explicit goals are:

1. To achieve an above market conform, FairChain salary structure, that enables socio- economic growth, towards at least middle class livelihoods.
2. To achieve a higher grade of equity (relative to position, experience and skill)

³ S. Ponte, The Latte Revolution, 2001.

⁴ U.S. Energy Information Administration (EIA)

⁵ http://www.et.emb-japan.go.jp/electric_report_english.pdf