

Coffee Barometer



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Coffee Barometer

In fond memory of our
friend and colleague
Joost Pierrot (1950–2020)

‘Let me check the figures’



Sjoerd Panhuysen and Joost Pierrot

1

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Introduction

Although the constraints and potential solutions are known, a widely agreed strategy for achieving sustainable links between coffee production and coffee consumption remains elusive.

1 Introduction

3

The year 2020 has long captivated the coffee sector's imagination as the culmination of the sustainability transformation process set in motion after the 2002 coffee crisis. Over the past decades, development of sustainability solutions has been picking up pace and is rapidly expanding in numbers, scope and global presence. In general, it seems the constraints and potential solutions are known, but a widely agreed strategy for achieving sustainable links between coffee production and coffee consumption remains elusive. This is due to the sector's inclination to focus on continuous growth of production to meet global demand. This means that even if some specific gains are achieved at farm level, they are never sufficient to sustainably transform other links in the value chain, like trade and consumption. This 6th edition of the Coffee Barometer reflects on how the coffee sector could create truly systemic changes that are sustainable and impactful, instead of limiting itself to only managing a confusing set of issues, problems and contradictions.

While the Covid-19 pandemic has delivered the biggest and broadest value chain shock in recent history, it is only the latest in a series of disruptions that has exposed the fragility of the global coffee sector. Only a decade ago, the aftershocks of the global economic crisis and the devastating spread of the plant disease roya in Latin America created havoc in coffee communities. Extreme droughts in Brazil's main coffee areas made headlines in 2016/17. In August 2018, the commodity futures price dropped below US\$1.00 per pound for the first time in twelve years (SCA, 2020). Alongside low coffee prices, production costs for producers have also increased sharply since 2010, further squeezing incomes (Sachs et al., 2019). Consequently, the livelihoods of coffee producing households, the majority of which are led by smallholders in low- and middle-income countries, are increasingly at risk (ICO, 2019b).

The last decade was the warmest in recorded history, and globally governments and industry leaders are increasingly under pressure to seriously commit themselves to the Paris Agreement as well as the UN Sustainable Development Goals (SDGs). Persistence of the consequences of climate change is a certainty and remains the defining issue in the coffee sector. Still, players and stakeholders in the coffee sector are increasingly aware that we are way off track to meeting even the most basic economic, social and environmental goals.

Against this background, the Coffee Barometer 2020 looks specifically at the role of the main private sector players. The coffee supply chain is closely tied to the top ten multinational roasters that represent over 35 percent of global trade in green coffee and engages millions of smallholders and workers. In the top 10 coffee producing countries, we provide insight in the problems smallholder coffee farmers encounter in responding to the global market structures. Contributing to the resilience of smallholder coffee farmers is imperative to create a sustainable coffee sector. To understand the current state of voluntary sustainability initiatives from roasters and traders, we take a closer look at their main successes and failures.

More and more multi-stakeholder platforms are actively involved in shaping the dynamics of the sustainability debate and actions. While it is time to assess the achievements of both the Sustainable Coffee Challenge (SCC) and the Global Coffee Platform (GCP), new initiatives are also emerging. It is encouraging to see that these new initiatives challenge the sector's conventional thinking. They foster establishing a 'prosperous income' in coffee producing countries, or they develop alternatives for the C-Price mechanism, the coffee commodity market which every day determines the global price of coffee (ICO, 2020b; SCA, 2020). The most radical idea is to create a "Global Coffee Fund" in the range of USD \$10 billion per year (Sachs et al., 2019).

The Coffee Barometer is not an academic exercise but rather a result from the sense of urgency to shed light on the dynamics of the change process in the coffee sector and the main sustainability trends in recent years. More in-depth sustainability discussions might help us towards countering the negative trends and focus on actions with much positive impact at all levels in the coffee sector.

Industry must take the first step,
however; they cannot expect others to
step in to save an industry that is not
interested in saving itself.
(Sachs, 2019)

2

Consumption and profitability

The asymmetries in power and information among participants in the global coffee market result in some stakeholders benefitting more than others; especially the coffee roasters appear as the big winners.

2 Consumption and profitability

2.1 The lockdown

As an immediate effect of the Covid-19 pandemic, net imports of coffee in the European Union (EU), United States (US) and Japan declined in 2020 compared to 2019. While the out-of-home market is confronted with huge revenue losses, players in the at-home market encounter significant value growth. Closure of horeca and many people working from home, boosted coffee sales in traditional retail and e-commerce. With consumers stocking up on coffee, sales of coffee pods and retail packaged coffee soared world-wide. This resulted in mixed results for roasters, with those supplying retailers or selling directly online performing much better than others who traditionally are more reliant on the hospitality industry (Butler, 2020). With the global economy sliding into recession, the big concern is that the increased at-home consumption will not be sufficient to compensate for lost sales of the higher value out-of-home coffee products.

2.2 Consumption patterns

Europe is the world's largest coffee consumption market region, followed by respectively Asia and Oceania, Latin America and North America. The International Coffee Organisation (ICO) reported in November 2020, that global consumption for the coffee year 2019/20 amounted to 167.6 million 60-kg bags of green coffee (ICO, 2020d). Respectively, Europe imported 55 million bags and North America 31 million bags in 2019/20 (ICO, 2020d). In these mature markets, it is not the volume, but the demand for higher quality coffee that will drive the future value of coffee retail sales. Other markets are rapidly developing, which is good for the future of coffee: a diversified consumption base benefits market resilience (see Box 1).

Coffee consumption and the prices that consumers are willing to pay, relate to the consumption occasion at home or out-of-home. Although figures vary by country, culture and source, it can be assumed that between 65–80% of the world's coffee consumption takes place at home (Samper et al., 2017). The at-home consumption includes low value roasted brands, high quality packaged coffees, instant coffees and single serve presentations (pods or capsules), as well as Ready to Drinks (RTDs). These coffee offerings are sold at very competitive prices at supermarkets, coffee shops and online, and have a key influence in the global coffee value chain.

Away-from-home consumption may take place through coffee shops at higher price points. The coffee shop segment is a high-visibility channel, although it only accounts for a limited portion of overall volume. In this segment quality, differentiation and consumer experience play a very significant role. The away-from-home locations accounting for the most substantial volumes are described as the foodservice channel, which includes Office Coffee Service (OCS), Hotels, Restaurants and Cafeterias (Horeca), Quick Service Restaurants (QSR) and other outlets selling or providing coffee in large volumes such as airlines or hospitals (Samper et al., 2017).

BOX 1. The four major types of coffee markets (Barry, 2019):

1. Premiumisation-led markets: crucial in countries where population growth is slow and coffee markets are mature, like in Western Europe, North America and Japan. Volume growth is slow in these mature markets and there is an emphasis on consumers switching from standard ground and instant coffee to pods and RTDs. In this market, demand for quality is high. Nearly half of all value growth globally between 2018 and 2023 will take place in these countries as consumers trade up to more expensive formats (eg. France, United States). The possibility of an economic downturn poses a threat to the growth potential. A good example is the ongoing uncertainty regarding the Brexit and United Kingdom's future relationship with the European Union, which frustrates the planning and investment in the UK's coffee shop market.

2. Income-led markets: these are countries where consumers are drinking more coffee as their incomes rise, and where coffee shops play an important role as a symbol of entry into the global middle class. Asia and Eastern Europe have become the focus of future growth for coffee shops: China alone will see more outlets added by 2023 than every non-Asian region combined, both value and volume sales are doing well here. This future coffee shop growth will be reliant on an expanding base of consumers with increasing disposable income. On the other hand, one should consider that such markets are vulnerable to sudden macroeconomic shifts (eg. China, Russia).

3. Population-led markets: In these countries growth comes from a rising number of coffee drinkers. This benefits conventional formats as these markets offer limited opportunity to switch to coffee consumption. Consumers may want to trade up but are often restricted by their incomes from doing so, which means that basic and affordable formats like standard ground or instant are the key to the overall market (eg. Ethiopia, Mexico).

4. Soft driver-led markets: This market type is the least geographically consolidated compared to the previous three. Identified as countries where the coffee culture is changing, thereby pushing the demand for coffee higher than would otherwise be expected, soft-driver-led markets are scattered around the globe. Coffee is reaching more consumers in these countries than before, because of coffee shop expansion, new product launches and promotional campaigns (eg. Turkey, United Arab Emirates).

(After: Barry, 2019).

2.3 Roasters and revenues

A few very large roasters dominate the coffee market, all of which bar one have their headquarters in Europe or the United States. Mergers and acquisitions in the industry – as addressed in the 2018 Coffee Barometer – continue to drive consolidation in the market and increase market shares and value of these companies. This consolidation is also reflected by the fact that 86% of the total European Unions' imports is roasted in only six countries: Germany and Italy have the largest roasting industry, followed by Spain, the Netherlands, France and Sweden. In general, these roasters have invested heavily in diversifying their portfolio of brands and cover the whole spectrum of traditional roast and ground products, as well as a wide range of single-serve options, next to espresso beans or low profile instant coffee (Panhuisen and Pierrot, 2018). They are active at a global scale, and with their large portfolio of brands they are present in all major coffee markets (see Box 2). Together, the companies in figure 1 are responsible for roasting 35% of the world's coffee, which generated an estimated US\$ 55 billion in total revenue in 2019. Some of these roasters have higher value shares compared to their volume shares, which illustrates their dominant presence in higher value coffee segments, like single-serve capsules or the out-of-home market. Roasters with the opposite share equation usually have a product and brand portfolio competing at competitive prices levels, found in the roast and ground coffees segment.

Box 2: Roasters' market developments

Nestlé Nestlé's coffee-focused strategy appears to be stimulating growth in its beverages category. The brands of Nespresso, Nescafé, Starbucks and Coffee-mate creamers count as key contributors to its sales increases and result in a global revenue of CHF 19 billion (Nestlé, 2019; 2020). In the first quarter of 2019, Nestlé successfully launched a new range of 24 premium coffee products under the Starbucks brand, with mainly branded products in supermarkets and for its single-serve brewer capsules. E-commerce is also playing a more significant role for coffee shops and retail packaged coffee companies. While Nestlé's out-of-home businesses, including its Nespresso boutique stores, have suffered a decline in 2020, its e-commerce sales grew by almost 50% in the second quarter of 2020, reaching 1/8 of total group sales (WCP, 2020b). With many consumers viewing coffee pods as an economical way to replace takeout coffee, Nespresso and JDE Peet's are investing in coffee pods and capsule production facilities in Switzerland and France to match the demand (WCP 2020c; 2020d).

JDE Peet's End 2019, German-owned JAB Holdings announced to combine Jacobs Douwe Egberts JDE and Peet's Coffee to explore an Initial Public Offering (IPO) (JDE, 2019). Being the only big European IPO launched during the pandemic it raised strong investors' interest. The newly named company JDE Peet's raised Euro 2.25 billion

at its launch on the Euronext stock exchange in Amsterdam. Based on the revenue figures of 2019, JDE Peet's is expected to have a combined revenue of approximately Euro 7.8 billion a year. JDE Peet's brand portfolio will offer consumers a broad range of choices that include traditional roast and ground coffees, soluble coffee, on-demand systems such as Senseo and Tassimo, and products compatible with other popular coffee systems. JAB Holding's other crown jewel is Keurig Dr Pepper (KDP), with KDP-manufactured single serve coffee pods currently representing 81% of US coffee pod sales. The company entered into a licensing agreement with McDonald's to manufacture and distribute McCafé-branded coffee pods. In February 2020 it signed a long-term partnership with Nestlé USA to manufacture and distribute Starbucks-branded K-Cup pods (FBN, 2020).

Lavazza In mid-2019, Lavazza entered into a partnership with Pepsico to launch a premium RTD coffee in the UK in mid-2019. As a result of its acquisition of two prominent self-serve and vending coffee businesses (Australian coffee pod firm Blue Pod and Mars Drinks' coffee vending machine business) Lavazza is seeking to consolidate its reach across international retail markets as part of a growth strategy. The company announced strong annual results with a rise in revenues to €2.2 billion in 2019. Recently, Lavazza announced a partnership with Yum China, with the intention to initiate a Lavazza's retail coffee shop model in China (WCP, 2020b).

Starbucks Starbucks is the leader in retail coffee, selling its products through more than 32,000 stores in 83 markets around the world. In 2019, their beverages product category generated US\$ 16.5 billion. Currently, the company is reporting significant quarterly revenue losses after years of strong growth. The US and China are crucial markets for the Seattle-based firm, containing 61% of its global store portfolio (Forbes, 2020). While Starbucks dominates the US market, it increasingly faces tough competition in international markets, including from Dunkin', McCafé and Costa Coffee, a subsidiary of The Coca-Cola Company and China-based Luckin Coffee.¹ Due to the effects of the pandemic, the rise of international chains such as Starbucks and Costa's, might set to go into reverse in China, South-East Asia and Eastern Europe. Recently, Starbucks announced it will be closing up to 400 stores in the US and up to 200 stores in Canada as part of its restructuring plans (WCR, 2020a)

JDE Peet's Offer Price has been
set at €31.50, implying a market
capitalisation of €15.6 billion.
(Euronext, 2020)

Figure 1: **Top 10 roasters' volumes and revenues, 2019**

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Production and marginalisation

The coffee sector's extractive model of production -relying on rural poverty, devalorised work and the depletion of natural resources- denies that a price has to be paid for labour and land use at origin.

3 Production and marginalisation

3.1 The pandemic

While the effect of the Covid-19 pandemic on coffee production is yet to be determined, it is fair to say it has increased volatility in the coffee market. Supply has been affected by disruptions of logistics systems and international trade, as well as by labour shortages due to local lockdowns and other safety measures (ICO, 2020a). Coffee farming families have lost income primarily due to disruptions of their non-farm businesses and employment, coupled with difficulty in selling food crops. In countries like Brazil and Colombia, workers in the coffee sector have been defined as essential workers who must continue to work during the Covid-19 pandemic (Verité, 2020). In other countries, the pandemic has reversed the tide of migration to rural communities as millions of people (urban and migrant workers) have decided to return to their areas of origin. In the absence of tracking, testing, and implementing quarantine regulations, this also means that it is likely to be a major contributor to the spread of the coronavirus, as has already been observed in India. In addition, field visits by extension services have been cancelled in many countries, thus reducing the farmers' access to technical assistance in a time of great need (Guido, 2020).

3.2 Production and trade

Coffee is produced on approximately 12.5 million coffee farms (Enveritas, 2018). The structure and size of the farms varies by production country. Almost 95% of these are smaller than 5 hectares, and 84% of all coffee farms are smaller than 2 hectares.² It is estimated that smallholder farms produce up to 73% of all coffee, the remaining 27% is produced by large coffee estates. Estates bigger than 50 hectares are only a common feature in Central and South America (Enveritas, 2018). Figure 2 emphasizes the significant differences in the scale and context in which coffee is produced around the world and is a strong reminder about the need for pre-competitive collaboration to address the economic viability of coffee farming.

Amongst all coffee producing countries, Brazil is the largest origin for both Arabica and its Robusta varieties. The leading Robusta producer is Vietnam. In 2019 these two countries accounted for almost half of the global coffee production. World coffee production in 2019/20 is projected at almost 169 million bags with a decline in Arabica output to 96 million bags, while Robusta production is expected to rise to 73 million bags (ICO, 2020e). Despite the pandemic, there are no serious coffee supply shortages reported in the 2020 statistics. On the contrary: the projection shows a global surplus of 1 million bags by the end of the year (ICO, 2020e).³ There is a widening gap between highly efficient producing countries like Brazil and Vietnam, which produce on average 1.5–2 metric tons of coffee per hectare, and nearly every other region in the world (WCR, 2020). Just three countries are responsible for another quarter of the global coffee output: Colombia, Indonesia and Honduras. This tendency – concentration of production – will make future access to volume, quality and diversity of coffee increasingly vulnerable,

given the risk of climatic and geopolitical events.⁴ Figure 2 gives an overview of the top 10 origin countries, and include key Arabica producers like Ethiopia and Peru, as well as important Robusta producers India and Uganda.

Most coffees from individual small farmers are blended and homogenised before shipping, to comply with the quality definitions and standards set by clients in Europe or the US. A large proportion covers the demand for commercial coffee, which is average-quality coffee either for roasted or ground products and instant coffee. Large coffee plantations and cooperatives are active as coffee exporters, but international export-import firms dominate the trade. These international trade houses buy coffee directly from farmers, cooperatives or local traders.

Only five companies handle a total of 62.5 million bags, an equivalent of half of the total green coffee export production in 2019. In the last decade, Switzerland has emerged as a leading hub in the global trade of coffee, probably because of a combination of favourable tax and trade regulations (Public Eye, 2019).⁵ Most of the trade houses have their head office –or at least its trade administration office– in this landlocked country. They typically buy future coffee contracts from suppliers abroad and resell them to clients who are also abroad, meaning the coffee never touches Swiss soil. Like this, the members of the Swiss Coffee Trade Association (SCTA) handle a volume of more than 50% of global coffee exports (SCTA, 2020).

Figure 2. **Top 5 coffee traders**

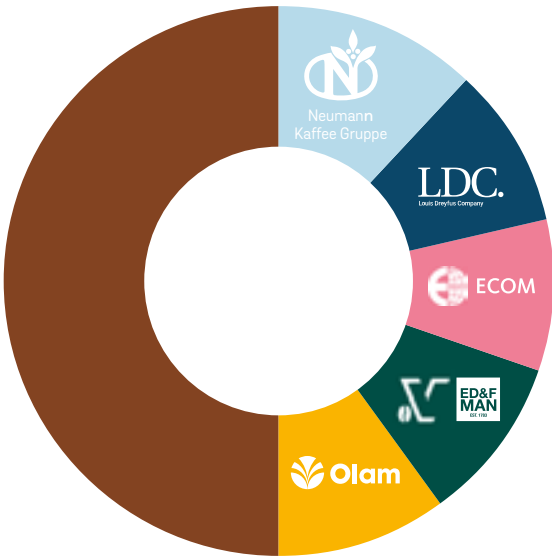
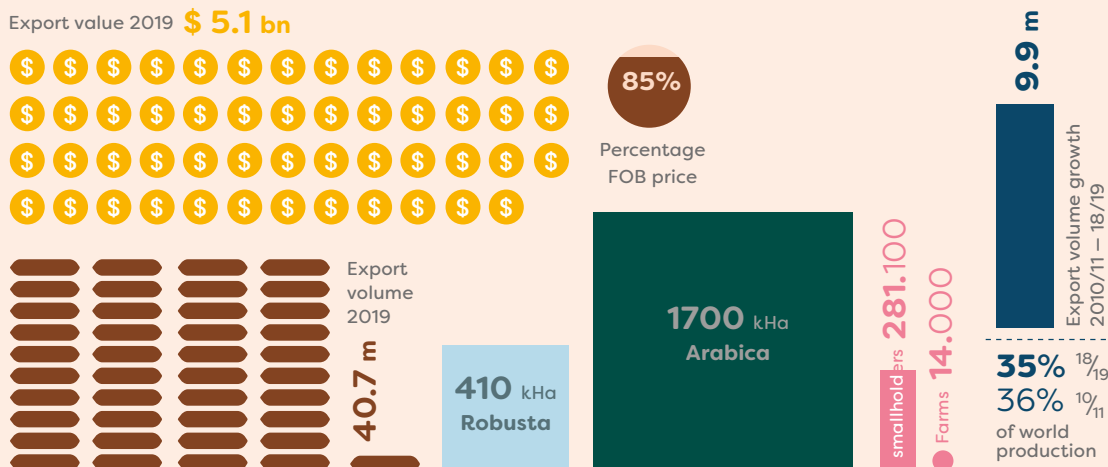


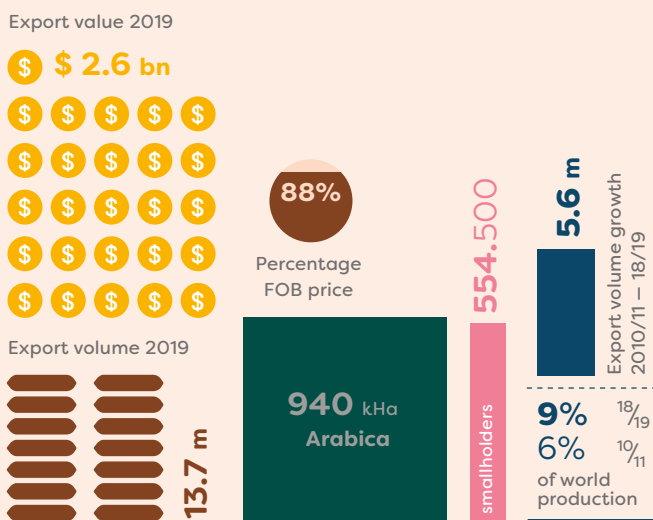
Figure 3: Country overview – production, hectares, farmers

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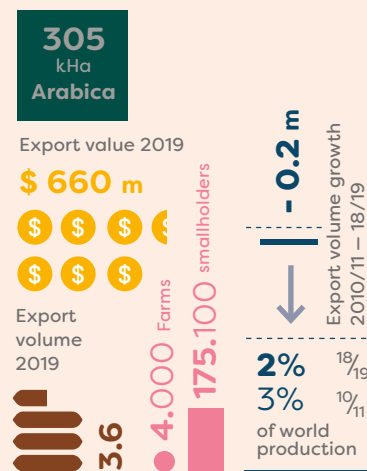
Brazil



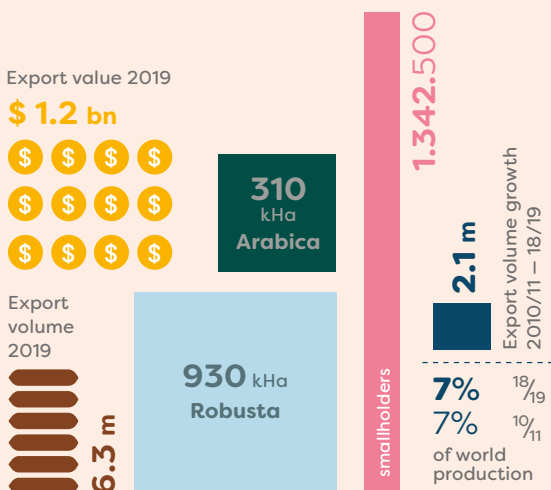
Colombia



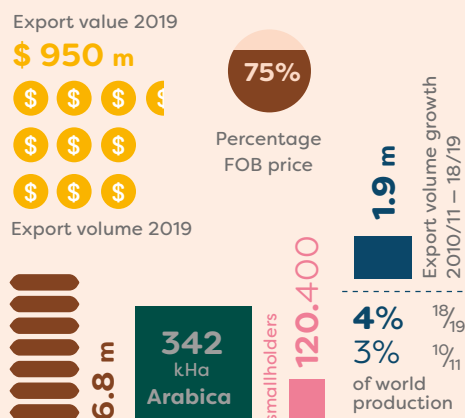
Guatemala



Indonesia



Honduras



Vietnam

Export value 2019

\$ 2.7 bn



95%
Percentage
FOB price



600 kHa
Robusta

90
Arabica

smallholders
600.500

11.3 m
Export volume growth
2010/11 – 18/19
19%^{18/19}
15%^{10/11}
of world
production

Ethiopia

Export value 2019

\$ 740 m



70%
Percentage
FOB price

Export
volume
2019
3.9 m

525 kHa
Arabica

smallholders

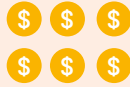
0.2 m
Export volume growth
2010/11 – 18/19
5%^{18/19}
6%^{10/11}
of world
production

2.200.000

Peru

Export value 2019

\$ 620 m



85%
Percentage
FOB price

Export
volume
2019
3.7 m

385
kHa
Arabica

smallholders
202.100

- 0.08 m
Export volume growth
2010/11 – 18/19
2%^{18/19}
3%^{10/11}
of world
production



Export value 2019 in USD



Export volume 2019 in 60kg bags x million



70%
FOB price in percentage paid to farmer



Arabica & Robusta coffee lands in kilohectares



Export volume growth in 60kg bags x million

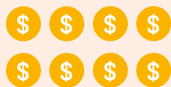


Smallholders

India

Export value 2019

\$ 820 m



Export
volume
2019
6.0 m

227
kHa
Robusta

234
kHa
Arabica

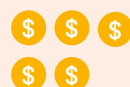
smallholders
185.100

1.0 m
Export volume growth
2010/11 – 18/19
4%^{18/19}
4%^{10/11}
of world
production

Uganda

Export value 2019

\$ 500 m



77%
Percentage
FOB price

Export
volume
2019
4.5 m

105
Arabica

245
Robusta

smallholders

2.1 m
Export volume growth
2010/11 – 18/19
3%^{18/19}
2%^{10/11}
of world
production

1.800.000

3.3 Income and value distribution

In the vast majority of producing countries, coffee is primarily seen as an export cash crop. Around 75% of the global coffee production is exported to international markets. This generated a total value of US\$20 billion on average in the period 2015–2020 (Samper et al., 2017). Figure 2 illustrates the exact export value per country in 2019. Almost all coffee is exported as green unprocessed coffee beans. Roasters and retailers in importing countries capture the largest share of the value addition (see figure 1). It is estimated that currently the average green coffee export value accounts for less than 10% of the US\$200 to US\$250 billion of revenues generated in the coffee retail market (Samper et al., 2017; Sachs et al. 2019).

For the most part of 2020, coffee prices have remained up to 30% below the average price level in the past ten years (ICO, 2020b). Figure 4 illustrates the average of the ICO composite indicator price in the last decade, in relation to the global production and consumption of coffee (also see Box 3). Actually, this is the third year in a row that coffee farmers are experiencing a commodity price of coffee negatively impacting the profitability of all producers (ICO, 2019b). At these low prices coffee production is not economically viable for the majority of coffee farmers. Multiple factors can influence a farms' profitability, including farm size, exchange rates, labour costs, market access, coffee plant diseases, fertiliser costs, or lack of access to capital and insurance (Sachs et al., 2019). Yet the impact is felt differently in the high-productivity countries where the more productive farms remain profitable, compared to most of the other countries

If coffee were a product of the developed world there would have been some price stabilisation mechanism put in place or, at the very least, there would have been subsidies at low prices. (OLAM, 2019)

where producers are operating at a loss. This threatens famous quality origins in countries like Kenya, El Salvador and Mexico (WCR, 2020). Recent research in 13 countries indicates that coffee producers' average annual income decreased significantly over the last 2 years (ICO, 2019b). As a result, the proportion of producers living below the extreme poverty line of US\$1.90 per day has increased dramatically by as much as 44% in Cameroon and 50% in Nicaragua. In 2019, with an average price of US\$1.80 per kg of green coffee, a Colombian producer with 4.3 hectares coffee land could only reach a living income with a production of 1.46 metric tons per hectare (Solidaridad, 2020). Even under a very optimistic scenario with a simultaneous increase in yield and farmgate prices, a producer with a small plot of land would not reach an income level above the poverty line (TFCLI, 2020). The development of economically viable coffee production is vital to many countries' efforts to combat extreme poverty (CABI, 2019).⁶ Although Africa accounts for about 10 percent of global coffee production, these figures understate the importance of coffee production in terms of its contribution to a country's GDP, rural employment, tax incomes and export earnings. For instance, in Ethiopia and Burundi coffee is the largest single exported product by percentage in 2019.⁷

BOX 3 Price of coffee: farmgate, FOB, futures, ICO indicator

Farmgate price: A farmers' revenue depends on the quantities sold and the farmgate prices (volume x price = income). Farmgate price varies by variety, quality, and market destination. Due to many reasons — low volumes, poor market information, lack of infrastructure — producers are predominantly price takers. The farmers' revenue also depends on operating costs, which often outpace inflation and the exchange rate of the local currency versus the US dollar.

Free on Board price (FOB): Exporters sell green coffee on FOB prices to importers, supplying qualities graded according to business specifications.

Futures price: The coffee futures markets in New York (for Arabica coffees) and London (for Robusta coffees) project the future prices for standardised coffee qualities. This is a classic method for pricing commodities and reflect the estimated availability and demand of coffee of the Arabica or the Robusta type.

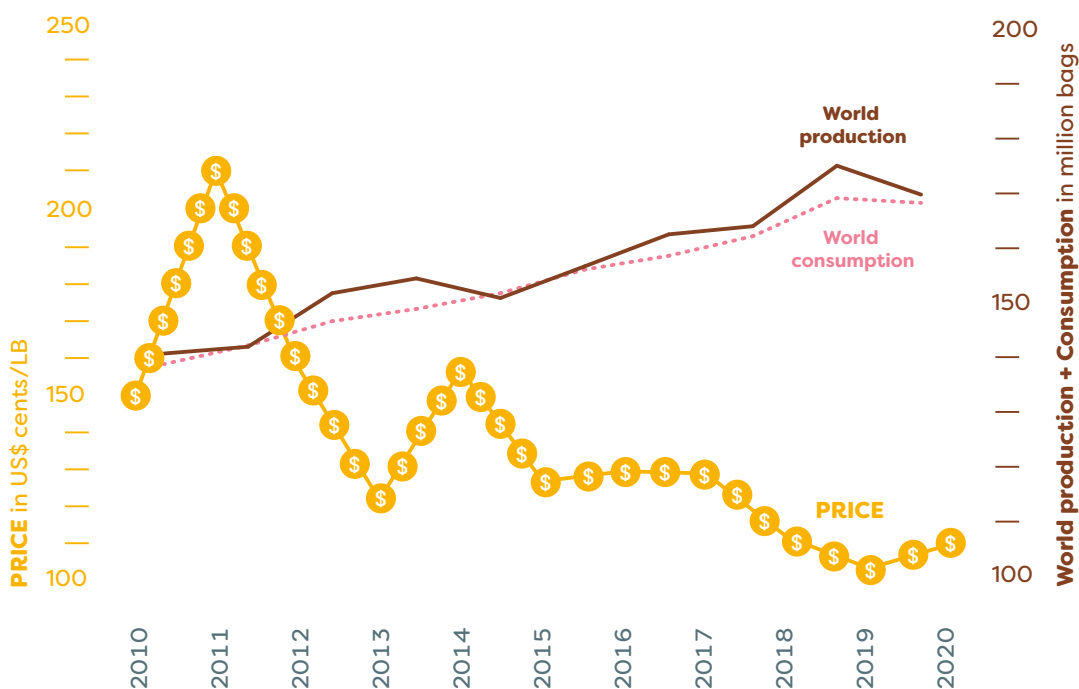
ICO indicator price: For research purposes and to get a better overview of the worldwide price development for coffee, the ICO indicator prices represent and track prices of four main types of coffee qualities: Colombian mild Arabicas, other mild Arabicas, Brazilian and other natural Arabicas, Robustas. Arabica coffees are generally perceived as a better quality product compared to Robusta coffees. This is also expressed in the Arabica price level leading to comparatively higher value of exports with Robusta coffees.

3.4 Social marginalisation

Coffee production is highly labour-intensive because most work is manual. Smallholder farms employ farmers and their family members, as well as hired workers. Larger plantations employ many (seasonal) workers. It is difficult to pinpoint the total number of farm workers due to the rural and seasonal nature of the work and the widespread informality of employment.⁸ The allocation of tasks can vary by gender. A substantial part of weeding, harvesting and processing is often performed by women, while men are more involved in pruning, application of pesticides and logistics. Coffee production and harvesting has several specific health risks, like injuries from sharp tools, injuries from repetitive movements, lifting heavy loads, pesticide exposure or poisoning, respiratory illness from exposure to coffee dust, and exposure to sun and heat (ILO, 2019).⁹

Labour is generally by far the largest expense and may account for as much as 60% of the total cost of coffee production. For example, labour accounts for 51%, 57% and 56% of total costs in Colombia, Costa Rica, and Honduras respectively (ICO, 2019b; Solidaridad, 2019). A notable exception is Brazil, which is characterized by a higher degree of mechanisation and use of agro-chemicals (ICO, 2019b). Against this backdrop, production shocks reduce worker productivity, and low and volatile prices in international coffee markets squeeze grower margins that are already narrow. All this puts pressure on workers' wages, quality

Figure 4: **Production, consumption, price**



of housing, food, and benefits. Child labour is prevalent in the informal coffee economy, where children can easily step in as unskilled labourers. These children are likely to work on family farms and plantations, working alongside their parents either to supplement their families' income, to help parents meet their production quotas, or because the children of migrant parents have nowhere else to go during the day if they are not enrolled in school (USDL, 2020).¹⁰

3.5 Climate change

The growing economic inequality and deteriorating living and working conditions are aggravated by environmental problems and the impacts of climate change and the destruction of biodiversity. As stressed by the UN Intergovernmental Panel on Climate Change (IPCC), we only have 10 years left to stop irreversible damage from climate change and embark on a track to meet the targets as set out in the Paris Climate Agreement.

It is well documented that climate change is increasingly impacting the livelihoods of coffee producers. For instance, coffee pests and diseases, which are already troublesome under the current climate, are aggravated by the effects of higher temperatures (Bouroncle et al., 2017). Also, coffee producing regions are increasingly experiencing changing weather patterns, which for instance is exposed in countries like Honduras, Nicaragua and Guatemala where a combination of droughts, hurricanes and the El Niño phenomena are causing devastating impacts on communities (Germanwatch, 2020).

What is less well documented and reported is that changes to land suitability for coffee production is increasingly driving deforestation and forest degradation in coffee landscapes. While to date coffee has played a relatively small role in global deforestation (compared to commodities like palm oil and soy or extensive cattle farming), climate models and field evidence show that climate change will gradually drive production into new areas that will become suitable in the coming years and decades. Expanding coffee cultivation into these new areas – often at higher altitudes – threatens some of the last intact primary forests on our planet as well as the irreplaceable habitats of particularly high biodiversity value and may damage critical ecosystem functions. For instance, according to the Peruvian national census, 25% of deforestation in Peru is linked to coffee production due to abandoning of lands and subsequent expansion of agricultural borders. In several coffee producing countries a large part of the projected suitable area for coffee in 2050 is currently forested and often unprotected (SCC et al. 2019). However, detecting coffee-driven deforestation (especially when grown under the canopy) has been proven difficult without eye-witness accounts by people familiar with specific landscapes.

The growing global demand for coffee adds to this increased threat that forested lands are being converted into crop land for coffee production (IDH, 2020). The business-as-usual scenario would require doubling or even tripling coffee production to meet demand in 2050 (WCR, CI). This could mean an additional 10–20 million hectares would be needed, if we cannot meet this growth in global demand on current coffee lands. It is estimated that the loss of 10–20 million hectares of tropical forest results in approximately 1.65 – 3.3 gigatons of additional carbon emissions. This will have a devastating impact, not only on the ecosystems and biodiversity, but also on the communities – and the industry at large – that rely on these natural resources for a resilient coffee production. This scenario directly undermines the climate commitments and emission reduction targets of traders and roasters like Olam, Nestlé and Starbucks.¹¹

4

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Private Sector self-regulation

A switch from focusing on costs to values can potentially ensure that sustainable development issues are factored into business decision-making on a more disciplined and systematic basis.

4 Private Sector self-regulation

4.1 Corporate accountability

A future in which coffee production, livelihood aspirations and climate change impact are accounted for, requires radical and systemic changes in the coffee industry's business model. The transition implies a shift of focus from costs to values. The specific sustainability choices made by the main roasters and traders, with their global market and supply chain power, deep pockets and lobbying muscle, could leverage investments in line with their economic size and shareholder values (see Figure 1). Accountability of these companies, as drivers of the global coffee market, must extend beyond their shareholders and consumers, to include clear objectives for sustainable development in producing countries (Grabs and Ponte, 2019). The majority of roasters and traders in this Barometer have publicly committed themselves to reduce, mitigate or eliminate their negative social and environmental impact –or even to contribute to positive societal change– in their supply chains. They have adopted a combination of voluntarily sustainability strategies, which help to reduce regulatory risk, fill a policy vacuum, meet stakeholder expectations, protect their brand and reputation, or differentiate themselves from competitors (Bager and Lambin, 2020).

In this context it is important to reflect on the coffee industries' contribution to two post-2015 agendas for action: the Paris Agreement and the UN 2030 Agenda for Sustainable Development. Together they provide the international framework for sustainable development under a changing climate. Achieving the primary goal of the Paris Agreement – to keep the average global temperature rise well below 2 degrees Celsius and as close as possible to 1.5 degrees Celsius (above pre-industrial levels), is a prerequisite for sustainable development.¹² Climate change adaptation and mitigation is also reflected in the SDGs, which were agreed on by the UN member states, civil society and the business community in 2015. As a complex set of 17 goals and 169 targets, the SDGs created a blueprint to achieve a better and more sustainable future for all by 2030. For instance, the SDG 12 agenda promises “fundamental changes in the way that our societies produce and consume goods”. In other words, the production and consumption of sustainable agricultural commodities will only materialise with the direct engagement of the private sector (ICO, 2019a).

In many coffee producing countries, multinationals rather than the national government are significant for compliance with SDG requirements in coffee sector planning decisions. With agriculture on the top of international development agendas, there are opportunities for producers to gain real benefits from the growing demand for sustainable coffee. These policies shape the availability, as well as the distribution, of financial resources that directly or indirectly impact sustainable development. At the same time, there is also the risk that poorly designed sustainability policies and business strategies will only cover up a 'business as usual' approach.

4.2 Voluntary Sustainability Standards

Voluntary Sustainability Standards (VSS) in the coffee sector are key elements of corporate sustainability and CSR strategies across the coffee industry. VSS have a long history and promote better conditions in international trade and production. Although content and scope vary, they all aim to offer guidelines for producing, selling and purchasing coffee identified as “sustainable”, “responsible”, “ethical”, etc. They can differ on a great number of characteristics, such as standard criteria, audit methodologies and consumer marketing. The main sustainable coffee production standards present in the market are: 4C, Fairtrade, organic, Rainforest Alliance & UTZ, and the private sector standards of Starbucks’ C.A.F.E. Practices and Nespresso’s AAA Guidelines. The VSS are constantly updated by periodic reviews, so it remains difficult to make a general assessment of their results over time as well as understanding the impact of multiple certifications at farm level. The merger of Rainforest Alliance and Utz led to the development of a new Sustainable Agriculture standard in 2020, which focuses more on continuous improvement at farm level, in combination with a data driven and contextualized approach (Rainforest Alliance, 2020). Fairtrade International is in the process of revising its coffee standards and will probably release a new version by mid-2021 (Fairtrade, 2020). 4C Certification presented its revised standard system, applying new audit risk assessment procedures and a strengthened compliance and integrity programme (4C, 2020). In addition, a new VSS, Enveritas, has emerged which harnesses the power of machine learning and “big data” in an attempt to build a larger scale solution (Enveritas, 2020). While several roasters and traders developed or expanded their in-house verification systems, an important distinction needs to be made between the assurance systems that provide independent third party auditing or basic company schemes which essentially ‘mark their own homework’ (see Box 4).

The market credibility of VSS relies heavily on “the assumption that training of farmers in good agricultural practices (intervention) leads to higher yields and better quality products (outputs), which results in increased productivity and profitability (outcomes), ultimately improving incomes and livelihoods for certified farmers (impact)” (Bitzer, 2019). Fairtrade and Rainforest Alliance have received most academic attention when it comes to impact measurement. In contrast, 4C and the private sector standards have remained largely understudied. The studies emphasize that impact is highly context dependent, shaped by how production is embedded within local landscapes, supply chains and social systems (Oya, 2018; Neilson, 2020). Although this seems like an obvious observation, it actually points to the importance of studying the relative contribution of certification to promoting sustainable livelihoods of producers. Available evidence suggests that coffee certification can have moderate positive effects (Giuliani, 2017; Kathryn, 2016; Oya, 2018). In several cases, the adoption of sustainability standards leads to an increase of coffee price levels, which is also the primary incentive for farmers to enroll in certification (Oya, 2018; Tayleur, 2018). However, higher prices do not necessarily translate into higher incomes, considering the cost of certification and compliance, and many studies only find marginal improvements (Neilson, 2020).

Figure 5: **VSS production and demand: 2013 / 2017 / 2019**

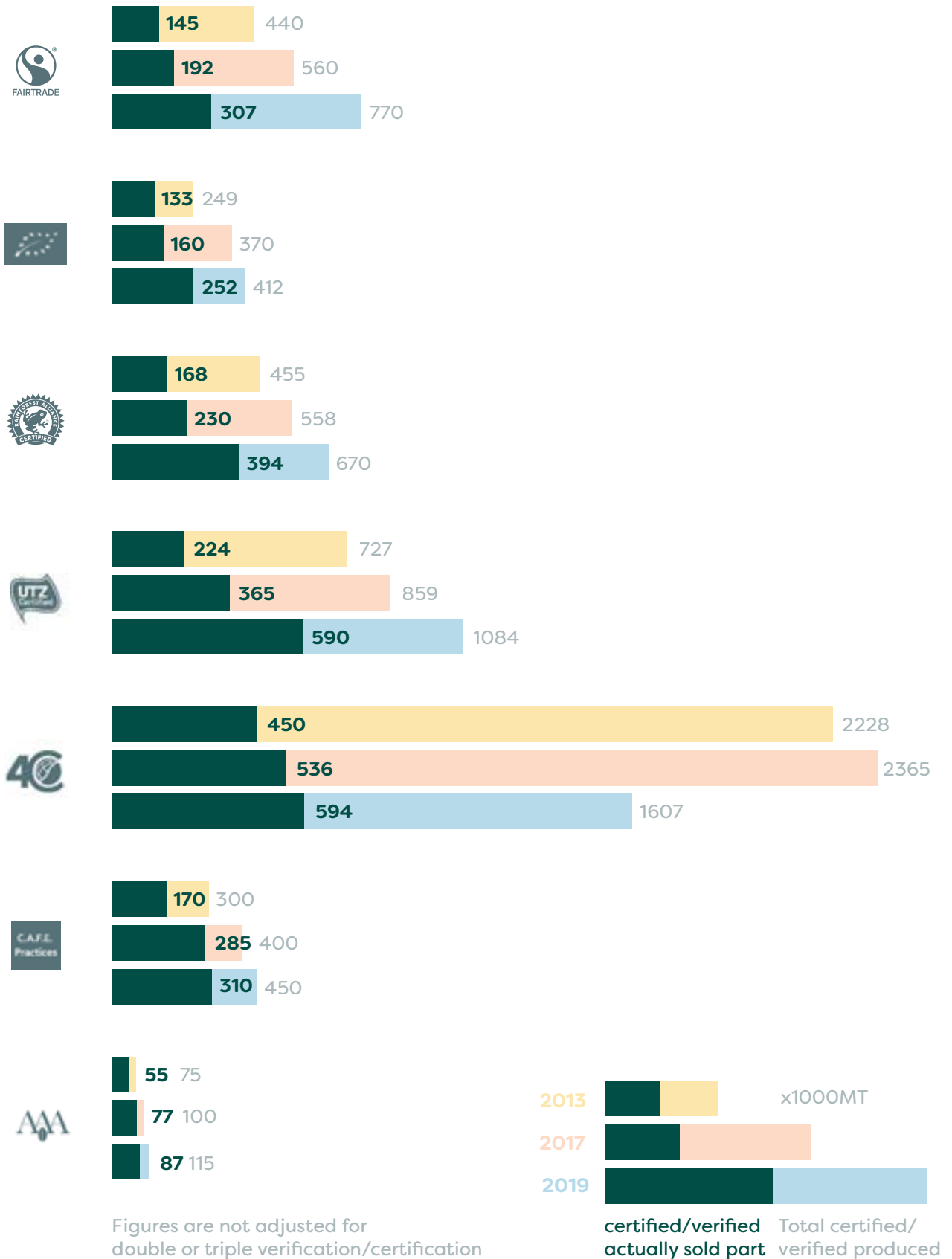
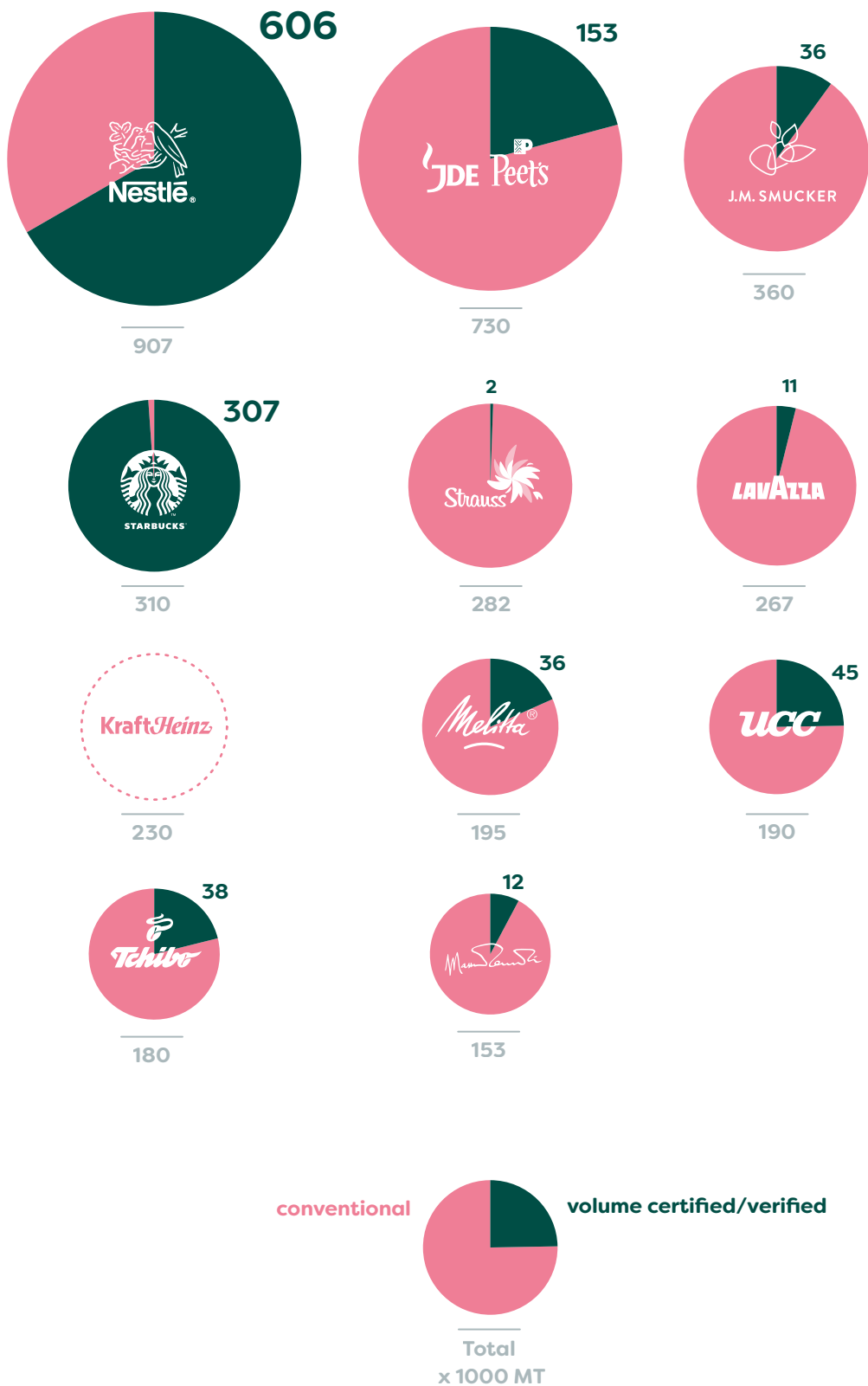


Figure 6: **VSS procurement by roasters**



Environmental impacts seem to be clearer, with studies reporting some positive environmental effects of organic and Rainforest Alliance certification and improved use of agrochemicals and water resources (DeFries, 2017; Hagggar, 2017).

Overall, the results of academic studies indicate that the implementation of VSS is not an adequate solution to improving the incomes and livelihoods of smallholder farmers. Figure 5 illustrates that all VSS have managed to grow their volumes of certified coffee at farm level. But the rapid growth rates have slowed down, while in some instances there is even a noticeable decline in volume. The total volume in 2019/20 covers 55% of global coffee production (this figure is not adjusted for double or triple verification/certification). Despite this impressive figure, the direct benefits to farmers –like price premiums or access to new markets– are limited by the extent to which markets absorb the total volume of certified coffee. This is a critical factor: in 2019 less than 25% is procured as standard-compliant coffee by the industry. In other words: 75% of coffee is still sold as conventional coffee. It does not help that roasters' long-term purchasing commitments are unclear and VSS lack the capacity to manage the supply of certified coffee. The consequence is a decline in both price premiums and the volumes of certified coffee producers were able to sell. This loss of differentiation potential negatively impacts the profitability of certified producers who made upfront investments for compliance. It reduces their financial capacity and motivation to invest in continuous improvement practices.¹³

4.3 Transparency and accountability

There is growing consensus across the industry as well as in civil society that procuring certified coffee alone is not enough to address the sustainability challenges in the coffee sector. Looking at the limited market share of sustainable certified coffee, the private sector aspires other ways to capture and monitor the envisioned transition to a sustainable coffee sector. However, all of the adopted governance mechanisms by coffee companies have one thing in common: they generally depend on voluntary (versus regulatory) measures to ensure disclosure of information. The latter is particularly important to understand the continued lack of transparency regarding many dimensions of commodity production, trade and consumption (Gardner et al., 2018). Transparency is a crucial element and critical to the credibility of any corporate sustainability strategy.¹⁴ While there is a minority of coffee roasters and traders providing comprehensive Environmental, Social and Governance (ESG) related information, in general the quality and comparability of the companies' sustainability reporting is not sufficient to really understand and benchmark their policy strategy (Bager and Lambin, 2020). Often there seems to be no link between the identification of the main sustainability risks and working towards tangible results by combining VSSs, company codes of conduct and CSR activities.¹⁵ Since there are different reporting frameworks and standards (eg. GRI, UN Global Compact, etc.), companies still have the possibility to choose their sustainability disclosures as they see fit (Fransen et al., 2019).

This lack of private sector transparency and accountability is also noticeable in several multi-stakeholder initiatives (MSI) in the coffee sector, like SCC and GCP. For instance, the SCC has been requesting its 160+ partners to publicly state and report their efforts through their online 'Commitments Hub'. The Hub currently captures nearly 120 commitments, but these are mostly vaguely formulated and lack reporting on progress (SCC, 2019). In 2020, the GCP published its first 'Sustainable Coffee Purchases Snapshot 2018'. In this publication, only five roaster and retailer members provide some insight in the origins and volumes of their sustainable coffee purchases (GCP, 2020). While the importance of increased transparency is widely shared across the industry, the results of these sector-wide instruments are disappointing. Of course, the number of companies publicly stating sustainability commitments and publishing CSR reports is not a good proxy for the extent to which these commitments are being met.¹⁶ Furthermore, it is not about what is easy to monitor, it should be about what actually matters and is relevant in the context of coffee production, trade and consumption. But what is challenging about a sustainability focused analysis of the results, is that companies' sustainability reports do not have to be compliant with a systematic set of shared and measurable standards (contrasting the procedure with their financial disclosures). To address this, accountability to actually achieve reductions in climate risk, deforestation, and an array of human rights will only be possible with clear and standard metrics in place (COSA, 2020).

We are convinced that business must not be at the expense of people and the environment. To achieve this, we need a legal bottom line for corporate due diligence. Responsibility and sustainable management must no longer be an option, but the standard. (Tchibo, 2019)¹⁷

In recent years, several attempts have been initiated to create sector-wide consensus on sustainability indicators that can be used to report on achieved progress.¹⁸ In 2017, the SCC and the GCP, rolled-out a ‘Sustainability Framework’ for the sector, which has been updated and fine-tuned ever since (SCC and GCP, 2019). Surprisingly, none of the companies’ CSR reports refers to this Sustainability Framework to disclose their information. The private sector has actively participated in the design and formulation of this multi-stakeholder effort to introduce a common language to navigate coffee sustainability. It would be reasonable to expect an active contribution of companies to create clarity on their individual progress in any of the “15 Intervention Pathways” and related SDGs. To enhance transparency and accountability and to stimulate the discussion, figure 7 presents our findings in the 15 priority sustainability topics and related SDG goals and targets. The SDGs are fueling demands for impact data. Simply ticking the boxes and linking corporate responsibility activity thematically to the SDGs is not sufficient. The point is to know how companies are contributing to achieving the goals and what the actual impact of their contributions is. Similarly, as a sector we need to know how company activities are exacerbating the challenges the SDGs seek to solve, and what that negative impact is in real terms. Doing so at sector level would allow every company to demonstrate clearly how their own actions contribute to achieving the SDGs and benchmark their success rate to that of their peers. It is not just civil society and NGOs that want this information; institutional investors are also exploring how they can align their investment policies with the SDGs. Such investment strategies will inevitably require impact disclosure from business (PWC, 2018).

4.4 Regulating tropical commodities

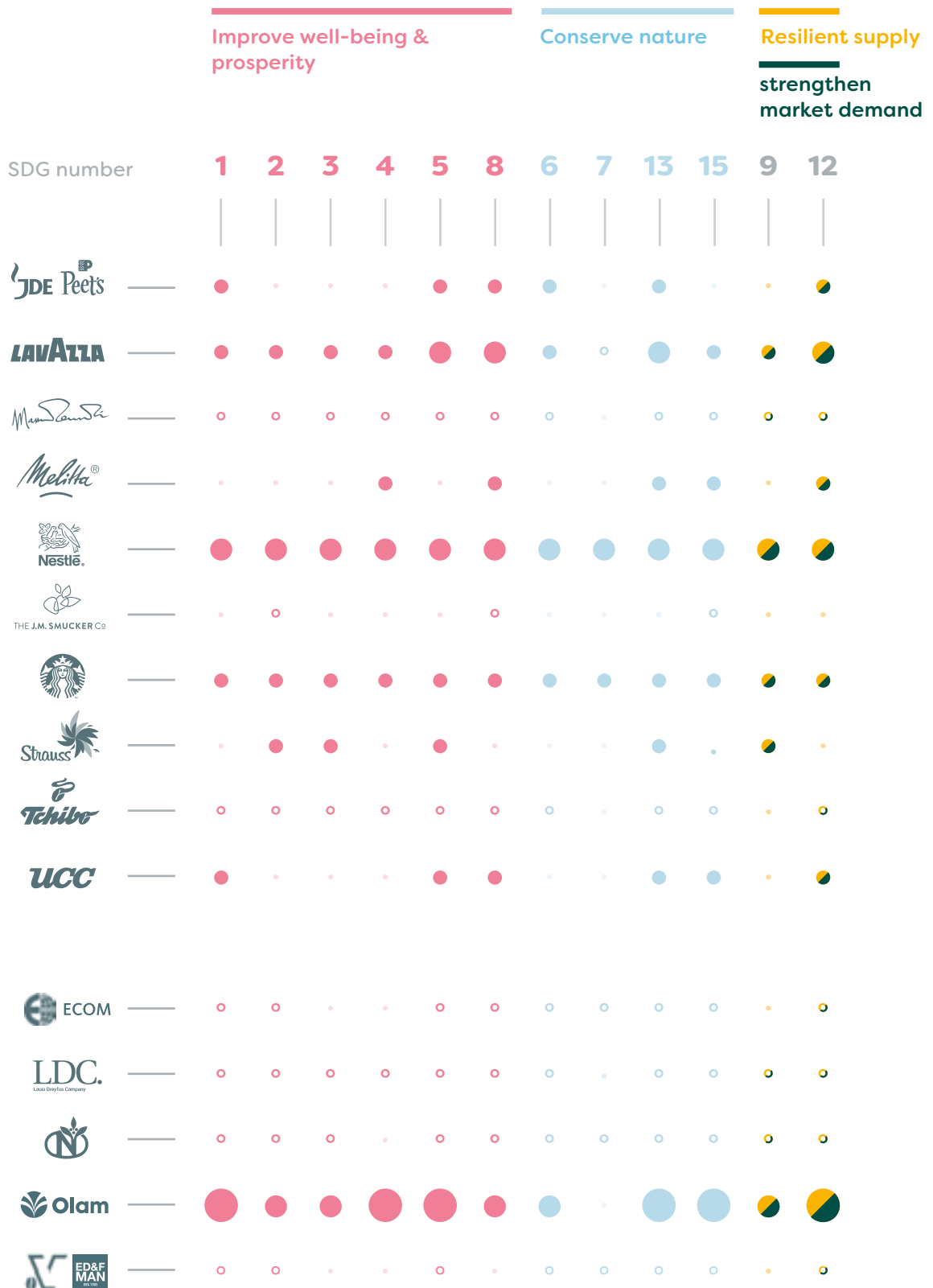
The voluntary approaches to responsible business conduct and addressing sustainability challenges in company supply chains have clear limitations. Concerns include limited impact and market uptake, and lack of a level-playing-field across the market. Increasingly, governments, civil society, but also companies, investors and business groups have recognized the need to complement voluntary approaches with regulations. In Europe this process accelerated and governments have put in place – or are actively exploring – regulations to address issues such as human rights violations and deforestation in supply chains. Examples include the UK ‘Modern Slavery Act’ (2015) and the French law on the ‘duty of vigilance’ (2017). The latter requires parent companies to identify and prevent the potential negative impacts on human rights and the environment of their activities and of their subsidiaries’ and suppliers’ activities. Another example is the Dutch ‘Child Labour Due Diligence Act’ (2019) which makes it obligatory for companies to prevent child labour in their supply chains. The UK introduced a due diligence law on forest risk commodities to prevent large businesses to source and use commodities that have not been produced in compliance with local laws in producer countries. In Germany and Switzerland, the introduction of similar legislation is in an advanced stage.

Meanwhile, the corporate sector itself is asking for clear rules. In September 2020, 26 companies issued a joint statement calling for EU-wide, cross-sectoral mandatory human rights and environmental due diligence legislation. Nestlé is one of the signatories, as well as Tchibo and Paulig (BHRRC, 2020). At the European Union level, the European Commission (EC) is committed to proposing a legislation on sustainable corporate governance in 2021, including mandatory human rights and environmental due diligence. In parallel, the EC will also develop a legislative proposal to prevent market entry of products associated with deforestation or forest degradation in the EU in 2021. This is as a key measure to implement its plans on ‘Stepping up EU Action to Protect and Restore the World’s Forest’. A total of 15 (non-exclusive) measures are currently being assessed, including mandatory due diligence (RBC, 2020). This future legislation is likely to cover key commodities such as coffee, cocoa, palm oil and soy.¹⁹

Box 4 **Overview companies’ sustainability strategies**

As the governance mechanisms to address economic, social, and environmental consequences of coffee production, trade and consumption have expanded, so have demands on the quality of reporting.²⁰ The SDGs are fueling demands for impact data. Simply ticking the boxes and linking corporate responsibility activity thematically to the SDGs is not sufficient. The point is to know how companies are contributing to achieving the goals and what the actual impact of their contributions is in practice. In our research we use a combination of sources to assess the strategy and progress of each company: documents published by companies relating to their sustainability and sourcing activities in 2019 and 2020, recent companies’ sustainability reports (if available) and/or sustainability sections on their websites. We invited all companies to share additional information to critically examine the link between their identification of sustainability risks and tangible results of the combination of company codes of conduct, certified coffee procurement, CSR projects, and other pathways to sustainability (Coffee Barometer Private Sector Questionnaire 2020).²¹

Based on market size in coffee volumes and value, the 15 companies in our overview are the leaders in the coffee sector’s roast and trade segment. All of them publicly agree on the fact that they have to play their part in the transition to a more sustainable coffee sector. It would be reasonable to expect an active contribution of all these companies to create clarity on their individual progress in any of the Sustainability Framework “15 Intervention Pathways” and related SDGs. To enhance transparency and accountability and stimulate the discussion, figure 7 presents our research findings.



	Improve well-being & prosperity	Conserve nature	Resilient supply	strengthen market demand
SDG	<div>1 NO POVERTY</div> <div>2 ZERO HUNGER</div> <div>3 GOOD HEALTH AND WELL-BEING</div> <div>4 QUALITY EDUCATION</div> <div>5 GENDER EQUALITY</div> <div>8 DECENT WORK AND ECONOMIC GROWTH</div>	<div>6 CLEAN WATER AND SANITATION</div> <div>7 AFFORDABLE AND CLEAN ENERGY</div> <div>13 CLIMATE ACTION</div> <div>15 LIFE ON LAND</div>	<div>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</div> <div>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</div>	<div>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</div> <div>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</div>
PATHWAYS	<u>Gender / youth / indigenous peoples</u> <u>Education / health</u> <u>Labor conditions</u>	<u>Climate change</u> <u>Water conservation</u> <u>Forest conservation / restoration</u>	<u>Standards / certification</u> <u>Producer country policy</u> <u>Access to finance</u> <u>Access to inputs</u> <u>Renovation</u> <u>Technical assistance</u>	<u>Consumer education / awareness</u> <u>Sourcing policies</u> <u>Consumer country policy</u>
Explanation	<p>Ensure coffee contributes to improved income and profitability that advances sustainable development opportunities for coffee growers, workers and their families.</p> <p>1 2 3 4 5 8</p>	<p>Conserve primary and secondary forests, high conservation value areas and other natural resources for enhanced coffee production</p> <p>6 7 13 15</p>	<p>Implement sustainable agricultural practices to sustain supply and enable the sector to meet rising consumption and the growing demand for coffee in a socially and environmentally responsible way</p> <p>9 12</p>	<p>Promote, support and invest in context-relevant and specific interventions that provide the necessary incentives and shared value throughout the supply chain</p> <p>9 12</p>

- **Not mentioned** : No information available
- **Exploration** : Public reference to SDG
- **Exposures, risks & opportunities**: Contribution to specific SDG
- **Goal setting & integration** : Prioritisation, specific goals related to SDG, SDGs integrated into strategy and investment decisions
- **Measurement** : KPIs on the SDG related goals

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Multi-stakeholder decade of deliverance

While the collaborative efforts that drive the adoption of sustainability in the coffee sector must be embraced, it is time to ask ourselves two questions: who sets the agenda and do their priorities and methodologies lead to positive results?

5 Multi-stakeholder decade of deliverance

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5.1 Multi-stakeholder collaboration

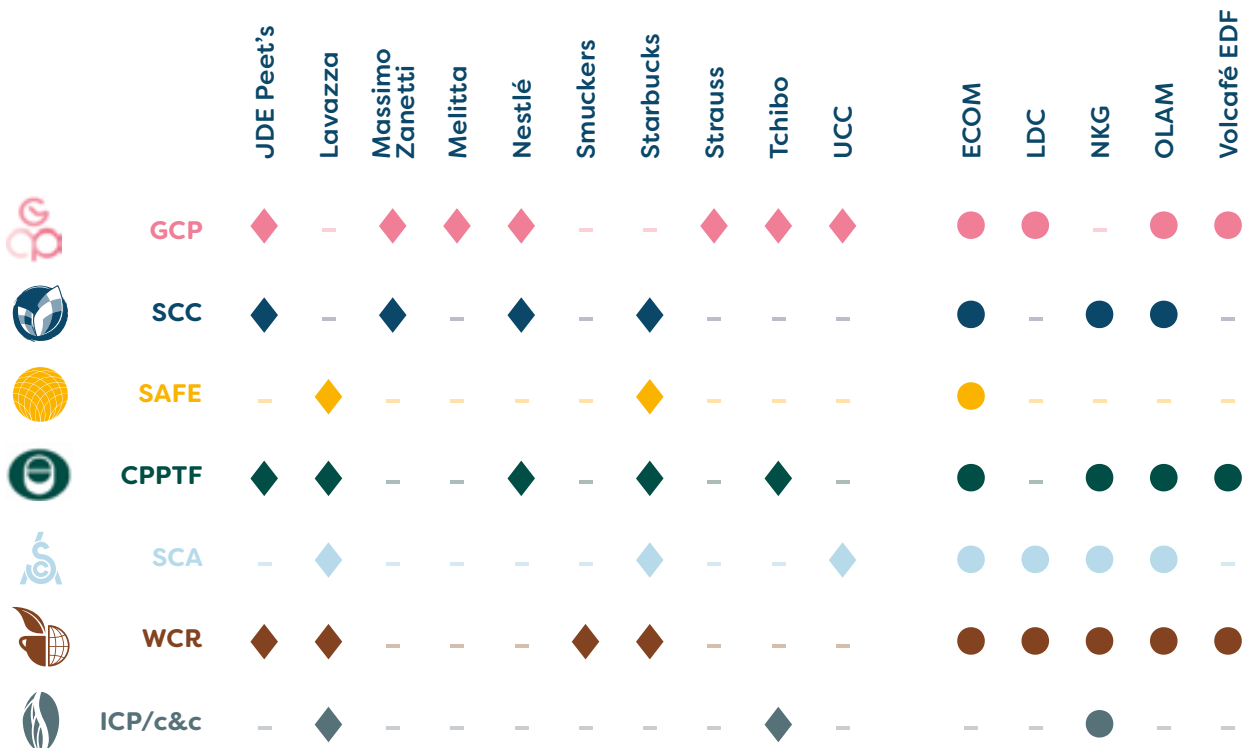
In a decade, the mindset and organisational capacity regarding coffee sustainability has improved in many ways. Several multi-stakeholder initiatives (MSIs) emerged as promising efforts to addressing complex sustainability challenges. Institutional guidance and coordination is for example provided by MSIs like the GCP, SCC, ICP or SAFE. These MSIs involve a wide range of stakeholders, including NGOs, retailers, roasters, traders, farmer organisations and governments from both consuming as well as producing countries. Academics and other experts also contribute both directly and indirectly to the MSI agendas. Moreover, the 2030 Agenda explicitly refers to the importance of sector collaboration in ‘SDG 17 – Partnerships for the Goals’. By participating in these MSIs, stakeholders acknowledge that business as usual poses a major risk to the industry and to the livelihoods of millions of coffee producers and their families. Engaged stakeholders commit to driving investment (ICO, 2020b).

The greatest challenge facing all MSIs is to incentivize companies to really collaborate in a pre-competitive mode, thereby integrating economic activity in environmental sustainability, promotion of human rights and effective governance systems. To effectively address fundamental issues like farm profitability, adaptation to climate change and sustainable coffee demand, the approach has to be both comprehensive – including the whole coffee value chain– and forward looking, setting out long-term as well as short-term objectives. Despite their potential, MSIs face many challenges (Dentoni et al. 2019; Lambin et al. 2020). For example, the difficulty to align differences in interests and power between members, the limited availability of resources to plan for the long-term, and a fundamental lack of industry investments to meet the ambitious agendas and visions for sector transformation (see box 5).

Even though stakeholders might share a general understanding of the key challenges and constraints facing the sector at different levels and in different countries, it is much harder to agree on the actions needed to overcome them, along with the respective roles, responsibilities and investments of stakeholders (Dentoni et al. 2019). Although there may well be groupings of ‘like-minded’ stakeholders who share a common agenda, it is a mistake to assume homogeneity within any of the coffee MSIs, as there can be much diversity in perspective. While the urgency to act is high, the slow pace of decision-making causes frustration and significant delays. The constant search for

consensus between stakeholders is limiting the effectiveness and scope of sustainable policy design and implementation in daily practice (van Hille et al. 2020). Paradoxically, this has led to the initiation of even more collaborative efforts in the form of new MSIs or working groups to advocate for specific themes. For instance, the World Coffee Producers Forum (WCPF) has urged international action to address the devastating effects of the price crisis (Petrich, 2019). The SCA completed its 1-year Price Crisis Response Initiative to understand and improve value distribution in the chain. The most recent initiative is ICO's 'Coffee Public Private Task Force' (CPPTF), which aims to find answers to the coffee price crisis, by aligning the public and private sector (ICO, 2020b). Often these thematic collaborations fail to attract investments to ensure follow-up activities, for instance the Coffee Global Adaptation Plan (C-GAP) of the SCA never materialised after an initial feasibility phase (SCTA, 2018). The USAID funded Alliance for Resilient Coffee (ARC) has supported the alignment of a climate focused NGO agenda and action on climate adaptation by the private sector. With the completion of the work in September 2020, ARC ceased to exist. The collaboration has highlighted the importance of supporting science based adaptation at farm level (ARC, 2020).²²

Figure 8. **Corporate members of MSIs**



Box 5 Sector visions

The Global Coffee Platform believes that the economic viability of coffee farming is key to ensuring sustainable livelihoods in coffee producing communities throughout the world. However, current and persistent low international coffee prices have caused severe damages to the viability of sustainable coffee production and are harming coffee farming families. The GCP calls for urgent global collective action to overcome this crisis which is threatening the lives of millions of smallholder coffee farmers, the environment and the coffee industry itself (GCP, 2019).²³

International Coffee Organisation – Coffee Public Private Task Force, preliminary long-term vision (2030): “A sustainable and prosperous future for coffee producers and the sector as a whole” (ICO, 2020c).

- Economic resilience and social sustainability
- Environmental sustainability through sustainable production
- Better balanced demand and supply, responsible consumption, and diversity of origins
- Effective enabling conditions

Specialty Coffee Association – Price Crisis Response Initiative, vision: “A specialty coffee sector that distributes value equitably, fosters resilient coffee farming communities that are economically prosperous, and values diverse producers of differentiated coffees.” (SCA, 2020).

Sustainable Coffee Challenge has the vision to make coffee the world’s first sustainable agricultural product. Its ‘Collective Commitment’ includes short-term 2025 targets, and long-term 2050 goals: (SCC, 2020b).

- Improve livelihoods and prosperity: Coffee farmers and workers achieve a living income and living wage.
- Conserve nature: Secure at least 1.5 gigatons of carbon by restoring 2.5M of tree cover and conserving 5M ha of forest.
- Resilient supply: Ensure a sustained supply of coffee from a diversity of origins by doubling smallholder production on existing area.
- Strengthen market demand: Transition the entire market to sustainable sourcing.

5.2 Private sector participation

In practice, all the members of these different MSIs are shaping the dynamics of the sustainability debate and subsequent sector wide actions. As noted above, we often conveniently assume homogeneity within groups, but a closer look at the main private sector stakeholders reveals their different strategic choices. Almost all participate in at least one MSI, which creates much overlap in the overview (see figure 8). The active engagement of a member in the participatory processes of any of these MSIs will be

driven by their inevitable constraints on time and resources, strategic choices and the potential level of influence on the agenda and its implementation.

These partnerships allow companies and organisations to pool their resources, share knowledge and invest in joint strategies to address complex sustainability issues. Yet, the more these stakeholders collaborate on multiple sustainability commitments, the more they discover how much further they need to go to prepare for a sustainable future which is totally different from the current industry's focus on maximising exponential growth. This is an important awareness and also an indication of the growing understanding of the key challenges and constraints facing the sector at different levels and in different countries. The next step is to agree upon the actions needed to overcome them, along with the respective roles and responsibilities and required levels of investment of each stakeholder.

To date, all these partnership efforts have not significantly altered the coffee production, trade and consumption patterns. Sustainability decision making too often ignored important political questions about who wins and who loses in the current context. For example, policies to improve living income and living wage only recently started featuring on the coffee sectors' development agenda. Given the many uncertainties like the impact of climate change or the concentration of production in only a handful of countries of origin, stakeholders become aware that all current efforts are remote of what is really needed to getting anywhere close to contributing to the 2030 SDGs. Although the discussions in MSIs about the economic, social and environmental aspects of coffee production and disparities in the distribution of costs and benefits are sincere, the bar has to be raised significantly.

A 'prosperous income' will guarantee that smallholder farmers have enough earnings to enable them to progress in life and remain in the coffee production, ensuring that future generations will commit to a future in coffee.

(ICO 2020b)

The ideas in Box 6 are just a reflection of the sectors' maturing sustainability agenda. Equally important is to understand how these ideas will be translated into practice. MSIs have to intensify their processes of responding to these challenges, set the priorities and ensure that action is taken at the appropriate level. After all, what is the point of engaging in endless debates where stakeholders discuss the state of affairs sharing documents and evidence if the end result is another MOU or press release, with no actionable consequences in fostering sustainability in the coffee sector?

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Box 6. **Out-of-the-box ideas**

1. Prosperous income

In a press release in October 2020, the ICOs' CPTTF initiative stated its commitment to ensure that smallholder farmers will have a 'Prosperous Income' beyond covering just their basic needs. The background materials provide an outline of a new vision document and a 2020–2030 Roadmap. The CPTTF plans to foster initiatives that promote a prosperous income for smallholder coffee farmers, their families and the entire coffee sector. More specifically, they commit to directly support living income benchmark projects in 4–6 countries, which are to begin as soon as possible (ICO, 2020b).

Although the widely used 'living income' concept is disguised here as the undefined concept of 'prosperous income', the ICO (governments) and its partners (private and public) herewith acknowledge their shared responsibility to take action at a large scale. The idea is to collaborate and co-finance the establishment of Living Income Benchmarks in at least 80% of ICO member producing countries by 2025, and 100% of ICO member producing countries by 2030.²⁴ Actually, with the intention to achieve closing the income gap for target producers in at least 50% of the ICO member coffee producing countries by 2030.

2. Addressing price

Toward the end of 2018, the SCA initiated its Price Crisis Response Initiative (PCR) to address and understand the 2018 price crisis (SCA, 2020). Their intention is to guide the industry towards the PCR vision: "A specialty coffee sector that distributes value equitably, fosters resilient coffee farming communities that are economically prosperous, and values diverse producers of differentiated coffees." The PCR recognises that the specialty coffee sector faces many complex and interrelated challenges, and that the sector's longstanding commercialization systems lead to entrenched inequities and unsustainable market outcomes. Identifying unequal value distribution as a root cause, the PCR has made a series of recommendations, proposed because of their potential to induce long-term changes in the coffee sector. Their recommendations focus on the balance of ownership, finance, risk distribution, information access, and governance. The SCA plans to continue challenging the status quo, addressing

the creation and equitable distribution of value, by calling out problematic business practices in the specialty coffee sector (SCA, 2020).

One of the targeted practices relates to pricing. Even when producers sell high-quality coffees, or coffees produced under established certification standards, the lack of relevant price information leads to a continued reliance on the C-Price as the starting point for negotiations. This can lead to dampened prices for producers. Developing and championing alternatives to commodity-based price references will allow sellers and buyers to agree on prices that reflect the value that is inherent in the different specialty coffees – prices that are able to cover production costs, living wages for workers, and the risky investments that producers make on their farms and during post-harvest processing. In this respect, the Specialty Coffee Transaction Guide, by Emory University, presents a valuable tool that might move the specialty market away from the C-Price (Roberts and Trewick, 2019). Summaries of recent transaction data based on actual specialty coffee purchases equip producers and buyers with more appropriate reference points for their negotiations. Disclosing this data to all stakeholders along the specialty value chain informs all and challenges the validity of C-based price discovery. It also encourages market outcomes where prices reflect and reward the non-commodity characteristics of different specialty coffees. As price conversations and negotiations adjust to the revised information environment, producers will receive payments that are consistent with the end value of their contributions. The 2020 Specialty Coffee Transaction Guide, which is based on more than 51,000 contracts and cover roughly 1.1 billion pounds of green specialty coffee valued at more than US \$2.1 billion, reports an overall median price of US \$2.58 per pound in the 2019/20 harvest year. This is down from US \$2.75 in 2018/19, because of shifts away from higher priced quality coffees toward lower priced containers of regular specialty coffees. While these reference prices are more than double the prevailing C price, it remains to be seen how many of the 51,000 contracts are able to cover living incomes and wages.

3. Global Coffee Fund

The proposal to create a 'Global Coffee Fund' stems from a landmark report issued by the WCPF (Sachs et al., 2019). The research team of Columbia University and the London School of Economics estimates the amount of money – required for the coffee sector to make meaningful progress in line with the SDGs – in the range of USD \$10 billion per year. The Global Coffee Fund mechanism would be used to share more of the risks—such as price risks and climate risks—that currently only farmers take. The largest roasters, retailers, and traders should be both the forerunners in contributing to the fund, as well as the entities that contribute the most to fulfil their co-responsibility for achieving a sustainable coffee sector. These activities could include: providing income support to the poorest farmers during price crises; developing affordable insurance options and disaster relief funds to help farmers recover from extreme climate events; and increasing training, improving infrastructure, and

supporting other approaches that enable farmers to be more profitable and resilient. Additional funds from international donors and coffee-producing countries` could be invested in social goods such as water, education and healthcare in coffee-producing regions. This pre-competitive sustainability fund could be modelled after existing examples and potentially be operated by one or more of the existing coffee MSIs.

The proposal mirrors the scope and scale of sector wide transformation in the next decade. The idea behind this fund is to fill critical financing gaps for sustainability investments in coffee-producing regions and multiply the existing public-private efforts in an effort to work towards the SDGs. It is the first time a serious price tag has been put on the economic, social and environmental cost of coffee. Although coffee companies invest billions in the consumers' end of the value chain, the quoted amount of US\$ 10 billion has been met with skepticism in the sector. The idea to redistribute value or reinvest profits at the farmers' level seems still too far-fetched for most stakeholders.

6

Conclusion

Although our knowledge is often incomplete, there is a solid foundation to address the most urgent issues and to try and test promising options against a range of scenarios. Uncertainty about the outcomes is not a rationale for inertia.

6 Conclusion

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The seismic shock of the Covid-19 pandemic broadly impacts the global coffee sector.

On the one hand, consider the coffee roasters with their big brand portfolios whose business is flourishing through the overall surge in retail sales. Similarly, shopping has changed, since many consumers now recognise the convenience of buying their coffee online. On the other side of the spectrum, the closure of cafes and restaurants, as well as offices has brought the out-of-home consumption to a standstill. A significant drop in travel and tourism challenges the business model of specialty coffee in the hospitality industry.

At the production side of the supply chain, the pandemic has triggered a cascade of dramatic effects that are likely to change rural coffee communities for years. Several national coffee sectors have been negatively impacted in terms of employment, revenues, exports and domestic consumption. Moreover, as countries closed their borders, producers were confronted with a lack of labourers. It put producers under pressure, especially smallholder farmers and coffee workers whose income, health and future prospects is threatened.

The systemic cracks in the foundation of the sector are widening, since coffee producers have experienced dramatically fallen coffee prices for years. In 2021, world coffee consumption growth is likely to slow, as the pandemic continues to put pressure on the global economy and greatly limits out-of-home coffee consumption. As a result, 2020 is likely to end with a production surplus, which may hinder a price recovery in the near future. Many farmers already operate well below the poverty line, and even the most efficient producers in Brazil and Vietnam report thin profit margins. At the current price level, producers are under constant pressure to cut costs, especially those related to labour or the environment. The livelihoods of coffee farmers are under pressure as farm revenues decrease while costs for inputs and expenditures for food and non-food items are on the rise. The living income gap for most small conventional producers (0.5 – 5 ha) is only widening and technical assistance and price support will not be sufficient to address the root causes. This situation is aggravated by deforestation, the destruction of biodiversity and the impacts of climate change.

Although the outlook and specific sustainability priorities vary for individual origins, the dire situation in most producing countries shows a strong contrast with the booming revenues in the global coffee category. Revenues are highly concentrated in the

consuming countries, where the lion's share of the value is captured by the top ten roasters, who combined receive US\$ 55 billion in revenue. Roasters and retailers have successfully positioned their different brands in specific market segments to capitalise on the growing demand of consumers. Trends suggest that an increasing number of consumers is willing to pay a higher price for quality coffees. Next to greater interest in the origin of their coffee, many consumers are also driven by a sense of social and environmental responsibility that demands much more from the companies who own the brands. In response, companies have adopted a variety of voluntary practices to improve the social and environmental management of their suppliers' activities, like VSS, company codes of conduct, CSR projects and participation in collective approaches.

However, consumers may fail to differentiate the relative merits and actual value of VSS. Especially the difficulty to deliver on their sustainability promises reduces the credibility of these systems. While the growth in available volumes of certified coffee equals the growth of production in the sector, the market uptake of independent VSS is stagnating. In comparison to earlier years, the percentages of the total certified volumes procured by the main roasters indicate a decline. Some companies are even sidestepping the established VSS for their complete portfolio and promote self-regulated company codes of conduct instead. The question arises as to whether these company codes are a strategy to take back control – because of limited results of VSS – or an attempt to lower the cost of sustainable coffee by removing third party auditing. Overall, there is consensus in the sector that VSS alone are not enough, since the scope of sustainability issues – being adaptation to climate change, a more equal value distribution, or ending human rights abuses – that are directly material to the operations of companies is very wide.

In most coffee producing regions, multinational traders and roasters – rather than the national government – are mostly instrumental for the sustainable governance of the coffee lands. This underlines their critical role in addressing many of the most pressing environmental stresses and social struggles identified by the UN SDGs. By realising that any of these issues can negatively drive the companies' risks and returns, the sense of urgency to act should be high. Nevertheless, companies' sustainability policies are still isolated strategies, mainly highlighting issues they may feel compelled to work on in the form of CSR projects. While some individual companies are no doubt doing better than others and should be acknowledged for their efforts, the overall sustainability reports outshine each other in formulating vague policies and their absence of any serious attempt to share results of meeting specific policy targets is striking.

The sustainability projects at origin tend to focus on the expansion of coffee production at farm level. Even if some specific gains are made, they are never sufficient to produce fundamental sustainable transformative effects at sector level. The underlying structures of the coffee trade system are not altered, let alone the very legitimacy of the corporate model itself, which relies on devalourised work and the depletion of

natural resources. This clash between the race to the bottom tendencies of international commerce and attempts to assert social and environmental accountability within the coffee industry, causes ongoing struggle and contest. Hence, collaborative and pre-competitive approaches are seen as the potential answer to the shortcomings of individual efforts. Through knowledge sharing and a better understanding of collective action, initiatives like the GCP and the SSC are trying to navigate the differing interests of coffee sector stakeholders, while attempting to link these to the broader sustainability context. All the major coffee corporations are part of one or more MSIs, and thus have a major influence on global governance of sustainability policies and agreements. Since most of these MSIs lack binding commitments, robust enforcement mechanisms and need to survive on shoestring budgets, these partnerships are not capable of using their full potential. There is hardly any evidence across the coffee industry that the current MSI commitments are actually translating into meaningful change at scale of some of the most important indicators like income, labour standards or adaptation to climate change.

To achieve the goals of the 2030 Agenda and to ensure the sector's contribution to the Paris Agreement, MSIs need to play a bigger role to find real answers to the collective challenges. It requires companies to recognise their shared responsibility – especially in financial terms – and addresses the root causes of all challenges with substantial levels of investment in collaborative initiatives. In doing so, it is important to realise that the solutions will not be the same everywhere and probably have to be found in a combination of voluntary and mandatory approaches. Companies will need to intensify their voluntary efforts and prepare for new government policies aiming to level the playing field – particularly in Europe – and proof that their supply chains are free from any human rights violations, as well as deforestation.

Although our knowledge is often incomplete, there is a solid foundation to address the most urgent issues and to try and test promising options against a range of scenarios. The coffee's sustainability agenda is maturing, however, uncertainty about the outcomes is not a rationale for inertia.

- 1 Coca-Cola's US\$ 4.9 billion acquisition of Costa Coffee is widely perceived as a strategic move by the US beverage giant to develop Costa's extensive vending machine business as well as branded retail coffee products (Coca-Cola, 2018).
- 2 Coffee farming tends to be a family business, passed on from one generation to the next. In most coffee producing countries farms are then divided into smaller parcels through inheritance, resulting in a gradual decrease of plot size over time.
- 3 Over the last decade, production of Robusta increased to a level up to 43% of global production in crop season 2019/20 (ICO, 2020e).
- 4 Roasters require a diversified set of origins to develop the blends they need. Greater dependency on fewer origins threatens an already unstable market with the potential for even greater price volatility due to disruptions in supply (TFCLI, 2020).
- 5 The coffee handled by transit traders never physically enters Switzerland, thereby eluding standard record-keeping by the Swiss Federal Custom Administration. There are no centrally compiled and reported statistics on the origin and destination countries, quantity, quality, applied standards, companies, or payments and prices, etc. involved in the Swiss-based transit trade. Also, noticeably absent are systematic public data on Swiss tax revenues from the coffee sector (Public Eye, 2019). See also the research agenda of traders as key sustainability actors by Grabs & Carodenuto, 2020.
- 6 The Inter African Coffee Organisation (IACO) has joined forces with the Centre for Agriculture and Biosciences International (CABI) and the ICO to launch the US\$ 950 million 'Africa Coffee Facility' (ACF) to boost Africa's coffee industry and achieve a 40 percent increase in high-quality exports worth \$5 billion a year.
- 7 In 2019, the share of coffee as percentage of all goods exported in Ethiopia is 26.75 percent and in Burundi 24.54 percent, in Uganda it is good for 14.38 percent, while in Honduras it totals 10.88 percent (ICO, 2020f).
- 8 A research on coffee farm workers of 2016 estimate is illustrative for the lack of reliable data: *"The total number of farm workers involved in global coffee production numbers must be in the tens of millions."* (SCAA, 2016).
- 9 For instance, the Vision Zero Fund (VZF) of the International Labour Organization (ILO) brings together governments, employers' and workers' organizations, companies, and other stakeholders to jointly advance towards the vision of achieving zero severe and fatal work-related accidents, injuries and diseases in global supply chains and is active in the coffee sector of Colombia, Honduras, Mexico and Ethiopia (ILO, 2019).
- 10 The U.S. Department of Labor's 2020 List of Goods Made with Forced Labor and Child Labor highlights 17 countries with child labor in coffee production, for instance in Brazil, Uganda and Vietnam. Because of the pandemic, greater informal employment coupled with economic hardship could push many children out of school and into the labour market (USDOL, 2020).
- 11 At the same time, coffee also has the potential to be part of the solution and avoid at least 1.5 billion metric tons of carbon emissions by 2050 through investing in Natural Climate Solutions. i.e. the protection and restoration of tropical forests and other ecosystems and improved management of agricultural lands. Examples include the increase of tree cover, promotion of agroforestry as well as providing coffee producers access to carbon markets through the sales of carbon credits.
- 12 *"The concept of sustainable development is to foster an integral ecological and societal fairness agenda. They are equally important, and mutually dependent and reinforcing: it is about 'planet' and 'people prosperity'"* (Vermeulen, 2019).
- 13 An industry wide commitment to sharing the cost of compliance with VSSs would be a small but valuable gesture. Additionally, the actual uptake of standard-compliant coffee by the industry has to increase, as well as the transparent reporting of yearly volumes per VSS (GCP, 2020).

- 14 Corporate transparency can be defined as the availability of firm-specific information to those outside publicly traded firms. It enables stakeholders to better understand the progress of individual companies in advancing supply-chain sustainability. In the context of corporate accountability, transparency refers to the ability of businesses not only to 'know internally' that they are exercising due diligence but also to 'show externally' that this is the case (Gardner et al., 2018).
- 15 To measure only what matters metrics have to be formulated S.M.A.R.T. (Specific, Measurable, Actionable, Realistic, Time-bound) to help monitor performance and to foster continuous improvement. Using indicators for a sustainability assessment helps to summarise, focus, simplify, quantify, analyse, and report complex topics of sustainability. KPIs are necessary to provide information, and they fulfil the following three purposes: understanding the world, supporting decision-makers, and planning actions.
- 16 For example, SDG Goal 12 Responsible consumption & production – Indicator 12.6.1 Number of companies publishing sustainability reports (UN, 2015).
- 17 Full statement (09-12-2019): *"Since 2006 Tchibo is in transformation into a socially and ecologically sustainable company. We are convinced that business must not be at the expense of people and the environment. To achieve this, we need a legal bottom line for corporate due diligence. Responsibility and sustainable management must no longer be an option, but the standard. We have to raise the bar in all sectors. In order to guarantee human rights and protect the environment globally, everyone must participate – not just few pioneers. We need a critical mass in the world of business to solve the pressing global issues of our times quicker and more profoundly."* (BHRRC 2019).
- 18 See also the Delta Project; GCP and the Better Cotton Initiative collaborate to bridge the gap in measuring and reporting sustainability performance across different VSS. <https://www.deltaframework.org>
- 19 The proposed new legislation is part of the EC's 2021 Work Plan and the European Green Deal (EC, 2020).
- 20 Bager and Lambin (2020) analyse in-depth how the coffee sector approaches sustainability by examining the sustainability efforts of a random sample of 513 companies. A third of companies report no commitment to sustainability, whereas another third report vague commitment. The final third of companies report tangible commitments to sustainability (Bager & Lambin, 2020).
- 21 www.coffeebarometer.org
- 22 ARC is funded by USAID and comprised of seven leading partners; Hanns R. Neumann Stiftung (HRNS), Sustainable Food Lab (SFL), World Coffee Research (WCR), The International Center for Tropical Agriculture (CIAT), International Institute of Tropical Agriculture (IITA), Conservation International (CI) and Root Capital. www.allianceforresilientcoffee.org
- 23 It seems the GCP's Vision 2030 has been replaced by the partnership support of ICO's CPPTF, thereby acknowledging that the entire global coffee sector bears responsibility to foster the path towards a reasonable living income for coffee producers, and to help ensure the economic viability of coffee farming worldwide.
- 24 We assume this will be the Anker methodology – as proposed by the TFCLI (Anker and Anker, 2018).

Figure 1: Top 10 roasters' volumes and revenues Ranking companies by size is dependent upon the criteria used. There are two main criteria to measure the size of a company, namely market capitalisation and gross revenues. Market capitalisation is a volatile estimate of a company size, since it is based on the price of shares in the stock exchange. Conversely, revenues are more robust as an indicator of company size since it is less subject to quick variations.

The 2019 revenue data for the 'coffee beverages category' of each company is based on financial reports and/or investor presentations available in the public domain. The distinction between 'total global revenue' and 'coffee global revenue' of a company active in different categories is not always clear, which led to estimates based on company data of: The J.M. Smucker Company, UCC and Tchibo.

Source of the company size by coffee volume: Coffee Barometer 2020 questionnaire to all participating companies and/or additional company data.

Figure 2: Overview of origin countries 2019 calendar year export volume and value kindly provided upon request by ICO Statistics.

Coffee Board of India (2020). Database on coffee, January 2020. <https://www.indiacoffee.org/database-coffee.html>

ICO (2011). ICO Annual review 2010/11. <http://www.ico.org/documents/annual%20review%202010-11e.pdf>

ICO (2020e). Coffee year production by country, table 2. Data as at November 2020. <http://www.ico.org/prices/po-production.pdf>

Enveritas (2018). How many coffee farmers are there? Global coffee farm study. (Preliminary draft).

SCC et al. (2019). Coffee production in the face of climate change; 15 country profiles. GCP, c&c, CI, IDH, SCA. <https://www.sustaincoffee.org/resources/>

Figure 3: Top 5 coffee traders

The data for this infographic has been provided by the different trading houses.

Figure 4: Production, consumption, price

Data kindly provided upon request by ICO Statistics.

Figure 5: VSS production and demand

Data kindly provided by 4C CAS, Fairtrade International and Fair Trade USA, Rainforest Alliance, Nestlé, Organic and Starbucks (the total volume of Nespresso AAA and C.A.F.E. Practices is our own estimation).

Figure 6: VSS procurement by roasters

Source of the company size by coffee volume: Coffee Barometer 2020 questionnaire to all participating companies and/or additional company data. Although KraftHeinz is a top ten roaster by volume (estimation), the company shares no information.

Figure 7: Sustainability Framework SDG overview

We use a combination of sources to assess the strategy and progress of each company in relation to the SDGs: answers to the Coffee Barometer 2020 questionnaire, documents published by companies relating to their sustainability and sourcing activities in 2019 and 2020, recent companies' sustainability reports (if available) and/or sustainability sections on their websites.

– SCC and GCP (2019). What if... all your coffee was sustainable. <https://www.sustaincoffee.org/framework-detail>

UN (2020). The 17 goals. <https://sdgs.un.org/goals>

Figure 8: Corporate members of MSIs

Coffee Barometer 2020 questionnaire to all participating companies and/or additional company data and MSI websites.

List of abbreviations

ARC	Alliance for Resilient Coffee
BHRRRC	Business & Human Rights Resource Centre
CABI	Centre for Agriculture and Biosciences International
CB	Coffee Barometer
COSA	Committee on Sustainability Assessment
CPPTF	Coffee Public Private Task Force
CSR	Corporate Social Responsibility
EC	European Commission
ESG	Environmental Social Governance
FBN	Food Business News
FOB	Free on Board
GCF	Global Coffee Fund
GCP	Global Coffee Platform
GCRI	Global Climate Risk Index
GDP	Gross Domestic Product
GRI	Global Reporting Initiative
HRDD	Human Rights Due Diligence
IACO	Inter African Coffee Organisation
ICO	International Coffee Organisation
IDH	Initiatief Duurzame Handel
IPCC	Intergovernmental Panel on Climate Change
IPO	Initial Public Offering
MSI	Multi-stakeholder Initiative
NGO	Non Governmental Organisation
NKG	Neumann Kaffee Gruppe
OCS	Office Coffee Service
PCR	Price Crisis Response initiative
QSR	Quick Service Restaurants
RTD	Ready-to-Drink
SAFE	Sustainable Agriculture Food Environment Platform
SCA	Specialty Coffee Association
SCC	Sustainable Coffee Challenge
SCTA	Swiss Coffee Trade Association
SDG	Sustainable Development Goal
TFCLI	Task Force Coffee Living Income
UN	United Nations
VSS	Voluntary Sustainability Standards
WCP	World Coffee Portal
WCPF	World Coffee Producer Forum
WCR	World Coffee Research

Green coffee conversion

1 bag = 60 kilogram

1 MT = 1,000 kilogram = 16,67 bags

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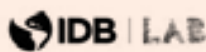
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