

ORIGIN ISSUE ASSESSMENT

BRAZIL - COFFEE



Photo: David Dudenhoefer

Brazil is the world's leading exporter of sustainable coffee and coffee in general. Coffee is currently grown on about 2,2 million hectares by more than 280,000 producers in 15 states of the Brazilian Federation (RA, 2019). Main coffee producing regions are concentrated in the States of Minas Gerais, São Paulo Espírito Santo and Bahia, accounting for more than 90% of the country's production (RA, 2019). Coffee producers in Brazil represent a diverse range, from family-owned small farms to highly mechanized farms.

TOP ISSUES

The top issues identified are:

- **Agrochemical handling** (risk score 4.2/5),
- **Banned Pesticides** (risk score 4.1/5),
- **Gender equality** (risk score 4.0/5),
- **Accommodation (Workers' Rights - risk score 3.9/5).**

In Brazil, many coffee workers apply pesticides without wearing enough personal protective equipment, and pesticide poisoning is widespread (**Agrochemical handling**). Equally concerning is the fact that spraying coffee with hazardous pesticides outlawed in the European Union is legally permitted in the country (**Banned pesticides**). Meanwhile, recently published reports revealed female rural workers – given the same jobs – are being paid lower salaries than male workers (**Gender equality**). During harvest season, coffee workers were reported to live in conditions without proper basic facilities including sanitation and drinking water (**Worker's Accommodation**).

Further details per topic are provided in a separate annex.



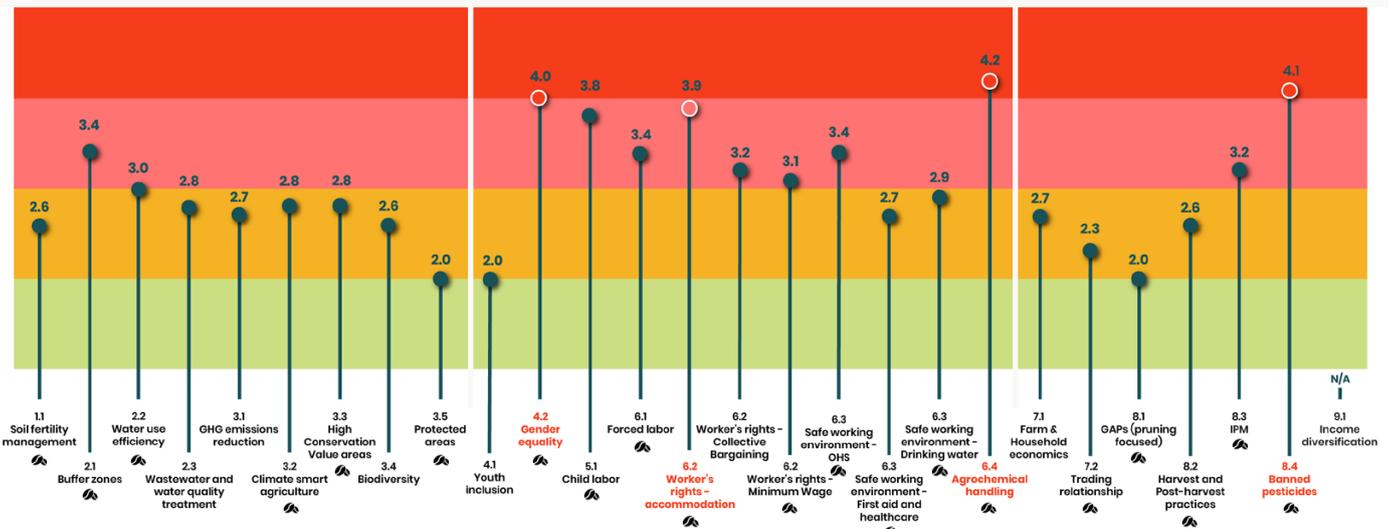
Sustainability of Land



Equality of People



Prosperity of Farmers



Range Probability of the issue's occurrence

4.1 - 5.0	High probability: Known to occur frequently
3.1 - 4.0	Medium-high probability: Known to occur
2.1 - 3.0	Medium-low probability: Could occur
1.0 - 2.0	Low probability: Not expected to occur



Common Grounds

SOIL FERTILITY MANAGEMENT		JDE Sourcing principle 1.1
Score	2.6	
Law	Brazil has national laws in place regarding soil protection and conservation. The nationwide program “Zero Tillage Conservation Agriculture (ZT/CA)” in Brazil has been adopted in over 50% of the area dedicated to annual crops (Freitas & Landers, 2014).	
Evidence	Currently, in the south and southwest regions of the state of Minas Gerais, traditional deep tillage combined with applying gypsum has been carried out in order to better incorporate fertilizer (Bruno et al., 2019). Application of the “Zero Tillage” program to high value crops including coffee has also been recommended by researchers (Freitas & Landers, 2014).	
Prevailing expert opinion	“Medium-Low risk: it is likely that a (smaller) part of farmers do not manage their soils in an effective way” (Expert survey, 2020).	

BUFFER ZONES		JDE Sourcing principle 2.1
Score	3.4	
Law	Brazil has national law in place regarding buffer zones and the aerial spraying of pesticides near residential areas (INPUT, 2017).	
Evidence	Farmers (of unspecified crops) often ignore such national “buffer zone” regulation and people living nearby the farms have already showed symptoms of pesticide poisoning, according to Human Rights Watch (HRW, 2019). In 2015, DanWatch reported cases where ordinary people who live near coffee plantations also risk ingesting small doses of dangerous pesticides and drinking water there was found to contain traces of these pesticides.	
Prevailing expert opinion	Medium-Low risk: “When looking at the country’s coffee producing region(s), it is likely that farmers maintain a pesticide and fertilizer non-application zone or buffer zone” (Expert survey, 2020).	

WATER USE EFFICIENCY		JDE Sourcing principle 2.2
Score	3.0	
Law	Brazil has made significant progress in water governance over the past two decades (OECD, 2015). In January 2013, Brazil implemented its new National Irrigation Policy, which offer tax incentives to public and private irrigation projects (Water.org, 2017).	
Evidence	Embrapa Café research on coffee crops estimated that between 25% to 30% of the Brazilian coffee plantation area use modern irrigation methods (Cecafe, 2017). Various initiatives are seen in practice, ranging from pivot irrigation to dripping system or “deep tillage combined with gypsum and fertilizer amendments” (Media, 2018; Bruno et al., 2019). Despite those improvements, coffee farmers, including those in Minas Gerais, are still heavily impacted by water shortage caused by droughts (Media, 2015).	
Prevailing expert opinion	Medium-High Risk: “Water is becoming less available” (Expert survey, 2020).	

WASTEWATER AND WATER QUALITY TREATMENT AT PROCESSING UNITS		JDE Sourcing principle 2.3
Score	2.8	
Law	Brazil has national laws in place to prevent or reduce the occurrence of bad practices in wastewater treatment. States oversee water quality management, however the quality of the monitoring systems and surveys vary widely (WWF Water Quality Index, 2019).	
Evidence	Sewage and wastewater treatment still lack nationwide and is of growing concern since water consumption for agricultural purposes is expected to rise (World Bank, 2016).	
Prevailing expert opinion	Medium-Low risk: “Most coffee is dry processed”; “When looking at the country’s coffee producing region(s), it is likely that, at processing units, wastewater is treated and is of good quality before it is discharged into aquatic ecosystems or drainage systems” (Expert survey, 2020).	

GHG EMISSIONS REDUCTION		JDE Sourcing principle 3.1
Score	2.7	
Law	Brazil has ratified the Kyoto Protocol on Reducing GHGs Emissions. The country has national plans to increase the share of renewable energy in its overall energy consumption.	
Evidence	Currently, nearly 40% of Brazil's energy demand is generated from renewable sources (The Carbon Brief Profile, 2018). In the agriculture sector, Brazil aims to strengthen the Low Carbon Emission Agriculture Program (ABC) as the main strategy for sustainable agriculture (IEA, 2018).	
Prevailing expert opinion	Medium-High risk: "When looking at the country's coffee producing region(s), it is unlikely that farmers use 1) energy efficiently and 2) renewable energy" (Expert survey, 2020).	

CLIMATE SMART AGRICULTURE		JDE Sourcing principle 3.2
Score	2.8	
Law	Brazil has the National Plan on Climate Change (NPCC) outlining society-wide actions focused on GHG mitigation (CCAFS, 2014). The country is pursuing a diverse set of climate change mitigation measures with a strong focus on sustainable agricultural intensification and financial credits with low interest rates (i.e. the Low Carbon Emission Agriculture Program (ABC)) (CCAFS, 2015).	
Evidence	Through various initiatives, Brazilian coffee farmers have been trained on climate change adaptation and mitigation practices such as use of cover crops and deeper polybags, implementation of windbreaks, rainwater harvesting, shade management (Coffee & Climate, 2017).	
Prevailing expert opinion	Medium-High risk: "Climate change seems to have a negative impact on coffee production and farmers are not able to adapt quickly enough" (Expert survey, 2020).	

FOREST AND HIGH CONSERVATION VALUE AREAS (HCVS)		JDE Sourcing principle 3.3
Score	2.8	
Law	Although Brazil has a Forest Code in place to prevent or reduce the occurrence of deforestation, it's said to being undermined by the current government, which is relaxing the enforcement of environmental laws and cutting spending on monitoring operations in efforts to open up the rainforest to more farming and other commercial exploitation (Media, 2019).	
Evidence	Deforestation is now considered a major risk in Brazil. Deforested areas surged 30% between 2018 and 2019 despite pre-2012 achievements in curbing deforestation in the Amazon (INPE, 2019; HRW, 2019). Yet, it is unclear whether this rise includes the damage caused by the Amazon fires. Sources show that coffee cultivation is not a main driver of deforestation (GMAP, 2017). Multiple reports, however, predict the increase of illegal logging and land seizure as a result of penalty reductions and potential profits that can be made in the Amazon by selling deforested land converted to pasture (Media, 2018, 2019).	
Prevailing expert opinion	Medium-Low risk: "When looking at the country's coffee producing region(s), it is unlikely that farmers have converted High Conservation Value areas to agricultural production or other land uses since January 1st 2014" (Expert survey, 2020).	

NATIVE VEGETATION AND ON-FARM BIODIVERSITY		JDE Sourcing principle 3.4
Score	2.6	
Law	Brazil has a National Biodiversity Strategy and Action Plan which supports on-farm conservation projects (MMA, 2017; Juliano, 2018). In 2012 Brazil revised its Forest Code legislation by "mandating landowners to set aside native vegetation and leave unused an area equal to 20% of total property area" (Muller, 2018).	
Evidence	Multiple sources mentioned the integrated efforts between researchers and farmers for in situ (on-farm) and ex situ conservation and use of agricultural biodiversity in Brazil (Barbieri et al., 2014; Medias, 2017).	
Prevailing expert opinion	Medium-Low risk: "When looking at the country's coffee producing region(s), it is likely that farmers contribute to preservation of native vegetation and on-farm biodiversity" (Expert survey, 2020).	

PROTECTED AREAS		JDE Sourcing principle 3.5
Score	2.0	
Law	Protected areas are a cornerstone of Brazil's biodiversity policy (OECD, 2015), yet the current government is now drafting a bill to reduce the amount of conservation reserves as a result of the President's key campaign pledge (HRW, 2019).	
Evidence	Coffee farmers are not necessarily clearing forests in protected areas, however clearing in adjacent areas further fragments already heavily fragmented areas (GMAP, 2017).	
Prevailing expert opinion	Low risk: "When looking at the country's coffee producing region(s), it is very unlikely that coffee is produced or processed in protected areas or their designated buffer zones" (Expert survey, 2020).	

YOUTH INCLUSION		JDE Sourcing principle 4.1
Score	2.0	
Law	In Brazil, there are social programmes for young people across the nation, especially the National Programme for Youth Inclusion and the Rural Youth Network (IDFA, 2014; ILO, 2015).	
Evidence	Between 2013 and 2017, the average age of Brazilian farmers has fallen from 48 to 46 years old and these farmers are also showing higher educational levels (Media, 2018). In 2017, Cecafe created the Sustainable Coffee Center with a focus on young adults' involvement (Cecafe, 2017).	
Prevailing expert opinion	Medium-Low risk: "When looking at the country's coffee producing region(s), it is likely that participation of young farmers is promoted" (Expert survey, 2020)	

GENDER EQUALITY		JDE Sourcing principle 4.2
Score	4.0	
Law	Brazil has ratified the Convention on the Elimination of All Forms of Discrimination against Women and the country has laws in place to safeguard gender equality (World Bank, 2017). Brazil has made some progress in recent years to secure women's rights. Despite this improvement, gender gap of the country is still one of Latin America's largest (WEF, 2020).	
Evidence	Media evidence shows stronger focus on empowering women to play an equal role in Brazilian coffee production in rural Minas Gerais, Brazil (Media, 2017). However, IDH (2016) reported that on at least one coffee plantation in the same region, female rural workers – given the same jobs – were being paid lower salaries than male workers.	
Prevailing expert opinion	High risk: "Women in Brazil mostly do not have equal rights, responsibilities and opportunities compared to men" (Expert survey, 2020).	

CHILD LABOR		JDE Sourcing principle 5.1
Score	3.8	
Law	Brazil has ratified the relevant ILO conventions and the minimum working age is 16 years; apprenticeships may begin at age 14. Sources reveal that the government has made some efforts to prevent worst forms of child labour, however the problem is still viewed as high risk in the agricultural sector (Social Hotspot, 2020).	
Evidence	<p>The Ministry of Labour oversees inspections and enforcement of child labour laws. However, these have been restrictive in major risk areas and are often limited to state capitals, or cities with regional offices, due to lack of funds and other legal restrictions to enter private homes and farms, where much of the child labour allegedly happens (US Department of Labour, 2017; US SD, 2018).</p> <p>USDOL recently listed Coffee as a 'Good Produced by Child Labour' (USDOL, 2018). Most cases of child labour in agriculture occur in the northern east region where "such children often work in hazardous conditions, labouring long hours, using dangerous tools and are exposed to the elements, pesticides and unsanitary conditions" (GMAP, 2017). Evidence shows that children drop out of school, and that they work in coffee plantations in states like São Paulo and Minas Gerais to support the family income (USDOL, 2018).</p>	
Prevailing expert opinion	Medium-high risk: "Children are deprived of school, especially when coffee prices are low" (Expert survey, 2020)	

FORCED LABOR		JDE Sourcing principle 6.1
Score	3.4	
Law	<p>The labour law in Brazil prohibits what it calls “slave labour,” defined as “reducing someone to a condition analogous to slavery” including subjecting someone to forced labour, debt bondage, exhausting work hours, and labour performed in degrading working conditions (US SD, 2018).</p> <p>The government publishes and updates bi-annually a country-level ‘Dirty List’ of employers that engage in ‘slavery’, thus impeding their access to public credits (Policy Brief Coffeelands, 2016).</p>	
Evidence	<p>The Dirty List named 18 coffee producers of which 13 are based in the Minas Gerais region (Reuters, 2019), however Coffee is not listed as a ‘Good Produced by Forced Labour’ (USDOL, 2018).</p> <p>The true extent of forced labour in the sector is unknown and is said to be underreported due the vastness of the sector/country and the opacity of the supply chain (Ergon, 2016).</p>	
Prevailing expert opinion	<p>Medium-high risk: “When looking at the country’s coffee sector, it is likely that forced labour happens” (Expert survey, 2020)</p>	

WORKERS’ RIGHTS AND DUTIES JDE Sourcing principle 6.2

Highest score	3.9	
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ACCOMMODATION

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Score	3.9	
Law	<p>Brazil has no specific legislation concerning the provision of accommodation to workers and their families by the employers.</p>	
Evidence	<p>A few sources reported poor living conditions of coffee workers without proper basic facilities, oftentimes linked to low wages and forced labour (Medias, 2016, 2019). It is not uncommon during the coffee harvest to find coffee pickers living on plantations without a waste disposal system or drinking water (Fair Food, 2018).</p>	
Prevailing expert opinion	<p>Medium-Low risk: “Where accommodation is/ living quarters are provided, these are not necessarily safe, clean or decent” (Expert survey, 2020).</p>	

COLLECTIVE BARGAINING

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Score	3.2	
Law	<p>The law provides for freedom of association for all workers (US SD, 2018). However, new legal reforms allow collective agreements to prevail over national labour laws, which have been widely unpopular with unions who fear a loss in job security and workers’ rights (Media, 2017).</p>	
Evidence	<p>For the first time, Brazil is among the 10 worst countries for workers, with the adoption of regressive laws, violent repressions of strikes and protests, and threats and intimidation of union leaders (Global Rights Index, 2019).</p>	
Prevailing expert opinion	<p>Medium-High risk: “When looking at the country’s coffee producing region(s), it is unlikely that workers are fully aware of their rights and duties and that their employers adhere to those rights and duties including the right of collective bargaining” (Expert survey, 2020).</p>	

MINIMUM WAGE

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Score	3.1	
Law	<p>The law provides a minimum wage, though penalties given by the Ministry of Labour were insufficient to halt violations (US SD, 2018).</p>	
Evidence	<p>Informal workers in the coffee sector are reported to earn less than the minimum wage, and Minas Gerais is repeatedly flagged as a red zone (Reuters, 2019). In rural areas, especially in poorer regions in the Northeast, it is more common to find informal wageworkers not getting paid the minimum wage (GLWC, 2016). This also fluctuates depending on the region, sector, size of the farm and certification status.</p>	
Prevailing expert opinion	<p>Medium-Low risk: “Most workers are paid the minimum wage or more” (Expert survey, 2020).</p>	

SAFE WORKING ENVIRONMENT JDE Sourcing principle 6.3

Highest score **3.4**

OCCUPATIONAL HEALTH SAFETY*

Score **3.4**

Law The Ministry of Labour sets occupational, health, and safety standards that are consistent with internationally recognised norms. However, laws are not always enforced, and OHS incidences are significantly higher than that of industrialised countries (US SD, 2018).

Evidence Non-fatal work-related injuries in agriculture are viewed as high risk (Social Hotspot, 2020). In the coffee sector most injuries occur in the mechanised processes in the production chain such as terrain preparation and the use of hand tools with little training or maintenance (GMAP, 2017).

Sources also reveal that OHS protection is often less available to temporary and informal workers. In Fazenda Nossa Senhora da Conceição, it has been reported that “permanent employees wore all the legally required protective equipment [...] however none of the temporary workers were wearing any protective gear” (Finwatch, 2016)

Prevailing expert opinion Medium-High risk: “When looking at the country’s coffee producing region(s), it is unlikely that workers have a safe working environment” (Expert survey, 2020).

FIRST AID AND EMERGENCY HEALTHCARE*

Score **2.7**

Law According to BSD Consulting, all formally registered workers in Brazil have a “signed work and social security card which grants them access to the public health system (BSD Consulting, 2015)”.

Evidence Informal workers in agriculture are at risk, since they are more likely to work in hazardous jobs and without contract. As such, the chance of their injuries being reported is low (Rand Corporation, 2015).

Prevailing expert opinion Medium-High risk: “When looking at the country’s coffee producing region(s), it is unlikely that workers have a safe working environment” (Expert survey, 2020).

*At the moment, information collected on safe working environment does not allow us to draw specific conclusions for both OHS and First aid and emergency healthcare.

DRINKING WATER

Score **2.9**

Law All agricultural workers must have access to treated drinking water at the workplace, according to a regulation issued by the Brazilian Ministry of Labour and Improvement (DanWatch, 2016). Yet, the surveillance systems related to drinking water are weak in monitoring pesticide levels. Most municipalities fail to provide data to the Federal government about substance levels in their water systems, and it happens that pesticides residue above legal limit are found in the submitted data (HRW, 2018).

Evidence OECD reported that access to potable water is now almost universal in urban areas but is still lacking for 15% of the rural population (OECD, 2015).

Prevailing expert opinion Medium-High risk: “When looking at the country’s coffee producing region(s), it is unlikely that workers have a safe working environment” (Expert survey, 2020).

AGROCHEMICAL HANDLING JDE Sourcing principle 6.4

Score **4.2**

Law The usage of Personal Protective Equipment (PPE) is officially mentioned in the Brazilian laws on health, Safety and Environment. However, law enforcement in practice still seems far from efficient.

Evidence Multiple sources reported poor handling of agrochemical by Brazilian coffee farmers (Dan Watch, 2015; Fair Food, 2018; Media, 2019): Many workers apply pesticides without wearing enough personal protective equipment, and pesticide poisoning is widespread; workers have reported pesticide caused diseases such as dizziness, nausea, difficulty breathing and stomach pain.

Prevailing expert opinion Medium-High risk: “When looking at the country’s coffee producing region(s), it is unlikely that agrochemicals are handled in the right way” (Expert survey, 2020).

FARM & HOUSEHOLD ECONOMICS		JDE Sourcing principle 7.1
Score	2.7	
Law	In Brazil, banks are mandated by law to lend at least 35% of their deposits to the agriculture sector, and agriculture credit is the main policy instrument used by the government to stimulate farmers' production and marketing decisions (World Bank, 2017).	
Evidence	There have been initiatives and projects aiming to support farmer's skills, including farm management, accounting and sales via technical assistance and knowledge transfer (as is the case in the Cadernetas Agroecológicas project in Minas Gerais in 2011, where logbooks are given to rural women to record their production, "sales, and consumption (UN Women, 2019).	
Prevailing expert opinion	Medium-High Risk: "When looking at the country's coffee producing region(s), it is unlikely that Smallholder farmers know their cost of production and generated income" (Expert survey, 2020).	

TRADING RELATIONSHIP		JDE Sourcing principle 7.2
Score	2.3	
Law	Amongst other governmental programs in Brazil, the National Family Farming Program (PRONAF) is most known for offering low interest loans to family farmers (Gonçalves Vivan, 2016). However, financial institutions are mainly concentrated in only a few areas in Brazil where production is large-scale.	
Evidence	In Brazil, there exist associations formed between farmers, their collectives, and private sector to help farmers better align their production with market demand and reduce the number of intermediaries in the value chain (World Bank, 2018). Various types of collaboration and support between coffee producers and traders have been formed. Focus areas range from women empowerment to climate smart agriculture (Media, 2018; IUCN, 2019).	
Prevailing expert opinion	Medium-High Risk: "When looking at the country's coffee producing region(s), it is unlikely that coffee sourcing companies facilitate farmers to access services, such as credit, market information" (Expert survey, 2020).	

GOOD AGRICULTURAL PRACTICES		JDE Sourcing principle 8.1
Score	2.0	
Law	In 2015, the new Sustainable Curriculum was launched based on several coffee sustainability protocols of different institutions, concerning good agricultural practices (GAPs) and coffee activity management (Cecafe, 2016). The new Curriculum is adopted in the whole coffee sector.	
Evidence	Through GAPs training programs, small and medium farmers now have access and encouragement to adopt more sustainable methods in their production. Adoption of pruning practices by coffee growers in southern Minas Gerais and Sao Paulo was positively mentioned in a report by the USDA Brazil (USDA, 2017).	
Prevailing expert opinion	Medium-Low risk: "An estimated 50% to 75% of farmers in the area use Good Agricultural Practices" (Expert survey, 2020).	

HARVEST AND POST-HARVEST PRACTICES		JDE Sourcing principle 8.2
Score	2.6	
Law	Correct procedures at harvesting time was included in the 2015 new Sustainable Curriculum - a set of common rules to produce sustainable coffees with quality in Brazil (Cecafe, 2016).	
Evidence	Brazil processes its coffee by wet (washed), dry (natural), and semi-washed (pulped natural) methods and most Brazil coffee beans are still processed via the dry method. Brazil has made significant investments in developing new drying systems and practices to prevent fermentation (Coffee research, 2016). Brazil's large coffee producers located in the flat regions in Minas Gerais have reported the use of machinery to harvest ripe cherries as considerably helpful in reducing the amount of labour required (CPG, 2016).	
Prevailing expert opinion	Medium-Low risk: "An estimated 50% to 75% of farmers in the area implement good harvest and post-harvest practices" (Expert survey, 2020).	

INTEGRATED PEST MANAGEMENT		JDE Sourcing principle 8.3
Score	3.2	
Law	Legislation on this topic was adapted from regulations for chemical pesticides and is yet to be further developed. There is training provided to farmers on pest management as well as growing investments both in the public and private segments on research and innovation focusing on biological control of diseases and pests (Cecafe, 2020).	
Evidence	Within the agriculture sector, IPM practices are increasingly used in Brazil and organic farms are a growing sector in the country, with an increasing demand for pest control methods that can be used on organic crops (Media, 2018). In 2013, coffee production in Brazil was badly impacted due to the Broca beetle infestation due to a ban of a pesticide used previously to kill the bug (Media, 2017).	
Prevailing expert opinion	High risk: "Less than 25% of farmers in the area apply Integrated Pest Management" (Expert survey, 2020).	

BANNED PESTICIDES		JDE Sourcing principle 8.4
Score	4.1	
Law	Under the current government, and with the lobby of the agribusiness sector, Brazil has sharply accelerated its approval of pesticides "to boost large-scale, mono-crop farming" despite existing Pesticide laws and ratified treaties (HRW, 2019).	
Evidence	Brazil is positioned as the world's biggest pesticide market, where it is legal to spray coffee with hazardous pesticides outlawed in the European Union (DanWatch, 2016). Sources reveal that people living in nearby farms suffer from poisoning and other serious health issues caused by their exposure (e.g. Unearthed, 2019), and the extent of this issue is underreported and understated (HRW, 2019).	
Prevailing expert opinion	Medium-Low risk: "When looking at the country's coffee producing region(s), it is unlikely that banned pesticides are still used on farms" (Expert survey, 2020).	

INCOME DIVERSIFICATION		JDE Sourcing principle 9.1
Score	NO SCORE	
	At the moment, information collected on Income diversification does not allow us to draw specific conclusions. Prevailing expert opinion: "Medium-high risk: "It is estimated that the average percentage of the farmer's net income generated from coffee production is about 75%"	