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An analysis of certification schemes, direct  
trade, and hard-law in Colombia's and Peru's  
coffee industries: Fair and Smart Data  
Spearhead Exploratory Research

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Master's programme Sustainability Science, Policy and Society

SSP3021 (15 ECTS)

Word Count: 21,697

Submission Date: 24/08/2021

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## **Acknowledgements**

I would like to dedicate this thesis to my parents, Thomas and Mary, my granny Catherine and my nanny Bridie, as well as my younger sibling, Callum, whose love has helped me throughout this process. A special dedication goes to my partner, Ekaterina. Without her constant support I would not have been able to achieve what I have today.

And so, it is with her encouragement and care that I have completed this thesis.

I, Thomas Lowbridge, hereby declare with relation to my master thesis:

**An analysis of certification schemes, direct trade, and hard-law in Colombia's and Peru's coffee industries: Fair and Smart Data Spearhead Exploratory Research**

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## Abstract

This thesis takes a case study approach, examining coffee production within Colombia and Peru, to determine the effectiveness of certification schemes, direct trade, and hard-law in achieving positive sustainability outcomes for smallholder coffee farmers. This research is an exploratory assessment created, in part, to benefit the FSD Spearhead, an initiative aimed at providing farmers in GVCs with ownership over the data they create. To achieve this outcome, an analytical framework made up of nine indicators, inspired by the seventeen UN sustainable development goals and the three pillars of sustainability (Environmental, Economic, and Social), was designed. The results of this research concluded that certification schemes, direct trade, and hard-law are largely ineffective at helping smallholder coffee producers achieve positive sustainability outcomes. However, the results were largely quite weak, due to a lack of data, and so this research also suggested recommendations for further research into this topic, as well as suggestions for the FSD Spearhead in lessons it can learn from the failures and successes of certification schemes, direct trade, and hard-law.

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## II. List of Abbreviations

GN	Global-North
GS	Global-South
RFA	Rainforest Alliance
GVC	Global Value Chain
GVN	Global Value Network
CCSI	Columbia Center on Sustainable Investment
SAN	Sustainable Agriculture Network
SICA	Central American Integration System
PRONAF	National Program for the Strengthening of Family Agriculture
FUNCAFÉ	Coffee Economy Defense Fund
ICAFFE	Costa Rica Coffee Board



# 1. Introductory Section

## 1.1 Introduction

This thesis was undertaken as an examination of three forms of regulatory systems which attempt to govern the coffee industry within Colombia and Peru, with a general goal of achieving some form of sustainability. These systems are certification schemes, direct trade, and hard-laws. This research was completed as a form of exploratory research for a spearhead initiative being developed between institutions within Maastricht University and other bodies, such as Solidaridad and Rabobank. This spearhead, in simple terms, is setting out to explore “potential benefit and best practice of using digital technologies in specific global value networks to create fair data and shared value, which means, aiming to create economic, social and environmental value for as many stakeholders as possible, now and in the future” (BISCI et al., 2020, p. 2). This thesis, therefore, examined certification schemes, direct trade, and hard-law systems of regulation to determine the effectiveness of current regulatory systems at improving sustainability outcomes for individuals. At the same time, this thesis investigated potential lessons from the results of this assessment to advise the spearhead on potential improvements which could be made to increase the effectiveness of the spearhead at achieving its goals. This assessment was completed by the use of an analytical framework, designed for this study, which uses sustainability indicators to evaluate the effectiveness of certification schemes, direct trade, and hard-law regulatory systems.

Sustainability within this thesis is defined by a three-pillar approach encompassing environmental, economic, and social sustainability. The definitions of these three pillars are:

**Environmental:** The environmental sustainability pillar in this thesis is defined as effects and events which relate directly to the natural world. These can be negative, such as soil degradation, air pollution, or water eutrophication. They can also be positive, such as an increase in the planting of trees, lowering of CO<sub>2</sub> emissions, or a waterway being cleaned.

**Economic:** The economic sustainability pillar is defined, in this thesis, as effects and events which relate to the financial world. These can be small-scale finances, such as those of a specific farmer or farming community or large-scale finances, such as those relating to a region or corporation. These effects and occurrences can also be negative or positive for the parties involved.

**Social:** The social sustainability pillar in this thesis is defined as effects and occurrences relating to an individual’s personal world. This means anything positive or negative which affects

individuals within the communities or states being examined, such as their social-standing, the state's level of gender disparity, or the level of education within an area.

The timeframe examined within this thesis is from 1987 to the present day. This is significant because this was the year the World Commission on Environment and Development (WCED) published what is commonly referred to as the Brundtland Report. This report developed guiding principles for the world of sustainable development as it has been understood since its creation. It also created a definition for sustainability development which is still used either in its entirety or in an evolved form to this day: Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs (World Commission on Environment and Development, 1987). The FSD Spearhead also emphasises future development, so the most current research, especially research which looks towards the future, will be deemed as the most important.

## 1.2 Theoretical Background

In recent decades there has been a push to alleviate the economic disparity between the Global-North (GN) and Global-South (GS)<sup>1</sup>, while simultaneously reducing the anthropogenic impact on the planet. Worldwide development in achieving this goal was inspiration for the United Nations Conference on Sustainable Development in 2012, during which a set of 17 sustainable development goals were created (UNEP, 2013). Many of these goals specifically focus on the economic state of the GS, such as goal 1 'No poverty', goal 2 'Zero hunger', and goal 10 'Reduced inequalities'. Although this event is seen as a turning point for international Sustainable Development, before this conference the building blocks of large-scale international governance on the topic had been growing from the Kyoto Protocol adopted in 1997, G8 summits in 'Cologne in 1999 to Evian in 2003' (Kirton & Trebilcock, 2016), to the Paris Agreement which entered into force in 2016. It was recognised that, in order to achieve these 17 goals, there needed to be certain mechanisms and regulations in place to drive behaviour and action towards the desired outcomes described in these goals. These mechanisms and regulations are needed now, more than ever, given the acceleration of globalisation and the governance challenges which have followed in the past three decades. These international governance structures and mechanisms

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<sup>1</sup> GN and GS in this thesis are defined as income-based definitions and not geographical, in that GN countries are high-income countries, such as those within Europe and North-America, whereas GS countries are low-income countries, such as those within Africa and South-West-Asia. Therefore, although Australia is geographically in the GS, it is not considered a GS country in this thesis as it is a high-income country. More explanation, if necessary, can be found in (Schafer, Jessica, Paul Haslam, and Pierre Beaudet. 2017. "Meaning, Measurement, and Morality in International Development". *Introduction to International Development*, eds. Schafer, Jessica, Paul Haslam, and Pierre Beaudet. Don Mills: Oxford University Press).

are perceived to be required to ensure smaller communities to large metropolises are not left out as the world as a whole moves forward (Kirton & Trebilcock, 2016; Guttal, 2007).

For issues of sustainable governance, i.e., governance covering the environment, economy, and social spheres, organisations have largely relied on soft-law systems of regulation to achieve a sustainable relationship between the economies of the GN and GS. This has been due to the difficulty in establishing international hard-law and the flexibility and dynamism offered within soft-law (Kirton & Trebilcock, 2016). These features of soft-law are important when tackling sustainable development challenges. This is due to sustainability challenges evolving over time, which can lead to changing contexts that may make a certain form of governance unviable. Systems of governance have been used in an attempt to ensure fair competition, fair regulation, and fair pricing is created and then retained between the GN and GS (Mori Junior et al., 2016; Panhuysen & Pierrot, 2020). They also generally contain environmental, economic, and social factors, covering the three pillars of sustainable development (Purvis et al., 2018). 'Fair and Smart data', an initiative under Maastricht University's 'Spearhead Challenges'<sup>2</sup>, is a system being developed to help deal with the challenges faced by producers of commodities throughout the globe. Within this thesis specifically, the systems of governance examined tend to exist to regulate commodities which are largely produced in the GS and then sent to the GN for use, such as cacao or palm oil. The specific industry of focus within this thesis is that of coffee production (Mori Junior et al., 2016).

## 1.3 Literature Review

### 1.3.1 The Coffee Sector within Colombia and Peru

The coffee sector within Colombia and Peru is of great significance to the lives of Colombians and Peruvians, with these countries being in the top 10 coffee origin countries in the world (Panhuysen & Pierrot, 2020). However, the majority of smallholder coffee farmers within these countries, and most coffee-producing regions of the world, live below the poverty line even though they are crucial to the countries' ecosystems and economies (Solidaridad, 2020).

Historically, coffee has been one of the most important crops to not just the economy of Colombia but also the diet. In Colombia, coffee exportation in 2019 was estimated by the Coffee Barometer 2020 to be valued at US\$2.6 billion, with Arabica being the type of coffee produced (Panhuysen & Pierrot, 2020). This is significant, especially when taken into account that Colombia from 2010-2019 went from producing 6% of the world's coffee to 9% of the world's coffee (Panhuysen & Pierrot, 2020). The Colombian coffee industry is also recognised at the global level

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<sup>2</sup> Referred to throughout this thesis as the FSD or the FSD Spearhead

by key players in the global coffee industry, having been international price leaders since at least 1997 (Barjolle et al., 2017). The backbone of this production are the coffee smallholders who manage these agro-ecosystems to ensure their own livelihoods are kept afloat while also helping to collectively support the Colombian economy. Within Colombia, there are an estimated 554,500 smallholders who produce this coffee (Panhuysen & Pierrot, 2020). In 2018, the coffee sector through the entire coffee chain in Colombia, not just in farming, had 785,000 people involved, representing 26% of the total employment in agriculture in the country (Lacambra et al. 2020).

Coffee production in Peru is dated as far back as the late-18th century and in its current form incorporates 16 coffee producing regions of the country, with San Martín producing the most coffee in the state, accounting for 23% of Peru's total production ("Cámara Peruana del Café y Cacao :: Café en el Perú", n.d.). In 2019, coffee exportation in Peru was valued, by the Coffee Barometer 2020, to be worth US\$620 million, with Arabica being the coffee of choice for the country's farmers (Panhuysen & Pierrot, 2020). However, although Peru is one of the most significant coffee producing countries in the world it has seen a decline in production from 2010-2019, as its contribution to the worldwide coffee market dropped from 3% to 2% (Panhuysen & Pierrot, 2020). In 2015, there were roughly 223,000 coffee producers in the country who could be affected by this drop in production; this includes all producers, not just smallholder farmers (Palomino, 2017). However, in 2019 there were 202,100 smallholder coffee producers (Panhuysen & Pierrot, 2020). This could potentially show a drop in the number of producers from 2015 to 2019, however, this is just speculation as the source for 2015 does not state the percentage of coffee producers which were smallholders.

### 1.3.2 Governance and Regulation

Governance and regulation are not synonyms, an important distinction to note throughout this thesis. Within this thesis the words are occasionally used in a way that would indicate they are considered synonyms, for example, in the Theoretical Background when "the systems of governance" within this study are mentioned. However, this is not the case, as is noted by a reading of Stoker (1998) or Steurer (2013) (Stoker, 1998; Steurer, 2013). Instead, as Stoker (1998) notes, governance refers to the "development of governing styles in which boundaries between and within public and private sectors have become blurred" and it uses "governing mechanisms" to ensure this is achieved (Stoker, 1998, p. 17). Regulation is one of those governing mechanisms, examples of which can be found in Figure 1, and constitutes only a portion of governance as a theory. Therefore, the phrase 'systems of governance' used within this thesis indicates that the systems being discussed are different types of systems of governance, but all of them are still regulatory systems of governance.

### 1.3.3 Global Coffee Value Chains

'Global value chain' is a term used in academic literature to help describe the current procedures and activities within modern globalised trade, as the importance of actors from every stage of trade are analysed by modern studies (Gereffi & Fernandez-Stark, 2018). A value chain can encompass the activities from each level of a single corporation, or they can represent the players and operations within international trade. Different levels of these chains can also be separated from themselves, such as activities within the production process of a certain product. This process can occur individually over many different countries to culminate in a final product in one location. This process can be referred to as "fragmentation" (Gereffi et al., 2005, p. 79), and allows "production in different countries to be formed into cross-border production networks that can be within or between firms" (Gereffi et al., 2005, p. 80).

A representation of the world's coffee value chain can be found in Figure 1 below, taken from a study completed by Murphy and Dowding (2017). This figure shows the relevant activities in the three stages of coffee trade, ranging from the production of the coffee to the roasting and packing of it, to its consumption either within the producing country itself or within a country that the coffee will be shipped to for consumption. Within global coffee chains, those in the middle, the roasters, have the most power and influence and tend to dominate the market (Panhuysen & Pierrot, 2020). This power has been concentrated more and more to a smaller set of companies as mergers and acquisitions have caused large-scale consolidation among the top roasters, increasing their market share and overall influence on processes and pricing (Panhuysen & Pierrot, 2020). This has also created renewed financial pressure for international traders within these chains in the past decade, who have been undergoing a wave of consolidation due to pressure from the roasters (Grabs & Ponte, 2019). Overall, this means that these coffee roasters, such as Nestlé, Starbucks, and Jacobs Douwe Egberts are the largest beneficiaries within these chains, leaving smallholder coffee producers with only a small portion of the total value created (Panhuysen & Pierrot, 2020). In this same respect, it is not just roasters but also MNCs within these chains who maintain a hold of the power within coffee producing states as they capture most of the (economic) benefits in the chain, via the exportation of the coffee beans and therefore have more control over future developments and regulations, through lobbying and flexing their power (Glasbergen, 2018).

The typical actors within a global coffee chain include farmers, roasters, exporters, importers, retailers, and consumers, some of whom have already been discussed above. These actors can be seen in Figure 2 below, as well as four routes the coffee can take in global value coffee chains. Farmers are those involved in the growing of the coffee. Roasters are those involved in the roasting of the coffee beans and then the subsequent step of packing the coffee to be shipped out to the consuming country, or region if it is being consumed within the producing

country. The exporters are those involved in selling the finished product to businesses within consuming countries, as well as selling the coffee produced by the farmers to roasters either within or outside the producing country; this activity can also be completed by roasters both within and outside the producing country if they have the resources to market and ship the coffee. Importers are companies involved with purchasing the finished coffee product either from exporters or roasters in order to supply retail businesses with coffee; these importers can either sell the coffee in a wholesale fashion to businesses or they could be a part of large-scale retailers who have the resources to facilitate this purchase in international markets themselves. Retailers are businesses which stock and sell coffee to consumers. Lastly, consumers are individuals who purchase coffee from either retailers or directly from the farmers themselves (potentially with limited use of an intermediary body, such as a trading organisation or roaster), as seen in route 4 of Figure 2. In this thesis' discussion of GVCs, at times, individual actors will be discussed and other times the chain as a whole will be discussed.

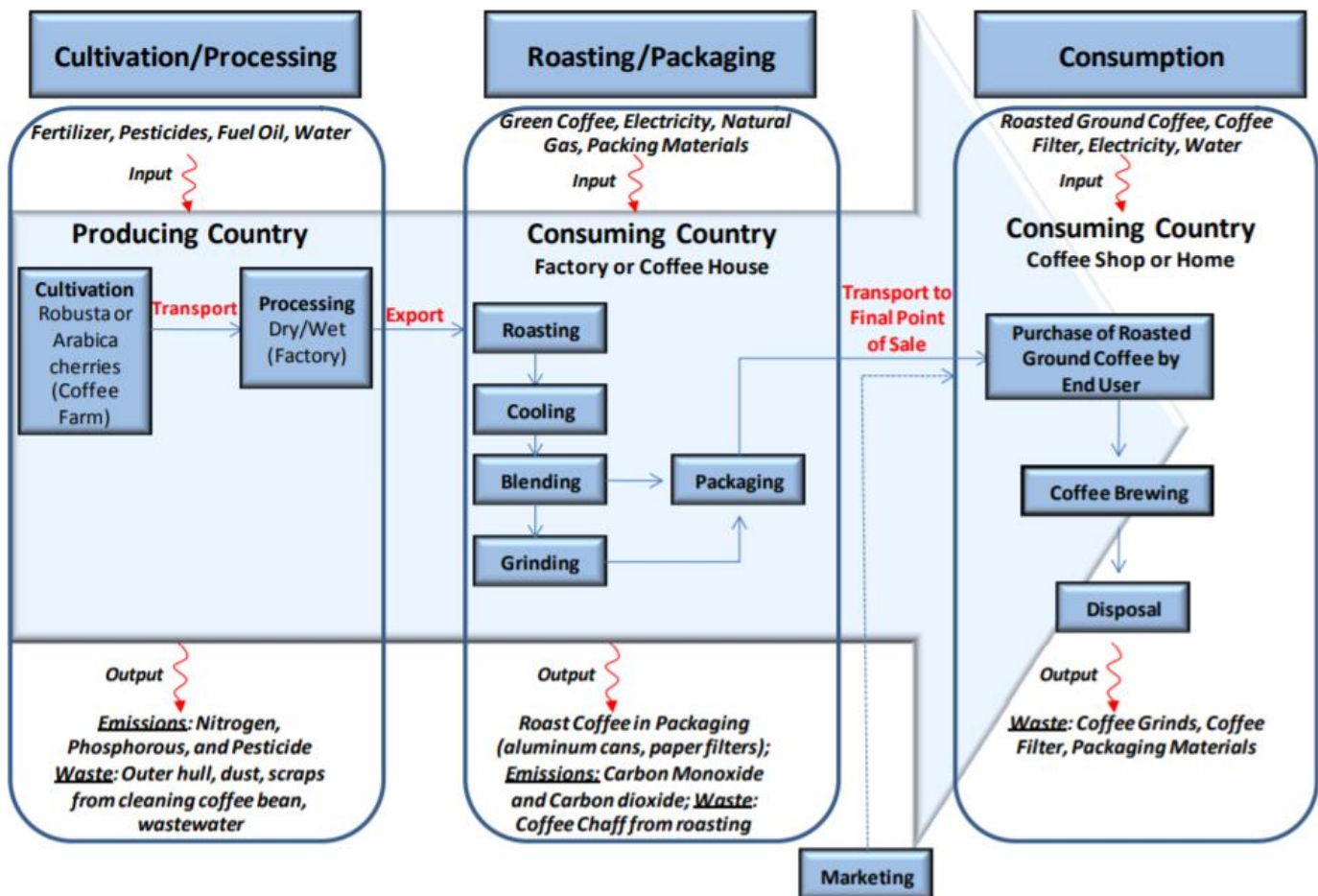


Figure 1 - The Coffee Value Chain (Murphy & Dowding, 2017)

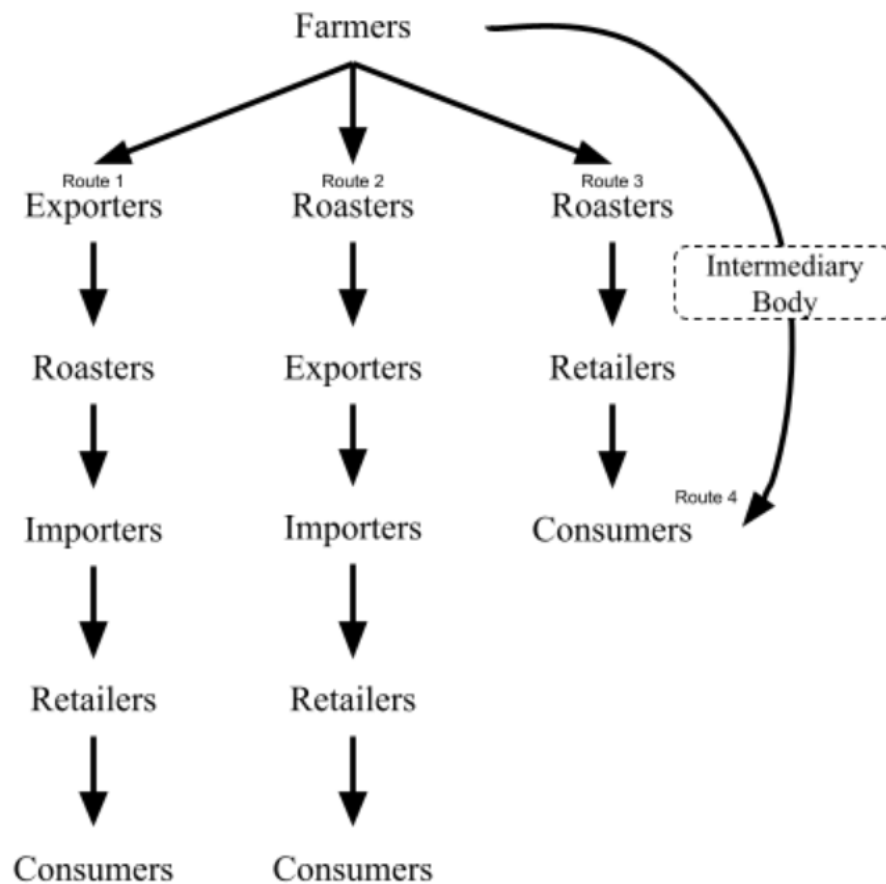


Figure 2 - Actors within the coffee sector's GVC and four routes coffee within GVCs can take (Author-made) (Quiñones-Ruiz, 2020; Lacambra et al. 2020)

### 1.3.4 Hard-law vs Soft-Law

Hard-law and soft-law are two terms used throughout this thesis to refer to two different forms of regulation. They can also be referred to as hard regulation and soft regulation. The main distinction made between these two different regulatory systems is the level of obligation contained within both.

Hard-law is generally characterised as being a system in which the institutions, individuals, and groups regulated by the system are legally obligated to adhere to the rules and regulations within the system. This means that “the executive and judicial branches of government (or the agencies themselves) monitor and enforce compliance” (Steurer, 2013, p. 393). Tools of hard governmental regulation tend to be such mechanisms as “laws, decrees or (in the EU context) directives (metaphorically also referred to as “sticks”) and, less obvious, economic instruments (also referred to as “carrots”) such as taxes, fees and cap-and-trade schemes” (Steurer, 2013, p.

393). Hard-law regulation is, therefore, generally confined to governmental bodies as they are the ones with the power to enforce legal compliance.

Soft-law is a system of regulation generally involving voluntary participation, in which the participants are not under any legal obligations to adhere to the rules and regulations (Steurer, 2013). Instead, they use political pressure, financial incentives, and coercion techniques to encourage participation in the system. In this thesis, soft-law systems are broadened from the perspective shown in Figure 3 below, taken from the article by Steurer (2013) on governance. This is done to expand upon Steurer's focus on governmental soft regulation, to include other forms of regulation which are voluntary and use forms of coercion or incentives to encourage participation. Therefore, "Tripartite co-regulation", "Public co-regulation", "Civil regulation", "Private co-regulation", "Industry self-regulation", and "Firm self-regulation" are all considered, within this thesis, to also be forms of soft-law. "Public co-management" is excluded as it is less concerned with regulation and more concerned with "the joint management of common pool resources" between governmental actors and civil society (Steurer, 2013, p. 397).

These two forms of regulation can be used separately by different bodies, but can also be used together to form a synergised relationship in which either form of regulation can effectively make up for losses in the other regulatory system. However, mostly it is soft-law mechanisms which are adapted or created to aid hard-law systems or used "as a way station to harder legalization" (Abbott & Snidal, 2000). This is due to soft-law mechanisms being more adaptable and dynamic in their nature (Kirton & Trebilcock, 2016).



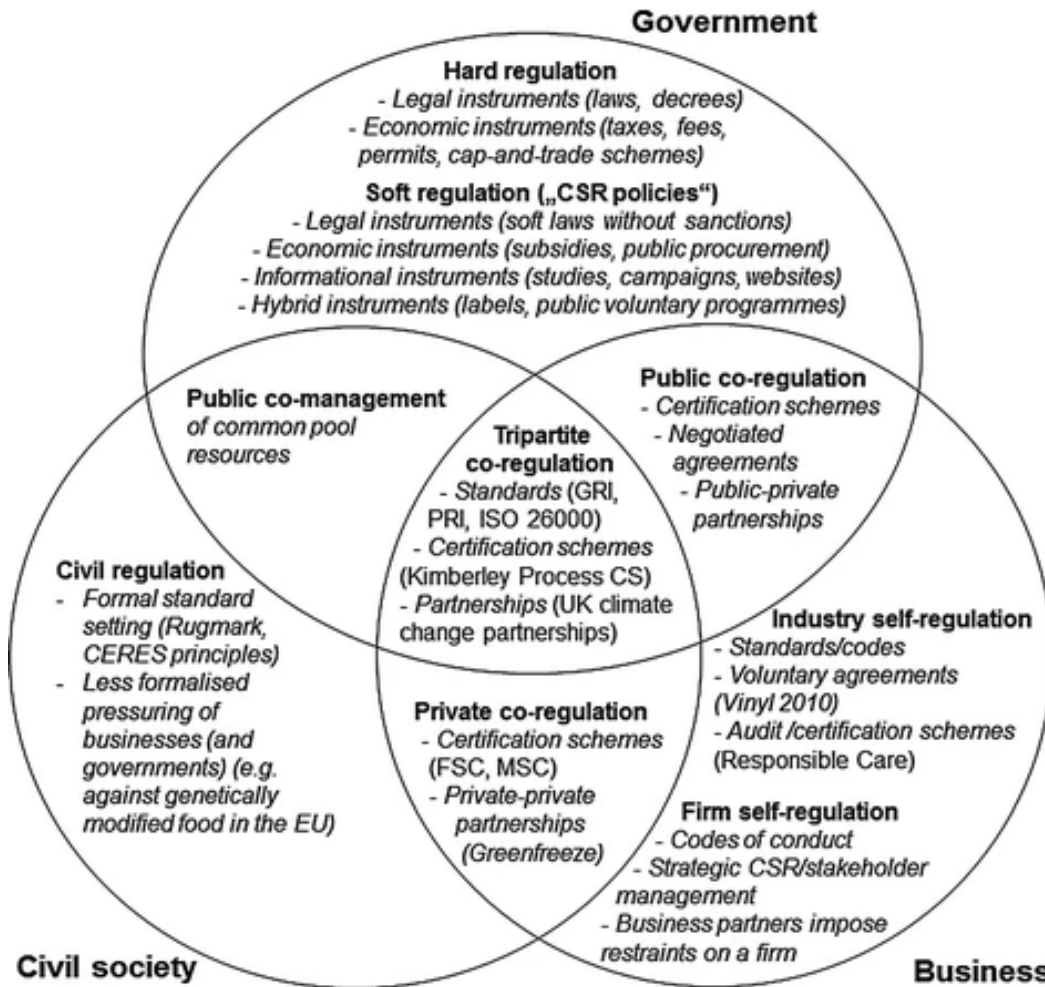


Figure 3 - Regulation types: Civil regulation, Business regulation, Governmental regulation, and 4 types of co-regulation; Private co-management, Public co-regulation, Private co-regulation, and Tripartite co-regulation (Steurer, 2013)

### 1.3.5 Certification Schemes

Definition: This thesis defines certification schemes as voluntary systems of regulation which rely on companies, communities, and states to decide for themselves to sign up to them without any legal requirements for them to do so. They encourage users to sign up by using soft power. They achieve this by advertising benefits for the user if they agree to the terms of the scheme.

Academic studies undertaken on the effectiveness of certification schemes tend to have a common focus, examining the effects of the schemes and mechanisms on a macro level. Whilst some focus more on the interactions between public and private regulations (Auld, 2010; Gulbrandsen, 2012), others focus on the need for complementary systems and mechanisms to

ensure the effectiveness of these schemes (Reinecke et al., 2012; Kolk, 2011). These studies tend to show common trends among smallholder farmers, such as their prioritization of economic profit above collective action (Glasbergen, 2018).

A notable observation from the literature review is the lack of knowledge smallholders have on certification schemes, how they work, their benefits, how to join them, which demonstrates an issue of weak support systems for smallholders, caused by a lack of effective oversight and consideration from the organisation in the GN who created these schemes (Ibnu, 2017). This lack of stakeholder participation within the formulation and development of these schemes is incredibly damaging to their success as it demonstrates a lack of undertaking of a core tenet of sustainable development, the future-proofing of development and ensuring generations understand the measures fully and how best to implement them themselves.

### 1.3.6 Direct Trade

Definition: Direct trade is defined in this thesis in two different ways. Firstly, it is the act of consuming- countries, companies, or individuals purchasing a product directly from the producer of the product with limited or no use of an intermediary body, such as an MNC, a small to medium enterprise (SME), or a coffee roaster that isn't also a coffee producer. Secondly, it is defined as the result of the development of a close relationship between coffee roasters and coffee producers, in which the "roasters and farmers know each other, communicate directly, close deals and seek for long-term relationships" (Borrella et al., 2015, p. 30). Direct trade systems, like certification schemes, are soft-law forms of regulation as they rely on individuals choosing to be part of a direct trade system.

Direct trade within the world of coffee production and consumption is a term that can be confusing to fully understand as, depending on the organisation using the term, it can mean a different thing. Within academic literature, three different forms of direct trade are identified, each of which supports a different group and end goal (MacGregor et al., 2017). These three definitions are: First, direct trade can be used as a general concept for coffee sourcing. This definition focuses on roasting firms and coffee producers having direct and consistent contact with each other. This is headed by the roasters who typically send a buyer to the coffee producer in order to negotiate quality-based prices which will be paid directly to producers (MacGregor et al., 2017). Second, direct trade is used as a marketing strategy for firms who wish to use the perceived fairness of the practice, by the public, to sell coffee to consumers (MacGregor et al., 2017). Lastly, direct trade is used as a term and practice within the world of sustainability, as a voluntary scheme (MacGregor et al., 2017). This implies that there exists a set of practices and standards which are being upheld by the members of the GVC within these schemes. Usually, the existence of this

scheme is advertised to the consumers through logos which demonstrate that a certain set of standards has been upheld during the entire GVC this coffee product went through.

Direct trade is also regarded as being a hands-on approach to regulation, as opposed to certification schemes which are considered hands-off (Borrella et al., 2015). This is due to the actors involved in the process, e.g., roasters, producers, consumers, having to purposefully seek out and undertake direct trade practices rather than relying on other members of the GVC to undertake the practices for them.

As well as potentially increasing the financial position of coffee producers, due to roasters paying higher prices for coffee beans and actively engaging in bilateral exchange with the coffee producers, direct trade can also allow for a mutual exchange of information between the coffee roasters and coffee producers, benefiting both parties through “mutual learning processes” (Rathgens et al., 2020, p. 3).

### 1.3.7 Hard-law

Definition: Hard-law within this thesis is defined in two ways. First, as any set of regulations which are created and legally upheld by executive and judicial branches of a government. The organisations, corporations, and individuals who are regulated under these systems are legally obligated to adhere to the rules and regulations within them or else they will be prosecuted by governing bodies. Second, as the authoritative power of governmental bodies. For example, an important aspect of hard-law systems is the ability of governments to use their authority to collect and store data. This aspect of governmental power is also considered a part of hard-law regulation within this thesis as it is another way governments can use their authority to support actors within GVCs, such as smallholder coffee producers within their jurisdiction.

Hard-law systems as a form of regulatory mechanism within GVCs have had their reach and influence diminished due to the increasing complexity in the modern ever-developing globalised world. This has caused the soft-laws systems of regulation, as seen in certification schemes and direct trade take-over, so to speak, to fill in the gaps missed by hard law (Scherer & Palazzo, 2011). Within the international realm, “international law regulates the relationships between states and – according to the received wisdom – this has little or no implications for the behaviour of private actors” (Scherer & Palazzo, 2011, p. 911) but this could have an effect on the behaviours of other states if they are legally obligated to adhere to certain rules and regulations. However, within a state, hard-law regulation could still be useful to help promote sustainable practices and improve the conditions of workers who live and work within the legal boundaries of the state. Also, hard-law systems offer a level of authority and legitimacy that soft-law systems do not have due to their voluntary nature. Academic literature has postulated that weaknesses within certain soft-

law systems, such as forms of collaborative and network governance, can be due to them missing the “shadow of hierarchy” and that in order to fix regulatory challenges it is necessary to bring “the state back in” (Lenschow et al., 2015, p. 152).

### 1.3.8 Knowledge Gap

The academic literature on this topic is sparse and there seems to be a significant knowledge gap, particularly regarding the impact of different regulatory systems, operating within coffee GVCs, on smallholders in the Global South, specifically coffee farmers in Colombia and Peru.

Although there exists literature on the topic of regulatory systems’ effects on coffee, and GVCs, studies tend to just examine one specific system, rather than conducting a comparative assessment of different forms of regulatory systems.

This thesis will, therefore, fill this knowledge gap through the design and testing of an analytical framework, created for this thesis, to assess the impact of 3 different regulatory systems on the position of smallholders in the Global South, specifically Colombia and Peru, in GVCs from a sustainability perspective in terms of economic, social, environmental effects. This analytical framework will also evaluate the availability of data necessary to fill the framework to determine if further research is required into certain regulatory systems to properly assess their potential effectiveness.

## 1.4 Problem Statement

Currently, within the coffee industry in the GS a lot of regulation is completed by UTZ, 4C, Rainforest Alliance (RFA), Fair Trade, and Organic coffee, all certification schemes (Glasbergen, 2018; Panhuysen & Pierrot, 2020). Other examples of regulation used widely in the coffee industry which will be examined within this study are: Hard-law regulation and Direct Trade. Coffee production is largely undertaken by low-wage smallholder farmers in the GS. A smallholder is generally defined as a farmer with less than 2 hectares of land (Ricciardi et al., 2018) or a farmer with 3-3.5 hectares of land (Solidaridad, 2020). Therefore, within this thesis a smallholder coffee farmer is defined as one with an area of land ranging from 2 hectares to 3.5 hectares. Large-scale areas of production range from Brazil in South America, Ethiopia in Africa, Honduras in Central America, and Indonesia and Vietnam in Asia (International Coffee Organization, 2021). This thesis decided to focus on the South American states of Colombia and Peru. The rationale behind this decision came from two reasons: Firstly, the FSD Spearhead plans to focus part of its research on Colombia and Peru as examples of where their system may have a positive effect. Secondly, these states are large coffee producers and rely heavily on coffee production for their economies (International Coffee Organization, 2021). In Colombia, the coffee sector is

responsible for generating roughly one million direct and indirect jobs, while helping to stabilise a formally conflict-ridden state (Solidaridad, 2020). In Peru, coffee is the main agricultural export product, with 95% of the coffee beans that are grown in Peru being destined for export (Solidaridad, 2020). Therefore, examining coffee farmers within these two states allowed this thesis to provide relevant recommendations to the FSD Spearhead, in a geographical region that is also relevant to worldwide analysis of the coffee sector.

## 1.5 Aims and Objectives

### 1.5.1 Research Aims

Given the theoretical background, problem statement, and literature review within this thesis, the research aims were formulated to contribute to the early exploratory stage of the Fair and Smart data Spearhead. Specifically, they were designed to examine existing regulatory systems to assess if current regulatory systems are improving the position of coffee producers within GVCs.

For this reason, the main aim is: To explore systems of governance in the coffee industry that most likely strengthen the position of coffee farmers in Colombia and Peru (This will focus on the economic pillar of sustainability).

Additionally, as this thesis and the FSD Spearhead wished to examine all three pillars of sustainability, a secondary aim was created: To explore the impact the systems of regulation have on the lives of coffee farmers within their region (This will focus on the social and environmental pillars of sustainability).

These two aims were also created to determine if lessons learned from the existing systems being assessed can be used in the FSD Spearhead to improve its usefulness.

### 1.5.2 Research Objectives

To achieve the aims of this research this thesis developed two main objectives to guide the research. The first main objective is: To examine certification schemes, direct trade, and hard-law in delivering sustainable development outcomes to coffee farmers across the global coffee value chain.

The second objective is: To examine whether lessons can be learned from certification schemes, direct trade, and hard-law to help improve upon the FSD Spearhead. This will focus on the benefits and drawbacks of the systems of regulation examined to determine if any recommendations can be made to the FSD Spearhead to improve its potential impact.

### 1.5.3 Research Question and Sub-Questions

Drawing on the aims and objectives, this study explored the following research question:

To what extent can certification schemes, direct trade, and hard-law improve upon sustainability outcomes for coffee farmers in Colombia and Peru?

To answer the research question and accomplish the research aims and objectives, this thesis explored the following sub-questions:

1. What lessons can be learned from the results of the assessment?
2. Can the results of the assessment be useful for the FSD Spearhead in improving the position of coffee farmers within GVCs?
3. Can the results of the assessment help the FSD Spearhead to improve upon environmental and social outcomes for coffee producers?

## 2. Methodology

### 2.1 Data collection and analysis

This thesis applied a qualitative case study approach, focusing on the coffee industry within Peru and Colombia. This was done to provide an in-depth analysis of systems of governance within a region also being examined by the FSD Spearhead, therefore providing suitable research for the initiative.

The case study approach helped create a more detailed level of insight and understanding within the realm of regulatory systems. This style of research was also chosen to allow the integration of smallholder's positions within global value chains, as a case study approach was deemed to be an effective way of examining actors within isolated GVCs instead of attempting to examine smallholders within many different worldwide GVCs.

To achieve these goals, this study mainly focused on one type of data collection: Desk research. The desk research mainly encompassed document analysis, as seen in the literature review, with a focus on, among other things, peer-reviewed journal articles, books, reports on the coffee industry, as well as grey literature.<sup>3</sup> One method used to analyse documents was coding. This is a method of assigning words or short phrases to sub-sections of documents which symbolically summarises each specific portion of text (Saldaña, 2009). This was a useful method, as it allowed for easier grouping of documents, as well as sections from different documents, to compare and contrast the information provided within them. The documents will also be analysed using the content and thematic analysis methods described by Bowen (2009) (Bowen, 2009).

Throughout this analysis, the research was examined through a constructivist lens, with emphasis placed on the constructivist view that people may look at the same object but see different things (Moses & Knutsen, 2019). This was deemed important as the perspectives of the smallholders and other relevant actors on the benefits and drawbacks of each of the analysed systems of governance could be different and their personal circumstances could alter the results of the analysis. Therefore, constructivism was deemed useful even though, by its nature, it postulates that the results of the analysis could be up to interpretation. This was deemed acceptable and correct due to the understanding in constructivism that observational statements contain bias and can be understood in different ways and factual statements are value-laden.

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<sup>3</sup> The term "grey literature" will be explained in detail in the section 'Data Sources' below

## 2.2 Data Sources

The data used within this study came from many different sources, depending on the specific data required.

For the main document analysis, the majority of the data was acquired through sources such as JSTOR and the Maastricht University library. They were beneficial to the research as they have access to large swathes of peer-reviewed academic research necessary for undertaking a full and thorough document analysis.

The International Coffee Organisation was also a source of data on coffee production and exportation throughout the past few decades, as they have a large quantity of data, for example 5000+ articles. This was useful to demonstrate the size of coffee growing economies, as well as provide insight into any quantitative changes within the coffee industry. However, the Coffee Barometer (2020) ended up being more useful during this study and so was used more thoroughly throughout the analysis (Panhuysen & Pierrot, 2020).

Reports and articles from bodies working within the FSD Spearhead project, such as Solidaridad, Rabobank, and the Maastricht Sustainability Institute, were also used throughout the study. This is due to their vested interest in the topic of this thesis and so they were able to provide literature and advice which pertains to the thesis topic directly, as this concerns their research as well.

Lastly, grey literature was a partially useful source during this analysis. Grey literature refers to “any information that is not produced by commercial publishers” and involves such sources of data as “research reports, working papers, conference proceedings, theses, preprints, white papers, and reports produced by government departments, academics, business and industry” (“Grey literature”, 2021). This data is not necessarily as trustworthy as peer-reviewed academic literature due to it generally being researched and produced by companies or organisations which may not be peer-reviewed, and which may promote research which supports their organisations ideals. Nonetheless, it was useful in instances where academic literature was sparse as it allowed for the addition of information which may have been lacking in the academic sphere.

## 2.3 Designing an analytical framework

The decision to design an analytical framework rather than relying on potential existing frameworks to assess the effectiveness of certification schemes, direct trade, and hard-law was done so for two reasons.

Firstly, there were no existing studies which examined the systems and states being evaluated within this thesis, leading to a lack of research to provide a basis for a framework to



properly assess these systems, especially within the scope of the coffee sector in Colombia and Peru.

Secondly, due to part of this thesis' existence being to provide exploratory research to the FSD Spearhead, it was necessary to design and use an analytical framework which would align to the spearhead's approach. This resulted in the decision to choose the three sustainability pillars as headings for the indicators and informed the choice of the 17 UN sustainable development goals as inspiration for the indicators. The creation and development of these indicators is discussed below in detail, in the section 'Indicators'.

## 2.4 Indicators

The indicators used within this study were either inspired by the targets within the 17 sustainable development goals (SDGs) created by the UN (UNEP, 2013). The reasoning behind this was due to three reasons. Firstly, it was due to the significance of these goals in the world of sustainability. They were adopted by the 193 members of the United Nations (UN), encompassing almost every state within the world and focus on an integrated framework where every goal helps another. Secondly, these goals encompass the three pillars of sustainability (environmental, economic, and social) being examined within this thesis, and emphasised within the FSD Spearhead. Lastly, the goals are incredibly important to the FSD Spearhead. This is seen in the Spearhead's purpose, where part of its creation is aimed at being able to help communities and nations achieve the SDGs by 2030 (BISCI et al., 2020).

The goals, and subsequent targets within these goals, used within this study were chosen to be as specific to the issues that smallholder coffee farmers could realistically face. For this reason, some of the 17 SDGs were not used. This is not to say that the excluded goals would not be useful in improving aspects of the farmers' lives. On the contrary, as was mentioned above, the SDGs are interconnected so each goal has the potential to help improve the farmers' lives in some way. Instead, these excluded goals were simply deemed to not be relevant enough to the lives of the smallholder coffee farmers within Colombia and Peru to make significant improvements, therefore, the goals which were deemed to be able to provide the most significant improvements were chosen. Within these goals, a limited number of targets were also chosen to ensure only the most relevant ones were chosen and to avoid expanding the research beyond its means.

The two goals chosen for the Environmental pillar were: Goal 12 and Goal 13. Within these goals, targets were chosen. These were: Target 12.2, Target 12.5, Target 13.2, and Target 13.3. Goal 12 was chosen as it involved sustainable consumption and production. This was deemed to be an important goal, as the sustainable consumption and production of natural resources is an important aspect to ensure the longevity of the coffee sector. Goal 13 was chosen as it focused

on tackling the dangers of climate change. This was deemed essential to the farmers as the negative effects of climate change, such as global warming, freak weather events, or increased rainfall in wet seasons, could harm the farmers' land and the crops being produced. This would greatly affect their livelihood, as well as local and national economies due to the loss of crop production, and so was seen to be an important goal to include.

The two goals chosen for the Economic pillar were: Goal 8 and Goal 10. Within these goals, targets were chosen. These were: Target 8.8, Target 8.10, Target 10.1, and Target 10.6. Goal 8 was chosen as it focuses on sustainable economic growth and ensuring decent employment is achieved for all. This is important to the lives of the smallholders as it aims to provide them, their children, and their wider families with fair and decent employment throughout their lives. This was deemed incredibly important to improving the personal financial circumstances of smallholders and giving them certainty that their circumstances won't change for the worse due to unforeseen events or exploitative labour practices. Goal 10 was chosen as it targets smallholders specifically. This is due to smallholder coffee farmers being small-scale and therefore not incredibly wealthy producers. This restricts their access to wider international markets and reduces their voice in large-scale decision making within and outside their countries. Goal 10 was, therefore, chosen as it aims to help smallholders improve not only their financial standing and power within their own state but also in the wider market, helping them permeate more layers of GVCs.

The two goals chosen for the Social pillar were: Goal 4 and Goal 5. Within these goals, targets were chosen. These were: Target 4.1, Target 4.2, Target 4.3, Target 4.4, Target 5.a, and Target 5.c. Goal 4 was chosen as inclusive and equitable quality education for all was deemed to be necessary for almost all kinds of personal and financial development. Therefore, it is one of the most important goals as it greatly helps with all of the other goals chosen within this study. Goal 5 was chosen as gender equality and the empowerment of women and girls is an incredibly important issue to ensure every member of any community has equal access to services, employment, education, and any other aspect of life. This is important in a sector such as coffee farming where allocation of tasks can be affected by gender. For example, a substantial part of manual labour jobs, such as "weeding, harvesting and processing is often performed by women, while men are more involved in pruning, application of pesticides" and the more technical task of being in charge of "logistics" (Panhuysen & Pierrot, 2020, p. 18). Therefore, goal 5 is necessary to help bridge gender gaps and allow women and girls the same opportunities as men.

Another justification for choosing goals 5, 8, 12, and 13 within this thesis was their importance to Solidaridad, one of the FSD Spearhead partners. In a project fact sheet they designed on scale-up and acceleration of deforestation-free supply chains through public-private

partnerships with a focus on the coffee sector within and between Colombia, Peru, and the Netherlands, they emphasised the importance of these goals (Solidaridad, 2020).

A detailed explanation of each of these 6 goals and 14 targets can be found below in Table 1.

Pillar	Environmental				Economic				Social					
Goal	12		13		8		10		4				5	
Goal Definition	Ensure sustainable consumption and production patterns		Take urgent action to combat climate change and its impacts		Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all		Reduce inequality within and among countries		Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all				Achieve gender equality and empower all women and girls	
Target	12.2	12.5	13.2	13.3	8.8	8.10	10.1	10.6	4.1	4.2	4.3	4.4	5.a	5.c
Target Definition	By 2030, achieve the sustainable management and efficient use of natural resources	By 2030, substantially reduce waste generation through prevention, reduction, recycling, and reuse	Integrate climate change measures into national policies, strategies and planning	Improve education, awareness raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning	Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment	Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all	By 2030, progressively achieve and sustain income growth of the bottom 40 percent of the population at a rate higher than the national average	Ensure enhanced representation and voice for developing countries in decision making in global international economic and financial institutions in order to deliver more effective, credible, accountable and legitimate institutions	By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes	By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education	By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university	By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurs	Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws	Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels

Table 1: Definitions of the Goals and Targets chosen from the 17 Sustainable Development Goals (UNEP, 2013)

This table was then used to develop a set of general indicators to help assess the ability of each system of regulation to achieve the three pillars of sustainability.

For the environmental pillar, Goal 12's targets were combined to create the indicator:

The level to which a system has managed to allow the region to develop a sustainable use of resources which ensures a low amount of waste.

Goal 13's target 13.2 was ignored as it was deemed to be an insufficient measure for any hard-law based system as these systems are based around national measures and policies regardless. Therefore, target 13.3 was used solely to form the indicator:

The level to which a system has developed the education and awareness of coffee farmers on environmental protection and climate change adaptation.

For the economic pillar, Goal 8's targets were all used separately to create indicators, as they were deemed important enough to create individual indicators for each. Target 8.8 was used to create the indicator:

The level to which a system has promoted the protection and development of labour rights and safe and secure working environments, particularly for female workers.

Target 8.10 was used to create the indicator:

The level to which a system has developed coffee farmers' access to and knowledge of financial institutions.

Goal 10's targets were also deemed to be important enough in their own right to develop two separate indicators based off of them. Target 10.1 was, therefore, used to create the indicator:

The level to which a system has contributed towards an increase in the income levels of smallholder coffee farmers within a specific region.

Lastly, target 10.6 was used to create the indicator:

The level to which a system has developed the voice for coffee farmers in decision-making in global international economic and financial institutions.

Finally, the last pillar of sustainability, the social pillar, had two goals which were used for inspiration, Goal 4 and Goal 5. Targets 4.1 and 4.2, within Goal 4, being both related to youth education, were combined to create the indicator:

The level to which a system has allowed for and promoted the existence of free, equitable, and quality early childhood care, as well as pre-primary, primary, and secondary education.

Targets 4.3 and 4.4 were also combined, being both related to the education of adolescents and young adults, to create the indicator:

The level to which a system has allowed for and promoted equal access for all adults to affordable and quality, technical, vocational, and tertiary education.

The final goal for the social pillar, Goal 5, has two targets which were combined, as they both relate to gender equality and the empowerment of women and girls, to create the indicator:

The level to which a system has promoted the development of policies and economic resources which protect the rights of women over issues of land ownership, financial services, and inheritance of natural resources.

The point of the majority of these indicators was not to measure the end result of a system's contribution, but instead to measure the capacity a system allows for an event to occur. Therefore, it would not necessarily matter if coffee smallholders within Colombia chose to not send their children to secondary education, it only matters if these smallholders have the ability to send their children to secondary education, i.e., is the school accessible, affordable, up to education standards and so on. However, if the data shows that there is both a capacity for an event to occur and end results of that event occurring then that is also beneficial to the research.

It is also notable that there are more economic indicators than environmental or social. The reasoning behind expanding upon the targets within the economic pillar to create more indicators, rather than combine them, was partly due to the targets being important enough to warrant a separate indicator but also due to this study's emphasis on the economic position of smallholders, as the FSD Spearhead is based around examining GVCs.

These 9 indicators have been collected together to improve legibility, which can be found in Table 2 below.

Pillar	Environmental		Economic				Social		
Indicator	The level to which a system has managed to allow the region to develop a sustainable use of resources which ensures a low amount of waste.	The level to which a system has developed the education and awareness of coffee farmers on environmental protection and climate change adaptation.	The level to which a system has promoted the protection and development of labour rights and safe and secure working environments, particularly for female workers.	The level to which a system has developed coffee farmers' access to and knowledge of financial institutions.	The level to which a system has contributed towards an increase in the income levels of smallholder coffee farmers within a specific region.	The level to which a system has developed the voice for coffee farmers in decision-making in global international economic and financial institutions.	The level to which a system has allowed for and promoted the existence of free, equitable, and quality early childhood care, as well as pre-primary, primary, and secondary education.	The level to which a system has allowed for and promoted equal access for all women and men to affordable and quality, technical, vocational, and tertiary education.	The level to which a system has promoted the development of policies and economic resources which protect the rights of women over issues of land ownership, financial services, and inheritance of natural resources.

Table 2: Indicators for the assessment of each system of regulation

The results of the systems when compared to the indicators was not measured using a definitive numbered scale, but instead it was more general. The purpose behind this is due to the constructivist nature of this study. This means that the results are more up to interpretation than if they were numbered. This constructivist perspective, therefore, means the results of the assessment are better served by using three terms to differentiate between the supposed effectiveness of each system. These are: Insufficient, if a system has been deemed as having failed to meet the requirements of a certain indicator; Moderately-sufficient, if a system has been deemed to partially meet the requirements of a certain indicator; and Sufficient, if a system has been deemed to fully meet the requirements of a certain indicator. The term N/A was used if there was deemed to be insufficient data to justify a certain ranking of a system in regard to a certain indicator.

The assessment also aimed to gather data relating to both Colombia and Peru when evaluating each system. However, when this was not possible then data from only one of the states was used in the evaluation. This does not diminish the results of the assessment, however, as this thesis acknowledges that data may not exist on certain indicators in either country and so the results of the overall assessment of the systems should not be lessened due to data not existing in one of the two countries being examined in this case study, if there is data showing results in the other country.

It also occurred that there was data on a specific system and indicator, but not regarding Colombia or Peru. When this occurred, the data available was used to argue for a certain effectiveness level of a system regarding a certain indicator. However, to make it clear in the results section that these are general results, rather than results specific to Colombia or Peru, the term 'General' was used in parenthesis next to the result. When there was a mixture of data regarding Colombia or Peru and other states, with an even split of data from both groups, then the term 'Mixed' was used in parenthesis next to the result. When the majority of the data used comes from Colombia and Peru, however, then this term was not used.

The quality of the data collected was also valued more than the quantity of the data. This is due to an emphasis in this thesis on high standard data. Therefore, grey literature and informal reports were valued less than peer-reviewed academic literature. To make it clear in the results, the term 'Weak' was used in parenthesis next to the result when the sources used to come to the result were considered not to be of a high standard. The term 'Very Weak' was placed next to the results if the information available was considered to be of a poor standard.

When none of these conditions were met, therefore the data used was of a high standard and was related to the coffee industry within Colombia and Peru, then the symbol '-' was used.

The keywords and databases used to search for each system and each indicator can be found in Table A1, Table A2, and Table A3 (see appendix).



## 3. Results + Discussion

### 3.1 Assessment of the three regulatory systems

This section of the thesis will discuss the results from the assessment of certification schemes, direct trade, and hard-law regulation in Colombia and Peru against the set of indicators devised in the analytical framework to determine how effective each of these systems are in making real, measurable differences in the regions in which they operate. A summarised version of the results can be found under this section in Table 3, Table 4, and Table 5 beneath this section.

#### 3.1.1 Certification schemes

##### 3.1.1.1 Environmental Indicators

**The level to which a system has managed to allow the region to develop a sustainable use of resources which ensures a low amount of waste.**

Within Peru and Colombia, sustainable use of resources in the coffee industry is essential to ensuring the industry can continue to grow and farmers won't be affected by sustainability challenges. This is extremely important when it comes to an important resource to coffee production, land. The importance of this resource is highlighted due to current land-use within Peru being threatened. As a Columbia Center on Sustainable Investment (CCSI) report from 2019 stated, by 2050 Arabica bean land loss within Peru will amount to an estimated 50% reduction in suitable land (Garner et al., 2020). According to a study conducted by the Rainforest Alliance (RFA), within Colombia and Peru, to aid in sustainable use of resources, they applied "market-based solutions that promote sustainable land-use and support the economic and social wellbeing of workers, families and communities" (Rainforest Alliance, 2013, p. 26) while working with the farmers and agricultural groups around the globe to "promote agricultural practices that conserve water and soil resources" (Rainforest Alliance, 2013, p. 26) and provide technical assistance to farmers "to improve yield and quality" of the coffee being produced (Rainforest Alliance, 2013, p. 5). However, this research comes from one of the most prominent certification bodies practicing within Colombia and Peru, so the level of their assistance and actual capacity to provide sustainable resource solutions can be disputed.

Other academic literature examining resource management, specifically waste management, within Colombia, however, has supported the claims made by the RFA. One such study by Rueda and Lambin (2013), points to the RFA's Sustainable Agriculture Network (SAN), a network of organisations created by the RFA along with other environmental NGOs (Rueda & Lambin, 2013). This study claims that the guiding principles of SAN focus on the development of

sustainable farming management systems, such as water conservation, integrated crop management, soil conservation, and integrated waste management and adhering to these guiding principles is part of coffee producers' requirements for becoming RFA-certified (Rueda & Lambin, 2013). It also claims that, within Colombia, these practices have led to increased "water-use efficiency and wastewater management" and that the uptake of these practices "significantly increased after farmers joined the certification program" (Rueda & Lambin, 2013, p. 5). These improvements in the capacity for farmers to develop a sustainable use of resources which ensures a low amount of waste is further support by Rueda's and Lambin's discovery that "95% of the certified farmers in the area collected and separated their trash, recycling, and disposing of the remaining trash in the closest town" opposed to "only 30% of the noncertified farmers" collecting their rubbish from their field (Rueda & Lambin, 2013, p. 7). The study also noted that "before certification, certified farmers did not engage in any of the required practices, leaving plastics and cans in the fields, burning and burying trash, and mixing recyclable and nonrecyclable materials" (Rueda & Lambin, 2013, p. 7). Another study by Ibanez and Blackman (2015) also found that certification schemes significantly reduce "the disposal of sewage in fields" by coffee farmers within Colombia (Ibanez & Blackman, 2015, p. 3).

The results of the assessment conclude that certification schemes do provide the capacity for smallholder coffee farmers to develop a sustainable use of resources which ensures a low amount of waste. Therefore, certification schemes regarding this indicator will be rated as Sufficient.

**The level to which a system has developed the education and awareness of coffee farmers on environmental protection and climate change adaptation.**

The SAN, according to Rueda and Lambin (2013), also supports the implementation of eco-management systems for smallholder coffee farmers, in Colombia, focusing on ecosystem conservation and wildlife protection, which is aimed at improving the ability for farmers to tackle climate change issues while not affecting the productivity of the farm (Rueda & Lambin, 2013). In this same study it is argued that due to certification schemes, certified farmers had been given the opportunity and information necessary to adopt "significantly more environmentally friendly practices than noncertified farmers" with some of the improved practices being the diversification of trees and "watershed protection through fencing and reforestation" (Rueda & Lambin, 2013, p. 5). The reduction seen in the burning and burying of trash materials also demonstrates improved knowledge and understanding of climate change mitigation, as the farmers further understood the harm caused by the improper disposal of waste materials. The farmers examined within this study by Rueda and Lambin (2013), also stated that one of the main reasons behind their continued

participation within certification schemes was the increased “awareness of environmental conservation” (Rueda & Lambin, 2013, p. 8).

Another study by Ibanez and Blackman (2015) concludes that certification schemes within Colombia have contributed to an increase in the knowledge and usage of environmental protection practices by coffee farmers (Ibanez & Blackman, 2015). Their study states that there is strong evidence to suggest that due to certification schemes “use of organic fertilizer and pulp fertilizer” was increased and the negative practices of using “chemical fertilizer and insecticide” was reduced (Ibanez & Blackman, 2015, p. 20). However, they state that the results for the reduction of these negative practices are weaker than those for the implementation of positive practices.

Within Peru, climate adaptation education can be attributed to certification schemes, such as UTZ, RFA, and Fair Trade, as these schemes provide assistance to farmers to help with environmental sustainability (Garner et al., 2020). The RFA within Peru, for example, “works extensively with its certified coffee cooperatives in San Martin, including through agronomic training for better quality and sustainable crop production” (Garner et al., 2020, p. 12).

The results of the assessment conclude that certification schemes do provide the capacity for smallholder coffee farmers to increase their level of education on environmental protection and climate change adaptation. Therefore, certification schemes regarding this indicator will be rated as Sufficient.

### 3.1.1.2 Economic Indicators

#### **The level to which a system has promoted the protection and development of labour rights and safe and secure working environments, particularly for female workers.**

According to Rueda and Lambin (2013), the guiding principles of the SAN include the improvement of working conditions and occupational health (Rueda & Lambin, 2013). However, the study does not explicitly state whether these principles contributed to any real actions by the RFA or SAN. Nonetheless, it can be argued that the RFA, within Colombia, did contribute to the protection and development of labour rights for smallholder coffee farmers as the farmers themselves stated that a new motivation for their use of certification schemes was their ability to improve “treatment to workers and their overall quality of life” (Rueda & Lambin, 2013, p. 8).

A study by Kimberly Ann Elliott (2018), showed a mixed result from certification schemes in improving worker conditions around the globe (Elliot, 2018). An analysis of Fairtrade’s effect on working conditions within Africa, with emphasis on Ethiopia, discussed within her study shows that some modest effects of Fairtrade certification on working conditions for smallholders can be seen. Within Honduras, certification schemes such as Fairtrade and UTZ were examined to see their effect on working conditions. Most of the results were mixed and although some positive

effects were noted from UTZ, Elliot (2018) states that the methodology within the studies that assessed them was weak. Elliot (2018) also finds that UTZ themselves commissioned an independent report to investigate working conditions, and this report concluded that there was less improvement made than expected, for example in safety training, and that when improvements occurred these were not sustained. Within the study, she also notes that a “common finding in studies that report on social impacts is that workers receive more training on health and safety issues, such as use of pesticides and other chemicals” (Elliot, 2018, p. 9) but that, although the information is provided to improve working conditions, the protective gear required to adhere to these improved conditions are not provided or available.

Women's labour rights and working conditions are not examined much in the wider sphere of academic literature, as studies tend to focus on these criteria in general rather than by demographic. A study by Arnould et al. (2006), however, does show a difference in income levels for women compared to men (Arnould et al., 2006). However, they do not examine working conditions themselves. They found that in Nicaragua, female coffee farmers who were certified by Fairtrade cooperatives, claimed to receive “significantly higher prices than men for two types of coffee” and in Peru and Guatemala female coffee producers “achieved price parity” (Arnould et al., 2006, p. 10).

The results of the assessment conclude that certification schemes do partially empower smallholder coffee farmers with the knowledge and resources to improve their working conditions and labour rights. However, there are several setbacks in the results, such as a lack of equipment to support the health and safety training. Also, there is data regarding several states used within this assessment. Therefore, certification schemes regarding this indicator will be rated as Moderately-sufficient (Mixed).

### **The level to which a system has developed coffee farmers’ access to and knowledge of financial institutions.**

According to the RFA, “certified producers are in a better position to complete credit applications on their own than noncertified producers” and “certified farmers in Peru and Colombia were awarded larger and more frequent loans than noncertified farmers” (Rainforest Alliance, 2013, p. 10). However, even with these improvements to certified coffee producers’ access to financing, according to the RFA “longer term investment financing remains mostly unavailable for both certified and noncertified producers” (Rainforest Alliance, 2013, p. 4).

A study by Ruben and Fort (2012), also states that Fairtrade cooperatives, within Peru, provide better services to their certified farmers “in terms of technical assistance and access to agricultural finance” (Ruben & Fort, 2012, p. 577). However, this same study does not state the level to which other certification schemes provide this assistance. This same study finds that due

to Fairtrade certification “access to credit and amounts of loans has increased substantially” (Ruben & Fort, 2012, p. 577). Even though Ruben and Fort (2012) state that this isn’t due to increased understanding but instead “due to the collateral value of FT delivery contracts” (Ruben & Fort, 2012, p. 577), it is still important as it shows how certification schemes provide increased access to financial institutions for coffee producers.

Ibanez and Blackman (2015), assert that, within Kenya, UTZ certification is another certification scheme which leads to “higher savings and investment and greater access to credit for coffee growers” (Ibanez & Blackman, 2015, p. 3).

Barham and Weber (2012), state that certification schemes, such as Fairtrade, within the coffee industry in Southern Mexico provide coffee producers with “greater access to credit” (Barham & Weber, 2012, p. 1271).

Rueda and Lambin (2013), also state that minor motivations for smallholder coffee producers in Colombia is that they allow for improved “access to resources for renovation” and “improved access to credit” (Rueda & Lambin, 2013, p. 8).

The results of the assessment conclude that certification schemes have developed coffee farmers’ access to and knowledge of financial institutions. The majority of this research comes from Colombia and Peru; however, some comes from other states. Therefore, certification schemes regarding this indicator will be rated as Sufficient (Mixed).

### **The level to which a system has contributed towards an increase in the income levels of smallholder coffee farmers within a specific region.**

Arnould et al. (2006), states that Fairtrade certified coffee producers, in general, “report selling more coffee and receiving higher prices and incomes” compared to non-Fairtrade certified coffee producers (Arnould et al., 2006, p. 9). In Peru, specifically, Fairtrade participants also reported selling more coffee and receiving “higher prices for coffee than non-participants.”

Within Colombia, according to Vellema et al. (2015), having “farm certification was related negatively to income obtained from agriculture, positively to coffee income, and negatively to agricultural wage income” (Vellema et al., 2015, p. 19). They also note that income from coffee “appeared to increase not only through higher prices and yields in coffee production, but also through increased allocation of land and labour to its production, reducing the income from sources competing for these resources.” Therefore, according to this study, the certification schemes alone do not contribute directly to the improvement of income but being certified encouraged farmers to dedicate more land and resources to coffee production, which in turn helped improve their income levels.

Ibanez and Blackman (2015), however, come to a different conclusion within Colombia with regards to eco-certification (Ibanez & Blackman, 2015). They found that, although “organic

certification decreases the input costs and yields”, it does “not have a significant effect on labor costs, total costs, income, or net return” (Ibanez & Blackman, 2015, p. 17). This led them to the conclusion that they were “not able to discern robust effects of certification on labor costs, total costs, yields, or income” within Colombia (Ibanez & Blackman, 2015, p. 21).

Barham and Weber (2012), note that price premiums from certification schemes within Peru from 2006 to 2008 lead to an average median gross income gain of US\$106 (Barham & Weber, 2012). Within Mexico, they also found that a “median annual income gain for growers” who participated in Fairtrade markets through cooperatives was “US\$ 103, which corresponds to about 5% of total household annual income for sample growers” (Barham & Weber, 2012, p. 1273). However, they also note that while this is not a negligible amount of income, they believe it is “unlikely to transform a grower household’s economic possibilities” (Barham & Weber, 2012, p. 1273).

Rueda and Lambin (2013), state that, within Colombia in 2002, the premium price for coffee gained from certification “represented an additional income of 40%” but this was substantially reduced over time (Rueda & Lambin, 2013, p. 3). It was reduced to such an extent that by 2013 “the premium represented an additional income of less than 3% above the standard price” (Rueda & Lambin, 2013, p. 3) and that there was only a marginal difference between the number of certified and non-certified farmers who relied on other members of the household to supplement their income.

Kimberly Ann Elliott (2018), also notes that, although there are various credible studies which “find positive impacts on coffee income”, there is a lack of credible data “of overall improvement in net household incomes” (Elliot, 2018, p. 8).

The results of the assessment conclude that certification schemes have failed to contribute towards an increase in the income levels of smallholder coffee farmers within Colombia and Peru, as well as other states. Although they do allow for an increase in price premiums and gross income, most evidence shows that in real terms the coffee producers do not notice a beneficial increase in household income. Therefore, certification schemes regarding this indicator will be rated as Insufficient.

### **The level to which a system has developed the voice for coffee farmers in decision-making in global international economic and financial institutions.**

Rueda and Lambin (2013), in their study on the impacts of certification on smallholder Colombian coffee producers, examine the ways in which certification schemes can allow local farms in Colombia to connect to global markets (Rueda & Lambin, 2013). This study shows how certified coffee farmers have been able to introduce changes to their production systems in order to avoid exposure to price volatility in the global market. At the same time, this move by the farmers

allowed them to become “better able to respond to new market trends by investing in their human, social, and natural capital” (Rueda & Lambin, 2013, p. 9) as being certified gave them much broader exposure to the inner workings of the coffee GVCs they worked in and so they became more responsive to market developments. This knowledge sharing, however, is top-down in its nature and so the farmers themselves do not have much of a say on developments and projects occurring above them. So, although being certified allowed these farmers to cope with market trends and also creatively adapt “to changing conditions in the global economy and consumer preferences in ways that are beneficial to their livelihoods, their offspring, and the environment” (Rueda & Lambin, 2013, p. 11), their voice was not being heard enough by global financial institutions.

The Fairtrade website has a section dedicated to their “grassroots supporter base” who they claim to mobilise “to demand fairer trade deals for farmers who supply us with so much of our food” (“What Fairtrade does | Fairtrade Foundation”, 2021). However, the projects and initiatives mentioned on their website mainly involve the use of non-farmers or producers to provide the lobbying force in pushing governmental and regulatory change. Instead, the campaigners tend to be Fairtrade partners or individuals in GN countries who have no connection to the producers themselves.

The results of the assessment conclude that certification schemes have failed to develop the voice for individuals in decision-making in global international economic and financial institutions. However, there was very little data on this specific indicator and one of the datasets used was grey literature from Fairtrade’s website, therefore, this claim of failure is a weak one which requires a broader dataset in order to make a stronger claim. This result also comes from a mix of sources, one on Colombian coffee farmers and another on Fairtrade’s general practices. Therefore, certification schemes regarding this indicator will be rated as Insufficient (Weak) (Mixed).

### 3.1.1.3 Social Indicators

**The level to which a system has allowed for and promoted the existence of free, equitable, and quality early childhood care, as well as pre-primary, primary, and secondary education.**

According to Rueda and Lambin (2013), the level of education attained by the children of certified smallholder coffee farmers in Colombia was significantly higher than that of noncertified ones, with the median education level of children of certified farmers being “two years higher than the one for noncertified farmers” (Rueda & Lambin, 2013, p. 7). This higher education level not only helped the children in their personal development, but it also allowed the children to play “a major

role in the decision to join the certification program and in keeping records of the farm operation” (Rueda & Lambin, 2013, p. 9).

Barham and Weber (2012), find that, within Southern Mexico, the children of Fairtrade certified coffee farmers, especially girls, whose parents had access to certified markets, “achieved more years of schooling” than children of noncertified families (Barham & Weber, 2012, p. 1271).

However, Ibanez and Blackman (2015), only find a marginal difference between the education levels of noncertified and certified farmers’ children among coffee farmers in Colombia (Ibanez & Blackman, 2015).

Also, a study completed by Arnould et al. (2009), found that the effects of Fairtrade coffee certification within Nicaragua, Peru, and Guatemala had no direct impact on the education level of children or their access to education (Arnould et al., 2009). Instead, they noted that the effects of certification on access to education for children seemed to be indirect in its nature. The Fairtrade programme did not create direct opportunities for these children to attend education but instead the study noted that an increased income from certification is what indirectly leads to increased educational access and attainment. This was further supported when the study examined the household makeup of the farmers and noted that “the number of dependents is negatively related to education” (Arnould et al., 2009, p. 192) and the total effect of Fairtrade certification “in the level of education of children ages 6–13, though positive, is not significant” (Arnould et al., 2009, p. 193). Instead, only the indirect effect of membership to Fairtrade certification “on education is significant” (Arnould et al., 2009, p. 194).

The results of the assessment conclude that certification schemes do allow for the existence of education among youth, but they do not promote it. Also, the increased attainment of education among certified farmers’ children is regarded as either an indirect effect or a marginal effect. The schemes, also, do not aid in the creation and development of free, equitable, and quality education, or early childhood care. Lastly, the data examined is equally related and unrelated to Colombia and Peru. Therefore, certification schemes regarding this indicator will be rated as Insufficient (Mixed).

**The level to which a system has allowed for and promoted equal access for all women and men to affordable and quality, technical, vocational, and tertiary education.**

Rueda and Lambin (2013), note that one of the primary reasons for the creation of the SAN, by the RFA, was to “provide technical guidance” to the farmers looking to become certified (Rueda & Lambin, 2013, p. 2). The interviewed smallholder Colombian coffee farmers within this study mentioned that managerial skills and improved technical assistance were two of the main reasons they chose to join a certification scheme, with these reasons being ranked fourth and fifth, respectively, out of 9 reasons given by the farmers for their choice to become certified.



Bookkeeping, specifically the recording of both revenue and expense metrics within their farms, according to the RFA, is undertaken by ninety percent of certified producers compared to “only about 30 percent of noncertified producers” who do the same (Rainforest Alliance, 2013, p. 8). According to the RFA, a study completed by “a Peru-based team of researchers to survey a total of 110 coffee and cacao producers from 22 producer organizations in Colombia and Peru” noted that the farmers certified cited “the technical assistance received from certification organizations and the subsequent required monitoring to maintain certification as impetus for such record-keeping” (Rainforest Alliance, 2013, p. 3). Overtime, this increased technical knowledge also allowed the farmers to improve their personal financial decision-making, which in turn increased “farm productivity and sustainability” (Rainforest Alliance, 2013, p. 3).

Ruben and Fort (2012) noted that Fairtrade certified farmers were more satisfied when compared to noncertified farmers “in terms of prices, technical assistance and market management services” (Ruben & Fort, 2012, p. 577).

Arnould et al. (2006), also found that farmers in Nicaragua, Peru, and Guatemala “generally report positive impacts of participation in Fair Trade coops on technical assistance across countries” (Arnould et al., 2006, p. 17).

However, although technical assistance and education is provided to farmers undertaking certification schemes, there is a lack of promotion of women specifically in this assistance. Sexsmith (2017), notes that “gender discrimination in access to information has predictably resulted in women having less knowledge about key production and certification concepts” (Sexsmith, 2017, p. 24) and that certification scheme organisations and traders “sometimes wrongly assume knowledge will ‘trickle down’ from men to their wives” and so they “do not put training activities specifically for women in place” (Sexsmith, 2017, p. 23). Within the available research, vocational and tertiary education seems to be skipped over to instead focus on technical assistance. Arnould et al. (2009), believes this may be due to the complexity of the research required and that potentially it would be too difficult to monitor and test for a direct effect (Arnould et al., 2009).

The results of the assessment conclude that certification schemes do promote and provide technical education to certified farmers. However, there seems to be a lack of focus on vocational and tertiary education, unrelated to coffee farming, and schemes seem to put little to no emphasis on providing education to women. The data examined is also equally related and unrelated to Colombia and Peru. Therefore, certification schemes regarding this indicator will be rated as Moderately-sufficient (Mixed).

**The level to which a system has promoted the development of policies and economic resources which protect the rights of women over issues of land ownership, financial services, and inheritance of natural resources.**

Sexsmith (2017) presents several studies within her report on the effect of voluntary sustainability standards on improving gender equality (Sexsmith, 2017). One such study, examining RFA/SAN-certified farms and noncertified farms in Colombia “found that differences in women’s participation (the percentage of female producers in producer groups) were not statistically significant, and in one region were non-existent” (Sexsmith, 2017, p. 29). Another study within Nicaragua, Guatemala, and Peru found that certification scheme cooperatives in these countries market a coffee product called ‘women’s coffee’, which is defined as “coffee that is grown by women on their own land and marketed by them” (Sexsmith, 2017, p. 31). Sexsmith notes that initiatives like these “have the further benefit of increasing women’s confidence, management skills, and active participation in cooperative meetings” (Sexsmith, 2017, p. 31) which in turn gives them an improved economic standing which can translate into improved political power.

However, the majority of the studies presented by Sexsmith (2017) do not contain positive results for women. In terms of land rights, she finds that Fairtrade “has not improved women’s access to land rights” (Sexsmith, 2017, p. 22) and that in Central America organic certification has only had an indirect effect on the improvement of women’s statutory land rights. She also finds that voluntary standards have not created any substantive rules “to help resolve women’s marginalization from land ownership on a more permanent basis” (Sexsmith, 2017, p. 22). In fact, she found that certification schemes “can be detrimental to women’s customary land rights when it entails registration, a form of land privatization” which can in turn “undermine women’s access to communal land for household provisions” such as food (Sexsmith, 2017, p. 22). One study examined within this report also states that “if the value of land rises with certification, the privatization trend could be exacerbated” (Sexsmith, 2017, p. 23) which would further negatively impact women and their rights within these coffee producing regions.

Women’s access to financial services has seen mixed results due to certification schemes, according to Sexsmith (2017). She notes that, in some instances, certification has “helped women gain access to credit and production inputs” (Sexsmith, 2017, p. 23) as they benefit from the Fairtrade system’s “pre-financing requirement, by which producers gain access to a portion of the payment for their product prior to the harvest” (Sexsmith, 2017, p. 23). In Nicaragua, a study on coffee cooperatives also noted that “women involved in Fair Trade were more likely to claim they had access to credit than the national average for rural women” (Sexsmith, 2017, p. 23). Sexsmith (2017) also notes that along with increased access to credit, women under the Fairtrade scheme were able to make “use of the Fairtrade premium for micro-scale credit and savings initiatives” (Sexsmith, 2017, p. 23). However, it was noted that there was one study which examined multiple

certification schemes and found “that women producers have less access to financing than men” and concludes “that programs to include women in credit, land, and training are all deeply needed but often overlooked” (Sexsmith, 2017, p. 24).

The results of the assessment conclude that certification schemes have failed promote the development of policies and economic resources which protect the rights of women over issues of land ownership, financial services, and inheritance of natural resources. However, the dataset examined within this analysis was very general, with very little mention of Colombia or Peru. Therefore, certification schemes regarding this indicator will be rated as Insufficient (General).

### 3.1.2 Direct Trade

#### 3.1.2.1 Environmental Indicators

**The level to which a system has managed to allow the region to develop a sustainable use of resources which ensures a low amount of waste.**

There is a lack of data on the effect of direct trade on this indicator. Halo Coffee, a direct trade company, looking to bridge the gap between producers and consumers is aimed at reducing waste created by the coffee industry. According to their website, in 2018 “the coffee capsule industry produced 60 billion capsules” and so they aimed to create sustainable, compostable coffee capsules to reduce the wastage created through coffee production (“Why Halo”, n.d.). However, this does not focus on educating coffee producers on sustainable resource management. There is also little to no mention on other company websites, such as EthicalAddictions Coffee and Union DirectTrade, as they too either do not focus on resource usage and education or they focus on sustainable use of resources within and among their own offices.

The results of the assessment conclude that there is not enough data on direct trade’s impact on sustainable use of resources which ensures a low amount of waste, in Colombia and Peru or anywhere else in the world. Therefore, direct trade regarding this indicator will be rated as N/A. The keywords and databases used to search for direct trade regarding this indicator can be found in Table A1, Table A2, and Table A3 (see appendix).

**The level to which a system has developed the education and awareness of coffee farmers on environmental protection and climate change adaptation.**

McGregor et al. (2017), states that only some firms who practice direct trade schemes have any environmental requirement with most simply ignoring this as they deem it not relevant enough to

pricing, which they emphasise as one of the main purposes of their existence (MacGregor et al., 2017).

A study completed by Langridge (2016) which examined different direct trade organisations, notes that direct trade schemes have “no common environmental policy” (Langridge, 2016, p. 22). One such company examined within this study, Intelligentsia, “claims to examine its farms to ensure that ‘healthy environmental practices’ are followed, although admits that its standards are ‘not dogmatic’ and recognises the need for different standards in different growing environments” (Langridge, 2016, p. 22). Another organisation examined, Counter Culture, does not address environmental issues directly at all. However, all direct trade producers which were interviewed within this study “spoke of policies they had implemented with regards to environmental protection” (Langridge, 2016, p. 22). Therefore, the existence of direct trade organisations themselves has not developed or supported increased environmental understanding, protection, or adaptation. The study therefore concludes that, regarding environmental sustainability, “the extent to which direct-trade can promote development in the wider community appears limited, especially given its specific focus on improving prices” (Langridge, 2016, pp. 24-25)

Lastly, a report by Rathgens et al. (2020), states that, regarding direct trade and its impact, further research is needed “to address the interconnections of social and ecological factors, where land use intensification can lead to undesired ecological outcomes or land protection can disempower the resource users” (Rathgens et al., 2020, p. 9).

The results of the assessment conclude that direct trade does not provide the capacity for coffee farmers to increase their level of education on environmental protection and climate change adaptation. However, the data available does not provide insight into smallholder coffee farmers, or coffee producers within Colombia and Peru. Therefore, direct trade regarding this indicator will be rated as Insufficient (General).

### 3.1.2.2 Economic Indicators

#### **The level to which a system has promoted the protection and development of labour rights and safe and secure working environments, particularly for female workers.**

A report by Langridge (2016) noted that “direct-trade does not benefit from a fixed policy regarding workers’ rights” (Langridge, 2016, p. 20) and neither Intelligentsia nor Counter Culture, two direct trade organisations studied in this report, address labour standards. Direct trade producers within Nicaragua, according to this report, were subject to the states minimum wage laws and claimed to adhere to these legal requirements, however, this does not mean direct trade had any effect on the creation and development of these standards but simply that they adhered to them.

Therefore, it seems that direct trade could allow for producers to increase their working conditions if it provided the producers with a higher income than would be possible without direct trade.

The results of the assessment conclude that direct trade does not promote the protection and development of labour rights and safe and secure working environments. Within the available data, however, there doesn't seem to be a focus on women. Also, the data available does not provide insight into smallholder coffee farmers, or coffee producers within Colombia and Peru. The amount of data analysed is also quite small, being only one source, due to a lack of data on this specific indicator and system. Therefore, direct trade regarding this indicator will be rated as Insufficient (Weak) (General).

### **The level to which a system has developed coffee farmers' access to and knowledge of financial institutions.**

Borrella et al. (2015), in their study on smallholder farmers within the coffee industry, examine three different connective businesses within the coffee industry which practice direct trade (Borrella et al., 2015). One of these companies, the study notes, provides "access to agricultural inputs, training and pre-harvest credit" for producers with which they directly trade (Borrella et al., 2015, p. 36). They also provide "training in agronomic practices, processing and management practices and quality management" (Borrella et al., 2015, p. 39), all of which would help improve a farm's economic standing and therefore eligibility for credit and financial assistance from banks and other lenders. Another one of the businesses examined helps "farmers to obtain credit from social banks" by using their contract as the loan's collateral (Borrella et al., 2015, p. 37). They also provide training to their producers but, unlike the first company, they do not directly provide credit. The final company examined by Borrella et al. (2015), does not provide any financial assistance to its producers, nor does it provide direct training which could benefit the farms economic standing in the eyes of a financial institution.

A study conducted by Northrop (2014), in the Tea & Coffee Trade Journal, examines the effects within GVCs in Central American coffee industries (Northrop, 2014). Within this study, Northrop (2014) interviews Andi Trindle Mersch, a former importer within a speciality coffee company who became the director of coffee within another speciality coffee company (Northrop, 2014). Mersch states that the formal contract produced during direct trade arrangements allow producers to "easily acquire pre-harvest financing from groups like Root Capital, Oiko Credit, and ResponsAbility at a low rate" (Northrop, 2014) and that these contracts overall make lenders more willing to make a financial commitment with a producer. Within this same study, Jorge Luis Lagos Calix, the general manager of his 50-hectare family coffee farm within Nicaragua is interviewed. Lagos is a supporter of the direct trade model as he believes it helps him and his family receive

financing easier from banks due to the decreased chances of them being affected by price volatility.

The results of the assessment conclude that direct trade does partially develop coffee farmers' access to and knowledge of financial institutions. Although, from the data presented, access to financial institutions appears to increase due to direct trade, there does not appear to be a significant amount of education provided to coffee farmers to aid them in acquiring financial assistance. Also, the data available does not provide much insight directly into smallholder coffee farmers, or coffee producers within Colombia and Peru. The amount of data analysed is also quite small, due to a lack of data on this specific indicator and system. Therefore, direct trade regarding this indicator will be rated as Moderately-sufficient (Weak) (General).

**The level to which a system has contributed towards an increase in the income levels of smallholder coffee farmers within a specific region.**

Higher prices are stated to be one of the main reasons for coffee producers participating in direct trade schemes. Langridge (2016), notes that “purchasing companies operating through direct-trade claim to pay higher prices than the fairtrade minimum” (Langridge, 2016, p. 19) and touts Intelligentsia, Counter Culture, and Mercanta as three direct trade companies who practice this increased pricing. According to Intelligentsia, they pay “25% above the fairtrade price” (Langridge, 2016, p. 19). Counter Culture reportedly “has a minimum price of \$1.60” (Langridge, 2016, p. 19), and Mercanta tends to pay between “30-150% more than the cost of production” (Langridge, 2016, p. 19). The direct trade coffee producers also stated that their average and top-end prices tended to be higher, with one farmer stating that he never thought “that he could receive a price of \$300 per quintal” (Langridge, 2016, p. 19). Langridge (2016) cites both higher quality goods and direct trade buyers bypassing middlemen organisations as reasons for these increased prices, with the reduced use of middlemen also aiding in financial transparency which ensures “more of the money reaches the producer” (Langridge, 2016, p. 19). However, Langridge contends that “the receipt of higher prices does not necessarily translate into greater development for producers or their communities” (Langridge, 2016, p. 19) and that the primary issue for coffee producers is improving the environment in which they work in while also providing them with higher prices.

Borrella et al. (2015), points out that the extra value created through direct trade schemes “is much bigger than the one in the mainstream markets, resulting in a noticeable increase of income for producers” (Borrella et al., 2015, p. 40). Noting that, when it comes to pricing, in each of the connective businesses examined within this study, the Free On Board price “is larger than the minimum price settled by the Fairtrade Foundation, which is US\$3.74 per kilo of fair trade organic green coffee” (Borrella et al., 2015, p. 40).

Rathgens (2020) also notes higher prices for producers, stating that “roasters pay higher prices for coffee beans and are actively engaged in bilateral exchange with the producers” when involved in direct trade schemes (Rathgens et al., 2020, p. 3).

Northrop (2014), in her study, interviews Robert Mata, the director of Coopedota (Northrop, 2014). Coopedota is a cooperative made up of 871 members in Costa Rica, who practice direct trade. Mata notes that when it comes to direct trade, the producers “earn better prices--especially when market prices don't cover the costs of production” (Northrop, 2014). Marta and Rodolfo, two smallholder coffee farmers also interviewed within this study, state that due to direct trade their coffee has a more stable price and isn't as prone to price volatility or other shocks in the market.

The results of the assessment conclude that direct trade does contribute towards an increase in the income levels of coffee farmers. Although, the data available does not provide much insight directly into smallholder coffee farmers, or coffee producers within Colombia and Peru. Therefore, direct trade regarding this indicator will be rated as Sufficient (General).

### **The level to which a system has developed the voice for coffee farmers in decision-making in global international economic and financial institutions.**

Rathgens (2020), presents the idea that due to the close nature of the relationships within direct trade schemes, and the trading commitments within direct trade agreements, “coffee roasters and producers also have the ability to exchange knowledge” which is generally a mutual learning process where both parties benefit in knowledge transfer (Rathgens et al., 2020, p. 3). However, this does not necessarily mean that the knowledge transfer from producer to roaster is one which involves the producer suggesting new developments and changes to the roaster's global economic practices. Simply, that information on crop yields, fertiliser usage, and other pieces of information could be being provided to the roaster.

Northrop (2014), within her study, examines Thrive Farmers, a direct trade coffee company working with coffee producers in Guatemala (Northrop, 2014). According to her research, Thrive Farmers “affords producers a revolutionary form of ownership of their coffee's final destiny” (Northrop, 2014). Essentially the coffee producers have a direct financial stake in selling the coffee at the end of the GVC, in “green, roasted or brewed form” (Northrop, 2014). These farmers gain an insight into the practices and developments on other levels of the GVC than they are usually involved, i.e., the production stages. These farmers gain “complete transparency and participation throughout their coffee's journey to the marketplace” and get to learn “who is involved at every stage of the value chain and what each of those entities are being paid” (Northrop, 2014). However, this does not provide the farmer with much of a say in the GVC.

Instead, it mostly creates a learning experience for them where they can be confident in their coffee's journey and the price they are being paid for their coffee.

Guimarães et al. (2020) states that if direct trade companies were to provide certain support systems to producers for the creation of "value-adding activities" then this could provide "empowerment and important autonomy to coffee farmers, who could exercise a certain level of control in terms of trading and the destination of traded coffee" which would in turn help reduce the asymmetrical power distribution seen in coffee GVCs (Guimarães et al., 2020, p. 41).

The results of the assessment conclude that direct trade does partially develop the voice for coffee farmers in decision-making in global international economic and financial institutions. There is, however, a lack of data available on this topic, specifically regarding insight directly into smallholder coffee farmers, or coffee producers within Colombia and Peru. Therefore, direct trade regarding this indicator will be rated as Moderately-sufficient (Weak) (General).

### 3.1.2.3 Social Indicators

**The level to which a system has allowed for and promoted the existence of free, equitable, and quality early childhood care, as well as pre-primary, primary, and secondary education.**

Union Hand-Roasted Coffee, a specialty coffee company who practices direct trade states on their website that due to their practices, children of coffee producers have been able to go to school ("Union Direct Trade | Union Hand-Roasted Coffee", n.d.).

The results of interviews completed by Langridge (2016), also seem to point towards the potential that direct trade benefits the education of youth within producing countries. One coffee farmer interviewed stated that direct trade brought long-term benefits to the community as a whole, one of which being "a school project" (Langridge, 2016, p. 22).

A potential reason for the development of these schools, however, is not due to direct involvement of direct trade companies but instead due to the potential increased incomes of coffee producers. This increased income would allow them to invest in social schemes to benefit their community, and so, at best, direct trade would have an indirect effect on education among youth.

The results of the assessment thus conclude that there is a very weak amount of data to suggest that direct trade has indirectly allowed for the development of education among youth, however, it has not caused the development of free, equitable, high-quality education. The small amount of data available on this indicator also does not directly relate to smallholder coffee farmers or the states of Colombia and Peru. Therefore, direct trade regarding this indicator will be rated as Insufficient (Very Weak) (General).



**The level to which a system has allowed for and promoted equal access for all women and men to affordable and quality, technical, vocational, and tertiary education.**

The same interviewee within Langridge (2016), that discussed the creation of “a school project” also mentioned that direct trade had allowed the community to invest in “technical programmes for the workers” of the coffee farms (Langridge, 2016, p. 22).

In a Guardian article, Union Hand-Roasted Coffee co-director Steven Macatonia discusses the learning benefits of direct trade (Macatonia, 2013). Macatonia claims that his company provides technical training to coffee farmers within Guatemala, stating that the organisation “workshop training in Guatemala that will train farmers to evaluate their coffees and not just to remove defects but to select for complex sensory attributes” (Macatonia, 2013) thereby improving the quality of the coffee and the quality of the producer.

The results of the assessment thus conclude that there is a very weak quantity of data to suggest that direct trade has allowed for and promoted equal access for individuals to technical education. However, the small amount of data available on this indicator also does not directly relate to smallholder coffee farmers or the states of Colombia and Peru. It also does not contain information on women directly or tertiary education. Therefore, direct trade regarding this indicator will be rated as Insufficient (Very Weak) (General).

**The level to which a system has promoted the development of policies and economic resources which protect the rights of women over issues of land ownership, financial services, and inheritance of natural resources.**

The results of the assessment conclude that there is not enough data on direct trade’s impact on the development of policies and economic resources which protect the rights of women over issues of land ownership, financial services, and inheritance of natural resources, in Colombia and Peru or anywhere else in the world. Therefore, direct trade regarding this indicator will be rated as N/A. The keywords and databases used to search for direct trade regarding this indicator can be found in Table A1, Table A2, and Table A3 (see appendix).

### 3.1.3 Hard-law

#### 3.1.3.1 Environmental Indicators

**The level to which a system has managed to allow the region to develop a sustainable use of resources which ensures a low amount of waste.**

Within Peru, according to Garner et al. (2020), the government created a national policy focusing on agroforestry, which aids the community of San Martin, one of Peru’s primary coffee producing regions (Garner et al., 2020). Part of this national policy involves the renewal of “an additional

9739 hectares of coffee land” (Garner et al., 2020, p. 7). At the same time, according to the national policy, an “80,000 hectare expansion of plantation will guarantee new opportunities for smallholder farmers, agri-businesses and coffee traders” (Garner et al., 2020, p. 5). However, there is no mention of waste management within this policy or a large amount of direct reference to coffee as it mainly focuses on agroforestry.

Consequently, the results of the assessment conclude that there is a very weak quantity of data to suggest that hard-law has partially allowed for regions to develop a sustainable use of resources in order to ensure a low amount of waste. Therefore, hard-law regarding this indicator will be rated as Moderately-sufficient (Very Weak).

### **The level to which a system has developed the education and awareness of coffee farmers on environmental protection and climate change adaptation.**

According to an article in the Economic Journal, one of the ways in which governments help to regulate the coffee market is through legislation which places bans on “certain pesticides used for food production are harmful to humans and the environments” (Caretti, 2016). However, this article also notes that this restriction tends to occur in GN countries and is not as universally accepted in GS countries. It notes that the majority of GS countries, “which form a good percentage of coffee producers” have not stopped using these harmful substances, due to a lack of capacity within these states “to acquire alternative chemicals to control pests and diseases” (Caretti, 2016). However, although this article discusses governments banning harmful substances, it does not discuss whether governments introduce education programmes and workshops to educate coffee farmers on environmental protection and climate change adaptation.

Consequently, the results of the assessment conclude that there is a very weak quantity of data to suggest that hard-law has failed to develop the education and awareness of coffee farmers on environmental protection and climate change adaptation. The miniscule amount of data available also does not reference smallholder farmers, the coffee sector, or Colombia or Peru directly. Therefore, hard-law regarding this indicator will be rated as Insufficient (Very Weak) (General).

#### 3.1.3.2 Economic Indicators

### **The level to which a system has promoted the protection and development of labour rights and safe and secure working environments, particularly for female workers.**

According to Ferm (2008), labour laws within Peru and Colombia can be quite weak and unsupportive, especially for women (Ferm, 2008). She examines the Peruvian asparagus industry and the Colombian cut-flower industry to ascertain the effectiveness, or lack thereof, of labour laws within Colombia and Peru. Ferm (2008) states that the Peruvian government between 1999

and 2003 “passed several laws regarding the rights of women workers” (Ferm, 2008, p. 19). One example given is a law preventing employers from firing workers based on pregnancy, while another example is a law reaffirming “women workers' right to special breaks for breast feeding” (Ferm, 2008, p. 19). However, according to Ferm (2008), these laws are not adequately enforced. In addition to this, she notes that in 2000 the Peruvian government passed a law which decreased labour protections for workers within the agriculture industry, an industry in Peru where the vast majority of workers are women. This law, which severely weakened workers labour rights, was due to expire in 2006 but was extended to last until 2021. It was eventually repealed, only in December of 2020, 20 years after it was created (“Peruvian new agrarian law is adopted in the midst of social partners' objections”, 2021). Within Colombia, Ferm (2008) also notes failings of the national government to adequately protect agricultural workers' rights. She found that “Law 789” (Ferm, 2008, p. 19) which was enacted in December 2002, was claimed to be an attempt by the government to support employment and broaden workers' social protection. Instead, Ferm (2008) notes that the reform “placed an increased burden on workers, and contributed to the further deterioration of protections for women in the cut-flower sector and other industries” (Ferm, 2008, p. 19). The law has also increased instances of “obligatory overtime for workers” (Ferm, 2008, p. 20) and has had devastating negative effects on female workers, as “they are left not only with lower salaries to cover their families' basic expenses, but also fewer hours to spend tending to household responsibilities and caring for their children” (Ferm, 2008, p. 20).

The results of the assessment conclude that there is some data to suggest that hard-law has failed to promote the protection and development of labour rights and safe and secure working environments, particularly for female workers. However, the data available, while on the Colombian and Peruvian agricultural industries, does not investigate the coffee industry within these states, and is also quite sparse. Therefore, hard-law regarding this indicator will be rated as Insufficient (Weak) (General).

### **The level to which a system has developed coffee farmers' access to and knowledge of financial institutions.**

Miquel-Florensa (2015) examines the Costa Rican and Colombian coffee sector to establish lessons for Rwanda (Miquel-Florensa, 2015). Within this study, the Central American Integration System (SICA), a coffee information system within Colombia, is shown to be a useful tool of the government to aid in the improvement of coffee farmers' lives. One way in which it does this is by providing data to the government which they can use to improve coffee farmers' access to credit. Miquel-Florensa (2015) states that the SICA makes it “easier for the farmers to obtain credit using harvest metrics and plots as collateral” (Miquel-Florensa, 2015, p. 3), as it is constantly updating itself, therefore providing reassurance to lenders that the information they are receiving is as

current as possible. The SICA is also linked to another government initiative, the Coffee Grower ID card, which can act as a credit card for farmers, allowing them to “get their payments for the coffee, make payments for fertilisers, receive subsidies, and withdraw cash at local stores, among other financial services” (Miquel-Florensa, 2015, p. 4). Within Costa Rica, building a close and secure relationship between coffee producers and washing stations is a top priority for the government. The governmental body, the Liquidation Commission, closely monitors these relationships to ensure correct standards are met. According to Miquel-Florensa (2015), this close monitoring “produces enormous advantages in access to credit for both farmers and stations” as it contributes to helping the farmers receive credit from both “commercial banks and washing stations” (Miquel-Florensa, 2015, p. 8).

Rueda and Lambin (2013) also note that, within Colombia, the government provided financial assistance to farmers, stating that “credit was readily available for all farmers through Banco Agrario, the government-sponsored financial institution for agricultural development, commercial banks, and credit unions” (Rueda & Lambin, 2013, p. 5).

Volsi et al. (2019), who examines coffee production within Brazil notes two government initiatives which aid coffee farmers, as well as agricultural farmers in general, in achieving financial assistance (Volsi et al., 2019). The National Program for the Strengthening of Family Agriculture (PRONAF), a programme by the Brazilian government, was created to “stimulate the use of family labor, encouraging the activities of small farmers through a commercial credit line with low interest rates” (Volsi et al., 2019, p. 4). The second government initiative, the Coffee Economy Defense Fund (FUNCAFÉ), is a fund stated to be “destined to farmers, cooperatives and agroindustries of the coffee sector, with the purpose of financing the costing, storage, acquisition of coffee and working capital” (Volsi et al., 2019, p. 4).

Lastly, an article in *The Economist* found that in 2019, due to a record-high slump in international coffee prices, some governments were introducing short term solutions to aid coffee farmers' finances (“Coffee growers hit by low international prices”, 2019). They note that Colombian coffee farmers were receiving a subsidy from the government, while the Guatemalan government “passed a bill to reactivate the sector, which includes fiscal incentives to facilitate coffee farmers' access to credit” (“Coffee growers hit by low international prices”, 2019). However, the article concludes that, overall, the governments were unable to help much due to fiscal restrictions and that in the long-term they would need to implement sounder strategies.

The results of the assessment conclude that hard-law has partially developed coffee farmers' access to financial institutions, however, there isn't evidence to suggest they improved the farmers' understanding of financial institutions. There is, also, data regarding several states used within this assessment. Therefore, hard-law regarding this indicator will be rated as Moderately-sufficient (Mixed).

**The level to which a system has contributed towards an increase in the income levels of smallholder coffee farmers within a specific region.**

Miquel-Florensa (2015) notes that the Costa Rica Coffee Board (ICAFFE), a governmental body, is tasked with regulating the relationship between actors at different stages of the coffee value chain (Miquel-Florensa, 2015). Part of this body's focus is on pricing and contracts between different actors. To benefit coffee producers, ICAFFE requires "all washing stations to submit all contracts with exporters to the board for approval" which the study affirms aids farmers' incomes as "the price that the farmers ultimately receive for their produce is regulated as a function of the price received by the washing stations" so the price control practiced by the ICAFFE "is key to ensure a proper distribution of profits across the chain" (Miquel-Florensa, 2015, p. 7). Miquel-Florensa (2015) believes ICAFFE is incredibly advantageous for coffee producers, within Costa Rica, as "farmers are paid based on a weighted average of the prices prevailing in the coffee market throughout the year" and so "the system not only allows for a more equitable distribution but it also reduces exposure of farmers to international price fluctuations" (Miquel-Florensa, 2015, p. 7). The ICAFFE, according to Miquel-Florensa (2015), also protects farmers' incomes during the washing stage of production. When the farmers drop their coffee off at the washing stations they are paid in advance. Next, at the end of the season, the washing stations report the final liquidation price, which needs to be approved by the government's Liquidation Commission. The washing stations then make a final payment to the farmers, which must be completed "within 8 days of the publication of the final prices" in national newspapers (Miquel-Florensa, 2015, p. 7), which occurs after the washing stations report the final liquidation price. Lastly, to further protect the coffee producers, if the farmer does not receive the payment within the required eight days, then they can legally claim the payment from the Liquidation Commission who will follow the legal procedures in place to obtain the payment from the washing station.

However, within this study there is no mention of whether there is an increase in the farmers income, simply that their income is protected. This is still useful to coffee producers as it allows for them to feel more secure in their income. Unfortunately, there is a lack of data on this topic and increased incomes due to governmental intervention is not examined within academic or grey literature.

Consequently, the results of the assessment conclude that hard-law has contributed to the protection of coffee producers' income, but there is a lack of research to show whether governmental intervention has contributed towards an increase in the income levels of smallholder coffee farmers within a specific region. The data used within this assessment also comes from outside of Colombia and Peru and does not pertain particularly to smallholder coffee farmers. Therefore, hard-law regarding this indicator will be rated as Insufficient (General).

**The level to which a system has developed the voice for coffee farmers in decision-making in global international economic and financial institutions.**

Miquel-Florensa (2015), in his study on Costa Rican and Colombian coffee regulation, notices an interesting development in the Costa Rican government (Miquel-Florensa, 2015). The board of the ICAFE within Costa Rica, he notes, has an interesting makeup which is aimed at protecting coffee producers. Out of the seven members of the board, “four are representatives of the producers, one of the washing stations, one of the exporters, one of the roasters and one representative of the national executive powers” (Miquel-Florensa, 2015, p. 6), which shows a clear bias towards enhancing and encouraging the perspectives of coffee producers within the Costa Rican government and within a body which affects aspects of coffee growing, such as pricing. The data collection undertaken by SICA, within Colombia, according to Miquel-Florensa (2015) also ensures information of coffee producers’ is collected to ensure their needs are being fully met.

The results of the assessment conclude that there is some weak evidence to support the idea that hard-law has partially developed the voice for coffee farmers in decision-making. However, not within global international economic and financial institutions but instead within governmental bodies. The governmental body in question within the data examined, however, has a large amount of influence on financial circumstances within the Costa Rican coffee value chain. The data used within this assessment also comes from outside of Colombia and Peru and does not pertain particularly to smallholder coffee farmers. Therefore, hard-law regarding this indicator will be rated as Moderately-sufficient (Weak) (General).

### 3.1.3.3 Social Indicators

**The level to which a system has allowed for and promoted the existence of free, equitable, and quality early childhood care, as well as pre-primary, primary, and secondary education.**

According to Miquel-Florensa (2015), one of the components of SICA is a set of social programmes, one of which is focused on education (Miquel-Florensa, 2015). However, it is not stated what type of education this is, its success rate, or any other information other than that there are education programmes.

Ferm (2008), states that, according to Omaira Páez Sepúlveda, a lawyer for Corporación Cactus, an NGO in Colombia, due to inefficiencies within the Colombian government’s regulation of wages and labour rights, women cannot offer their children the “higher education that would enable the family to rise out of poverty” (Ferm, 2008, p. 23).

The results of the assessment conclude that there is some very weak evidence to support the idea that hard-law has failed to promote the existence of any type of free, equitable, and quality education for youth. The data used within this assessment, however, is not very broad and does not contain much relevance to the specific topic, even though it relates to Colombia. This is due to a lack of data on Colombia, Peru, or any other state regarding the coffee industry. The data also does not pertain particularly to smallholder coffee farmers, for the same reasons. Therefore, hard-law regarding this indicator will be rated as Insufficient (Very Weak).

**The level to which a system has allowed for and promoted equal access for all adults to affordable and quality, technical, vocational, and tertiary education.**

According to Ferm (2008), within Colombia and Peru, “low education levels among women workers keep them from advancing in the hierarchy, even after gaining decades of experience.” (Ferm, 2008, p. 13). This is incredibly problematic in the fight for the development of women’s labour rights. As was stated in the assessment of the previous indicator, by Ferm (2008), due to a lack of governmental improvements of labour rights, women struggle to allow their children to attend higher education, therefore reducing the levels of adults who grow up and join the workforce with a tertiary education. Female workers within Colombia and Peru are also “more likely than male workers to be given short-term contracts, with few or no opportunities for advancement from their entry-level positions” (Ferm, 2008, p. 16), which creates an environment where “those who receive training are men” (Ferm, 2008, p. 16). Women also only work seasonally which also reduces the timeframe in which they have the opportunity to potentially receive vocational and technical training on the job. Therefore, Ferm (2008) asserts, “as women workers are not given access to additional job training or supervisory positions, they are unable to negotiate higher pay or increased job stability” (Ferm, 2008, p. 23), which reduces their opportunities and the opportunities of their children to receive any additional education.

The results of the assessment conclude that there is some weak evidence to support the idea that hard-law has failed to allow for and promote equal access for all adults to affordable and quality, technical, vocational, and tertiary education. Although the data used within this assessment is not very direct, it does still contain information that this study believes leads to this result. Also, even though the data pertains to Colombia and Peru, it does not concern coffee or smallholder coffee farmers. Therefore, hard-law regarding this indicator will be rated as Insufficient (Weak) (General).

**The level to which a system has promoted the development of policies and economic resources which protect the rights of women over issues of land ownership, financial services, and inheritance of natural resources.**

Within Peru in the 1990s, according to Ferm (2008), “laws regarding land ownership changed, reversing protections for small farmers” (Ferm, 2008, p. 14), however, it is not mentioned what percentage of these were female farmers. Relaxed regulation from the government within the Colombian cut-flower industry can also affect women’s social security. Ferm (2008), notes that Colombian flower companies regularly “deduct social-security quotas from employees' pay-cheques, but fail to send these contributions to the social-security system, which provides health-care coverage and retirement pensions” and this omission “often isn't discovered until a worker retires or suffers an accident or illness, and finds that she cannot access services” (Ferm, 2008, p. 17). Policies by governments to protect women can also fail, as Ferm (2008) affirms that, within Colombia and Peru, “even in cases where national labour laws include ample protections, these women are often unaware of the rights established therein, and additionally lack the resources and experience necessary to demand compliance” (Ferm, 2008, p. 20). This creates a system in which women are unprotected by the national government.

Consequently, the results of the assessment conclude that there is some very weak evidence to support the idea that hard-law has failed to promote the development of policies and economic resources which protect the rights of women over issues of land ownership, financial services, and inheritance of natural resources. Although the data used within this assessment is not directly related to land ownership, or inheritance, it does still discuss important aspects of women’ rights in the workforce within Colombia and Peru. However, the data available does not concern coffee or smallholder coffee farmers. Therefore, hard-law regarding this indicator will be rated as Insufficient (Very Weak) (General).



<b>Indicator</b>	<b>System</b>	<b>Result</b>	<b>Strength of Result</b>
The level to which a system has managed to allow the region to develop a sustainable use of resources which ensures a low amount of waste.	Certification schemes	Sufficient	-
	Direct Trade	N/A	
	Hard-law	Moderately-sufficient	Very Weak
The level to which a system has developed the education and awareness of coffee farmers on environmental protection and climate change adaptation.	Certification Schemes	Sufficient	-
	Direct trade	Insufficient	General
	Hard-law	Insufficient	Very Weak; General

Table 3 - Results of the assessment of certification schemes, direct trade, and hard-law against the two environmental indicators

Indicator	System	Result	Strength of Result
The level to which a system has promoted the protection and development of labour rights and safe and secure working environments, particularly for female workers.	Certification Schemes	Moderately-sufficient	Mixed
	Direct trade	Insufficient	Weak; General
	Hard-law	Insufficient	Weak; General
The level to which a system has developed coffee farmers' access to and knowledge of financial institutions.	Certification Schemes	Sufficient	Mixed
	Direct trade	Moderately-sufficient	Weak; General
	Hard-law	Moderately-sufficient	Mixed
The level to which a system has contributed towards an increase in the income levels of smallholder coffee farmers within a specific region.	Certification Schemes	Insufficient	-
	Direct trade	Sufficient	General
	Hard-law	Insufficient	General
The level to which a system has developed the voice for coffee farmers in decision making in global international economic and financial institutions.	Certification Schemes	Insufficient	Weak; Mixed
	Direct trade	Moderately-sufficient	Weak; General
	Hard-law	Moderately-sufficient	Weak; General

Table 4 - Results of the assessment of certification schemes, direct trade, and hard-law against the four economic indicators

Indicator	System	Result	Strength of Result
The level to which a system has allowed for and promoted the existence of free, equitable, and quality early childhood care, as well as pre-primary, primary, and secondary education.	Certification schemes	Insufficient	Mixed
	Direct Trade	Insufficient	Very Weak; General
	Hard-law	Insufficient	Very Weak
The level to which a system has allowed for and promoted equal access for all adults to affordable and quality, technical, vocational, and tertiary education.	Certification Schemes	Moderately-sufficient	Mixed
	Direct trade	Insufficient	Very Weak; General
	Hard-law	Insufficient	Weak; General
The level to which a system has promoted the development of policies and economic resources which protect the rights of women over issues of land ownership, financial services, and inheritance of natural resources.	Certification Schemes	Insufficient	General
	Direct trade	N/A	
	Hard-law	Insufficient	Very Weak; General

Table 5 - Results of the assessment of certification schemes, direct trade, and hard-law against the three social indicators

### 3.2 Discussion of the assessment results

The assessment of the three regulatory systems drew interesting results. Out of the nine indicators for certification schemes, only three were considered Sufficient, with two being Moderately-sufficient, and four being Insufficient. Therefore, certification schemes fared best against the indicators and are likely to be able to achieve the most positive outcomes for coffee producers. Specifically, they are best for helping coffee producers regarding environmental factors and some economic concerns, such as labour rights and access to financial resources. However, certification schemes are incredibly poor at aiding coffee producers regarding social factors, such as education and land rights. Therefore, certification schemes could be potentially useful for smallholder coffee producers who wish to improve their position within GVCs, as this

regulatory system is supportive of some economic factors, however, the potential usefulness is quite small as its effect on economic factors is still not very good. Nonetheless, certification schemes could be incredibly useful at helping smallholder coffee producers in some aspects of their personal lives, specifically environmentally as it fared quite well against these indicators. On the other hand, however, the social aspects of these producers' personal lives would be largely ignored by certification schemes and so, overall, they are only a useful regulatory system for improving social criteria when it pertains to the environment.

Direct trade was assessed to be Sufficient for only one of the indicators, while it was considered Moderately-sufficient for two, and Insufficient for four out of the possible nine indicators. There was unfortunately not enough data to properly assess two of the indicators, so it is not known within the boundaries of this research how direct trade would have scored. Direct trade, consequently, is the second-best system out of the three examined for its potential to achieve good for coffee producers regarding the indicators. It fared best in economic factors, such as improving the income levels of coffee producers and increasing their access to global financial institutions. Direct trade, however, was ineffective in its potential to achieve good for coffee producers regarding the environment and social factors which affect farmers' lives. Even so, unfortunately, due to a lack of available data, it isn't known if direct trade would continue to be valued as second best or if its ranking would change if the two missing indicators were able to be properly assessed. Due to direct trade's relative success in economic factors, it could have the potential to help improve smallholder coffee producers' positions within GVC, however, it is completely ineffective at helping their personal circumstances, i.e., environmental and social factors.

Hard-law was assessed to be the most ineffective of the three systems, having not received a single Sufficient result for any of the indicators, receiving only three Moderately-sufficient results, and having its performance for six indicators be Insufficient. It was assessed to be Moderately-sufficient for one environmental and two economic factors and was completely ineffective at having the potential to aid coffee farmers in any social issues examined. This result would point towards hard-law as being wholly ineffective at aiding coffee farmers in their personal lives, i.e., social and environmental factors, and their position in GVCs, i.e., economic factors.

### 3.3 Recommendations

The social indicators scored the worst within the assessment, with the highest result being Moderately-sufficient for certification schemes regarding the allowance for and promotion of equal access for all adults to affordable and quality, technical, vocational, and tertiary education. The rest of the results were Insufficient, except for one, for direct trade, which was rated to be N/A. This would indicate that there is a significant gap in social assistance being provided to

smallholder coffee producers in Colombia and Peru, as well as worldwide as the results were of either Mixed or General origin. This could be due to a lack of focus placed on social spheres during the development stages of these regulatory systems as they are more concerned with environmental or economic factors. It could also be caused by a lack of awareness of the challenges faced by producers in the social sphere, which make it difficult for them to achieve well-rounded protection through these regulatory systems. This thesis would, therefore, recommend that the FSD Spearhead dedicates time and resources to researching the wants and needs of coffee producers, regarding the social pillar of sustainability. This resource would then be used to attempt to establish mechanisms which could aid producers in the development of this pillar, as this is what appears to be extensively ignored in current regulatory systems.

Certification schemes appear to be acting sufficiently to protect the environmental needs of smallholder coffee producers within Colombia and Peru. This is most likely due to the emphasis placed on environmental protection within the rules of this system, the financial and advertising incentives in place for compliance with these rules, as well as the technical training certification bodies provide to coffee producers, as seen in the results of the assessment.

The spearhead could, therefore, benefit from establishing regulations which also emphasise the environmental pillar of sustainability and, if possible, dedicate resources to the promotion and development of technical training for producers on sustainable environmental protection, using certification schemes as inspiration.

Regarding coffee producers' position within GVCs, i.e., the economic pillar of this study, direct trade fared the best. This is potentially down to the direct trade companies' focus on economic outcomes for themselves and the producers with which they work. It could also be due to the structure of direct trade systems, in that there is very little interference from intermediary bodies who charge for the privilege of their services, and so more money is held by producers. This thesis would, therefore, recommend that the spearhead ensures that the structure of their regulatory system involves little interference and involvement from large bodies who would be likely to charge the producers, or any other members of the GVCs, large amounts of money for their services.

There is also a large amount of data used for the assessment of the indicators within the analytical framework that does not directly pertain to Colombia, Peru, the coffee industry, or smallholder coffee producers. Of the 27 assessments done in total, data used within fourteen of them were General in nature, and six of them were Mixed. This means, as two results were N/A, only five of the assessments completed used data which were deemed directly related enough to Colombia, Peru, the coffee industry, and smallholder coffee producers, and twenty were either completely or relatively related to other situations. Therefore, this thesis would recommend that the spearhead, as well as any future students and researchers, undertake further assessments

of the effectiveness of these regulatory systems within the specific context either completely or partially missed by twenty of the assessments completed within this study. This could potentially be completed by obtaining raw data through interviews with smallholder coffee producers, and those who represent them, or informal censuses within coffee producing communities in Colombia and Peru. These two methods of data collection were not used within this study as they were outside the bounds of what was possible within this research.

### 3.4 Limitations

There were three limitations identified within this research. They are: the quantity of research available; the quality of the research available; and the access to data available.

The most prominent limitation within this research was the lack of data available on factors within the analytical framework's assessment. Certification schemes had a large amount of data available, however, when it came to data on Colombia and Peru, specifically the coffee sector within these states, data was sometimes lacking. The data available for direct trade, regarding any aspect of the assessment, was especially sparse. Two of the indicators for direct trade even lacked sufficient data to conduct any form of assessment. The assessment of hard-law suffered from similar problems, with there being a significant lack of data on the system itself, specifically regarding its involvement in Colombia and Peru, and the coffee industry.

The quality of the data available was also an issue. Due to data lacking on certain indicators, grey literature was utilised from sources which may be biased, such as NGOs discussing their own projects or direct trade companies commenting on their own activities. This led to some of the results in the assessment being supported by weak or very weak data, meaning the conclusions drawn could be easily up to speculation.

Lastly, access to data was an issue at times. Databases, such as the Maastricht University Library or JSTOR, were useful sources for data collection. However, occasionally useful data was locked behind a paywall or was only available through physical library loans which, due to restrictions around travel caused by the COVID-19 coronavirus pandemic, was impossible to utilise.

## 4. Conclusion

This thesis aimed to answer the question: To what extent can certification schemes, direct trade, and hard-law improve upon sustainability outcomes for coffee farmers in Colombia and Peru? This question was developed to help fill the knowledge gap identified within the literature review, which involved the lack of research on the impact of different regulatory systems, operating within coffee GVCs, on smallholders in the Global South, specifically coffee farmers in Colombia and Peru.

This question was answered, and the knowledge gap was filled through the use of a unique analytical framework, designed for this study, resulting in the conclusion that certification schemes, direct trade, and hard-law are largely ineffective at creating positive sustainability outcomes for coffee farmers in Colombia and Peru. In cases in which they do have a positive effect, it was found that they are generally only moderately successful for the regulated individual. The results of this research are, therefore, useful in providing lessons for the FSD Spearhead, as well as the wider scientific community, in ways in which new regulatory systems can avoid failures or utilise successes found within current regulatory systems. These same lessons could also help current regulatory systems evolve to avoid the failures identified within this study. The research has also highlighted the need for further research into regulatory systems and their effects on coffee producers, specifically within Colombia and Peru. Lastly, this thesis designed and introduced an analytical framework which could be mimicked or used as inspiration for further assessments of regulatory systems by the FSD Spearhead or future researchers.

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## 6. Appendix

### Databases Utilised

JSTOR
Maastricht university library
ScienceDirect
The International Coffee Organisation
Google
NGO websites, e.g. The Rainforest Alliance
Direct trade company websites, e.g., Halo Coffee

(Appendix) Table A1 - Databases used in the collection of data for the 3 systems and 9 indicators

Regulatory System	Keywords
Certification Schemes	Colombia Peru Coffee Coffee sector Coffee industry Certification Certification scheme Voluntary standard
Direct Trade	Colombia Peru Coffee Coffee sector Coffee industry Direct trade Speciality coffee
Hard-Law	Colombia Peru Coffee Coffee sector Coffee industry Hard-law Governmental regulation Government

(Appendix) Table A2 - Keywords used in the collection of data for the 3 systems



Indicator	Keyword
The level to which a system has managed to allow the region to develop a sustainable use of resources which ensures a low amount of waste.	Sustainable Sustainability Resource Use Waste
The level to which a system has developed the education and awareness of coffee farmers on environmental protection and climate change adaptation.	Climate Climate change Mitigation Environment Education
The level to which a system has promoted the protection and development of labour rights and safe and secure working environments, particularly for female workers.	Labour rights Labor rights Female Women Work environment Working environment Working conditions
The level to which a system has developed coffee farmers' access to and knowledge of financial institutions.	Knowledge Understanding Financial institutions Finances
The level to which a system has contributed towards an increase in the income levels of smallholder coffee farmers within a specific region.	Income Income level Price
The level to which a system has developed the voice for coffee farmers in decision-making in global international economic and financial institutions.	Decision making Decision-making Voice Financial institutions Finances Global economy International market
The level to which a system has allowed for and promoted the existence of free, equitable, and quality early childhood care, as well as pre-primary, primary, and secondary education.	Education Youth development Childhood care
The level to which a system has allowed for and promoted equal access for all women and men to affordable and quality, technical, vocational, and tertiary education.	Education Adult education Adult development Technical Training Train
The level to which a system has promoted the development of policies and economic resources which protect the rights of women	Women Female Rights

<p>over issues of land ownership, financial services, and inheritance of natural resources.</p>	<p>Land Land ownership Inheritance Financial services</p>
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(Appendix) Table A3 - Keywords used in the collection of data for the 9 indicators