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Rural Livelihoods and Coffee: Overcoming the Coffee Paradox in  
Indonesia, Papua New Guinea and Vietnam

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## ***Abstract***

Since the global coffee crisis of the 2000s, the traditional mainstream sector of the market has remained stagnant, while the specialty sector has seen remarkable growth. Despite this the global market is still somewhat characterised by a 'coffee paradox' (Daviron & Ponte, 2005), with a boom in consumption coinciding with farmers remaining in poverty.

The expanding specialty coffee sector in affluent countries has led to a renewed focus on coffee as a cash-crop to aid rural development in growing countries. Increasing numbers of farmers are beginning to focus on quality rather than quantity in order to maximise their income. Southeast Asia is somewhat lagging behind in this respect, but this trend is visible nonetheless. This thesis looks at the potential of specialty coffee to overcome the coffee paradox in the Southeast Asian countries of Indonesia, Papua New Guinea and Vietnam.

It is argued that there no doubt is some potential, but that a complex web of factors determines the outcomes. Important factors under consideration here are on the one hand various certifications schemes for coffee, and on the other hand the livelihood strategies and institutional contexts of coffee farmers. Specialty coffee is no magic bullet to development, but it may be able to play some part under certain circumstances.

## ***Zusammenfassung***

Seit der weltweiten Kaffee Krise der 2000er Jahre ist der traditionelle Sektor des Kaffeemarkts im Großen und Ganzen stagniert, während der aufstrebende Spezialitätensektor immer weiter expandiert. Trotzdem ist der Markt heute noch immer durch ein ‚Kaffee paradox‘ (Daviron & Ponte, 2005) charakterisiert, bei dem der boomende Konsum mit andauernder Armut der Bauern einhergeht.

Der expandierende Spezialitätensektor in wohlhabenden Ländern hat zu erneutem Interesse an Kaffee als Katalysator für wirtschaftliche Entwicklung im ländlichen Raum der produzierenden Regionen geführt. Immer mehr Bauern haben begonnen Qualität über Quantität zu setzen, um ihr Einkommen zu maximieren. Südostasien hinkt in dieser Hinsicht noch etwas hinterher, der Trend ist jedoch sichtbar. Diese Arbeit befasst sich mit dem Potenzial des Spezialitätenkaffees das Kaffee paradox in Indonesien, Papua New Guinea und Vietnam zu überwinden.

Es wird argumentiert, dass es durchaus Potenzial gibt, jedoch ein komplexes Netz an anderen Faktoren entscheidend ist. Wichtige Faktoren, die hier berücksichtigt werden, sind einerseits die verschiedenen Zertifizierungen für Kaffee, und andererseits die Überlebensstrategien und der institutionelle Kontext der Bauern. Spezialitätenkaffee ist keine Wunderwaffe für die Entwicklung, kann jedoch unter gewissen Voraussetzungen beitragen.



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# Abbreviations

|          |                                                                    |
|----------|--------------------------------------------------------------------|
| 4C       | Common Code for the Coffee Community                               |
| ADB      | Asian Development Bank                                             |
| BMT      | Buôn Ma Thuột                                                      |
| BRI      | Belt and Road Initiative                                           |
| CIC      | Coffee Industry Corporation                                        |
| DAL      | Department for Agriculture and Livestock of Papua New Guinea       |
| EHP      | East Highlands Province of Papua New Guinea                        |
| FAO      | Food and Agriculture Organisation of the United Nations            |
| FT       | Fairtrade                                                          |
| GDR      | German Democratic Republic                                         |
| GVC      | Global Value Chains                                                |
| GI       | Geographical Indication                                            |
| ICA      | International Coffee Agreement                                     |
| ICCRI    | Indonesian Coffee and Cocoa Research Institute                     |
| ICO      | International Coffee Organisation                                  |
| MARD     | Ministry for Agricultural and Rural Development of Vietnam         |
| NGO      | Non Government Organisation                                        |
| PNG      | Papua New Guinea                                                   |
| RA       | Rainforest Alliance                                                |
| RCM      | Relationship Coffee Model                                          |
| SHP      | South Highlands Province of Papua New Guinea                       |
| SOE      | State-owned Enterprise                                             |
| TRIPS    | Agreement on Trade-Related Aspects of Intellectual Property Rights |
| UNCTAD   | United Nations Conference on Trade and Development                 |
| VINACAFE | Vietnam Coffee Corporation                                         |
| VSS      | Voluntary Sustainability Scheme                                    |
| WTO      | World Trade Organisation                                           |

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# 1. Introduction

## 1.1 Research Question

For a long time, coffee, chief among the cash crops, was heralded as potential motor for economic development for the countries where it is grown. Developmental success stories were often attributed to the profitable export of coffee, but since the 1980s there have been no comparable stories (Daviron & Ponte, 2005: xviii). More recently, there has been a shift to focussing on quality over quantity. But even where the shift to higher quality coffee production has brought some benefits, this has in many cases caused very uneven development, with benefits only for a few (Wilson et al., 2012).

This shift towards quality over quantity in coffee production is one of the strategies which have recently been put forward to rescue the theory of coffee and development. In wealthy consuming countries there has been an increasing appetite for specialty coffee, which focuses on quality and taste, over the traditional large mainstream roasters that produce a standardised and cheap bulk product. And together with various certification initiatives (ranging from organic, fair trade to protected designations of origin), which are intended to boost both environmental sustainability and improve the socioeconomic condition of the farmers, the hope is that this new market will boost incomes from growing coffee.

Today though, “the industry is still pyramid-shaped, with high-value, high-effort quality coffee representing a low percentage of total production, while the greatest share of mainstream-quality coffee is sold at fluctuating world market prices and produced in an increasingly concentrated number of low-cost, high-productivity countries” (Grabs, 2017: 27).

With respect to specialty coffee production Southeast Asia lags behind other growing regions. Nevertheless, even there various certification schemes have become common, and specialty roasters have begun to develop direct relationships with growers, especially in Indonesia. Central America is a reference point in another way, in that there already exists a body of research, of both successes and failures.

For this thesis, therefore, I intend to look at recent evidence from Southeast Asia, the research question posed being the following:

*What are the similarities and differences between the recent systems of coffee production and connected rural livelihood strategies in Indonesia, Papua New Guinea and Vietnam?*

## 1. Introduction

The thesis will begin by providing some background information on the topic. First there will be a very general outline of the global value chain for coffee, its links and power imbalances. After this will be a more detailed look at issues that have arisen recently in the global coffee market: the rise of specialty coffee, direct trade initiatives and certifications. After this global picture has been painted, a short introduction to the history of coffee production in Southeast Asia, and more specifically Indonesia, Papua New Guinea and Vietnam, will be provided. And after all this it will be easy to understand the academic relevance of this topic.

The second section moves on to the review of literature, or the state of the art structured around the relevant topics. This will start off with theoretical and analytical issues surrounding the global value chains analysis and various rural livelihoods approaches. It will then move on to what has been written about coffee production systems and certification schemes, before finishing with an overview of the previous research on the three countries that are the focus of this thesis.

After the state of the art has been covered, the analytical framework is ready to be laid out. This section draws upon the previous one and only briefly explains why each category was chosen and what subcategories and indicators they encompass. The four major categories are: production systems, certification, livelihood context and institutional context.

With all the theoretical and background issues covered and the analytical framework laid out, this thesis will turn to the main part of applying said framework to Indonesia, Papua New Guinea and Vietnam. This will be done step by step for each country within each main category, rather than having a separate section for each country. This way the relevant issues will be discussed together and not be separated too far from each other. The only slight exception to this straightforward structure will be the livelihood context for Indonesia. It became obvious that due to Indonesia's vast diversity it would be more beneficial to treat the topic of livelihoods on a region by region basis.

After all the facts have been established as thoroughly as possible there will be a recapitulation of the major findings, and some major themes and issues will be discussed. These issues will broadly align with the subcategories of the analytical framework but might overlap or have a more specific focus. To better understand these issues some additional research from across the coffee-growing world will be consulted for comparison. After the issues corresponding to the framework have been dealt with, and before concluding, there will be a short reflection on a more general question that arose from the research: what are the origins of price premiums and how do they affect rural development?

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### 1.2 Background

#### 1.2.1 The Global Value Chain of Coffee

*The global value chain for coffee is currently characterized by a ‘coffee paradox’: a ‘coffee boom’ in consuming countries and a ‘coffee crisis’ in producing countries. A paradox within this paradox is that the international coffee market is awash in coffee of ‘low quality’, while there is a dire shortage of ‘high quality’ coffee – and it is the latter that is generating sales growth. (Daviron & Ponte, 2005: xvi)*

“The fundamental geography of coffee production and trade has, until very recently, remained largely consistent with earlier colonial patterns” (Neilson & Wang, 2019: 4). More than two thirds of coffee produced globally comes from just five countries: Brazil, Vietnam, Colombia, Indonesia and Ethiopia. Around the same amount that is produced in these countries is consumed in Europe and the USA alone (Neilson & Wang, 2019: 4). These colonial production and consumption patterns are changing only insofar as there has been a growth of consumption in Asia, mainly China and Japan. Domestic consumption in producing countries remains low, with the exception of Brazil, which by volume has become the largest consumer of coffee in the world (Fischer, 2017: 1). However, the vast majority of this consumption is low quality, mostly instant coffee, while the better quality produce is destined for export.

Another thing that has changed little since colonial times, is that very little of the total value-added is captured by producing countries. Although arguably better off than being direct colonies, the ability to capture more value in producing countries has actually in many cases worsened over time (Neilson & Wang, 2019: 4). This is one major motivation behind the recent rise of various certification schemes that aim to boost things such as environmental sustainability, but also enhance the socioeconomic conditions of coffee farmers.

Until a few decades ago the global coffee trade was highly regulated, with the International Coffee Agreement (ICA) between producing and consuming countries setting strict quotas in order to keep prices stable. But following the demise of the ICA in 1989, non-state actors such as firms and Non-Government Organisations (NGOs) have stepped in to fill the void. The picture today is the following:

the institutional settings of the global value chain for coffee are characterized by limited state intervention, but with an expanding system of private regulation by both corporate firms and NGOs. This is most notable through the expansion of various sustainability programs orchestrated along the value chain between consumers and producers” (Neilson & Wang, 2019: 4)

The coffee value chain is further characterised by largely poor farmers on one end, connected via traders and exporters to roasters in the consuming countries. The latter are the ones who capture the most value-added along the whole chain. A major reason for this is their proximity to affluent consumers, but the construction of symbolic values (i.e.

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marketing) is also important. Not only is most value-added captured by them, but roasters and buyers at the consuming end of the chain also today hold the greatest bargaining power (Blackmore & Keeley, 2012: 78). Another major reason why these roasters are located where they are (both geographically and hierarchically) is that roasted coffee does not travel and store as well as the raw green beans – time, oxygen and heat all contribute to deteriorating quality (Daviron & Ponte, 2005: 56).

Along the whole chain around 25 million people earn a living from coffee, with many of these being smallholder farmers in the producing countries (Fischer, 2017). If one takes into account those indirectly benefiting from coffee production and trade, this figure rises significantly.

There are numerous types of coffee, but only two that are commercially grown: *Coffea arabica* (Arabica) and *Coffea canephora* (Robusta). Arabica is generally considered to be of superior quality in terms of taste and aroma, but is more susceptible to disease. “Its best growing conditions are found in warmer temperate zones or in highlands of tropical zones [while] Robusta coffee is more resistant and can be grown between sea level and an altitude of 800 metres” (Daviron & Ponte, 2005: 51). Furthermore, Arabica prefers lower temperatures to Robusta and needs more water. Apart from this, farming and harvesting practices are rather similar between the two plants.

After harvesting, the ripe coffee cherries are destined for primary processing, of which there are a number of different techniques:

In the ‘wet’ method, ripe cherries are harvested and then pulped, fermented, washed, and dried. The end result of these operations is ‘parchment’ coffee. This coffee goes to a curing plant, where the parchment is removed and the beans are cleaned and polished. Wet processing takes place mostly for Arabica coffee. [...] In the ‘dry’ method, farmers harvest ripe cherries and dry them until the coffee bean inside separates from the outer layers. The dry cherries are taken to a huller where the outer layers are removed. Almost all Robusta coffee is dry-processed. (Daviron & Ponte, 2005: 52)

Apart from these two main forms of processing there are also a number of hybrid forms, such as ‘pulped natural’, ‘honey process’ and semi-washed (Hoffmann, 2018: 37).

Processing is done at mills that “can be anything from a small collection of equipment on an individual farm, to a very large industrialised facility for processing enormous amounts of coffee” (Hoffmann, 2018: 31). In the case of smallholders such facilities are often collectively owned or at least shared, while some do not process at all and instead directly sell the cherries to traders.

Trade in coffee is to the greater part raw green beans, since “green coffee can be stored for a relatively long period – even in tropical countries” (Daviron & Ponte, 2005: 53). While processing is done in the producing countries after harvest, coffee is usually roasted close to where it is consumed as it “loses its freshness much more quickly” (Daviron & Ponte, 2005: 56).

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### 1.2.2 Specialty Coffee, Direct Trade and Certifications

While mainstream coffee roasters traditionally bought in bulk – both to minimise costs and standardise their product – and did not pay too much attention to quality, the relatively new specialty coffee sector is the polar opposite.

Coffees with remarkable attributes in aroma, flavor and body are often referred to as specialty coffees. Specialty coffee is the most dynamic segment of the industry, with retail sales increasing from US\$7.8 billion in 2000 to \$25.3 billion in 2014 in the USA alone [...]. Participation in this market can offer price premium opportunities for over 100 million people in developing countries [...]. (Hernandez-Aguilera et al., 2018: 179)

However, already when Daviron & Ponte were writing about what they called the coffee paradox, there was a clear trend for these two sectors to converge with market pressures making many specialty roasters adopt strategies of the larger mainstream ones, and the latter increasingly also paying more attention to quality and the storytelling surrounding specialty coffees. “The distinction between the two industries is becoming increasingly difficult to identify” (Daviron & Ponte, 2005: 161). But high quality coffee can still under the right circumstances provide price premiums for farmers and traders.

A lot has changed since Daviron & Ponte wrote about the global coffee paradox. And while the acute coffee crisis itself is said to be over, many things still remain the same. Despite the fact that after power struggles and reorganisations many new players have entered the game, and only two major roasters remain the same, the dominant position of roasters compared to other links in the value chain remains today (Grabs, 2017: 27).

Direct trade initiatives, aimed at cutting out middlemen, are said to have helped those at the other end “in expanding producers’ knowledge about quality and consumer choices and increased the sophistication of producer cooperatives in reaching new buyers” (Grabs, 2017: 27). But whether this has had much of an effect on producers bargaining power remains contested. The term ‘direct trade’ itself is somewhat misleading, since more often than not a middle trader is still involved (Neilson & Shonk, 2014: 275). It makes more sense to refer to it as relationship coffee, or the relationship coffee model (RCM), since the term direct trade, in addition to being misleading, has been co-opted as a marketing tool, and abandoned by those who initially coined it themselves (Neilson & Shonk, 2014: 275). The relationship coffee model is an “arrangement where smallholders work closely with roasters, buyers and importers to establish a direct, long-term trading partnership for coffees that have high-quality profiles.” (Hernandez-Aguilera et al., 2018: 180). This model is supposed to allow for tracing each coffee bean to its source and establish a close cooperation between roasters and growers in order to provide know-how (Raynolds, 2009: 1085). Of course, like specialty coffee in general, it is hoped that the RCM also provides price premiums to the farmers.

Apart from these relationship coffee initiatives, the various voluntary sustainability certification schemes (VSS) have ‘come of age’ and truly entered the mainstream (Grabs, 2017: 27). In fact coffee has been at the forefront of VSS: it was the first crop ever to be

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certified by Fairtrade and Utz, and is today “marketed with more sustainability labels than any other products” (Blackmore & Keeley, 2012: 77). While it was hoped that these schemes would help improve social and ecological conditions in producing areas, the evidence is somewhat mixed. Critics argue that “Fairtrade, which began as an attempt to de-commodify the coffee trade but is now increasingly driven by large coffee brands as another market-capture tool via a process of ‘re-commoditization’” (Vicol et al., 2018: 26).

One tool which it is hoped can overcome this is protecting denominations of origin with geographical indications (GIs). “The last decade has then seen an expanding interest in GIs [Geographical Indications] as a development intervention in the Global South” (Neilson et al., 2018: 36). This is true across a number of primary sector goods, including coffee. While GIs are not yet as widespread in coffee as voluntary sustainability schemes, and there is not much evidence about their benefits yet, it is hoped that they can contribute significantly more than other certifications to a de-commodification of quality coffee. Thus, it is hoped, that it would become a sought-after ‘origin product’, bringing premium prices to the people who farm it (Galtier et al., 2008: 13).

### 1.2.3 Coffee Production in Southeast Asia

#### General History

Coffee arrived in Southeast Asia in the 17<sup>th</sup> century. The Dutch colonialists claimed to have introduced it into West Java in the 1690s from Yemen, but it is likely that “Muslim pilgrims had already smuggled Yemeni seed to western India, the real source of Dutch seedlings, and probably introduced it into Sumatra” (Ooi, 2004: 360). In any case, Southeast Asia was the centre of global coffee production from the 1720s to 1870s, when almost exclusively Arabica was grown.

From Dutch Indonesia it was spread across the region by missionaries and traders and various other colonists also attempted, if somewhat halfheartedly, to mirror the successful Dutch model, in places such as the Philippines, East Timor as well as mainland Southeast Asia. However, the region’s dominant position in global coffee production came to an abrupt end in the late 19<sup>th</sup> century when an epidemic of coffee rust (caused by the fungus *Hemileia vastatrix*) ravaged the Arabica plants across the region (Ooi, 2004: 361; Peleo & Chen, 2019: 360).

This blight all but destroyed the coffee industry of the Philippines, which had up to then been the second largest producer, and significantly decimated it elsewhere. The response was that colonialists switched to the cultivation of Robusta coffee instead, as it is a lot hardier and more disease resistant. The downside is that it is far inferior in flavour to Arabica and today fetches significantly lower prices (Havemann et al., 2015: 101).

All this “continued to have residual effects throughout the 20<sup>th</sup> century”, although it was US Cold War policy that cemented large-scale Robusta production in Southeast Asia,

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as “American government interests in assuring the supply of cheap coffee beans for industrial processors and in preventing coffee farmers from shifting to other crops in the face of an oversupplied international coffee market” (Peleo & Chen, 2019: 360).

Today the vast majority of coffee grown in Southeast Asia is still Robusta, although the picture varies across the region. “Indigenous smallholders clung to Arabica in central Sulawesi, Timor, South Sumatra, central Vietnam, and southern Laos” (Ooi, 2004: 361), and farmers elsewhere are today often being encouraged to switch back to Arabica to achieve higher prices. Papua New Guinea, a latecomer to coffee production well after the coffee rust epidemic, was from the beginning dominated by Arabica production.

Before we continue to a more detailed overview of coffee production in the three countries chosen for this study, one more point has to be clarified. In addition to Arabica and Robusta, there is a third, general variety of coffee: *Coffea liberica* (which today also includes the previously considered separate Excelsa). This type is also quite wide-spread across Southeast Asia, sharing some properties of Robusta, but growing a lot taller, and used mainly for domestic consumption. In many statistics it is, whether unfairly or not, lumped together with Robusta. For example one source states that “in 2016, Robusta accounted for 87.6% of the production in Indonesia, 100% in Malaysia, 68.73% in the Philippines, 100% in Thailand, and 96.2% in Vietnam”, while in some places much of this is actually Liberica – e.g. 90% overall (!) in Malaysia (Peleo & Chen, 2019: 359).

While this practice can prevent us from fully forming a clear picture of actual production, it can be (and is) justified by arguing that Liberica coffee is similar to Robusta coffee. Furthermore, it is only Arabica which is suitable for specialty coffee and thus the one that fetches higher prices. Arabica is thus counterposed to all non-Arabica lumped together under the category of Robusta. It has actually recently been argued that Liberica is indeed suitable for specialty coffee production, as its flavour is far superior to Robusta (Christensen, 2019), and there is a handful of roasters offering it in Europa and the US (often with ties to countries such as the Philippines). While this may be true, as of today in the global coffee market, Liberica for all intents and purposes is of little significance, and this is another debate for another day. Furthermore, in many cases it might not be easily determinable whether a statistic that states Robusta is actual Robusta, or all non-Arabica. For these reasons this paper will henceforth follow this slightly unfortunate convention, referring to Liberica only in specific cases where it is relevant for a local context, and for the rest of the time proceeding with the Arabica-Robusta dichotomy.

### Indonesia

*The European-led export of sugar and coffee produced dependency instead of strengthening indigenous trade. (Houben, 2002a: 49)*

As already mentioned, the cultivation of coffee in Indonesia dates back to Dutch colonial times. In the beginning much of the colonial economy was centred in Java, including

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coffee. Ironically, it was the colonies of the West Indies that supplied the blueprint for the plantation system that the Dutch sought to set up in their East Indies (Dick, 2002a: 17). “Coffee cultivation was introduced to the Priangan highlands of West Java on such a scale that around 1725 it surpassed Yemen as the world’s leading exporter of coffee” (Houben, 2002a: 46). By 1830 peasants already were able to generate some surplus with the cultivation of cash crops, including coffee. But this period also saw the introduction of the so-called *Cultivation System*, which required peasants to grow such cash crops as coffee for the colonial authorities with little remuneration. By 1890 coffee remained the last compulsory crop under this system, which would go to exist on for another two decades (Houben, 2002b: 66).

“In the 19th century the Outer Islands were still an integral part of a wider Southeast Asian trading system, and for the most part were only very loosely subject to Dutch colonial rule” (Lindblad, 2002a: 82). It was only during the middle of that century that forced coffee cultivation spread to West Sumatra and North Sulawesi, modelled on the system employed in Java.

For a long time coffee was one of the main cash crops in colonial Indonesia, but soon sugar took over. Nevertheless, coffee always remained stable, while others declined. The 1880s, however, saw a general crisis of the plantation economy, and soon after that *Arabica* coffee – which had hitherto been the main form grown – was replaced by *Robusta*, due to disease (Houben, 2002b 71f).

Java remained the heartland of the colonial economy until well into the 20<sup>th</sup> century, but by 1939 the pendulum had swung towards the outer islands. “This shift was due primarily to the contraction of the Java-based sugar industry, but the Outer Islands also improved their share of rubber, coffee, tea and copra exports” (Lindblad, 2002b: 157). During the years following independence “yields achieved by the smallholders in rubber, coffee and coconuts were little higher than the yields achieved during the Dutch colonial period” (Dick, 2002b: 219).

While in 2010 it was the global number three (Saragih, 2013: 93), today Indonesia is ‘only’ the world’s fourth largest coffee producer. Most of this production, estimated at around 85% is low-grade *Robusta* coffee, much of which is destined for instant coffee production. However, there are also a number of highly prized specialty *Arabica* coffees grown throughout the islands. The vast majority of coffee (around 95%) is produced by smallholders, “who generally farm less than 2 ha of coffee, are materially disadvantaged, and who often rely on the sale of coffee beans as a source of cash income as part of a mixed livelihood strategy” (Neilson et al., 2018: 37). And while consumption in Indonesia’s urban centres is increasing, the majority of coffee produced (estimated at around 80% in 2014) is still exported.

Traditionally *Arabica* in Indonesia processed at household level then sold at village market and often further “before reaching centralised processing mills and exporters

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(although domestic specialty roasters are an increasingly important alternative market)” (Vicol et al., 2018: 30).

On of the main problems facing smallholder farmers in Indonesia today a generally low productivity leading to a low income generated by coffee. “Only a small percentage of coffee from Indonesia can reliably be traced based on its origin, such as specialty coffees Kopi Bali, Kopi Toraja, Kopi Mandheling [and] usually they are organic and receive a geographic certification indication from the government” (Glasbergen, 2018: 245).

### Papua New Guinea

*However, in the case of coffee in the highlands of PNG, its genesis was not an effect of elaborate colonial policy aimed at laying the foundations for a capitalist economy. Nor was it the entrepreneurial savvy of settlers, but rather the result of the juxtaposition of gold prospectors, patrol officers, environmental factors, luck and an inquisitive Indigenous population. (Imbun, 2014: 26).*

Although some coffee has been grown in New Guinea since colonial times, today’s spread of the plant is not directly the result of a colonial legacy as it is in Indonesia. After a failed gold rush in the first half of the 20<sup>th</sup> century, the prospectors and explorers judged the climate and terrain of the country’s highlands to be suitable to coffee cultivation and began to establish plantations. Rather than being imposed on them, many of the native highlanders themselves were eager to engage in their own coffee production and profit from it (Imbun, 2014: 26). It is mainly “the post war period in the 1950s and early 1960s gave rise to the indigenous coffee production industry that exists today” (West, 2010: 703f), when coffee spread almost everywhere across the highlands.

During the 1970s and 80s many plantations were redistributed from their former ‘expat’ owners to locals and many had already been abandoned previously, as “poor infrastructure, lack of credit, law and order [had] led to stagnation of plantations” (Sengere et al., 2008; 85). However, these redistributed plantations were rarely successful, as their new owners received no training and had little knowledge of operating businesses of their scale. Today, many still lie abandoned, although there is finally some progress being made of the indigenous population coming together to successfully manage them.

In 1970 smallholder production still only accounted for about a third of exports, but their share has rapidly risen since. Today, like in Indonesia, the vast majority of Papuan coffee (85-90%) is grown by smallholders (West, 2010: 705), but unlike Indonesia around “95 percent is Arabica coffee grown in the Highlands of the country” (West, 2012: 7). Robusta production is mainly limited to a few plantations in the lower coastal areas.

Until the year 2000 coffee was the main cash crop in Papua New Guinea, when it was overtaken by oil palm (Imbun, 2014: 24). But still “one out of every three people in the country is connected to the coffee industry [and] in the Highlands region most other regional industry depends on coffee to keep the cash flowing” (West, 2010: 704).

## 1. Introduction

### Vietnam

Coffee came to Vietnam during French colonial times around 1857, being initially grown around church missions. It was not until the early 20<sup>th</sup> century that French plantation owners began to develop a full-scale plantation system for coffee (Roldan-Perez et al., 2009: 33). After full independence and unification following the Vietnam War, coffee plantations were nationalised and collectivised and with the aid of experts and financing from the German Democratic Republic (GDR) the coffee sector developed into a supplier for the Warsaw Pact countries during the Cold War (Agergaard, 2010: 42).

In 1986 Vietnam set out to implement the Doi Moi reforms, which dismantled collective farming in favour of private, family-based farming. “In the 1990s, these policies were accompanied by a break with the principle of regional self-sufficiency in rice production and the stimulation instead of agro-forestry production directed towards export” (Agergaard, 2010: 41).

During the 1990s there was a booming expansion of coffee growing, which was accompanied by a wave of migration from northern parts of the country into the Central Highlands. World market prices rose sharply due to bad harvests in Brazil and Indonesia, and between 1999 and 2000 alone, the area used for growing coffee quadrupled (Ho et al., 2017: 144).

“Vietnam is today the second largest producer of coffee in the world, behind only Brazil” (Neilson & Wang, 2019: 6). The vast majority of this production is Robusta coffee – around 90%, while Arabica accounts for around 10% of production, with an insignificant proportion of Liberica scattered around. In fact, Vietnam accounts for more than 40% of global Robusta production (Roldan-Perez et al., 2009: 33ff). The corresponding rise in production yields was a direct factor of the coffee crisis that followed shortly after, when production elsewhere recovered and the world market was faced with an oversupply of cheap coffee (Agergaard, 2010: 43). It was not until 2008 that prices received by Vietnamese farmers had somewhat recovered.

Today, roughly 60% of coffee in Vietnam is grown in Đắk Lắk province in the Central Highlands region of the country. “Coffee is mainly produced by smallholders and is the dominant crop and source of income in the central part of the province (‘the coffee belt’) and to a lesser extent in the rest of the province” (Agergaard, 2010: 41). Overall a staggering 96% of export coffee is grown in the Central Highlands region (Ho et al., 2017: 114). Arabica is mostly limited to the Northern Highlands, as the altitudes elsewhere have until now proven unsuitable for its successful cultivation (Roldan-Perez et al., 2009: 34).

### 1.3 Relevance

The three countries (Indonesia, Papua New Guinea and Vietnam) have been chosen, as they take up very different places in global coffee production, while sharing some general similarities. Indonesia and Vietnam are among the world’s main coffee producers by

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volume, but Papua New Guinea is also interesting for its own reasons. Although it only accounts for around 1% of global production, coffee is of vital importance to the Papuan economy and the livelihoods of many of its citizens, both urban, and especially rural. One in three people in the country is somehow connected to coffee and especially “in the Highlands region most other regional industry depends on coffee to keep the cash flowing” (West, 2010: 704). So compared to the other two countries, coffee might be proportionally more important to the country as a whole, and rural development specifically.

Indonesia has in recent years occupied the third and fourth spots in global coffee production and export, and competes with Vietnam for Robusta exports. But Indonesia is also a “producer of high-quality Arabica and speciality coffees” (Blackmore & Keeley, 2012: 81). The country is also of particular interest for another, more general reason: it “holds third place, behind only China and India, in the share of jobs in global commodity chains” (Suwandi, 2019: 64).

Papua New Guinea on the other hand is not a large producer of from a global perspective, but what coffee it does produce is mostly Arabica, with a high potential for the specialty market. And as already mentioned, coffee itself is of vital importance to the Papuan economy, on a scale maybe not mirrored in the other two countries.

Vietnam is of special interest for one more fact: that its rise as major global Robusta exporter was a major factor in the oversupply that led to the coffee crisis at the turn of the millennium (Roldan-Perez et al., 2009: 30).

But on the other hand they offer some similarities. All three are developing countries with important primary sectors, and rural development and transformation is an issue they all face in different ways.

In coffee production they all have had some experience with initiatives such as establishing GIs and encouraging producers to focus on quality produce rather than mere quantitative goals, especially Indonesia and Vietnam. The former has 10 registered GIs for coffee (Durand & Fournier, 2017: 96). Vietnam on the other hand has only 3 registered GIs for coffee, and produces mainly poor-quality Robusta for export.

While there has been a recent flurry of research into various initiatives surrounding coffee certification and their potential for rural development, the findings have varied quite a lot from case to case. “These contrasting findings imply that the actual benefits of certification remain poorly understood and are therefore worth further exploration” (Ibnu et al., 2018: 388).

Comparing the various coffee production systems and rural livelihood strategies will help us understand the different challenges faced by these countries as they seek to develop, which necessarily involves rural transformations. Proponents of a cashcrops-for-development strategy would argue that increased coffee prices gained for a high-

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quality product will lead to improved lives for farmers, as well as spillovers to the local community and region (Timmer, 2009; Murphy, 2012).

However, there are a number of complexities along the way, which mean that this might not be as simple. The practice of many smallholders to diversify their income sources, and not focus on coffee, is one of them. But also the fact that small-scale production might not produce a sufficient quality product in sufficient quantities. Add to this the very different cultural and institutional contexts of coffee producers in different countries and more questions are posed. There is also a debate to be had on whether smallholder production is even compatible at all with serious modernisation and development strategies (Rueda et al., 2018).

## 2. State of the Art

### 2.1 Global Value Chains

Over the past decade or two, the school of global value chain (GVC) analysis – also referred to as global commodity chains – has become a prominent tool, both for “shaping the research agenda that addresses the relationship between firm-driven governance within value chains and development outcomes for particular countries, regions and individuals”, as well as a tool to inform real world rural development policy (Neilson & Shonk, 2014: 269).

The term commodity chain was first used by Hopkins & Wallerstein (1986) as part of their ‘world systems theory’ school of thought. Initially a highly negative term originating in critical political economy – chains as literal chains that kept developing countries in a state of neocolonial domination by the international ‘core’ (Neilson & Shonk, 2014: 270) – it has now become mainstream and taken on a more neutral meaning, conjuring up the image of different links in a chain.

“The value chain describes the full range of activities that firms and workers perform to bring a product from its conception to end use and beyond” (Gereffi & Fernandez-Stark, 2011: 2). A global value chain for a specific product or industry thus reaches from planning and design, to production, marketing, distribution and consumption. In the case of coffee the value chain entails the producers of raw coffee, the processing, trading, shipping, roasting, marketing, as well as brewing and consuming. In short: from bean to cup.

According to Gereffi & Fernandez-Stark, global value chains analysis explores four basic dimension: “(1) an input-output structure, which describes the process of transforming raw materials into final products; (2) a geographical consideration; (3) a governance structure, which explains how the value chain controlled; and (4) an institutional context in which the industry value chain is embedded” (Gereffi & Fernandez-Stark, 2011: 4). A fifth one has also been added: that of upgrading, while the fourth point, the institutional context, has not always been a feature of GVC analysis, which has been a criticism of the approach. More on these two a little later.

As a normative tool for development it is argued that value chains are an important connection to the wealth of the global market: “For many countries, especially low-income countries, the ability to effectively insert themselves into GVCs is a vital condition for their development” (Gereffi & Fernandez-Stark, 2011: 2). “According to this ‘value-chains for development’ approach, enhanced integration with global markets is seen as a key ingredient for achieving rural development in underdeveloped regions, where value chains provide a conduit for transferring skills, knowledge and resourced from lead firms towards local firms and households” (Neilson & Shonk, 2014: 270).

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Nevertheless, studies that utilise GVC analysis today still often show that there exists a serious power imbalance along these chains, and especially those at the bottom (the rural poor, smallholders etc. in developing countries) find themselves on the wrong end of these “asymmetrical power relations” (Riisgaard et al., 2010: 197).

The work of Daviron & Ponte (2005) which provides the outset for the issues explored in this thesis, is indeed largely a piece of global value chain analysis itself. It has been over a decade since they coined the term ‘coffee paradox’, but despite it not being the most up to date work on the issues it raised, it certainly lays them out very well. It provides brief but wide-ranging background information on coffee’s global value chain, the history of production and global governance systems. The work also deals with numerous ‘sustainable’ certification systems (organic, fair trade, shade-grown, etc.), but does not include geographical indications, upon which recently much hope has been pinned.

Another, more recent introduction into issues facing the global coffee value chain is Tucker’s (2017) *Coffee Culture*. It is both easy to read and provides a more general overview of the journey from bean to cup, but also touches on important issues along the way, including the potential for rural development.

In recent years, as is so often the case in academia, there has been growing discontent with global value chain analysis and critics have argued that the approach is too one-sided. The GVC approach, it is said, does not adequately take into account important local peculiarities, such as different institutional contexts, cultures and different livelihood strategies of the local population. Some, for example, “point to some critical weaknesses in how the global value chain concept has been applied to development practice, particularly its apparent disregard of local politics and social relations of production” (Vicol et al., 2018: 26).

There also still exist a number proponents of world systems analysis and other critical political economists who argue that global value chain analysis has been co-opted into the mainstream, thereby lost its macro-historical perspective and turned into a bog standard method of analysing firms and industries (Suwandi, 2019: 54). They claim that “this diverted attention from global patterns of uneven development” (Yeung & Coe, 2015) and has led to an ideological “flattening of power relations” (Bair & Werner, 2011: 989).

These shortcomings may not be too apparent for certain applications, but when the topic is rural development they do become increasingly obvious. This is especially relevant for coffee growing, which is globally dominated by smallholder farmers who pose their own issues with regard to development through value chain upgrading:

There is *growing evidence that economic upgrading* of firms does not automatically lead to improvements for labour, and in fact firm upgrading can be associated with *social ‘downgrading’* (e.g. increasing casualisation or deteriorating work conditions) [...]. While the concept of social upgrading has brought much-needed attention to the

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plight of labour within industrial and manufacturing value chains, it is *less clear how the concept might apply to smallholder-based agricultural value chains*, where smallholder households cannot be neatly conceptualized as firms (capital) or labour, but rather occupy a social and economic identity as both capital and labour. (Vicol et al., 2018: 28; my emphasis)

### 2.2 Rural Livelihoods

*Paying attention to institutions, including the horizontal dimensions of poverty, politics and livelihoods, is therefore critical for understanding processes of inclusion and exclusion in upgrading interventions. (Vicol et al., 2018: 28)*

Some authors have recently attempted to retain the positive analytical tools that a global value chain analysis framework offers and to expand it to cover the shortcomings. One such attempt is the extension to make room to include for rural livelihood strategies. Such an approach focusses not only on the actual livelihood strategies of the rural poor, but “also encompasses the social institutions, gender relations and property rights required to sustain and improve upon a given standard of living” (Neilson & Shonk, 2014: 271). The argument is that:

Household livelihood strategies are ultimately restricted by access to resources, and the political, historical, and institutional context in which they are embedded, thereby shaping their engagement with broader economic structures [...]. Thus, the capacity of a household to be integrated with the GVC of a particular commodity, and the effect that this might have on their lives, requires a heightened understanding of the economic and social priorities that mould livelihood-based decision making. (Neilson & Shonk, 2014: 272)

The rural livelihoods approach itself is nothing new, having been around at least as long as global value chain analysis. The term being rather flexible, it has been combined with various other ones to denote specific approaches: “to locales (rural or urban livelihoods), occupations (farming, pastoral or fishing livelihoods), social difference (gendered, age-defined livelihoods), directions (livelihood pathways, trajectories), dynamic patterns (sustainable or resilient livelihoods) and many more” (Scoones, 2009: 172). But in essence it focuses on or at least begins with the question of how people in different places live in different ways.

Rural livelihood approaches have added a much-needed local perspective to the question of development and “have challenged fundamentally single-sector approaches to solving complex rural development problems” (Scoones, 2009: 172). But rural livelihood approaches have also come under criticism, for example for failing “to address wider, global processes and their impingement on livelihood concerns at the local level” (Scoones 2009: 187). While others argue that they often tried “to cram too much into one box” (Clark & Carney, 2008; quoted in Neilson & Shonk, 2014: 272).

Scoones, himself an ardent proponent of the rural livelihood approach, highlighted some of the previous major shortcomings: “Idealism, complexity, naïvety, lack of

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political nous and incompatibility with existing sectorally-based organisations were all accusations made” (Scoones, 2009: 181). But also a lack of attention to question of politics and power and an inability “to grapple with [...] debates about long-term shifts in rural economies and wider questions about agrarian change” (Scoones, 2009: 182). Nevertheless, he was optimistic about the future of such approaches, and indeed recent applications seem to have improved on at least some of these criticisms.

All in all it is easy to see then, why rural livelihood and global value chains approaches lend themselves to be combined, with each providing a remedy for the others shortcomings and hopefully providing a fuller picture of global value chains and their impacts on rural development. In short: “The GVC approach provides an alternative axis through which broader institutional structures and political processes can be examined to assess their influence on household livelihood strategies and outcomes” (Neilson & Shonk, 2014: 272).

### 2.4 Production Systems

Now we turn to the literature that is more specific to coffee production, starting with the topic of production systems. The term production system in its strictest sense refers to the specific way in which coffee is produced in a certain place. Being originally a wild-growing plant, the conditions it grows and is cultivated in can range widely: “both Arabica and Robusta, can be grown in a range of production systems; from very intensive, requiring 230 man-days per ha and 2 tonnes of fertilizer per ha or as a passive system where farmers only visit the coffee farm annually to harvest the crop, with corresponding low yield” (Marsh, 2007: 5).

In addition to the amount of time and effort invested, production systems also differ in scale and with it the social organisation of production. On one end of the scale lie smallholder farmers, who usually cultivate coffee as a cash crop in addition to subsistence agriculture (Rueda et al., 2018: 216f). Then there are the medium farmers who, owning more land, often employ a few others as labourers. And at the other extreme lie the large, monoculture plantations owned by large landowners or corporations, employing a large amount of people.

“Most of the world’s coffee producers are smallholders” (Tucker, 2017: 93), but the picture differs from country to country. This question is by no means a merely cosmetic, superficial one. It is of crucial importance to the question of rural development, since the different ways of producing have their merits and drawbacks in different contexts. For example, “in general, large plantation systems have been more exploitative of labour than smallholder systems” (Tucker, 2017: 95). But on the other hand, smallholder production is in many cases plagued by low quality and low yields (Curry et al., 2017: 91; Glasbergen, 2018: 250), and successful plantations have also in many cases provided improved incomes and infrastructure development (Sengere et al., 2008: 85f). While an

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overview to this question will be given in this category, the details will be dealt with in the later section which focuses on rural livelihoods.

As Tucker writes: “[larger] coffee growers’ dependence on cheap labour creates a paradox for coffee-growing nations and anyone concerned for social justice and human rights” and that furthermore:

too often profits are concentrated in few hands, and many smallholders and workers remain poor despite their toil and effort. To varying degrees in coffee-growing nations, coffee production depends on the perpetuation of an impoverished rural underclass that depends on coffee production to subsist. [...] Coffee-growing nations face the conundrum of making progress in development while protecting the export income from coffee and, therefore, maintaining an unskilled rural labour force that will work for the low wages that coffee pays. (Tucker, 2017: 96f)

While integration into global markets presents opportunities for them to increase their earnings, they are also put at risk of volatile world market prices (Naylor & Falcon, 2010; Rueda & Lambin, 2014). Ultimately, “whether smallholders can benefit from their integration in commodity value chains depends on the structure of the industry in their specific product [...], on the organization of the value chain and on the willingness of consumers to pay higher prices for the quality, sustainability, origin and other attributes of the commodity and its mode of production” (Rueda et al., 2018: 217),

Coffee production systems can differ from each other in another way, which is affected, but not necessarily strictly determined by those mentioned above: whether it is grown as a mono-crop, inter-cropped or rotated. While large plantations will more often than not be mono-cultures with smallholders tending towards inter-cropping, these forms are also determined by local customs and economic impulses (Muradian & Pelupessy, 2005: 2034; Marsh, 2007: 5).

In Vietnam, for example, there are three typical systems: mono-cropping, synchronisation and segregation. With the first, one piece of land is used exclusively for coffee, while the latter involves multiple separate plots with different primary crops. Synchronisation refers to growing “coffee together with other industrial crops in one plot and rice in a separate plot(s)” (Ho et al., 2017: 114).

These crop strategies are not only relevant for economic and livelihood reasons, but also have an impact on soil quality, and thus are important for the future sustainability of production. Inter-cropping coffee with food crops, for example, has been found to have a positive effect on soil quality in the highlands of Papua New Guinea (Curry et al., 2017: 91). In some areas with low soil quality, advanced cultivation beyond basic staples is only even possible through careful soil-management (Allen, 2007: 40).

One more major factor of coffee production systems is the presence or absence of shade-giving trees. While this is often seen to be mainly an issue of environmental and biodiversity protection, it does have an impact on both coffee quality and yield. “Traditional shaded coffee plantations are generally environmentally and quality

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superior in comparison to intensive and sun-exposed ones” (Muradian & Pellupessy, 2005: 2035), but yields are higher in non-shade plantations (Gobbi, 2000: 268).

All these issues are also directly relevant for the quality of the produced coffee:

The material quality of coffee is generated by inherent and external factors. So-called ‘inherent’ factors include: (1) the genetic type of the coffee tree (Arabica, Robusta); (2) the cultivar (Bourbon, Blue Mountain, Kent, etcetera); and (3) agro-climatic conditions (soil type, rainfall, altitude). So-called ‘external’ factors include: (1) farm practices (input application, pruning, weeding, mulching, irrigation when available, sun- or shade-growing); (2) harvesting procedures (picking only ripe cherries); (3) primary processing (wet or dry methods); (4) export preparation; and (5) handling and storage during the passages from one stage to the next in the marketing chain. (Daviron & Ponte, 2005: 130)

One more issue that is relevant here, although under other circumstances it would command a section of its own, is that of climate and geography. Although not directly part of the production system of coffee, it certainly sets the parameters for what can be done. Arabica and Robusta coffee plants need different conditions to flourish. In general, Arabica prefers higher altitudes, lower temperatures and more rainfall than Robusta.

Arabica coffee is more susceptible to attacks by pest and diseases. Its best growing conditions are found in warmer temperate zones or in highlands of tropical zones. Robusta coffee is more resistant and can be grown between sea level and an altitude of 800 metres. (Daviron & Ponte, 2005: 51)

To be more specific: “Robusta usually grows in tropical areas and is best suited to altitudes under 1,000m, temperatures from 24°C to 29°C, rainfall above 1000mm” (Roldan-Perez et al., 2009: 33) while “for Arabica coffee temperatures between 15 and 24°C and 1,500 to 2,000ml of rainfall per year are ideal.” (Nguyen & Nguyen, 2019 53).

## 2.5 Certification

We now turn to a topic that is linked with production systems, but which merits its own section. Certification is an issue that is fairly recent, but today is an important link between the global value chain and local production systems and livelihood strategies. In the strictest sense this includes the various voluntary certification schemes which have become ubiquitous in the global coffee market. But geographical indications are also a distinct form of certifications, and for the sake of structure direct trade coffee will be included here as well, as it often shares similar aims and overlaps with other certifications.

### Voluntary Sustainability Schemes

Voluntary certifications were already around during the time of the coffee crisis of the 2000s, today they have come of age and stepped firmly and ubiquitously into the mainstream (Grabs, 2017: 28). These schemes provide “voluntary predefined rules,

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procedures and methods to systematically assess, measure, audit and/or communicate the social and environmental behaviour and/or performance of a firm” (Gilbert et al., 2011: 24).

While Daviron & Ponte (2005) already deal with voluntary certification schemes, a comprehensive and more up to date overview and statistical evaluation of various voluntary certification schemes is provided by Dietz et al. (2018). This work not only provides a historical overview of the development of different certifications, but also provides a systematic account of their different focuses, reaches and the strictness of their standards. The following is a brief overview of the various certifications schemes, followed by some critical issues surrounding them.

The first organic initiatives date back to the 1980s, and a decade later this was picked up and expanded by the Rainforest Alliance. That same decade also saw the creation of Fairtrade and UTZ in 1997, with the two big global corporate players, Nespresso and Starbucks, launching their own schemes in 2003 and 2004 respectively. The latest one – which is also specific to coffee, while the others are not – is the Common Code for the Coffee Community (4C), which “emerged from a multi-stakeholder initiative supported by the German development agency GTZ in 2007” (Dietz et al., 2018: 74). In 2014 the US branch of Fairtrade split from the international organisation over various disagreements. This organisation will henceforth be referred to as Fairtrade US (or FT US), while the international one will simply be called Fairtrade (FT).

Voluntary certifications have exploded over recent years: in 2008 only around 7% of global coffee exports were certified, but seven years later this figure was already 23%. Furthermore, this “oversupply of certified coffee meant that an estimated 40–53% of coffee produced (depending on the amount of double and triple certification) adhered to one of these schemes (Dietz et al., 2018: 74).

The various schemes themselves differ quite starkly, not only in their focus and scope, but also in the strictness of their standards. Utz, for example is wider in scope, but weaker on specific issues compared to Rainforest Alliance (environmental) and Fairtrade (social). Rainforest Alliance in turn is strong on environmental issues, but its socio-economic rules are less stringent. Apart from these differences in focus, some schemes also have different rules for smallholder and plantation farming, so for example with Utz “the standards underlying the smallholder certification (SH) are significantly weaker than those that are the basis for the certification of larger farms” (Dietz et al., 2018: 80). Fairtrade in turn only certifies democratically organised smallholder cooperatives and not larger producers, while FT US has developed certifications for larger farm, but lightened their rules overall.

In this jungle of certification it is not uncommon for some farmers to have multiple certifications, while others have none. The way certification often works, is that it is ‘distributed’ by export firms, which work with the NGOs, rather than directly by the

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latter (Glasbergen, 2018). This also means that one coffee farmer could be certified one year, while losing certification the next, without doing anything different.

To add to all of this, it is also not uncommon for certified coffee to either be mixed with uncertified coffee or for it to be sold at world market prices (i.e. uncertified) if no buyer is found (Glasbergen, 2018: 246).

### **Geographical Indications – protected denominations of origin**

“Geographical indications, or GIs, identify products that have a specific quality tied to their geographical origin” (Belletti et al., 2017: 45). While not new, in the world of coffee they are still less widespread than the various voluntary sustainability schemes. One of the reasons behind this is no doubt the way in which they are granted and enforced, which is a stark contrast from the certificates given out by NGOs.

For a general introduction into geographical indications Gangjee (2012) is a good start, which provides both a comprehensive historical overview from the origins of GIs in European and later EU law. But the work also goes on to give a thorough analysis of the World Trade Organisation’s (WTO) *Agreement on Trade-Related Aspects of Intellectual Property Rights* (TRIPS) and its relevant sections for GIs, and concludes with a look to the future. While much of this book might be of more interest to those focused on international trade and its legal aspects, it provides a lot of knowledge which is essential for an understanding of how GIs work – a more codified, but in many ways more complex issue than that of voluntary schemes. More on this in a later section.

Belletti (2017) offers a more concise introduction to geographical indications and Deselnicu et al. (2013) provide a meta-analysis of foodstuffs with GIs in order to determine where the biggest premiums are realised. While their only mention of coffee is the highly prized Jamaican Blue Mountain coffee, which is an extreme outlier within the premium coffee market, some of the general insights are no doubt valuable.

Geographical indications are seen to offer product differentiation in the global market and can be said to change “the status of an agricultural product from ‘commodity’ to ‘origin product’” (Durand & Fournier, 2017: 94) – or at least that is the goal. Indeed, Galtier et al. (2008) see in them the potential to ‘de-commodify’ coffee in a way in which voluntary sustainability schemes cannot. They argue that the growth of VSS has led to growing competition and lower economic returns for growers, whereas this would not be the case with GIs since they are tied to a place. They are part of building a reputation and “can stimulate the developing of the product specificities related to the territorial origin of the product (terroir)” (Galtier et al., 2008: 13), which can in turn lead to buyers and roasters being guaranteed a certain quality.

While in this aspect geographical indications are most certainly different from voluntary sustainability schemes, the general theory behind their contribution towards rural development is largely the same: they are hoped to provide an increased income and

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better access to specialty markets (Bowen, 2010) and also provide spillover effects, boosting local agriculture and other sectors (Pecqueur et al., 2008). As a tool for rural development “GIs may then be used by governments notably to stem rural exodus and develop marginalized rural areas in which intensive agriculture cannot compete, but also to promote sustainable diversification within the most productive agricultural areas” (Durand & Fournier, 2017: 94).

What also sets geographical indications apart from voluntary sustainability schemes is that they are collective in nature, pertaining to a specific region, rather than specific producers (Marie-Vivien & Vagneron, 2016: 123). This can be both positive and negative thing. On the one hand it means that they are a collective certification, shared by all producers of a region. But it also leaves room for disagreements over the actual boundaries of the area covered by the GI. One example of this is the Jarabacoa coffee GI of the Dominican Republic, where some producers were unfairly excluded, neither based on location nor potential quality, but for seemingly arbitrary reasons (Galtier et al., 2013).

Another problem that geographical indications bring to the table is that they are implemented and enforced in a different way in different countries. Rather than being global standards governed by NGOs, they are more akin to a trademark – that is: intellectual property – and at the present time there is little international coordination on the matter, despite the efforts of the WTO (Teuber, 2010: 279). This is especially true in Southeast Asia, where “failure in the control system is likely to significantly reduce the benefits of GI protection” (Marie-Vivien & Vagneron, 2016: 108). Here there might be something to learn from the EU model, which has been operating more or less successfully for some time.

### Relationship Coffee Model

*A parallel trend in the global specialty coffee sector over the past decade has been the growing uncertified upstream engagement of small and medium-sized coffee roasting firms with farming communities in coffee producing areas. One such model is known in the industry as “relationship coffee”. (Vicol et al., 2018: 27)*

Direct trade – or the relationship coffee model – is very much part of the ‘third wave’ of coffee, which is itself linked, but not synonymous with specialty coffee (Manzo, 2010). Relationship coffee differs from both ‘conventional’ certifications and GIs in a number of ways. Of course, it is possible, and in many cases this happens, that coffee producers engaged in RCM schemes also possess one or more other certifications, such as organic or indeed a GI. But despite this overlap RCM has some specific points that sets it apart.

What sets the relationship coffee model apart from voluntary sustainability schemes, is that it in essence is a ‘certification’ of quality. While environmental and social benefits are often also explicit aims of such schemes, the main focus is to produce high quality specialty coffee, and thus provide the growers not only price premiums but guarantee

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them their sustained access to the quality market segment (Hernandez-Aguilera et al., 2018).

Despite initially being called direct trade initiatives, in most cases there is still *at least* a specialty import business involved, so the trade is not technically completely direct (Holland et al., 2016). However, there is an emphasis of roasters directly working with growers in order to increase production quality. “This business model is a specialty coffee value chain arrangement where smallholders work closely with roasters, buyers and importers to establish a direct, long-term trading partnership for coffees that have high-quality profiles” (Hernandez-Aguilera et al., 2018: 180). Relationship coffee is furthermore supposed to offer transparency and traceability of the product and increase the active engagement of smallholders beyond the mere growing of coffee (Raynolds, 2009).

In RCM schemes smallholders are often organised into cooperatives, which is aimed at not only spreading the benefits but also centralising the processing facilities and thus ensure a uniform quality. “Furthermore, cooperatives are crucial to link smallholders with high-value markets” (Hernandez-Aguilera et al., 2018: 192). In practice this also means, however, that the way the cooperative is run is crucial for how successful the whole scheme is and how many benefits can be gained. In many cases smallholders do not receive price premiums for their quality product directly, but receive “benefits indirectly, in the form of enhanced access to credit and other financial and social services from the cooperative” (Hernandez-Aguilera et al., 2018: 192).

From the point of view of roasters, the goal is – similarly to other certifications – mainly to gain a marketing and reputational bonus (Daviron & Ponte, 2005; Holland et al., 2016). “Direct relationships also enable roasters to reproduce and control quality and other symbolic attributes associated with coffee [and] these sites of value creation are central to the accumulation strategies of roasting firms and allow roasters to capture the majority of value generated along the coffee value chain” (Vicol et al., 2018: 29).

Another potential issue is the fact that “the poorest smallholder growers may not have the ability to participate in specialty coffee markets” (Gómez et al., 2011), as in many cases barriers remain high. Ultimately, “whether direct trade supply chains truly deliver on their promise is still to be demonstrated” (Rueba et al., 2018: 218).

### Critical Issues

While some shortcomings and critiques of the various certification and direct trade schemes have already been mentioned, we will now look into some of the critical issues surrounding them in a little more detail.

Glasbergen (2018) gives us a scathing critique of much of previous research concerning voluntary certification schemes in his almost polemically titled paper “Smallholders do not Eat Certificates”. He argues that most studies take the aims of

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these schemes as objective starting points, skewing the whole research. As a result “the relevance or desirability of certification as an instrument is therefore hardly scrutinized” (Glasbergen, 2018: 244). As an antidote it is suggested to adopt a “problem-driven approach” which puts smallholders, their values and interests centre stage. Drawing on his previous work (Bitzer & Glasbergen, 2015), the aim is to “take the problems they face in their daily practices, their socio-economic relations, and their institutional context as a starting point, asking the question what values the certification schemes create for the farmers and what their relative contribution is to the inducement of a more sustainable livelihood” (Glasbergen, 2018: 244). These considerations will also guide this thesis.

Galtier et al. (2008) argue that most if not all of these certification systems, despite being based on production, provide their benefits in the consuming markets. In many cases they can actually be detrimental, as “the increasing interest of the coffee growers in these new market macro-segments increase the internal competition and lower economic returns for coffee growers, who at the same time have to bear increased production costs” (Galtier et al., 2008: 2). GIs, it is argued, are significantly different from them, since the fact that they are tied to an area and sometimes certain method of production, means that they can help de-commodify a product, whereas the other types of certification are often mere systems of standardisation for the consuming market.

A more recent study, Durand & Fournier (2017) also focuses on the potential benefits of GIs, arguing that not only do they aid differentiation on the global market but in the process change “the status of an agricultural product from ‘commodity’ to ‘origin product’” (Duran & Fournier, 2017: 94). But additionally they stress that, despite not being viewed that way in much of the literature, GIs can actually also be tools for rural modernisation, and that both Indonesia and Vietnam have begun to use them as such.

Regarding geographical indications in coffee much of the existing literature has focused on Latin America, where they have been around for longer (e.g. Galtier et al., 2013; Mancini, 2013; Barjolle et al., 2017). However, there is some literature on Southeast Asia, though not all of it is specifically about coffee. For example, Durand & Fournier (2017) look at agricultural GIs (including coffee) in Indonesia and Vietnam, and how they can help modernisation, while Neilson et al. (2018) is specifically about GIs in the Indonesian coffee sector. Overall, data on GIs in Southeast Asia (esp. regarding coffee) are of a more general nature, while specific studies on them have been few and far between. One exception is a recent book that serves as a collection of articles on the various issues surrounding geographical indications in the Asia-Pacific Area (Calboli & Ng-Loy, 2018). In any case, Central America can serve as a kind of benchmark in this area.

Overall there is quite a lot of recent literature on geographical indication schemes in developing countries, covering a number of agricultural products and continents. However, not everyone is so optimistic about them. Fischer (2017), for example, argues that due to the very nature of the global value chain, most of the valorisation occurs in the consuming countries, which means that even if specialty coffee continues to become

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more popular and/or expensive, only a fraction of the economic benefit will be passed down. In his case study of Guatemala, Fischer finds that while there has been some noticeable impact and a transfer of wealth, “it was not the poorest of the poor but a peasant middle class that had the resources to benefit most” (Fischer, 2017: 22).

Fischer thus echoes the sentiment first laid out by Daviron & Ponte, who already claimed that the heart of their paradox was the fact that it was “mainly *symbolic* and *in-person service quality* attributes” (Daviron & Ponte, 2005: xvii) – i.e. the work and marketing done by roasters and coffee shops – where the value is added. Coffee producers on the other hand, can ‘only’ affect the material quality of the raw product.

### 2.6 Research on the Countries in Question

For Indonesia there is already quite a lot of recent research regarding rural livelihoods in general, and more importantly also into smallholders that grow coffee specifically.

Neilson is one author who has been extensively studying the Indonesian smallholder coffee sector, including specialty coffee production, certification and livelihoods. In Neilson (2007) he provides a good overview of the institutional context and governance of coffee in Indonesia, with a focus on value retention by farmers producing specialty coffee. Neilson & Shonk (2014) look at coffee and rural livelihoods specifically in the Toraja region of Indonesia. Bray & Neilson (2017; 2018) examine various certification and sustainability programmes and their impacts on smallholders, and Neilson et al. (2018) concerns GIs and value capture in Indonesian coffee. This group surrounding Neilson also provides a fruitful methodological approach, more on which later in the corresponding section.

Ibnu et al. (2015; 2018) looks at coffee certification in Indonesia, but turns it around, and focuses on the perceptions of smallholders of the various drawbacks and benefits. Furthermore, Vicol et al. (2018) provide a highly critical look on relationship coffee and its potential for rural development in Indonesia.

For Papua New Guinea relevant literature is a little harder to come by. Nevertheless West (2010; 2012) provides a comprehensive ethnographic account of the whole coffee supply chain of the country, from smallholders over traders to export first, and even the consumers in importing countries. The fact that both rural customs and livelihood strategies differ less starkly from one another in the coffee growing areas of PNG, as compared to Indonesia, means that West’s work, supplemented by some other, more specific studies should be enough to paint a fairly complete picture.

Imbun (2014) is another recent study which focuses specifically on the challenges and changes facing smallholders in Papua’s coffee industry. It confirms many points raised in West’s account and fills some gaps in a systematic manner.

Then there are a number of studies that have more narrow focuses, and because of this supply much-needed depth. Cahn & Liu (2008) for example focus on the roles that

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women play in rural livelihoods in Papua New Guinea, and specifically how training schemes have had an impact. Despite not being concerned primarily with coffee, it ties in very well with some of the issues concerning the quality of Papuan smallholder coffee. Mikhailovich et al. (2016) also focus on women smallholders, though their work focuses mainly on research methods themselves, so the actual data it provides is somewhat scarce.

Lastly Sengere et al. (2008) deals in detail with the demise of the Papua New Guinean coffee plantation sector, its reasons and effects on the quality of smallholder coffee. It is argued that the plantation sector was extremely important for smallholders in terms of providing know-how and processing infrastructure. There is evidence that some successful rehabilitations of coffee plantations has again proven to spread benefits to smallholders. Sengere et al. (2019) expands on this and argues how, in the absence of successful plantations, smallholder cooperatives can serve a similar purpose.

As regards Vietnam the picture is even more difficult. Since most of the country's production comes from a single province, most of the attention will have to be given to the Central Highlands. To add to this, it is unfortunate that there is hardly any recent, systematic information of coffee production in the country's northern regions, where Arabica coffee is produced.

A good starting point is Agergaard (2010) who gives an outline of the history of coffee production in the 'Coffee Belt' of Vietnam's Central Highlands, and especially stresses the continued importance of migration and mobility in general to people's livelihoods there. To add to this, the *United Nations Conference on Trade and Development* (UNCTAD) study by Roldan-Perez et al. (2009), which compares the coffee sectors of Colombia and Vietnam, adds detail to the historical picture and also gives a good account of Vietnam's position in the GVC today (or at least very recently).

Ho et al. (2017) dive a little deeper and analyse what types of farming are the most common in Vietnam's coffee sector. With a strong normative agenda, which is perhaps best left aside here, it nonetheless gives a good picture of the strategies and decision-making processes of coffee farmers with regard to diversification, as well as their stubbornness (and reasons for it) in many cases.

One thing that is striking is that there seems to be a wide consensus across the literature (e.g. Marsh, 2007; Roldan-Perez et al., 2009) that increasing the quality of Robusta production in Vietnam would quite likely not be worth it, as international buyers are currently happy with the low quality, low price situation.

The main problem regarding Vietnam is that there is little very recent literature, apart from journalistic sources. And in the absence of it, we must assume that not much has changed, until we know otherwise.

## 2. State of the Art

With all this in mind, we now turn to the analytical framework that will be used for this thesis. The aim is to incorporate aspects of both global value chains analysis and rural livelihoods, as well as some coffee-specific elements.

## 3. Analytical Framework

### 3.1 Production Systems

Having discussed some of the theoretical considerations and debates in the literature, we now turn to the actual analytical framework that is to be employed in this thesis. The first one is that of production systems. As already discussed in the previous section this is a rather unspecific term and covers the various aspects of how coffee is grown and processed, including questions that are of a technical nature and those regarding the organisation of production.

This is a fairly broad category, intended to put the coffee sectors of the various countries into the regional and global context. How much coffee is produced? What types of coffee are produced? In which regions? What are the main export destinations? All this question will be answered in order to give a general overview. But there also some more specific questions that belong here, rather than in the following categories. One of them is whether smallholder production or large-scale plantation systems dominate. As already mentioned this is an important issue for rural development especially.

This category will also go slightly beyond the strict production systems themselves, and touch on factors that greatly influence them, such as the climate and geography of a country or region. It will be sub-divided into the categories: climate and geography, types of coffee, forms of production, degree of processing and export.

All in all this section will include the sub-categories of *Climate and Geography*, *Types of Coffee*, *Production & Processing* and *Export & Domestic Consumption*.

Bearing in mind the importance that different production systems can have, this brings us to the next category: certification, which in many cases is intended, or at least marketed as a way to improve the incomes and lives of poor coffee smallholders and labourers.

### 3.2 Certification

The category of certification is already a lot more specific and functions to link the global and the local. The degree of certification is an important indicator for how a country and its growers are linked to the global value chains, since it reflects both potential price premiums and the amount of foothold various NGOs have on the ground. It also ties into rural livelihoods, with regards not only to prices, but also knowledge and skill transfer and infrastructure development.

This category will provide an overview of the extent of coffee certification in the different countries, as well as the types of certification. These range from the 'classic' voluntary certification schemes, such as Fairtrade and Organic, to geographical

### 3. Analytical Framework

indications, which are intended to safeguard denominations of origin. While not strictly speaking a certification, this section will also include relationship coffee schemes, since in most cases they share broadly similar goals, and might often even overlap.

All of the various certification schemes, geographical indications and the relationship coffee model rest on two main assumptions, one on the side of production, and one on the side of consumption. Firstly, “although different schemes opt for different strategies, their theory of change heavily relies on the supposition that farmers should be trained in good agricultural practices and managerial matters [...] to realize a more sustainable agricultural production process” (Glasbergen, 2018: 243). All this is said to lead to increased production, better quality, thus also better access to global markets, which is all supposed to lead to increased incomes and living conditions. On the other hand, “consumers are supposed to be willing to pay more for certified products and they usually expect that the additionally paid price will trickle down to the farmers and assures a more environmentally friendly and socially responsible production process” (Glasbergen, 2018: 244).

And last but not least, there are of course also those coffee farmers without any kind of certification, or RCM relationship. What should also be discussed in this point is the aforementioned fact that often coffee which is actually certified is sold as uncertified into the world market as no other buyers are found. This is a central issue to whether certification as it currently exists is a worthwhile long-term investment.

This section will follow a straightforward structure, based on the three types of certification mentioned. The sub-categories are thus: *Voluntary Certification Schemes*, *Geographical Indications* and *Relationship Coffee*.

### 3.3 Livelihood Context

While the previous two categories deal mainly with general country characteristics and their coffee production in the context of global value chains, these next two aim to expand them by the aspect of rural livelihood strategies. Various studies using the rural livelihood approach have used very different framework and analytical categories differ in number, detail and differentiation. Some focus only on “inputs” (i.e. as it stands), while others also look at outcomes as different variables are changed. Hernandez-Aguilera et al. (2018: 181) for example utilise the following categories (bullet points provided for better overview):

### 3. Analytical Framework

#### Input Variables

- biophysical environment conditions
  - farm-geographical characteristics
  - soil quality
- production practices, technologies
  - production factors & endowments
    - human
    - physical
    - social
  - harvest & post harvest practices
    - techniques
    - certified processes
    - coffee varieties

#### Output Variables

- environmental
  - resource management
  - landscape management
  - biological indicators
- technological outcomes
  - environmental friendly practices
  - connection to global markets
- socio-economic outcomes
  - prices & income
  - health & occupational safety
  - physical capital accumulation (access to credit)
  - expectations

Many of these issues will of course be looked at here, both in this and preceding categories. But as this thesis is on the one hand a rather broad comparison of the situation in three countries rather than a specific case study, and on the other hand aims to provide a 'snapshot' of the situation as it is today (including the last few years) rather than an extensive account of transition, I deem it appropriate to keep the categories rather broad and general. Of course depth will be added where required and possible, but there is little to gain in thrashing out too many specific analytical boxes.

Following from this, the livelihood part of the framework is broken up into the two main categories of livelihood context (the specific livelihood strategies and challenges of coffee growers) and the political and institutional context. It might be difficult in some instances to keep these completely separate though, since many things overlap, as indeed they do with the previous two categories which focus *mainly but not exclusively* on the global value chains context. If done correctly this should provide a benefit rather than detriment and highlights the interconnectedness of the issues at hand and the need for a combined approach.

And so this first livelihood category will focus on the specific livelihood strategies of smallholder coffee farmers, touching on issues such as crop diversification, subsistence farming, cash cropping, off-farm labour and migration. This section will also include the impact of traditional cultures and customs on livelihood strategies. The specific sub-categories are: *Subsistence, Cash-cropping & diversification* and *Culture & Customs*.

### 3.4 Institutional Context

The second livelihoods category will add what critics of pure global value chains have stressed as critical in addition to livelihood strategies themselves: the political and institutional framework of a country or region. Indeed, in many cases this has a direct impact on, or at least sets the framework for, various livelihood strategies and thus it was

### 3. Analytical Framework

not naturally a choice to come last. The structure might easily have been chosen to go from most general to most specific: from the international, to the national, to the local.

However, upon reflection I decided against this for a number of reasons. In any case the categories (bar the first one) could have logically been ordered in a number of different ways and a coherent picture painted in all cases. As it stands the present structure was chosen with the following in mind: first the general specifics of a country's coffee production and place in the global value chain will be set out, anything else would make little sense. This is then expanded by looking at the presence of certification schemes, which not only directly follows from the former, but takes us logically straight to actual production conditions and livelihood strategies in relation to the preceding information. To bring forward the institutional context would disrupt this flow and leave the reader waiting. As it stands, the institutional context will productive a good roundup, filling in the gaps and setting out some specific issues at the end.

This section will of course include some general overview of the political system of the countries in question, but of greater interest will be things such as the degree of regional devolution of powers and responsibilities and the general 'strength' of state institutions. Specifically what is important is the relationship of the state to the coffee sector: rules and regulations, quotas, subsidies, strategies, but also the provision of infrastructure and training.

Of course the institutional framework should not focus merely on the state. Also, the presence (or absence) of international companies, exporters and processing facilities, be they private or cooperative fall under this category.

Another point to be included here, rather than the previous category, is that of farmer organisation. This again illustrates the difficulty to attribute various parts: it could easily be included into the livelihood category, but also, since certification schemes often drive organisation, and sometimes require it, it could be included there. Ultimately though, farmer organisation, like infrastructure and local politics, fits here as a variable that is "external" to the individual smallholding families.

The sub-categories of this section will thus be: *State Policies & Infrastructure*, *Non-state Actors* and *Farmer Organisations*.

## 3.5 Framework Recap

So to sum up, the analytical framework that will be used is as follows (general categories with their most important components):

### 3. Analytical Framework

| <b>Production Systems</b>                                                                                                                                                                                        |                                                                                                                                                                                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Climate &amp; Geography</b> <ul style="list-style-type: none"> <li>• Rainfall</li> <li>• Temperature</li> <li>• Elevation</li> </ul>                                                                          | <b>Types of Coffee</b> <ul style="list-style-type: none"> <li>• Arabica or Robusta?<br/>In absolute terms and relative.</li> </ul>                                                                           |
| <b>Production &amp; Processing</b> <ul style="list-style-type: none"> <li>• Smallholders, medium farmers, plantations.</li> <li>• Where is the coffee processed?</li> <li>• To what degree?</li> </ul>           | <b>Export &amp; Domestic Consumption</b> <ul style="list-style-type: none"> <li>• How much is exported and consumed?</li> <li>• Export destinations and grades.</li> </ul>                                   |
| <b>Certification</b>                                                                                                                                                                                             |                                                                                                                                                                                                              |
| <b>Voluntary Sustainability Schemes</b> <ul style="list-style-type: none"> <li>• Which VSS are represented?</li> <li>• How much of the coffee produced is certified?</li> <li>• Evidence of benefits?</li> </ul> | <b>Geographical Indications</b> <ul style="list-style-type: none"> <li>• How many (coffee) GIs are there?</li> <li>• What is the legal situation regarding them?</li> <li>• Evidence of benefits?</li> </ul> |
| <b>Relationship Coffee/Direct Trade</b> <ul style="list-style-type: none"> <li>• Are there any direct trade relations?</li> <li>• Evidence of benefits?</li> </ul>                                               |                                                                                                                                                                                                              |
| <b>Livelihood Context</b>                                                                                                                                                                                        |                                                                                                                                                                                                              |
| <b>Subsistence, Cash-cropping and diversification</b> <ul style="list-style-type: none"> <li>• What are the different livelihood strategies?</li> <li>• Relative importance of of them.</li> </ul>               | <b>Culture &amp; Customs</b> <ul style="list-style-type: none"> <li>• The impact of traditional culture and customs on livelihood strategies.</li> </ul>                                                     |
| <b>Institutional Context</b>                                                                                                                                                                                     |                                                                                                                                                                                                              |
| <b>State Policy, Support &amp; Infrastructure</b> <ul style="list-style-type: none"> <li>• Strategies &amp; regulations</li> <li>• Extension services</li> <li>• Local government involvement</li> </ul>         | <b>Non-state actors</b> <ul style="list-style-type: none"> <li>• Non-state involvement to fill gaps left by state? e.g. NGO provision of extension services</li> </ul>                                       |
| <b>Farmer Organisations</b> <ul style="list-style-type: none"> <li>• Level of farmer organisation</li> <li>• Evidence of benefits?</li> </ul>                                                                    |                                                                                                                                                                                                              |

Table 1: Framework Recap

## 4. Rural Livelihoods and Coffee in Southeast Asia

### 4.1 Production Systems

#### 4.1.1 Indonesia

##### Climate and Geography

*Situated upon the equator, and bathed by tepid water of the great tropical oceans, this region enjoys a climate more uniformly hot and moist than almost any other part of the globe, and teems with natural productions which are elsewhere unknown. (Wallace, 1869:1)*

Indonesia is a country made up of around 17,000 of islands, sitting between the Indian and Pacific Ocean. It is the largest archipelagic state in the world, and its roughly 6000 inhabited islands are home to more than 250 million people. Its highest peak is Mount Jayawijaya in West Papua, but mountains, including volcanic ones span across all the major islands (Göltenboth & Erdelen, 2006: 3ff).

All major islands offer the perfect growing altitudes for coffee. Arabica is grown at between 1000m and 1900m above sea level in Indonesia and Robusta in the lower areas (Hoffmann, 2018: 172f). Add this ample rainfall and fertile soils, often of volcanic origin, and one can see why coffee grows well in Indonesia. More than 80% of the country receives annual rainfall of more than 2000mm (Agus, 2016: 141) which is perfect for Arabica, with Robusta also flourishing despite its lower rainfall requirements. High rainfall in Indonesia sometimes leads to soil erosion, but “permanent tree-based farming such as coffee plantation is effective in reducing soil loss” (Agus, 2016: 143).

These conditions are an excellent basis for coffee cultivation: climate, elevation and soil are in many areas of Indonesia perfectly suited to growing both Arabica and Robusta coffee.

##### Types of Coffee

Coffee is grown across all major islands of Indonesia. In Borneo, it is almost exclusively Robusta, while Java, Sulawesi and Sumatra are home to both Arabica and Robusta cultivation. Indonesian-controlled West Papua, like Papua New Guinea, almost exclusively grows Arabica (Hoffmann, 2018: 168).

#### 4. Rural Livelihoods and Coffee in Southeast Asia



Figure 1: Indonesia coffee growing areas (Hoffmann, 2018: 168)

Overall, in terms of volume, Robusta still dominates production in Indonesia: “Indonesia is the world's fourth largest coffee-producing country, producing mainly low-grade Robusta coffee (estimated at around 85% of national production) alongside some highly sought-after specialty Arabica coffees” (Neilson et al., 2018: 37). However, the difference in value is highlighted by a statistic from a few years ago: “Arabica, although less significant in terms of volume, has significant export value. Although it accounts for 10 per cent of production, it accounted for 33 percent of national export value in 2004” (Blackmore & Keeley, 2012: 82). Bearing this in mind, it is no surprise that provincial governments in places such as Bali have been pressing for an expansion of Arabica production over the past 40 years (Durand & Fournier, 2017: 97) and much hope is pinned on it for improving the lot of farmers.

Interestingly almost all the Arabica coffee that is already produced in Indonesia is sold as specialty coffee, “that has further developed a niche market with relatively loyal consumers” (Ibnu et al., 2018: 405), which highlights its great potential. This does not mean, however, that there is no room for improvement in terms of quality.

On the island of Sulawesi mainly bulk Robusta is grown, although there are many areas suitable for specialty Arabica cultivation. Indeed, the little of the latter that is produced already is highly sought-after on the international specialty coffee market. “Competition amongst buyers can be intense, particularly in the preferred growing district of North Toraja, which, owing to a combination of physical geography and careful post-harvest handling, is generally considered to produce the highest quality coffee on the island” (Neilson & Shonk, 2014: 275).

#### 4. Rural Livelihoods and Coffee in Southeast Asia

##### Production & Processing

In 2018 Indonesia produced a total of 9,418,000 bags of coffee, down from 12,585,000 only three years earlier (ICO, 2019b).

The vast majority of coffee in Indonesia, much like elsewhere, is cultivated by smallholder farmers: an estimated 2 million households with less than 2ha of land produce more than 95% of it (Neilson et al., 2018: 37). This amounts to about 90% of all coffee plantations, covering 4 million smallholders (Glasbergen, 2018: 245).

Traditionally Arabica in Indonesia is processed at household level then sold at the village market and often further “before reaching centralised processing mills and exporters (Vicol et al., 2018: 30). As a result it is rare to find coffee that is traceable to a specific farm, rather than the processing station or region (Hoffmann, 2018: 171). Middlemen are often important sources of credit and basic goods but have also been “criticised for leading to depressed farm-gate prices and profiteering by collectors, while providing little access to improved technologies or effective extension services” (Vicol et al., 2018: 30).

What is peculiar to much of Indonesian coffee is its processing method. The post-harvest process of *giling basah* (lit. meaning ‘wet grinding’) is a hybrid process of semi-washing, similar to that employed in Brazil. This process “significantly reduces the acidity of the coffee, and seems to increase its body too, creating a softer, rounder, heavier-bodied cup of coffee” (Hoffmann, 2018: 168f). However, this process is not without its drawbacks, as it introduces other flavours and heavily divides opinion in the consuming world. Recently growers of specialty Arabica have been encouraged to switch to fully washing their coffees, in order to highlight the flavours of the terroir rather than the processing method, and thus create more differentiation for their product (Hoffmann, 2018: 169).

While this process is widespread, it is by no means the only one. Like other things, processing practices in Indonesia can vary significantly by region. In Bali, for example it looks like this:

Since the early 19th century, Robusta coffee has been cultivated in Bali, dry-processed by individual growers and sold in local markets (as well as bought by middle-men and exported). For the last 40 years, the provincial government has encouraged Arabica production in the Kintamani mountains and, since the 1990s, wet processing with the help of coffee buyers. (Durand & Fournier, 2017: 97)

One more Indonesian peculiarity should be noted, although it might not be of that great importance in the grand scheme of things: *Kopi Luwak*. This is coffee that is produced by collecting coffee beans that have been eaten, digested and excreted by civets, a cat-like creature. “In the last decade it has come to be seen as an amusing novelty, with unattributed claims of its excellent flavours, and it sells for spectacularly high prices” (Hoffmann, 2018: 171). However, these high prices have on the one hand caused Kopi

#### 4. Rural Livelihoods and Coffee in Southeast Asia

Luwak to often be forged. And on the other hand some people have begun to keep civets in terrible conditions, force-feeding them coffee. While *Kopi Luwak* may fetch very high prices, it is a highly nice product and only a fraction of Indonesia's coffee production.

##### **Export & Domestic Consumption**

The vast majority of production – more than 85% – is destined for export, and since most of it is Robusta, Indonesian coffee must compete for buyers with that grown by its neighbour Vietnam (Blackmore & Keeley, 2012: 80). However, the growing demand for coffee, especially instant coffee, in China could have a minimising effect on this competition. Farmers in Yunnan province in China have begun to grow Arabica coffee, but this is both too high in quality and too little in volume to satisfy the country's growing demand for cheap coffee. As a result this “strong Chinese demand for instant coffees has also provided further opportunities for upgrading within Indonesia, Malaysia, South Korea and Vietnam, who have all increased their sales of soluble coffee to China over the last five years” (Neilson & Wang, 2019: 10). Indeed Vietnam and Indonesia have “signed a memorandum of understanding to retain 20 per cent of their production if export prices are too low”, although the feasibility of this is questioned (Roldan-Perez et al., 2009: 36).

Despite most of its coffee being exported, Indonesia's domestic consumption is comparatively high for a producing country. In absolute terms it is by far the biggest consumer among producing countries in the region, with more than 4.5mio bags being consumed in 2017 (ICO, 2018a: 2). Due to its size this makes Indonesia the fifth largest consumer in the world behind the EU, USA, Brazil and Japan with around 3% of global consumption (ICO, 2018b: 28).

While consumption might be relatively high for a producing country, the 1.3kg consumed per person every year still pales in the global comparison, especially when looking at major consuming countries (ICO, 2018a: 8). The top consuming countries in the world range anywhere from 6kg to 12kg per person, per year (Smith, 2017). In per capita terms in the region it ranks behind Vietnam only due to the latter's recent rapid growth (more on which later).

#### **4.1.2 Papua New Guinea**

##### **Climate & Geography**

Papua New Guinea occupies the Eastern half of the island of New Guinea, with the Indonesian province of West Papua to the West. On the whole the climate is thus very similar to Indonesia. The country “is made up of approximately 7.3 million people spread across diverse geographical terrain” (Mikhailovic et al., 2016: 2), much of which is mountainous. “The altitude and soils in the country offer great potential for quality, so there has been renewed interest from the specialty market in the last few years” (Hoffmann, 2018: 176).

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The coffee growing highlands regions range from 400 to 1900m above sea level, with the majority of it above 1000m. “The combination of altitude and fertile soil makes the potential for quality in this region incredibly exciting” (Hoffmann, 2018: 177). Average rainfall in the highlands ranges from 1800mm to over 4000mm in some valleys (Curry et al., 2017: 17), making many areas ideal for the growing of Arabica coffee.

Until the year 2000 coffee was the country’s main cash crop, when it was overtaken by oil palm. However, in the highlands regions, which account for 97% of national coffee production, it is still the major source of cash income (Imbun, 2014: 24). The main coffee producing regions are the Eastern and West Highlands Provinces, as well as Simbu Province (Hoffmann, 2018: 177). The Eastern Highlands Province (EHP) accounts for around 30% of total production. The South Highlands Province (SHP) on the other hand is not well suited to agriculture, as “it is either too, too cold, too cloudy, too steep or receives too much rain” (Allen, 2007: 35). Only 38% of the land in the SHP is used for agriculture, but there are some small coffee gardens in certain areas. However, that production is generally low and of poor quality, compared to the main coffee growing regions. “This inability of SHP agricultural systems to generate cash incomes is a serious constraint on rural development in the province” (Allen, 2007: 41).



Figure 2: PNG coffee growing areas (Hoffmann, 2018:175)

#### Types of Coffee

Coffee farmers in Papua New Guinea cultivate almost exclusively Arabica coffee, which accounts for about 95% of total national production. Robusta is largely confined to a few plantations in the lower coastal areas (West, 2012; Imbun, 2014; Hoffmann, 2018).

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Papua New Guinea coffee is graded, with high value coffee covered by grades Organic A, Organic X and AX. Recently only around 10% of total exports has been made up of specialty and high value coffee (Sengere et al., 2019: 229). The grades AA, A and X (in descending order) are awarded only to coffee estates, while the grades PSC (Premium Smallholder Coffee) and Y are given to smallholder coffee (Hoffmann, 2019: 176).

##### **Production & Processing**

In 2018 Papua New Guinea produced a total of 930,000 bags of coffee, with the last years fluctuating wildly between 700,000 and almost 1,200,000 (ICO, 2019d). Unsurprisingly, for a small country, this puts it nowhere near the top of the table of producers. Its reported production grew almost 30% compared to the year before, one, but looking at the last few years it has been fluctuating by the same amount almost every year.

Again the vast majority – between 86% and 89% – of coffee is produced by smallholders (West, 2010: 705). Furthermore, “one of every three people in the country is connected to the coffee industry in some way, and between 300,000 and 400,000 households depend upon it as their only source of income” (West, 2012: 7).

For the most part, processing is done collectively in villages rather than individually: “most people gain access to one of the coffee-pulping machines in the village so that they do not have to undertake this hand pulping, and indeed hand pulping is extremely rare” (West, 2010: 705).

Much of the coffee produced in the highlands is washed, i.e. processed using the wet processing technique. The resultant “parchment is placed in bags and left to wait until a coffee buyer comes to the village” (West, 2012: 124). In areas connected by road this may be soon, but in those who rely on connection by aeroplane this may take some time. This division between areas accessible by road or plane also plays into the importance of coffee as a cash crop: in the latter it is of prime importance due to the fact that it can be stored, while in the former other cash crops tend prominently, since they can be sold fresh (World Bank, 2019a: 33). Intermediary buyers “are often the only link that rural people have to the national coffee market and in rural villages these buyers are seen as providing a necessary service” (West, 2010: 706),

Despite a high potential for specialty coffee production, with an ideal climate and geography and most existing production already being Arabica, there remain some barriers to realising it. In the heyday of the coffee plantations in the middle of the 20th century “they were producers of premium-quality coffee, which was sought by international coffee connoisseurs” (Sengere et al., 2008: 85). In many cases they also had a spillover effect to local smallholders. “As the plantation sector declined, the services delivered to surrounding smallholders such as extension, planting material and centralised processing also declined and government extension was unable to fill this gap” (Curry et al., 2017: 91). As a result, quality and productivity declined. At the moment

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much of Papua New Guinea's coffee production is considered to be too low quality for specialty markets, which in addition to the loss of services provided by plantations can be attributed to bad farming practices such as nonselective picking and delayed processing.

##### **Export & Domestic Consumption**

Coffee is an important source for foreign exchange earnings and “between 2012 and 2017, coffee accounted for 27% of total agricultural export and 6% of GDP” (DAL, 2019).

The vast majority of the coffee grown in Papua New Guinea is exported, with domestic consumption almost non-existent (Bourke & Harwood, 2009: 135). Increased domestic consumption is being urged as a means to increase the value of captured by the country and increase demand in general. But numbers are still low.

For the past few decades domestic consumption of coffee in Papua New Guinea has been hovering between 1000 and 2000 bags per year (ICO, 2019d). Even at the top end of this figure this equals only roughly 0.15kg per capita – a tiny figure even compared to other coffee growing countries.

#### **4.1.3 Vietnam**

##### **Climate & Geography**

Lying on the Southeast Asian mainland, Vietnam differs in climate more starkly than Indonesia and Papua New Guinea do from each other. It has two major climactic zones separated by the Hải Vân mountain range:

The south goes from the Mekong Delta and lowlands to upland basaltic areas in the Central Highlands that have a moderate tropical climate. The north is characterized by limestone mountainous areas which are subject to major climatic effects from central Asia and have a much greater range of temperatures. (Marsh, 2007: 7)

Vietnam also differs from the other two countries in terms of geography, with most of the country lying rather low. The Central Highlands and southern Vietnam rise only up to 1000m above sea level, making them an ideal altitude for Robusta, but largely unsuitable for Arabica cultivation. In the Northern Highlands on the other hand, Arabica grows at around 800-1600m (Hoffmann, 2018: 187).

The Average annual rainfall of Đắk Lắk province is around 1700mm (Doutriaux et al., 2008: 543). Under certain circumstances this could be enough to grow Arabica, but rainfall varies considerable between wet and dry seasons, with extremes of drought and high rainfall becoming ever more prevalent (SCC, 2018: 1). Arabica being a rather more delicate plant than Robusta does not handle such extreme changes well. To add to this the temperatures of the Central Highlands also make the area less suitable for Arabica.

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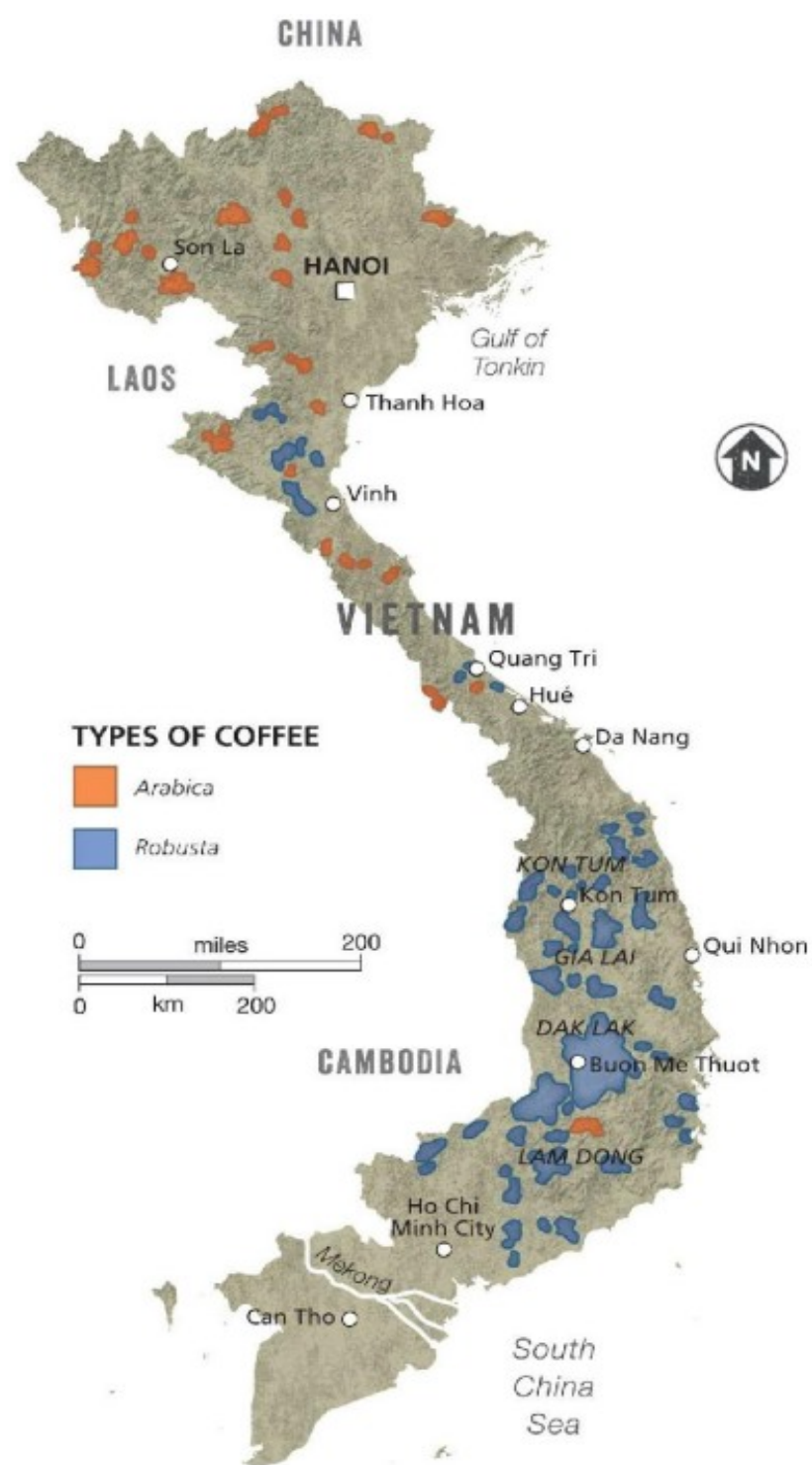


Figure 3: Vietnam coffee growing areas (Hoffman, 2018: 186)

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##### Types of Coffee

The majority of Robusta coffee – a staggering 96% of all export coffee – is grown in the Central Highlands Region (Ho et al., 2017: 114). Overall 60% of all of Vietnamese coffee is produced in Đắk Lắk province in the Central Highlands (Agergaard, 2010: 41). Interestingly, “despite Arabica making up only three to five percent of Vietnam’s total production, this is now enough to make it the fifteenth-largest producer of Arabica in the world” (Hoffmann, 2018: 187).

Due to the fact that most of the country’s coffee farms lie too low to effectively grow Arabica, it only accounts for about 4% of the national production and 6% of the total coffee area (Tran, 2018: 4). The main provinces that grow Arabica are in the Northern Highlands: Sơn La and Thanh Hóa close to Hanoi, as well as Quảng Trị. But there is also some production in Lâm Đồng in the Central Highlands (Hoffmann, 2018: 187).

The little Arabica that is grown in Vietnam is almost exclusively of the *Catimor* variety – “a cross-breed between *Timor* (a type of Robusta) and *Caturra* (a type of Arabica)” (ICO, 2019a: 11). This strain inherits some of Robusta’s positive, as well as some of its negative aspects. On the one hand it is hardier than pure Arabica varieties, but its flavour suffers. As a result, this variety is not very attractive on the specialty market. Recently there have been some attempts to develop new varieties that flourish in Vietnam’s Arabica growing regions and it is hoped that “these varieties, after replacing *Catimor*, will help improve the quality of Vietnamese Arabica” (ICO, 2019a: 11) and make it suitable to be sold as specialty coffee.

##### Production & Processing

In 2018 Vietnam produced a total of 31,174,000 bags of coffee, up from 27,888,000 the previous year (ICO, 2019d).

As is the case in the other two countries, Vietnam’s coffee production is dominated by smallholders: 85% of coffee farms are under 1ha, while only 1% are over 5ha (Marsh, 2007: 9). But due to its focus on Robusta, its yields are far higher than anywhere else at around 2.3t/ha on average. “Vietnam has created a unique brand of high-intensity Robusta cultivation because its trees yield more beans per hectare than Arabica, which makes Vietnam the coffee-producing country with the highest yield” (ICO, 2019a: 16).

According to the Vietnamese General Statistics Office (GSO, 2008), Vietnam’s coffee industry supports about 300,000 households with more than 600,000 workers, rising to 700,000 or 800,000 in the harvest season. This number accounts for 1.83 per cent of the total Vietnamese labour force and 2.93 per cent of its total agricultural labour force. Plantations and state-owned companies own only 10–15 per cent of the total 500,000 ha of coffee; the rest belongs to farm owners. The farms are usually from 2 ha to 5 ha in size. (Roldan-Perez et al., 2009: 34)

Despite its history of state ownership and collective agriculture, today 95% of coffee farms are privately owned, with the remaining 5% also being gradually redistributed

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(Marsh, 2007: 12). Where state-owned enterprises (SOEs) still dominate, however, is collection, processing and export.

Most of the poorer growers do not process the coffee after harvest at all and instead sell the cherries directly (Agergaard, 2010: 43). Despite its high yields – or perhaps to an extent because of them – most of Vietnam's Robusta coffee is of rather low quality. This is true compared not only to Arabica, but also Robusta grown elsewhere, and can be attributed largely to a number of bad farming and post-harvest practices:

the quality of the Robusta produced is uneven because of processing technology, drying equipment and post-harvest technological problems. These cause the coffee beans to have a high humidity level, and not meet the required standard of colour, quality and so on. This is the reason that Vietnam's coffee price is lower than the world price. (Roldan-Perez et al., 2009: 34)

Even more so than in other places, Vietnam's coffee farmers are guilty of non-selective picking – picking both ripe and unripe cherries at the same time in bulk in order to save in time an effort (Roldan-Perez et al., 2009: 43).

While elsewhere there does seem potential for farmers to increase the prices they receive for their coffee by increasing quality, this does not seem to be the fact for Vietnamese Robusta. In fact international buyers so far seem satisfied with the low quality as long as prices remain equally low (Roldan-Perez et al., 2009: 36).

Vietnam does have a number of domestic firms that process beans and produce instant coffee, so far mainly for domestic consumption. While the country overall has a quite significant processing capacity, the “level of technology employed is generally not sufficient to produce a high quality product, especially not for export” (Roldan-Perez et al., 2009: 34).

#### **Export & Domestic Consumption**

Today Vietnam is the second largest producer of coffee in the world behind Brazil. But it is the largest exporter of Robusta coffee, since much of Robusta production in Brazil is for domestic consumption (Roldan-Perez et al., 2009: 22). In per capita terms, Vietnam's coffee consumption is the second highest in East Asia, behind only the Republic of Korea (ICO, 2018a: 7). This is rather unusual for a producing country, and with its sustained growth rate of around 10% per year, Vietnam might soon boast consumption levels similar to Brazil. Compared to the major consumer countries, however, a domestic per capita consumption of around 1.4kg/year is still rather low, however, (ICO, 2018a: 8).

Even more so than Indonesia, Vietnam has benefited greatly from its norther neighbour, China's growing appetite for coffee. State-owned or supported agribusiness are increasing their cross-border investments “at a time when China has been actively enrolling these countries through the Belt and Road Initiative (BRI), a geopolitical agenda pursued primarily through economic partnerships” (Neilson & Wang, 2019: 17). For the

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coffee sector at least, this seems to have had largely positive effects so far and “the concern that Chinese demand would result in increased competition of manufacturers across the region, and even de-industrialisation, has not yet played out in the coffee sector” (Neilson & Wang, 2019: 29).

As domestic consumption is overall rather low, and the domestic market saturated, there are now some efforts underway on part of these companies to export their products. However, they are finding it rather more difficult to export finished coffee products compared to green beans. This is mainly due to scepticism by foreign companies and consumers who worry about the additives that are often involved, for reasons of both food safety and not least taste (Roldan-Perez et al., 2009: 43f). As a result, 95% of exports are still green beans, with roasted or instant coffee making up the rest (Roldan-Perez et al., 2009: 37).

##### 4.1.4 Recap

So to sum up, the production systems vary widely in some respects while being similar in others. Regarding climate and geography Indonesia and Papua New Guinea are blessed with many areas suitable for both Arabica and Robusta production. Indonesia already has some prized specialty coffee producing areas, while Papua New Guinea has the potential to regain its reputation of the past. Despite its potential, Indonesia still produces a lot more Robusta than Arabica. Vietnam on the other hand – due to its low elevation, high temperatures and lower or more uneven rainfall – does not have many areas suited to Arabica coffee, and thus has little room for expanding into specialty coffee production.

In terms of absolute production Vietnam dwarfs the other two countries due to its high-yielding intensive coffee cultivation. However, processing quality remains low in Vietnam, with the international market seemingly content and not offering any incentives to improve it. Processing quality is equally problematic in Papua New Guinea, but for different reasons – the degradation of infrastructure. The picture in Indonesia is very varied itself, with processing practices ranging from very good to rather bad.

Unsurprisingly most of the coffee grown across the countries is destined for export. Papua New Guinea has virtually no domestic consumption, while Indonesia as a growing but still low level. Vietnam has a relatively high consumption for the growing countries of the region.

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|                                    | <b>Indonesia</b>                                                                     | <b>Papua New Guinea</b>                                                            | <b>Vietnam</b>                                                                                                  |
|------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| <b>Climate &amp; Geography</b>     | Perfect for both Arabica and Robusta.                                                | Perfect for Arabica, with some lower coastal regions suited to Robusta.            | Largely limited to Robusta due to altitude and climate.                                                         |
| <b>Types of Coffee</b>             | 85% Robusta.<br>15% Arabica (including highly prized specialty coffee)               | Almost exclusively Arabica.<br>Some Robusta in lower coastal areas.                | Almost exclusively Robusta.<br>Some Arabica, mainly in the North.                                               |
| <b>Production &amp; Processing</b> | 9,418,000 bags in 2018.<br>Smallholders dominate (95%)<br>Processing quality varies. | 930,000 bags in 2018.<br>Smallholders dominate (86–89%)<br>Low quality processing. | 31,174,000 bags in 2018.<br>Smallholders dominate (85%+)<br>Low quality processing.                             |
| <b>Export &amp; Consumption</b>    | Majority exported.<br>Growing, but still insignificant domestic consumption.         | Almost all exported.<br>Domestic market virtually non-existent.                    | Second largest global exporter.<br>Largest Robusta exporter<br>Relatively high domestic consumption for region. |

*Table 2: Production Systems Recap*

## 4.2 Certification

### 4.2.1 Indonesia

#### Voluntary Sustainability Schemes

Voluntary sustainability schemes have been around in Indonesia since the very early days of their existence: “The first coffee certificate in Indonesia was issued by the Rainforest Alliance (RA), implemented in Aceh province in 1993, followed by Fair Trade (FT) in the same province in 1997 [while] UTZ became involved in the coffee sector in 2002, followed by 4C in 2006” (Ibnu et al., 2018: 390). Today all major VSS are represented in the country.

In addition to this, corporate actors are highly present with their own schemes in the country, above all Starbucks. “With 77 percent of Starbucks’ coffee sourced under its CAFÉ Practices programme, and with 100 per cent to be certified by 2015, CAFÉ Practices represents a significant certification scheme in the country and is likely to have a significant impact on the nature and shape of the value chain for a portion of coffee farmers in Indonesia” (Blackmore & Keeley, 2012: 85).

Despite all this however the majority of coffee farmers in Indonesia – around 75%, representing mostly Robusta farmers – do not hold any certification (Glasbergen, 2018: 245).

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The way in which certifications are implemented is that usually exporting firms are the ones to acquire them. Farmers then merely sign up and follow the rules they are provided with by these firms. While this may be an effective way of implementing certification schemes, in practice it has led to farmers' understanding of the schemes remaining rather low. "Many farmers do not recognize the differences between the standards; they often know that they participate in a certification scheme, but not which one" (Glasbergen, 2018: 246).

The Indonesian government has recently developed its own *mandatory* sustainability scheme for oil palm plantations, which is in the process of being expanded to coffee and cocoa as well (Glasbergen, 2018: 247). Since this is in its early stages it is too early to tell whether it will be a success, but the motivations behind it do highlight some of the shortcomings of other certification schemes in the country. Image considerations are prominent behind the launch of Indonesia's own sustainability standards, but issues such as a lack of transparency, difficult access and high implementation costs for many smallholders are also identified as problems (Glasbergen, 2018: 247). Whether they can be overcome by these schemes, only time will tell.

#### Geographical Indications

The Indonesian government began to promote the development of Geographical Indications in 2007, and since then there has been a visible growth in interest and investment in them. Local governments, especially, have been keen to use them to enhance their region's image (Djulaeka et al., 2014; cited in Neilson et al., 2018) and to bolster their own legitimacy by way of promoting regional development (Murwito, 2013; cited in Neilson et al., 2018). While the country had 28 registered GIs, 10 of which for coffee in 2017 (Durand & Fournier, 2017: 94f), a year later these figures had already risen to a total of 46 GIs, with 13 for coffee (Neilson et al., 2018: 38).

In 2010 3,600t of Arabica coffee with GIs relating to Sulawesi alone were exported, "constituting less than 2% of the total Indonesian coffee export volume" (Teuber, 2010: 286). However, with the rapid increase of GIs and expansion throughout the whole of Indonesia the overall figures are likely to be significantly higher today.

The first one of Indonesia's geographical indications for coffee was Kintamani Bali coffee, which initially benefited from higher prices after being protected. However, there are still problems and "due to irregular supplies and quality as well as lack of international reputation, it remained difficult to export 'Kintamani Bali' coffee as a specialty coffee" (Durand & Fournier, 2017: 96). While the process for setting up the first GI was rather long and complex, this was already streamlined when that for Bajawa Coffee was set up in 2012. This is also today considered the country's most successfully functioning one (Neilson & Wang, 2018: 40).

Indonesia's GIs in coffee have been found to be a source of pride, not only for local politicians but for farmers as well. But at the same time there has not yet been any

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evidence of a sustained increase in value captured at the farm level “and neither had the GI registration process resulted in inclusive social institutions, or improved farm and post-harvest practices” (Neilson & Wang, 2018: 44). This is not to say that such benefits cannot be reaped in the future if things are improved.

##### **Relationship Coffee**

While geographic indications have largely been championed by central and local government actors, relationship coffee initiatives are also at the same time being promoted by “NGOs as a potential rural development strategy to improve outcomes for coffee producing communities” (Vicol et al., 2018: 27). Direct trade arrangements are helped to spread by direct support from the state and donor agencies, but studies evaluating their outcome have so far been scarce. One recent study that examined a number of such schemes concluded that “because of the way that these interventions ‘couple’ with prevailing institutions and local social/political relations in rural Indonesia, upgrading has primarily manifested as rent-seeking for local elites” (Vicol et al., 2018: 27).

There are a number of common themes to be found in the little literature there is on the subject. For example across all of the farms or cooperatives surveyed, independent roasters came and made grand promises of long-term cooperation that would not only bring short-term benefits. And while in most cases this cooperation did indeed happen, went well and produced benefits for the farmers for a few seasons, often the roasters soon broke their promises and begun to buy less coffee or break of trade altogether. One roaster justified this by claiming “inconsistent quality and logistical bottlenecks” – the result was the following:

The cooperative had increased its processing volume beyond the capacities of their facility, and in the heavy rains that season much of the coffee spoiled. The roaster has not returned since. The specialty-grade coffee production of the cooperative has since declined and it can no longer buy the same volumes of cherry from farmers. (Vicol et al., 2018: 31)

In other cases the reasons that roaster gave for breaking off ties were claims that local government officials and cooperative leaders misappropriated funds as well as various other disagreements. Another notable case involves an Indonesian specialty roaster based in Bandung, while the others were all from abroad. One might assume that a domestic roaster would be more sympathetic towards their rural counterparts, show more patience and have a more hands on approach. However, this case reads like the others: initial success was followed by a break of ties due to “disagreements” (Vicol et al., 2018: 33).

In all cases the farmers interviewed stated that the price premiums they did enjoy for a while were mostly taken up by the cooperatives, and what they did receive was hardly life-changing. Furthermore, trust in buyers has been eroded in many cases. Nevertheless there are some lasting benefits that remain, such as increased know-how and knowledge

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of marketing for farmers and members of cooperatives. This suggests that with better agreements that can guarantee long-term cooperation there relationship coffee schemes have significant potential to bring benefits to smallholder coffee farmers.

##### 4.2.2 Papua New Guinea

###### Voluntary Sustainability Schemes

Most of the major voluntary certification schemes are represented in Papua New Guinea, the main ones being: Fairtrade, 4C, Utz and Rainforest Alliance (Sengere et al., 2019: 229). Various international NGOs are also present in the country's coffee industry, "particularly providing capacity building support to smallholders" (Imbun, 2014: 33). They also push for and aid with both origin labelling and certification for organic and sustainable production.

However, the overall rate of certified coffee in Papua New Guinea is still rather low. For example, in 2007 about 4% of total exported coffee was Fairtrade certified (ACIAR, 2009). However, including those who had already applied for at the time this figure rises to 10%, encouraging positive views for the schemes' expansion (Giovannucci & Hunt, 2009; Riedl, 2009). Unfortunately there does not seem to be any more up to date data on this matter so far.

The financial benefit of coffee certification in PNG up until recently seemed to be rather negligible. One calculation concludes that on average "*for fair-trade and organic-certified coffee, only \$1.41 of profit per pound stays in Papua New Guinea*" (West, 2012: 17). At the same time the same amount of the finished product is sold for around ten times the price in consuming countries. The farmers themselves only receive about \$0.33 of it. At the end of the day "*even when prices are high, coffee farmers in Maimafu make fifteen cents an hour for their labour*" (West, 2012: 16). Despite overall low prices received by coffee farmers, there have been some positive impacts of certification, however:

The price premium paid to farmers in our study ranged from K0.10–0.20/kg on top of the prevailing market price for cherry, which was approximately a premium of 10–20%. Certified coffee growers earned premiums of between K0.20 and 0.50/kg (20–50%) from chain leaders. Price premiums provide an incentive for growers to supply cherry or parchment consistently to the coffee mill. (Sengere et al., 2019: 230)

###### Geographical Indications & Relationship Coffee

Like elsewhere, there are obvious attempts to de-commodify coffee in Papua New Guinea. There are many PNG coffees available in the US and elsewhere using this as their marketing image, "with many of these labelled as organic, fair trade, or 'direct trade'" (Hughes, 2017: 85). However, there is so far there is very little scholarly research available on such initiatives in Papua New Guinea.

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Furthermore, geographical indications in a legal sense are almost entirely absent in the country so far. Papua New Guinea is among “56 countries that do not have specific laws for the protection of geographical indications but protect them as certification trademarks, collective trademarks or just as ordinary trademark” (Giovannucci et al., 2009: 125). While many of these countries do have registered GIs, Papua New Guinea does not. This suggests that “at the local level, enhanced legal protection of Papua New Guinea as a GI is simply not seen as a priority to increase economic rents for Papua New Guinea coffee farmers” (Hughes, 2017: 86). In this country the most apparent challenge seems to be to restore its coffee quality to its former reputation, with marketing and legal protection to come later.

### 4.2.3 Vietnam

#### Voluntary Sustainability Schemes

Over the past years there has been a large expansion of coffee certification in Vietnam, with Utz and Rainforest Alliance at the forefront of it (Blackmore & Keeley, 2012: 92). In addition to this “various Vietnamese coffee farmers have been applying advanced agricultural production technology to obtain national and international certifications, such as 4C [and] VietGAP (Vietnamese Good Agricultural Practices)” (ICO, 2019a: 13).

There has been a rapid expansion of certification schemes over the past decade. According to official figures only around 10% of total coffee produced in 2011 was certified, while by 2014 this had increased to around 50% of the total volume produced. By the end of 2017 more than 30% of the total coffee growing area was covered by voluntary sustainability schemes (ICO, 2019a: 14).

In 2011 Vietnam was globally “the second largest supplier of UTZ certified coffee, accounting for 19% of supply” (Kuit et al., 2013: vii). The other major coffee certification in Vietnam is 4C, with around a quarter of all coffee produced in the country carrying the label (Havemann et al., 2014: 112).

Studies about the outcomes of sustainability certification in Vietnam are still few and provide very different results. A recent one draws very positive conclusions:

“There have been an increasing number of farmers participating in sustainable certified coffee production of Đắk Lắk. The benefits of standardization have been realized in terms of production efficiency, environmental protection, biodiversity preservation, and social equity.” (Anh & Bokelmann, 2019: 15)

It goes on to say that “most farmers realize the positive impacts of sustainable farming in term of economic efficiency, environmental protection, and social welfare” and that evidence suggest “that sustainable farming is actually more profitable and cost-effective than conventional farming, although there was no significant difference of production efficiency in both farming systems” (Anh et al., 2019: 19).

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However, not everyone is so optimistic. Others have found that the price premiums provided by voluntary standards alone are not enough to encourage better farming practices, especially with regard to environmental protection. One reason offered for this is that most of Vietnam's coffee caters to a low-price, low-quality market. "Vietnam's specialization in the production of low-cost, low-quality coffee—a strategy that has favored volume over quality—largely explains why producers in Đắk Lắk and elsewhere have sought only to meet minimal standards to secure market access" (Havemann et al., 2015: 112).

##### Geographical Indications

The Vietnamese government has encouraged and actively supported the registration of geographical indications for a long time, beginning in 1995 (Durand & Fournier, 2017: 94). Along with Indonesia, Malaysia and Thailand the country is at the forefront of GIs in Southeast Asia (Banerji, 2012). However, while Vietnam holds 52 geographical indications altogether, only a minority of these are for coffee – as of 2017 the number stands at three (Marie-Vivien & Vagneron, 2016: 112; Durand & Fournier, 2017: 96).

Geographical indications enjoy a strong legal protection in Vietnam, as they "are considered an important tool for socio-economic development in the country" (Pick et al., 2017: 305). They were originally modelled on the French system of appellations of origin, but when Vietnam joined the WTO in 2007, the TRIPS definition was adopted. While the latter is less strict, in practice the previous stricter rules still apply within Vietnam (Pick et al., 2018: 314).

This, together with the very top-down nature in which they are administered, means that it is considerably more difficult to register a geographical indication in Vietnam than elsewhere. Furthermore, rights to GIs are formally owned by the state and cannot legally be transferred. What happens in practice is that the state *delegates* certain rights to local authorities and organisations, such as those to register and manage a GI. Producers are then merely allowed to use it (Pick et al., 2017: 316). This framework does have the upside in that it has proven to be an effective way of protecting GIs from misappropriation, including from foreign companies, for example Chinese ones. But the fact remains that the uptake of geographical indications in Vietnam has remained low and that there are more than ten times the number of place names protected by traditional trademarks, compared to outright GIs (Pick et al., 2017: 328).

The most prominent of Vietnamese coffee GIs is Buôn Ma Thuột (BMT) Robusta coffee which is produced in Đắk Lắk province of the central highland coffee belt. With its very peculiar taste, it has been grown there by the local people since 1911, and processed using a very specific processing technique: "after dry processing, the coffee is mixed with salt, rice and alcohol, left to ferment, put in a textile bag together with local aromatic herbs and mushrooms and plunged into boiling water" (Durand & Fournier, 2017: 98). Buôn Ma Thuột coffee makes up around half of the total national production, and 70% of it is

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exported to a number of countries around the world. As such it is a source of national pride, but the prices it fetches is still significantly lower than the world market price – around \$60 per ton less. This is mainly due to its low quality, as “local trading practices offered farmers no incentives to focus on quality” (Durand & Fournier, 2017). What this means is that despite being a protected origin product, it is rather different from the high quality specialty coffees that are usually produced under GIs.

Apart from BMT there is also Cầu Đất – Đà Lạt and Sơn La coffee which is protected under geographical indications (ICO, 2019a: 10). While the International Coffee Organisation report claims that these latter two are real GIs, they are not listed in official lists. Some further investigation reveals that they are in fact trademarks (Dalat Info, 2017). This mirrors the general situation in the country, where trademarks are favoured over geographical indications.

#### Relationship Coffee

Like in the case of Papua New Guinea, there is hardly any scientific data about direct trade coffees in Vietnam. Since relationship coffee is usually utilised by the specialty coffee sector, and thus focuses on single origin Arabica coffee, its scope is somewhat limited by Vietnam's situation. As Robusta is hardly ever traded as single origin coffee, there is also little scope for direct trade coffee beyond the few enclaves of Arabica production (Havemann et al., 2015: 101).

Furthermore, “a regulation preventing foreign companies from sourcing directly from farmers has been counter-productive for efforts to increase farmer knowledge about and incentives to adopt better practices” (Havemann et al., 2015: 100). It is unclear whether this also applies to small roasters from outside the country, but direct trade initiatives in Vietnam do so far seem limited to domestic urban roasters.

#### 4.2.4 Recap

In terms of the plethora of certifications that exist for coffee, the three countries differ quite a bit. In Indonesia about a quarter of coffee produced is certified, consisting of mostly Arabica. In Vietnam on the other hand, which produces mostly Robusta coffee already half the coffee is produced under some kind of certification. In both cases there is varied evidence for the benefits of certification, with these benefits often being the result of certification only indirectly. Data for Papua Guinea is more sparse on this matter, but about 10% of coffee was thought to be Fairtrade certified a few years ago. Other certifications such as organic certainly exist but there are no up to date and reliable numbers. Certified coffee in PNG can be expected to receive price premiums of 10–50%, although the starting price is still low at the moment. Indonesia is an interesting example, since the government is in the process of introducing a *compulsory* certification scheme for coffee, just as it has done for palm oil.

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Geographical indications are expanding only slowly in Southeast Asian coffee: Indonesia now has 13, after improving its registration process, while Vietnam has 3. Of the latter, however, it seems that two of them are actually regular trademarks rather than GIs. In both cases there is not yet any evidence of widespread benefits reaped by the coffee farmers. In Papua New Guinea there are no GIs at all, and no legal framework for them, suggesting that they are not a priority at this time.

Direct trade initiatives are even less widespread, with the only reliable data coming from Indonesia. There have been a number of schemes that were initially successful but which did not seem to last for more than a few seasons.

|                                         | <b>Indonesia</b>                                                                            | <b>Papua New Guinea</b>                                      | <b>Vietnam</b>                                                                                      |
|-----------------------------------------|---------------------------------------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| <b>Voluntary Sustainability Schemes</b> | 25% certified (mostly Arabica).<br>Mandatory government scheme in development.              | 10% Fairtrade certified.<br>Price premiums of 10–50%.        | 50% certified.<br>Varied evidence of benefits.                                                      |
| <b>Geographical Indications</b>         | 13 GIs for coffee.<br>Registration process improved.<br>Tangible benefits yet to be proven. | No GIs at all.<br>No specific legal protection.              | 1 GI for coffee (3 if one considers TMs).<br>Harsh criteria for registering.<br>No proven benefits. |
| <b>Direct Trade</b>                     | Number of initiatives.<br>Many do not last.                                                 | Some initiatives according to roasters.<br>No reliable data. | Little incentive for Robusta.<br>Only specific exporters allowed to trade.                          |

*Table 3: Certification Recap*

## 4.3 Livelihood Context

### 4.3.1 Indonesia

Indonesia is a large and diverse country, customs and practices vary from region to region. As a result, it is rather hard to speak of a single livelihood context. Nevertheless, this section will aim to paint a picture of common themes as well as regional specifics across some of Indonesia's coffee-growing communities. This section will attempt to give an overview of the differences but also hopefully the common themes of livelihood strategies of Indonesia's coffee farmers. Due to the complexities of the Indonesian situation this section will follow a slightly different structure.

#### Toraja, Sulawesi

Coffee grown in Sulawesi is sought-after in the global market, but production in the Toraja region is not living up to its potential. One study states that “while demand for

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Toraja coffee is strong, we estimate that annual production in the two Toraja districts averages less than 1500 tonnes, and yields are very low by global standards (our survey data suggest these are as low as 150 kg/ha of processed green beans equivalent)” (Neilson & Shonk, 2014: 278). Coffee is not the most important source of income for most people in this area but cultivated mainly as a supplemental source of petty cash rather than as an exclusive cash crop.

One of the major reasons cited for this relative neglect of coffee production is low prices, but in fact this perception does not match reality. Actually:

Comparatively high local prices are guaranteed by favourable value-chain conditions. This perception of low prices, and ultimately the lack of investment in farm production, can be explained through an examination of local livelihoods and household priorities. (Neilson & Shonk, 2014: 279)

What is in fact a crucial factor is the regions peculiar ceremonial economy. In this ceremonial economy the buffalo has a central place: “buffaloes dead and alive mediate all exchange, social, symbolic and economic in Toraja” (Thompson, 2000: 4). And while the prices that local coffee fetches are relatively high, and have been growing, they have failed to keep up with the inflation of the prices for buffaloes and other products central to local ceremonies. In fact today remittances are the dominant source of cash to pay for these (Neilson & Shonk, 2014: 281).

At the same time coffee growers in the region engage in substantial subsistence production.

Households generally refrain from using remittances for daily living needs by maintaining a relatively high degree of food self-sufficiency. Coffee income is used to complement subsistence production through purchasing basic items like cooking oil, sugar, salt, detergents, and soap. In contrast, ceremonial obligations were the most widely reported use of remittance money, followed by education. (Neilson & Shonk, 2014: 282)

#### South Sumatra

Southern Sumatra lacks this big factor of a ceremonial economy, but a lack of investment of time and capital into coffee is also a feature there: “highly diversified, low risk strategies of coffee smallholders [...] tend to prevail across southern Sumatra” (Bray, 2018:12). This is somewhat at odds with buyer demands to increase both the quality and quantity of coffee produced through investing in higher maintenance farming, picking and processing techniques. “Implementing labour intensive soil management techniques, like terraces and buffer zones (as is recommended by many VSS programs), is even more problematic” (Bray, 2018: 12).

In this region none-farm labour, both formal and informal, is the main source of additional income. “Off-farm work is particularly appealing for many producers, as it is usually less time-intensive, perceived to be more enjoyable, and believed to deliver more

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certain returns” (Bray, 2018: 13). This includes construction work on infrastructure projects on larger farms and many also run local convenience stores.

##### **Semendo, South Sumatra**

The agricultural system of the Semendo region differs from that of the rest of South Sumatra. Robusta was introduced in this region in 1911 and “initially integrated with swidden<sup>1</sup> rice farming as a fallow crop, and remained less intensively grown in Semendo than elsewhere in Java and Sumatra” (Bray & Neilson, 2018: 373). It has remained the primary cash crop ever since, replacing rubber which had previously dominated.

“The Semendo agricultural system has long been focused primarily on rain-fed rice (*sawah*) cultivation and fish ponds, and secondarily on dryland rice (*ladang*) using swidden techniques and planted alongside fruit trees” (Bray & Neilson, 2018: 373). Coffee was integrated into this system and in some places has even replaced it completely. “In the Pasemah lands immediately north, where coffee production was affected more directly by ‘modern’ European techniques, coffee monocropping appears to have been more widespread” (Bray & Neilson, 2018: 373).

While there is not a ceremonial economy in the sense as it exists in Sulawesi, there are local cultural peculiarities that have a big effect on livelihood choices in Semendo as well. This can be seen in the life aspirations stated in one survey: “growing rice, getting married and taking the pilgrimage to Mecca, and maintaining strong cultural traditions and an adherence to customary law (*adat*)” (Bray & Neilson, 2018: 373).

Alongside this there exists a matrilineal system of inheritance in the region (Salmudin, 2012), which has an effect in that it produced a significant number of landless male offspring that are often forced to migrate. In addition to this land not only has a productive character but a cultural one too. One author described how “the large amount of temporarily unused rice land and simply vacant land in Semendo villages was striking” (Potter, 2008: 185). This is in somewhat paradoxical contrast to many young Semendo people having to move to find land or work.

Despite the importance of coffee as a cash crop – accounting for around 50% of total household income on average – there are also important none-farming sources of income in the region. “Major off-farm sources of employment in Semendo include work as motorcycle taxis/couriers (*ojek*), working as construction labourers, and receiving government salaries as bureaucrats, police officers, teachers and politicians” (Bray & Neilson, 2018: 374).

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1 Swidden agriculture (also called slash-and-burn agriculture) is a traditional farming technique, where land is cleared by burning, creating a nutrient-rich field. Sometimes involving shifting fields, the exact practices vary by region and various definitions are contested. (see Mertz et al., 2009; van Vliet et al, 2012)

##### 4.3.2 Papua New Guinea

“The nation faces formidable development challenges, ranking 176 of 187 countries on the Human Development Index [and] can be described as a dual economy with a prosperous formal sector (largely but not exclusively mining) focused on export and an informal sector dominated by subsistence and semi-subsistence activities” (Mikhailovic et al., 2016: 2).

Coffee production is not only a major source of income for many in Papua New Guinea, it can also be said to have created social classes in the country by creating new forms social differentiation and bringing links to global trade. Furthermore, coffee is also highly regarded for its symbolic meaning, serving as an almost spiritual link to the wider world. “Coffee production is one means by which rural Papua New Guineans can imagine their relationships as extending out of their villages and connecting to people and places elsewhere” (West, 2012: 11).

##### **Subsistence, Cash-cropping and diversification**

Of the 87% of Papua New Guinea's population that lives in rural areas around three quarters “are engaged in a variety of subsistence and cash income agriculture activities” (World Bank, 2019b: ix). Subsistence agriculture mainly includes traditional staples such as sweet potatoes and other root crops, sago and bananas (World Bank, 2019a: 27). The majority of cash income is derived from both fresh food production for the domestic (mainly urban) market, and cash crops destined for export, including coffee.

Of staple crops the one that is undoubtedly the most important is the sweet potato:

Sweet potato accounts for about 67 percent of total food production, the other staples about 22 percent, and the remaining crops such as garden foods account for the balance. Sweet potato production is the most common, with roughly 80 percent of the rural population engaged in this activity. (World Bank, 2019a 27)

While palm oil is mainly produced on plantations, other export crops are largely produced by smallholders – 88% of coffee, 98% of cocoa and almost all of coconut production (World Bank, 2019a: 28). Coffee is by far the most important cash crop for smallholders, as it accounts for 33% of their cash income. This is especially significant, since this figure is the average for the whole of the country and not just the main coffee producing areas. If one compares the general income levels across the rural areas of Papua New Guinea, a stark divide can be seen between those where coffee can be grown and those unsuitable to it (Hanson et al., 2001).

As regards subsistence production, these provide for the vast majority of food consumption of the rural population: “Staple foods, in particular, are the main source of food energy (68 percent) and food protein (42 percent) for rural villagers with significantly lesser amounts from a variety of other products” (World Bank, 2019a: 29).

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##### Culture & Customs

On the one hand Papua New Guinea's population is highly diverse in terms of culture, language and traditions (Hanson et al. 2001: 10). But there are also some very important overarching cultural aspects that are indeed shared with many Melanesian people (West, 2012). Especially across coffee producing regions in PNG these are certainly very similar.

The country's rural society has traditionally included a highly differentiated division between the sexes, not only in production but also in relation to knowledge and beliefs (West, 2012: 113). The spread of Christianity in the 20<sup>th</sup> century has in some place undermined some of these traditions, while others have remained. While some of these changes have been arguably progressive, some cultural ceremonies that were lost also led to daily work being "converted from meaningful endeavour[s] into unredeemed drudgery" (Tuzin, 1997: 34).

In any case, women in Papua New Guinea and Melanesian societies in general, have traditionally been responsible not only for domestic work but also for the cultivation of food crops. "Women come into being in the world and bring the world into being through their relations with the domestic (*kora*) things in their family's gardens and around their hamlets" (West, 2012: 118).

Additionally, there is a strong spiritual bond between women and the food crops they grow, which is illustrated by their relationship to sweet potatoes (a major staple):

Women's relations with sweet potatoes are just as intimate as the relations with their unborn children. They communicate with them in similar ways, through these songs and powerful incantations. (West, 2012: 119).

Coffee, on the other hand, is treated very differently. While it is still mainly women who cultivate it, they do not see the coffee plants in the same spiritual way as the other crops they cultivate. They are seen as strong on their own, as requiring less attention and nurture. But coffee plants are also not considered to be connected to the spirits and life force of the forest, "they are not the physical manifestation of the undying bond between past and present that is embodied in sweet potatoes" and other traditional crops (West, 2012: 121).

The only part than men play in the growing of coffee is at the very beginning of the cycle when they clear away trees to make way for the coffee. "When the coffee begins to ripen around the beginning of June, men take an interest in their coffee groves again after leaving to their wives the work of clearing brush and weeding throughout the rest of the year" (West, 2012: 123).

While coffee does not hold the same kind traditional value as other crops do, it is still prized for its cash value. Indeed, coffee beans are seen to be as good as "money in the bank" and as "totally commensurable with money" (West, 2012: 128).

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As a result of this “coffee growing is largely seen as an activity adding diversity to their livelihoods rather than an alternative form of livelihood in itself” (Imbun, 2014: 28). Despite in many cases having the possibility to increase the intensity and quality of production and with it their income, in most cases small-holders choose not to.

Smallholders are reluctant to switch from a low input, low output system of production to a high input, high output, modern system of production requiring greater labour inputs. This is partly because smallholders pursue a lifestyle or ‘way of life’ involving leisure pursuits, and church and community activities that leave little time for coffee production. This ‘way of life’ remains an important path to status and prestige and provides a moral framework for community standards of acceptable behaviour. It is therefore highly resistant to change. (Curry et al., 2017: 91)

### 4.3.3 Vietnam

#### Subsistence, Cash-cropping and diversification

In the coffee belt of Vietnam's central highlands the “majority of households depend directly or indirectly on the coffee crop, whether as smallholders or as coffee labourers” (Agergaard, 2010: 51). But compared to coffee farmers elsewhere in Asia Vietnam's smallholders have a very low degree of food self-sufficiency, and instead rely on their cash income to buy most of their necessities.

While coffee farmers in Vietnam sometimes do cultivate some food, this is mostly amongst the young the coffee trees, while waiting for them to mature. The only ones to practice significant rice cultivation in coffee growing areas is the indigenous population, but even this is “seldom in quantities sufficient to feed the family” (Agergaard, 2010: 52).

The dramatic expansion of coffee cultivation in the central highlands created an over-reliance on the crop, and the subsequent coffee crisis therefore affected Vietnamese farmers especially badly. As a result the government tried to encourage farmers to diversify their crops, with mixed results (Agergaard, 2010: 42).

As a result many smallholders have fallen into debt, with many struggling to pay their way out of it:

“Vietnamese coffee farmers sell most of their products to purchasing agents or local traders because of inadequate market information, limited sales channel choices, and poor marketing infrastructures. This serves as a further reason for why smallholder farmers are often cash-strapped and forced into a debt cycle where they seek credit to repay previous loans.” (Anh & Bokelmann, 2019: 1)

Recently, global weather patterns, such as changes in El Niño, have meant that drought has become an increasing problem for coffee farmers in Vietnam. Since both Arabica and Robusta coffee both require large amounts of water, and over 70% of Vietnam's coffee cultivation is rain-fed, decreasing rainfall has created numerous problems. (Nguyen & Nguyen, 2019: 53). To add to this, the fact that the intensive coffee cultivation that was

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encouraged by the government and displaced the indigenous crop rotation and nomadic practices in the Central Highlands have also led to increasing environmental problems. The expansion of this intensive monoculture led not only to record yields but also to large-scale environmental degradation, with deforestation leading to decreased water-storage ability and depleting groundwater reserves (Nguyen & Nguyen, 2019: 56).

Another major issue is that many farmers engage in bad watering practice in the absence of scientific information. Many engage in dramatic over-watering of their coffee trees, believing that yields rise exponentially with increased watering. Since most farmers rely on private wells, this puts an additional strain on groundwater supplies (Nguyen & Nguyen, 2019: 58).

Investment in irrigation systems has so far not been sufficient, and now farmers are being forced to find other coping strategies that are “more reactive and mainly involve temporary adjustment of livelihood activities in response to drought” (Nguyen & Nguyen, 2019: 59). The primary response has been to increase the depth of existing wells, dig new ones or share with neighbours. However, due to falling groundwater supplies none of these are very effective, often not even in the short term. Beyond this farmers have been forced to change their watering schedule and cut back the volumes use. But there has also been an increase in intercropping with other cash crops such as pepper and avocado or food crops such as maize and cassava. Pepper especially has seen a rapid uptake, with farmers in some cases switching completely from coffee. However, monoculture pepper cultivation is even more damaging to the environment, and requires more capital, than monoculture coffee production (Thuy et al., 2019: 11).

Other coping strategies include an increased search for off-farm work “as industrial workers, as vendors in urban areas, and using the money to hire farm labourers” (Nguyen & Nguyen, 2019: 60). Integrating livestock rearing with coffee cultivation is also increasing, above all goats. This is due to the fact that farmers have found that they can feed them with plant material which would otherwise be considered as waste, meaning that goats have a high potential “in the context of water scarcity because of feed availability and high demand for goat meat” (Nguyen & Nguyen, 2019: 61).

#### **Culture and Customs**

While not in the vein of traditional customs such as those mentioned in Papua New Guinea and parts of Indonesia, the coffee growers of central Vietnam do have their own historic peculiarities. However, they are not the result of decades-old traditions, but rather of recent developments. These can be summed up in one word: mobility. “In Vietnam, the production boom took place with the ‘frontier’ expansion of coffee cultivation in the Đắk Lắk province located in the Central Highlands” (Daviron & Ponte, 2005: 58). Between 1990 and 2000 the area used for growing coffee grew by 14% per year, while the “population density increased from three inhabitants per square kilometre in the 1930s to 77 in 1997” (Daviron & Ponte, 2005: 58).

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On the one hand there are a large number of migrant households, both inward and outward. This means that “remittances could play a significant role as an economic safety net for coffee households under pressure” (Agergaard, 2010: 55). At the moment, however, there is little evidence of regular remittance streams as part of livelihood strategies in the area.

More importantly mobility itself is more directly a key component of the livelihood strategies of central Vietnam’s coffee farmers. Many retained their rice farms in the areas they migrated from, or at least kept them in the family. In some areas farmers regularly commute eight or nine hours from their coffee to their rice farms in order to work both. This, however is a privilege reserved to those migrant farmers, and something that the marginalised indigenous population of the central highlands has no access to (Agergaard, 2010: 55).

Others have reported to using this dual-residency in their favour in another way beyond a mere safety net. “Interviews with coffee farmers reveal that, at various points in time, by ‘playing’ the household registration system, they have been able to claim services and opportunities in both locations” (Agergaard, 2010: 55).

And finally mobility is somewhat being forced upon all residents of central Vietnam. As local markets are getting more expensive, and government subsidies dry up, local are forced to travel ever greater distances to purchase necessities. Despite this “between 20 per cent and 40 per cent of households do not possess their own means of transportation, which is particularly problematic in Ea Siên and Ea Nam, where there is only limited access to public transportation, and from where people have to travel longer distances not only to work, but also to access services” (Agergaard, 2010: 55).

Increasing droughts and water scarcity are another factor which will only increase the need for mobility for Vietnam's coffee farmers. For some time it has been a popular risk reduction strategy across the country and elsewhere, especially in times of drought (Opiyo et al., 2015; Nguyen & Nguyen, 2019).

#### 4.3.4 Recap

The livelihood strategies of coffee farmers vary quite starkly not only from country to country, but also within them. This is especially obvious in the case of Indonesia, where not only livelihood strategies but also customs and culture are very different from one region to the next. It is difficult to speak of one Indonesian livelihood context, but the overarching theme is a generally high level of diversification among smallholders. The exact agricultural practices differ almost as much as the cultural ones. Papua New Guinea's coffee farmers also practice a high level of diversification, consisting mainly of cash crops grown in addition to subsistence agriculture. Vietnam's coffee areas, on the other hand, are characterised by low levels of diversification, negligible subsistence production and monoculture cash-crop cultivation. However, this is slowly changing, due to financial, environmental and government pressures.

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Regarding traditional customs, they are absolutely central in some areas of Indonesia, for example Sulawesi, but less have less of an impact in others. In Papua New Guinea they remain strong, but have been changed by coffee cultivation. In Vietnam it was migrant labourers from other parts of the country that displaced the indigenous population and their customs from the now booming coffee belt, and mobility remains an important part of livelihood strategies for them.

|                                                         | Indonesia                                                                                                                                                                           | Papua New Guinea                                                                                                           | Vietnam                                                                                                               |
|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <b>Subsistence, Cash-cropping &amp; Diversification</b> | Varies highly by region.<br>But in general high diversification by smallholders.                                                                                                    | High diversification.<br>Ubiquitous subsistence agriculture.<br>Coffee most important cash crop, esp. in remote highlands. | Low diversification.<br>Hardly any subsistence agriculture.<br>Slowly changing.                                       |
| <b>Culture &amp; Customs</b>                            | Highly diverse.<br>Important ceremonial economic in Sulawesi.<br>Swidden agriculture & matrilineal inheritance in Semendo, S. Sumatra.<br>Customs not equally important everywhere. | Strong traditional customs.<br>Coffee sometimes undermines, sometimes adopted alongside them.                              | Traditional customs not major factor.<br>Tendency towards mobility as result of previous migrations into Coffee Belt. |

Table 4: Livelihood Context Recap

## 4.4 Institutional Context

### 4.4.1 Indonesia

#### State Policy, Support & Infrastructure

*The endemic problem of Kolusi, korupsi and nepotisme (collusion, corruption and nepotism) among local bureaucratic elites sees them shaping institutions to suit their interests. (Bray, 2018: 14)*

Overall, all the efforts towards rural development in Indonesia today are “set within a common bureaucratic administrative framework, standardized during the Suharto era” (Bray, 2018: 7). Much like in Vietnam, state policy in Indonesia following independence up until the 1980s followed an interventionist approach, with a focus on self-sufficiency and then cash crops (Durand & Fournier, 2017: 93). There is a growing realisation of the need for rural development, and the Indonesian government has named coffee as one of its ‘national leading commodities’ (Saragih, 2013: 93). But despite this, government support for agriculture today still often prioritises food production as a base for national self-sufficiency over export commodities (Neilson & Wright, 2017).

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As has already been mentioned, from 2007 onward the Indonesian government has also actively supported the development of geographical indications (Durand & Fournier, 2017: 94). However, this interest seems to largely be driven by domestic political considerations, rather than a genuine desire for rural development. Instead they are treated as tool to gain popularity and reinforce traditional ceremonial and power relations between local politicians and the rural population. As a result “the misalignment of lead firm priorities and the regional institutions supporting Geographical Indications in the Indonesian coffee sector has resulted in failure to successfully capture the place-related value embedded within specialty coffee products” (Neilson et al., 2018: 46).

Despite overall weaknesses, there have been some successful government interventions. For example in Bali, where through state support the Kintamani coffee built up a reputation. “Through the initial ICCRI [Indonesian Coffee and Cocoa Research Institute] intervention, quality improved significantly and the Kintamani name became associated with high quality coffee, attracting interest from both foreign and domestic roasters (unlike Sulawesi, Kintamani was not really a recognized specialty origin prior to the intervention)” (Vicol et al., 2018: 32). This shows the potential for serious, targeted state interventions.

Overall though, rural Indonesia is still dominated by social networks of patronage. Often institutions in rural areas across the world “are not neutral arbiters of access but rather, highly politically charged ones” (Scoones, 2015: 47). And so it is also in much of rural Indonesia. One study of southern Sumatra shows this by highlighting how pre-existing inequalities have affected who gets access to voluntary certification schemes and who does not. Furthermore, “across the study villages, patronage is readily evident between coffee traders and their suppliers, usually in the forms of informal credit, which traders use to guarantee supply” (Bray, 2018: 15).

The government itself realises many of these problems and is among other things planning its own sustainability standard to combat them. “A foresight study of the implementation capacity of ISCoffee (Indonesian Sustainable Coffee) reveals similar problems of weak administrative structures, coordination deficiencies and market uncertainties” (Glasbergen, 2017: 247).

##### **Non-state actors**

In the face of often inadequate state support, big supply firms have begun to dominate value chain governance and have become increasingly important providers of local improvements programmes (Neilson et al., 2018 38).

As already mentioned with regard to voluntary certification schemes, while the Indonesian state supports the development of geographical indications (and is developing its own sustainability standards), it is the sole responsibility of export firms to regulate all other certification schemes. As a result they take up a powerful position not only in the value chain but in local governance as well. “Although participation into

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certification schemes is voluntary in principle, in practice it is often the buyers who select farmers” (Vellema et al., 2015: 15). In Sumatra it has been shown that selection is often “dependent on company policy concerning land titles, accessibility to the road network, the extent of prior training support for farmers, and the apparent strength of producer organizations” (Bray, 2018: 7).

While non-state actors initially stepped into the void left by the state, their importance now serves as a pretext for the government to divert funds elsewhere, thereby reinforcing this imbalance of power. While not necessarily a bad thing in itself, the current situation is far from perfect and leads to problems such as leaving “farmers dependent on the shifting whims of corporate priorities for inclusion in coffee training programs” (Bray, 2018: 14).

##### **Farmer Organisations**

Farmer organisations in Indonesia are an important link between farmers, local governments and global value chain actors, perhaps even more so than elsewhere. They were set up by the government in 1979 in order to distribute government aid to farmers. From 2001 they assumed an additional task, namely to negotiate the use of protected forests for coffee production (Arifin, 2010). Farmer groups in Indonesia are thus formal, state-sanctioned institutions which are regulated by the Ministry of Agriculture. They are “defined as a group of farmers formed on the basis of mutual interest, similarity in commodities, and geographic proximity [and their] main functions are to enhance cooperation among farmers, facilitate learning processes, and to help distribute tools, farming inputs, and credit from the government to farmers” (Ibnu et al., 2018: 391). On average groups of Indonesian coffee farmers have around 30 members, which are usually situated in and around the same village.

The very nature of farmer organisations in Indonesia has meant that they have been a major vehicle for patronage networks. “The creation of farmer groups with government sanctioned heads developed a system of patronage, which gave specific economic and social advantages” (Bray, 2018: 16). The result has often been disillusionment and disorganisation. Despite some progress being made, often it is still the heads of farmer groups who are at the front of the queue when it comes to service provision, market access or aid.

Since smallholders cannot be certified individually (Brandi et al., 2013; Bitzer et al., 2013), they depend on farmers groups that link them to cooperatives. “In Indonesia we observe three types of farmer organisations in the coffee sector: farmer groups (*kelompok tani*), cooperatives, and KUBEs (*kelompok usaha bersama*, or joined business groups). These organisations have different structural characteristics and are managed by different ministries with varying sets of rules” (Ibnu et al., 2018: 388). But the importance of farmers groups also goes beyond access to certification programmes.

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Organised farmers furthermore receive better access to credit and technical services and also perceive better access to know-how (Ibnu et al., 2018).

Providing adequate organisation has proved difficult, and the Indonesia's coffee sector especially has been plagued by a "long history of scattered, not well-functioning farmer organizations regulated differently by different ministries" (Glasbergen, 2017: 247).

Another particular problem plaguing coffee farmer organisations in Indonesia is the difficulty in holding them together over an extended period of time in the face of extreme opportunism by many farmers (Wijaya et al., 2017). "The moment they - justifiably or not - see opportunities for more profits by going their individual way, they disregard the commitments with their fellow producers" (Glasbergen, 2017: 247).

##### 4.4.2 Papua New Guinea

###### State Policy, Support & Infrastructure

Papua New Guinea's medium-term development plan places a clear emphasis on developing agriculture and rural areas in general. "Agriculture is listed as a priority, including the production of staple crops to increase food security and the promotion of commercial crops to increase incomes" (World Bank, 2019b: 31).

"Several core agencies provide government support to the agriculture sector. The main agriculture agencies are the Department of Agriculture and Livestock (DAL) and the commodity boards" (World Bank, 2019b: 30)

The DAL is largely responsible for policy formulation and implementation and is also tasked with assisting with provincial governments' provision of extension services. There is a commodity board for every major export cash crop, including the Coffee Industry Corporation (CIC) that deals with coffee.

However, apart from the commodity board for palm oil, budgets are rather limited and "overall, government support to the agriculture sector has declined over the [last] decade" (World Bank, 2019: 30). While there are no formal divisions that define the responsibilities of the Department of Agriculture and Livestock vis-a-vis the commodity boards, in practice the former deals with subsistence agriculture and cash crops for the domestic market, while the latter focus on their designated export crops. This institutional chaos is cited as a major barrier to more effective government support for sustainable rural livelihoods, along with a lack of coordination and funding (World Bank, 2019b: 42)

Up until recently, the government of Papua New Guinea has followed the 'Training and Visit' (T&V) system which was promoted by the World bank until the 1990s as the system to provide extension services. However, this system was found wanting around the world, as it led to problems such as high costs, while "government employees often did not receive adequate training or resources to deliver the services to large numbers of

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smallholders” (Api et al., 2009: 33) There has since been the plan to implement a wholesale reform and restructuring based on Asian Development Bank (ADB) suggestions (cf. ADB, 1998). In Papua New Guinea the Coffee Industry Corporation is in charge of these reforms.

However, there has been little evidence of improvements and provision of extension services in Papua New Guinea remains very low. There are two main reasons for this:

On the one hand, a complex and poorly understood organic law, which governs the relationship between the national, provincial, district, and local governments, impedes the provision of services, including extension services. On the other, and more generally, the practice of appointing unqualified personnel, motivated by political gain or nepotism, creates conditions which make policy development and implementation unworkable. (World Bank, 2019b: 35)

While the commodity boards perform slightly better in this respect than the Department for Agriculture and Livestock, “in general, rural villagers in Papua New Guinea sustain themselves rather than relying on government institutions for support” (World Bank, 2019b: 35).

Papua New Guinea's topography, with its mountainous and forest regions, is a large barrier towards providing good transport infrastructure.

In 2002, 53 percent of the population lived within 5 km of a national road. The condition of these roads has improved; 46 percent of national priority roads were in good condition in 2011, up from 33 percent in 2007. However, more than 75 percent of national, district, and rural roads are impassable during some part of the year.” (World Bank, 2019b: 33)

Lack of infrastructure is mainly a problem for perishable goods, i.e. fresh food, that has to be transported to the main markets in urban areas. But it does also have a big effect on high volume export goods such as coffee and cocoa.

Apart from the road network, the country also boasts 22 airports and hundreds of smaller airstrips scattered throughout the countryside. While these are often an important link, deterioration and high costs mean that they are not always a viable option for transporting goods (World Bank, 2019b: 34).

#### **Non-state actors**

To fill the void let by minimal state provision, NGOs and other civil society organisations have stepped in, but so far not to any notable degree. As already mentioned, the recent slow revival of the coffee plantation system has the potential to fill the gap with proper centralised processing and marketing facilities. This is especially important considering over the years much of the coffee producing rural population has grown more rather than less isolated. In the face of general infrastructure deterioration, coupled with many coffee processors moving to urban centres, the plantations could provide much-needed services

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and help revive the quality of smallholder coffee in Papua New Guinea (Sengere et al., 2019: 224).

##### **Farmer Organisations**

Farmer cooperatives in Papua New Guinea go back to colonial times, with the first coffee cooperatives being founded in coastal regions in the 1940s. The first one in the highlands was founded in 1964 and until the late 1980s they were established across all major coffee-growing areas. However, despite their spread most of them were doomed to fail and did not live up to their promise (Sengere et al., 2019: 225). The main problems that led to their demise were a lack of supervision, financial mismanagement, a lack of social cohesion and poor leadership in general (Singh, 1974; Murray-Prior et al., 2009). One major factor behind these failings could be the fact that they were established according to western standards without taking into account local peculiarities (Sengere, 2019).

Not only do the reasons for the demise of Papua New Guinea's coffee cooperatives echo those of the failure of its plantations system, but cooperatives have the potential to provide many of the same benefits that functioning coffee plantations would. "Opportunities exist for smallholder farmers to collectively market their coffee through grower cooperatives and develop partnerships with value-chain leaders (such as processors, exporters and successful plantations)", to provide better services and help increase coffee quality and prices (Sengere et al., 2019: 225).

A recent case study highlights the potential that well-running cooperatives have to improve not only the quality of coffee they grow, but also the lives of the rural population of the highlands:

"The CC1 group was formed in 2008. It currently has a total of 647 members with 226 ha under coffee. From 2009 to 2015, the group sold 233 tonnes of green bean, earning its members K2.4 million." (Sengere et al., 2019: 226)

The cooperative is Fairtrade certified and not only enjoys price premiums but has also achieved above-average yields. The increased income has not only gone to individual farmers, but the cooperative used the funds to improve local services, such as the water supply and primary school. It also has been used as a means to diversify away from coffee, for example by setting up a transport business (Sengere et al., 2019: 227).

Even the second case study of a cooperative, which serves as a contrast due to its worse management and social cohesion, has brought some benefits to the local community. While there has been no diversification drives, there have also been improvements to the local water supply as a result of higher prices enjoyed by their certified organic coffee (Sengere et al., 2019). The problems identified in this study, however, echo some of those noted in the past which have found that coffee farmer groups in the Papuan highlands often suffer from low trust among their members, which in turn leads to the other problems already mentioned (Murray-Prior, 2008).

### 4.4.3 Vietnam

#### State Policy, Support & Infrastructure

Despite market reforms, Vietnam has continued to employ an interventionist approach to agriculture since the 1980s, with a focus on food self-sufficiency first and cash crops second (Dourand & Fournier, 2017: 93). As already mentioned, this includes a push to promote the development of geographical indications since the 1990s. But the role of Vietnam's government in agriculture is by no means limited to this aspect. Since the 1990s cash crops have become more important in the eyes of the government, which scrapped the principle of regional (although not national) self-sufficiency in rice production in favour of stimulating “agro-forestry production directed towards export”, including coffee (Agergaard et al., 2010: 51).

The key ministry for the coffee sector is the Ministry for Agricultural and Rural Development (MARD). “Various departments and organizations of MARD directly manage and oversee the coffee industry of Vietnam, such as the Department of Crop Production (DCP), Agro-Processing and Market Development Authority (Agrotrade), International Cooperation Department (ICD), Vietnam Coffee Coordinating Board (VCCB)” (ICO, 2019a: 23). In addition to these there are also a number of research and development institutions under the MARD, including the BaVi Research Centre (BRC), which was “specifically set up for Arabica research in North Vietnam” (ICO, 2019a: 23).

Despite de-collectivisation and privatisation of agriculture – the vast majority of coffee farms are today family-owned – state owned enterprises (SOEs) retain a strong presence in other parts of the coffee value chain. The perhaps most prominent of these is the Vietnam Coffee Corporation (VINACAFE), an umbrella organisation that manages 59 coffee SOEs, including 40 farms. “These state farms work with 27 SOEs, including processors, traders, and service providers providing credit, fertilizer, irrigation, research and roasting. VINACAFE took over the supervision of the SOEs from MARD in 1995” (Marsh, 2007: 13). However, there is a continued process of liberalisation and privatisation which looks set to affect the businesses under VINACAFE in the near future.

Another example of continued connections of the government to the coffee industry is the Vietnam Coffee and Cocoa Association (VICOFA), which was established in the 1990s and acts as a sort of link between government and businesses in the sector:

Members of VICOFA are normally traders in the coffee industry. Except for state-owned companies like Vinacafe, which are both producer and trader, farmers and coffee producers are not members of VICOFA. In addition, some companies, especially private ones, have not seen the benefit of the association and have not joined it. Due to its limited representation, VICOFA has not played a coordinating role in the coffee industry. (Roldan-Perez et al., 2007: 45)

But due to these limitations VICOFA overall does not play an important role in the country's coffee industry, as it has “limited regulatory power or disciplinary power and is

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not particularly pro-active. Membership is not mandated and the organization is de facto mostly an association of exporters with little farmer or trader representation” (Havemann et al., 2015: 113).

In the face of droughts in coffee producing areas, both central and provincial governments have become more interventionist in their push to promote coping strategies. However, these “government interventions have been not effective in addressing the problems [and] as a result, farmers have developed their own strategies to cope with water scarcity for coffee production and their livelihoods” (Nguyen & Nguyen, 2019: 63).

Recently there have been some moves to improve things. Most notably “the Coffee Coordination Board (CCB), established in 2013 with both public and private representation, offers the potential for a unified and coherent governance structure for the industry, including on matters of environmental sustainability” (Havemann et al., 2015: 100). It remains to be seen whether this will be successful.

##### **Non-state Actors**

In the absence of a strong governance structure in the Vietnamese coffee sector, there are a number of NGOs and other non-state stakeholders. Apart from the various certification organisation these include the World Bank, the World Wildlife Fund (WWF), as well as various other international development agencies and investment firms (Havemann et al., 2015: 108).

However, overall non-state actors have not been able to provide stronger governance to the coffee sector of Vietnam:

“Considering the size and strategic importance of the coffee industry for Vietnam, the sector is characterized by relatively weak governance structures, be they public or private. This can be seen in both the lack of collective action which has characterized the industry, as well as the limited amount of regulatory oversight that applies to a number of sector activities.” (Havemann et al., 2015: 112)

##### **Farmer Organisations**

The coffee sector of Vietnam is not only characterised by weak regulation and governance structures, but also by a lack of collective action. This is true for the industry as a whole, but especially so for farmers. “The level of organization is low among farmers, with there being few well-functioning cooperatives” (Havemann, 2015: 102).

Smallholders have “little bargaining power in the supply chain” (Havemann et al., 2015: 103), but paradoxically still receive around 90% of the export price for themselves. This might be one factor that means there is little incentive to develop stronger farmer organisations.

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Programmes run by the 4C scheme have had some positive effects on farmer organisation in the country, but there have so far been few signs of their positive impacts on on-farm practices or increased prices. One study concludes that an increased “participation in farmers organisations (...) can be seen, but benefits are limited thus far” (Kuit et al., 2010: 11).

##### 4.4.4 Recap

State policy again is quite different country by country, but one overarching theme emerges: a lack of provision of support services and generally bad governance. Both Indonesia and Vietnam are considered to have an interventionist approach, and both consider coffee as being of great importance for development, together with other cash crops. Indonesia classifies it as a ‘nationally leading commodity’ and Vietnam a ‘strategic resource’. Although the Indonesian state has been somewhat successful in streamlining the process to register GIs and offered support, these are outweighed by the fact that patronage networks and corruption still dominate rural areas. In Vietnam the main problem is bad governance due to overlapping responsibilities of state agencies, with no clear responsibilities. The state in Papua New Guinea is in an even weaker position, and in addition to little support and a lack of extension service provision, the country is plagued by deteriorating infrastructure.

The picture regarding non-state actors is highly complex, and has here been reduced to the most interesting facts of the various countries. In Indonesia export firms stand out with their monopoly of handing out certifications to farmers who often do not even know what they are. A strong presence of corporations and NGOs in the sector has been taken as an excuse for the government to cut back funding. In Papua New Guinea the most promising non-state actors at the present time are the plantations that are slowly being revived and have the potential to provide not only employment but also crucial infrastructure to increase the smallholder coffee of the surrounding areas. In Vietnam the private sector is also classified by rather weak governance just like the state, but there have been some successful training schemes.

The case of farmer organisations also varies starkly between the countries. In Indonesia, they are official state-sanctioned entities, and while they often provide an important link between farmers, value chain actors and local governments they are often unstable and also plagued by patronage and corruption. In Papua New Guinea they also have a long history but have not been very successful. Recently there has been a revival of cooperatives, offering similar potential to that of the plantation sector. Vietnam’s coffee sector is characterised by a general low level of collective bargaining, especially by farmers.

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|                                                   | <b>Indonesia</b>                                                                                                                                                                                                          | <b>Papua New Guinea</b>                                                                                                          | <b>Vietnam</b>                                                                                                                                |
|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>State Policy, Support &amp; Infrastructure</b> | <p>Interventionist approach.</p> <p>Coffee a 'nationally leading commodity', but food still prioritised.</p> <p>Some successful support for GIs and specialty coffee.</p> <p>Patronage and corruption in rural areas.</p> | <p>Little state support.</p> <p>Deteriorating infrastructure.</p> <p>Lack of service provision, but recent reform promising.</p> | <p>Coffee strategic resource.</p> <p>But bad governance.</p> <p>Number of overlapping responsibilities.</p> <p>Lacking service provision.</p> |
| <b>Non-state actors</b>                           | <p>Export firms powerful, have monopoly over certification.</p> <p>NGO and corporate presence an excuse for government to cut funds.</p>                                                                                  | <p>High potential of plantations.</p>                                                                                            | <p>A number of organisation present.</p> <p>But also bad governance.</p> <p>Some successful training schemes.</p>                             |
| <b>Farmer Organisations</b>                       | <p>Have long history.</p> <p>Important link between farmers, value chain and local governments.</p> <p>Unstable due to opportunism.</p> <p>Also plagued by patronage and corruption.</p>                                  | <p>Long history, but not successful.</p> <p>Revival of cooperatives similarly important to that of plantations.</p>              | <p>Low level of organisation and collective bargaining.</p>                                                                                   |

*Table 5: Institutional Context Recap*

# 5. Findings & Analysis

## 5.1 Production Systems

For the purpose of this thesis the production systems of coffee have been divided into three main categories: geography and climate, social relations and production practices. While the former sets hard boundaries and certainly influences the latter two, there is still significant scope for change. One of the most important factors from the standpoint of rural development is the quality of coffee produced, as often it is directly linked to the price it fetches. All three categories have a direct effect on this.

To get a better understanding of the issues raised, as well as the theoretical arguments surrounding coffee and rural development, this section will attempt to draw some parallels with the research done on the pioneer region of specialty coffee growing: Central America. This will not be an attempt to either treat each country individually, nor give a completely balanced account of all of them, but data will be drawn from the various countries of the region to put the findings from Southeast Asia into perspective: Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama (one could and should perhaps even include southern Mexico).

The main issues raised in this section are the physical limitations that climate and geography place on coffee cultivation, but also issues surrounding smallholder coffee and quality.

### Topographic Limitations

Before moving on to the more detailed discussion of coffee production in Indonesia, Papua New Guinea and Vietnam, one thing should be stated very clearly at the outset. It should be obvious that, perhaps more than any other factor, climate and topography set very hard limits to what can and cannot be grown, and how it can be cultivated. This is already apparent in the fact that coffee can only be reasonably cultivated in a 'belt' around the equator (Hoffmann, 2018). But among coffee-growing countries and regions themselves, these natural conditions set a very different framework. All types of coffee require ample rainfall and fertile soils, but Arabica more so than Robusta. Furthermore, Arabica requires high altitudes and cooler temperatures, while Robusta flourishes at lower altitudes and higher temperatures (Hoffmann, 2018: 13).

Indonesia and Papua New Guinea are blessed with almost perfect conditions to cultivate coffee, both Arabica and Robusta. Indonesia used to be the main producer of Arabica coffee in the world and it was disease, rather than geographical limitations, that led to its substitution with Robusta. Papua New Guinea only ever really produced Arabica, with Robusta relegated to a few small areas. What this means is that in discussing the various options for rural development through changes in coffee production and

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processing, these two countries are benefited with ideal natural conditions. At least so far – climate change may affect this in the future.

Vietnam, on the other hand, is already today very limited by its climactic and geographic circumstances. Arabica can only be properly grown in a small number of areas, most of the country is limited to Robusta production. While Vietnam has managed to turn this into a strength and risen to a dominant position in the global export of Robusta coffee, there are big limits to the expansion of the specialty coffee production, which would promise higher prices. Furthermore, the country is already currently struggling with drought and climate change will quite probably exacerbate it in the near future.

### **Smallholders Dominate, But Differ**

Unsurprisingly, smallholder farmers are the backbone of coffee production in all three countries: between 85% and 95% of coffee is produced by smallholders across Indonesia, Papua New Guinea and Vietnam. This is very much in line with the global picture, where smallholders also account for the vast majority of production (Tucker, 2017: 93).

In this respect the Southeast Asian situation is not only in line with the global average but also very much similar to the situation in Central America. While South America has historically had a slightly more extensive plantation system, Central America is dominated by small and medium farmers. In Costa Rica, for example, between 92% and 98% of coffee farmers qualify as smallholders, depending on the exact definition (KFPE, 2006). At the very least 92%, since that is the number that have less than 5ha of coffee and would thus fall under the category of smallholder (Gerz & Avelino, 2006: 67).

Considering Central America's pioneering role in specialty coffee production, it would seem that a coffee sector dominated by smallholder farmers is not necessarily a hindrance to the production of good quality, high-value coffee, and could even be conducive to it.

The fact that most coffee is produced by smallholders, however, does not mean that it is produced every in the same way. Smallholder farmers vary markedly across regions, for example in their general livelihood strategies. Coffee smallholders in Vietnam generally focus all their energies on coffee, with little comparatively diversification and food self-sufficiency. Those in Papua New Guinea are the polar opposite, with highly diversified crops focusing on subsistence and supplemented with cash crops like coffee. Indonesia is internally highly diverse, although most coffee farmers seem to diversify more than in Vietnam. Cultures and Customs vary even more from region to region, even within countries, especially Indonesia. And these differences affect production practices, but more on this later.

Furthermore, smallholder farmers also differ in their know-how and their practices – how they harvest and process the beans. Even within Indonesia these differences are

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stark. Although the traditional method peculiar to the country (the semi-washed *giling basah* method) is widespread, growers of specialty Arabica are being urged to switch to fully washed processing in order to increase the quality and differentiation of their product. And many are doing so. Robusta on the other hand is often dry processed. Farmers in Papua New Guinea generally fully wash their coffee in communal mills, while coffee in Vietnam is often only minimally dry processed or sold directly as cherries to middlemen.

One common theme across all countries and regions is whatever the practices, coffee smallholders generally seem reluctant to change their ways, even in the face of scientific evidence or promise of greater reward through increased quality. And this brings us to the next important issue.

### Quality Matters

The major factor in securing higher prices for coffee is above all its quality. And this, more often than not, is where smallholders are lacking. As we have seen, this is a major problem for the coffee produced by smallholders in Papua New Guinea, especially since the demise of the country's plantation system. Not only has the country's coffee taken a reputation hit, resulting in certain marketing difficulties, if not barriers, but vital infrastructure has been lost that would be able to increase smallholder coffee quality.

The picture in Indonesia is highly varied, but many areas show that smallholder coffee does not have to be of bad quality, as the country has many well functioning areas where specialty coffees are grown that are sought after on the global market. Still, there are also problems and scope for improvement in many areas with regard to farming, harvesting and processing practices. As we have seen, in places such as South Sumatra there is still a reluctance by many farmers to change their ways, despite efforts to get them to improve their coffee quality.

Vietnam is an interesting case when it comes to coffee quality. Not only because the country produces mainly Robusta, and so 'quality' has a slightly different meaning. Of course quality also matters with regard to Robusta, and harvesting and processing practices are as important factors as with Arabica. But due to the inherent limitations of the plant, Robusta coffee will never reach the levels of quality (in terms of taste and aroma) that specialty buyers seek in Arabica beans (Hoffmann, 2018: 12). What is very peculiar about Vietnamese Robusta coffee is that although there exists significant scope to increase its quality, the market so far seems to favour the bulk of cheap and low quality beans that are currently produced, with little incentive for farmers to improve their practices.

This is in stark contrast to Indonesia and Papua New Guinea, where there is both scope to increase the quality of coffee produced by adopting improved harvesting and processing practices. And in the case of Indonesia there are also ample opportunities for

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farmers to convert to growing high-quality Arabica beans instead of Robusta in the first place.

### 5.2 Certification

The certification of coffee is another factor that is of great interest for rural development, with proponents hoping not only for increased prices but also increased sustainability. The term ‘sustainability’, however, is somewhat elusive and means different things to different people and agencies. Add to this the fact that the world of coffee certification has become somewhat of a jungle and many schemes have not lived up to their promises. Geographical indications and direct trade relationships have been hailed as potential drivers to overcome the limits of traditional certifications but the evidence so far suggests that they have a long way to go.

The main issues here are the meaning of sustainability, whether geographical indications are anything more than marketing tools and whether direct trade initiatives can potentially be expanded and made more dependable. This section will finish with a look at some of the benchmarks, both positive and negative, of coffee certification across the world.

#### The Road to ‘Sustainability’

There are two main ways to define sustainability in the context of coffee growing: environmental and socioeconomic. And this division, in fact, can be seen in the way in which different certification schemes place their focus.

The evidence suggests that certification can have positive effects, but that it does not provide them automatically. Often there are some price premiums involved, though these are hardly life-changing. What is often far more important is increased know-how, organisation and marketing. However, the downside is that because of the way certification is applied, farmers very often have no insight into what they are signing up for, merely receiving directions from traders and exporters. Both the positives and negatives are very similar across the three countries, and differ on a case by case basis.

There are further questions thrown up regarding the relationship between the ‘two sustainabilities’. Can an environmentally sustainable way of producing coffee be successfully combined with rural social and economic development? Studies of Vietnam suggest that from a mere income perspective the two are not mutually exclusive: the most environmentally friendly ways of intercropping coffee with other cash crops also tend to give the biggest or safest return and demand less capital than other forms of intensive mono-cropping. However, it begs the question whether the least bad cases in these studies are anything approaching sustainability in either sense. And they are just a small sample, there is little large-scale evidence so far.

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Another question is what exactly constitutes social and economic sustainability. Is it merely to provide smallholder farmers enough income to satisfy their basic needs, keep them from destitution and provide some improved infrastructure development? Or rather is it something that provides real modernisation and development? Going on evidence rather than theory it is clearly at most the former. Certification schemes across all three countries have sometimes provided benefits but never so far been catalysts for real change.

And this leads us to the last question: are voluntary certification schemes the best way to achieve the goals they set out? Probably not. But perhaps they can at least make some kind contribution.

### **GIs: Legal Protection or Marketing?**

Geographical indications have been hailed by their proponents, both academic and otherwise, as the way to overcome the limits of traditional certification schemes and act as a true way to de-commodify coffee and help farmers capture more value-added. Indeed, there are some promising examples of this across the world, especially Latin America. One example is the well-known coffee growing region of Antigua in Guatemala, which was awarded the ‘Genuine Antigua Coffee’ GI in 2000. The GI helped stamp out widespread fraudulent use of the name that was leading to a devaluation of Antigua coffee. However, there is still room for improvement as the practice of transporting coffee into Antigua from other regions and processing it there still remains a problem (Hoffmann, 2018: 233).

However, Asia is lagging behind in this regard, and results so far are limited. Of the countries examined here only Indonesia and Vietnam even have any registered GIs. Of these only very few are for coffee: three in the case of Vietnam and 13 in Indonesia. Papua New Guinea not only does not have any registered GIs but does not even have any relevant legislation, treating them as common trade marks. This in itself might not be a problem, as other countries that do successfully protect origin products have similar legal contexts. But overall the picture painted in PNG suggests that GIs are currently not a priority, despite some of its coffee being traded and marketed as single origin.

As for Indonesia and Vietnam, the two countries that seem keener on developing geographical indications proper, there is little evidence yet of their coffee GIs benefiting coffee farmers. Just like with voluntary sustainability schemes, in some cases there are improved outcomes for the farmers, but these are far from ubiquitous or life-changing. Furthermore, in the case of Indonesia there have not yet even been any legal cases regarding the infringement of protected geographic denominations, begging the question whether they are anything more than marketing tools in this case.

Regarding Vietnam, one study concludes that “even though the Vietnamese legal framework for GI protection certainly is on par with all other WTO countries, legal protection is not sufficient in itself to turn GIs into successful tools for socioeconomic

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development” (Pick et al., 2017: 229). Furthermore, those geographical indications in Vietnam that are well functioning are all non-export commodities but instead local, fresh products, which seems to suggest that a local market is important. Pick et al. (2018: 331) put this down to the fact that for export commodities such as coffee (but also others such as star anise) the producers have no control of where it is sold and at what price, as they do with local produce. The main reason being the lack of organisation and negotiating skills of producers, putting them at the mercy of others higher up the global value chain.

This begs the question whether strong legal protections are necessarily needed, at least at this stage of development, for coffee producing regions. Do the coffee GIs that have reaped some benefits done so primarily because of the legal protection itself, or due to enhanced marketing value attached to well-known coffee origins? The case of Antigua in Guatemala, as already mentioned, suggests that legal protection is important. But in other cases this is not so clear, and certainly Hughes has his doubts, pointing to the fact that increased prices that the EU claims it receives for its GI products could be mere correlation and in fact the result of better quality products or better marketing. He goes on to say that: “EU-level GI protection globally would not create commercial or reputations value” (Hughes, 2017: 67).

### **Direct Trade: Drop in the Ocean or Unseen Potential?**

This brings us to the last type of initiatives that seek to enhance coffee farmers incomes and livelihoods: direct trade, or relationship coffee. A more recent phenomenon compared to voluntary sustainability schemes and geographical indications, relationship coffee is somewhat less studied so far. It is hailed for cutting out middle men (though never really completely) and said to offer similar benefits to certification schemes. In practice, it is a type of trade relationship which is often combined with various certifications and does not replace them.

Out of the three countries examined here there is only really reliable data regarding direct trade coffee for Indonesia. Looking at the offerings of various Western specialty coffee roasters, such initiatives do also exist in Vietnam and Papua New Guinea, but none of them have so far been independently studied.

The cases studied in Indonesia perfectly illustrate both the potential benefits of relationship coffee, as well as its drawbacks. In all cases the initiatives were welcomed by farmers, who began to reap both material and immaterial benefits. Their income was usually increased slightly, and they received support to improve their farming and processing practices and thus the quality of their coffee. But in all cases, for different reasons, the roasters soon withdrew and left farmers to fend for themselves despite promises of long-term commitment. In many cases this left them with an overcapacity, struggling to find other routes to market. In the long term they might still retain most of the benefits they reaped and continue to produce high-quality specialty coffee for better

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prices than before, but it shows that there is a problem of unaccountability of roasters who can renege on their promises as they please.

We should realise that roasters, even if they do genuinely want to improve the lives of coffee farmers, will always look at their bottom line first. For them direct trade has two main benefits. Firstly, as is the case with GIs and other certifications, labelling their coffee as directly traded can be a marketing boost and a way to set themselves apart from competitor. By constructing narratives around not only the quality of their coffee, but also its origin and how it is supposed to help development, roaster engage in what Daviron & Ponte called symbolic value and immaterial qualities. “As long as coffee farmers and their organizations do not control at least parts of this ‘immaterial’ production, they will be confined to the ‘commodity problem’ – even though coffee may be moving away from ‘commodity status’ in consuming countries” (Daviron & Ponte, 2005: xvii)

In some cases this weaving of narratives can take on an outright racist and orientalist character, as an example from one roaster’s description of his trip to Papua New Guinea shows: “this is an unsettling example to be sure, one that locates Papua New Guinea in a morass of primitivist imagery, colonial nostalgia, self aggrandizing travel narrative bravado of white exploration, outright falsehoods” (West, 2010: 702).

Furthermore, by working directly with coffee growers, roasters can potentially secure a steady supply of high-quality beans, and do not have to chase after them with an importer. As soon as these benefits no longer outweigh the cost and effort needed to maintain the relationship they will naturally cut the ties and look elsewhere. This is highlighted by the case in Indonesia, where the roasters allegedly terminated their relationship due to decreased bean quality. It was obviously cheaper or easier to look elsewhere rather than to maintain their relationship and try to help the farmers improve.

There are numerous reasons that could lead to roasters terminating their direct trade ties beyond those given in the study: financial pressures, decreased sale or consumer preference could all have similar effects. Which suggests that being overly reliant on a single buyer is not a safe and sustainable way for specialty coffee farmers to aid in rural development.

### **The Benchmark in Certification and Geographical Protection**

So how does all this compare to elsewhere in the world? Central American coffee producers are not only among the first to focus on specialty coffee production, but also in many cases pioneers in coffee certification. Regarding GIs, Costa Rica and Guatemala especially are among the front runners (Teuber, 2010). However, outcomes differ significantly across various studies.

For example, Bacon et al. (2008a) found that in Nicaragua widespread Fairtrade and organic certification has so far failed to lift smallholders out of poverty. UNIDO (2009)

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argues that this is due to higher standards leading to an exclusion of the poorest who cannot on their own achieve them. Similarly, Fairtrade is said to be a barrier to entry for many (Guthman, 2007) not least due to their restrictive stance towards non-cooperatives.

A more recent study of the same country, however, found more positives:

“Many households built up key elements of natural capital, including expanded areas under coffee production and renovated coffee trees. These investments helped to overcome the erosion of natural capital that took place during the coffee crisis. For households that depend on coffee production for most of their income, these investments are likely to have positive future impacts on rural livelihoods.” (Devaux et al., 2016: 116)

Furthermore, while incomes did not rise considerably, and many struggles with the buildup of capital, there was some significant investments as a result of certification: “The expansion of wet-milling infrastructure and equipment was one element of physical capital where considerable investments were detected” (Devaux et al., 2016: 117).

There has also been evidence of positive impacts of Fairtrade certification on women Utting-Chamorro, 2005; Utting, 2009, “despite a gender disparity favouring males in Fair trade enrolment” Bray & Neilson, 2017: 221).

While improved education is often something attributed to certification, Mendez et al. (2010) found little evidence of this in Central America. Indeed, where there has been a correlation, authors “are generally cautious in attributing causation directly to certification, citing possible external influences from other associated development projects or selection bias towards the initial involvement of better-educated individuals” (Bray & Neilson, 2017: 219).

Additionally, the costs of certification – both direct and indirect – can be significant, and must be factored in. For example in Costa Rica, Lyngbaek et al. (2001) argue that an increased price of at least 38% needed to offset the costs involved, including inspection and registration.

What this shows us is that certification is by no means a magical cure all that will automatically reap benefits, but that certain conditions have to be met. And furthermore, increased incomes are only one possible positive outcome, while in many cases the benefits manifest themselves indirectly. This was also seen across the various Southeast Asian case studies.

### 5.3 Livelihood Context

Of all the categories examined here the livelihood context is perhaps the most complex and most important one in relation to rural development. One of the big issues to emerge here is that of traditional lifestyles versus modernisation. How far are they compatible

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and from whose perspective is real modernisation and development seen as desirable? The other big issue, connected but not necessarily dependent on the other one, is that of livelihood diversification. This can be a strategy to maximise income or to mitigate risk, but is often constrained by other external factors from climate to capital requirements.

The issues in this section are development in the light of traditional cultures and customs and the scope for diversification among smallholders.

### **Traditional Cultures vs. Modernisation?**

The big issue to pose itself in the examination of different livelihood contexts and strategies of coffee farmers across these three countries was that of the meaning and desirability of development. This issue is perhaps least relevant in Vietnam, where most coffee is produced by internal migrant farmers who have already somewhat forcefully been pulled into modernity and displaced indigenous agricultural practices. But in many areas of Indonesia, as well as the whole of Papua New Guinea's coffee producing regions in the highlands, traditional lifestyles and cultures still play an important role.

In Papua New Guinea in many cases coffee is actually (like Christianity) rupturing the traditional belief and social systems. Coffee was from the beginning embraced by the village people of the highlands of PNG, and they now see them as important link not only to their country people along the chain but also to the wider world where coffee is consumed. Additionally, it is coffee that played a major part in establishing social classes in the country. No matter how much of an impact it may have had, however, Papua New Guinea's rural areas can still not be considered modern or developed and not just in a socio-economic sense. Despite the spread of Christianity, traditional belief systems and cultural practices still dominate the coffee growing highlands of PNG.

An even starker example of the frontier between traditional and modern in coffee growing areas is the case of West Sulawesi, where ceremonial economy strong and plays a more important part economically speaking than anything similar in Papua New Guinea. There farmers are unwilling to invest more time and effort into improving farming and harvesting practices, despite increasing coffee prices and the potential to increase them even further by producing better quality coffee. All this because, despite increasing, the coffee price is still falling relatively to the price of the buffalo that take up such a central part in the communities' ceremonial economy.

In Vietnam, on the other hand, traditional beliefs no longer play an important part for smallholder farmers in coffee producing areas. This might be due to its peculiar past, with socialist policies such as collectivised agriculture and modernisation drives drive. But also important is the fact that the influx of migrant labour into the coffee heartlands displaced many indigenous people and their farming practices in favour of intensive monoculture cash-cropping.

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At the end of the day all this may be out of the hands of individual farmers or organisations, if forces of modernisation would happen to sweep across these areas. The question of who desires what kind of modernisation and development will still remain important though. At the moment, though, it would seem that this requires a radical impulse from somewhere, and slightly higher incomes from coffee here and there will not be it.

### Scope for Increased Diversification

In any case, in many coffee-growing areas across Southeast Asia, we have seen that there exists not only significant potential to increase coffee quality, but also for smallholders to increase their level of diversification. Diversification here is possible both in the strict sense of agricultural diversification – increasing the types of different (cash) crops that are grown – but also in a more general diversification of income from other sources.

In general, for developing rural economies, the World Bank suggests a diversification of agriculture. For Papua New Guinea specifically it states that:

Alongside these traditional products, livestock, high-value coconut, spices, and other products such as galip nut are on the rise and are shown to provide positive returns. The benefits accruing to processors of virgin coconut oil are significant in terms of returns to labor. (World Bank, 2019a: 38)

Especially, but not exclusively, for regions that cannot grow coffee rearing livestock also presents itself with significant rewards:

Profit margins are estimated to be roughly 39 percent and 57 percent for broiler and pig farms, respectively. 78 Other than positive returns, the advantage of both of these products is that they provide relatively quick returns compared with tree crops. (World Bank, 2019a: 39)

While there is room to increase diversification everywhere, it seems to be most stark in Vietnam. While coffee-growing smallholders across Indonesia and Papua New Guinea already to varying degrees practice some significant diversification, most of those growing coffee or other cash crops in Vietnam's central highlands do not. For some time this may have made sense, with high yields and recovering coffee prices. However, the potential for price volatility remains and climate change and general environmental degradation look like they will make the kind of coffee monoculture systems that exist in Vietnam increasingly unsustainable.

Just like increasing coffee quality, diversification can not only be a means to create more security from market volatility or harvest problems, but it can also generate increased cash income for farmers. And many of the coffee farmers across the three countries are doing so already, even in Vietnam. However, just like with the increased income from coffee itself, the question remains of how far increased income from diversification can aid real rural development.

### 5.4 Institutional Context

The institutional context was a category that is both of central importance, but which was somewhat difficult to fit in. Many of the issues spread across the other categories, but at the same time deserve to be examined on their own. As it was employed here it serves to collect together some loose ends and round up the whole picture of coffee production and livelihoods in three countries.

The main issues here are value chain governance in lieu of state policy and provision, followed by farmer organisations.

#### Governance and State Policy

All three countries are characterised by a general lack of state provision. Although Indonesia and Vietnam are considered to follow an interventionist approach to agriculture, over the past years and decades this has been scaled back. In the case of Indonesia the expansion of corporate interests and NGOs in the coffee sector has given the government an excuse to retreat and cut back funds and service provisions. The government's roll-out of compulsory certification for coffee could also see a revived intervention in the sector, but it could also end up as a mere marketing exercise. Furthermore, rural politics in Indonesia continues to be plagued by corruption and patronage networks and this has a big effect on coffee growers as well.

And in Vietnam the state is hampered by bad governance structures and overlapping responsibilities of state institutions. There is, however, reform underway which might help overcome this. At present, however, levels of support and provision of extension services to the coffee sector remains low. So far non-state actors have also been slow to step into the void there.

In Papua New Guinea the state is certainly not considered to be taking an interventionist approach. The country is also characterised by a weak state presence in the sector and bad service provision. Furthermore, the country's already rather bad infrastructure, especially its road network, is degrading more and more, making it increasingly difficult for remote smallholders to bring their products to market. The benefit of coffee in this situation is that after processing it can be stored for a long time without degrading, but the situation certainly is not ideal.

#### Farmer Organisations Are Key

Much of the research suggests that well functioning farmer organisations play a key role in improving the outcomes of coffee smallholders. In many cases where on the surface certification is seen to improve farming practices, coffee quality and income, in fact it does so only indirectly. Almost everywhere where certification schemes show positive results, they do so *through* improving farmer organisation, rather than directly providing better incomes.

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In many cases it is difficult to differentiate between the two. For example in Indonesia the dependence on a farmer organisation for obtaining certification means that “difficult to differentiate between the effects of certification and of organisation” (Ibnu et al., 2018: 388). However, if one looks at the whole scope of evidence the picture becomes clearer. In many cases where voluntary certifications or direct trade schemes do not have a lasting positive effect, it is because they do not promote the development of good quality farmer organisations. Of all the factors examined here, farmer organisations seem to be the single most important factor in improving outcomes where coffee smallholders are concerned.

In Papua New Guinea, the resurgence of cooperatives, like that of plantations, offers a great potential to improve the lot of smallholder farmers. Not only does the evidence show that they are increased know-how, but they also provide much-needed processing infrastructure, where it would make little sense for smallholders to invest. Furthermore, they have the potential to offer better market access under potentially better conditions due not only to increased coffee quality but also collective bargaining. “Small-scale producer organisations earn more if they control other stages of the value chain as each step in the processing of the coffee bean increases the value of the product” (Slob, 2007: 133).

### 5.5 Price Premiums and Development

#### **The origin of price premiums: Certification, quality, marketing, organisation?**

Before concluding, a few more remarks are in order on the connection between cash crop price premiums and rural development. First of all, what has this investigation taught us on the origin of price premiums in the first place?

As we have seen, price premium for coffee have a number of sources that are hard to disentangle in practice. Among the first line are the quality of the coffee, market access and marketing and, to a degree, certification. All these are in turn determined by other important factors. The quality of the coffee, for example, is not only dependent on the geographical and climactic setting, but is also highly dependent on good farming and processing practices. The latter in turn depend in adequate infrastructure and know-how. Certification, *if* combined with training programmes, can also lead to better practices and thus better quality coffee, and it can also help with marketing considerations. And as we have seen, farmer organisations are an important institution that can link together smallholder farmers with all these factors needed to fully take advantage of the specialty coffee market.

In practice, then, it is difficult to speak of a single origin of price premiums. There is a complex web of factors that needs to successfully interplay in a specific location in order for it to be really beneficial to farmers. If one was pressed to highlight the most important

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factors they would surely be coffee quality and farmer organisation, rather than mere certification.

### Price Premiums and Development

Once one understands this complex web of the origin of price premiums, the question is whether they can be a catalyst for rural development, and if so how. There have been a number of examples from across the three Southeast Asian countries examined here where farmers have used increased income from coffee to invest in their private and communal infrastructure. Farmers have not only invested in the education of their children, but also in local schooling in general, and other communal projects such as improved water supplies (Sengere et al., 2019). In Papua New Guinea there were also examples of villagers using profits from coffee production to improve their infrastructure by forming a collective shipping company. But the question is whether all these small improvements can, even if multiplied, be a catalyst for a wider rural development. So far there is little evidence for this.

Another problem is the question of how far the benefits of the specialty coffee market can be spread at all. While consumption of specialty coffee is still growing across the affluent consuming countries (Hernandez-Aguilera et al., 2018), at some point there will be market saturation. Even today many farmers struggle to realise a market for their high quality beans. This situation is somewhat a mirror of what has happened to certified coffee in general. The market – both specialty and traditional – is awash with various certifications, so much so that a lot of coffee that is produced under certification is in fact sold to the world market as uncertified coffee (for lower prices) in order to be sold at all (Glasbergen, 2018).

Evidence from elsewhere certainly suggest that higher incomes from coffee alone are not conducive to widespread development. One study concludes that the shift to high value specialty coffee production in Central America has exacerbated the uneven development of its rural areas (Wilson et al., 2012). While there has been some transfer of wealth down the value chain “it was not the poorest of the poor but a peasant middle class that had the resources to benefit most” (Fischer, 2017: 22). While this experience may not be directly transferable to Southeast Asia, since this wealthier peasant middle class does not exist in the same way it had developed in Central America, it should still provide a warning.

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More than ten years have passed since Daviron and Ponte coined the term coffee paradox to describe the coffee boom in consuming countries that went hand in hand with the impoverishment of coffee growers in producing countries. Since then, we have seen a rise of the specialty coffee sector, especially in the affluent countries of the West. Specialty coffee puts an emphasis on quality and flavour and paints promises of price premiums and social development for coffee farmers. We have also witnessed the multitude of sustainability certification schemes become mainstream, that similarly offer to improve social conditions of farmers and/or protect the environment.

Southeast Asia, once the global centre of coffee production, has somewhat lagged behind other regions, such as Latin America when it comes to tapping into the specialty market, but is now slowly catching up. This thesis has attempted to gain an insight into the way coffee is produced across Southeast Asia – specifically Indonesia, Papua New Guinea and Vietnam. The aim was to understand how these countries fit into the global value chain of coffee and to understand the livelihood strategies of coffee farmers, all from the perspective of rural development. What this work has shown, is that while there are some issues that are shared across the three countries, there are many local peculiarities that have to be taken into account.

First and foremost is the geographical and climactic dimension which dictates what can and cannot be grown, and how this can happen. In our case this is most relevant to Vietnam, where the vast majority of the country simply is not suitable for the Arabica production that could yield higher prices. But also across the mountainous regions of Papua New Guinea, the natural landscape sets limits to what can be done. Drought is already today a severe problem in Vietnam and climate change might not only exacerbate it, but also come to affect coffee production elsewhere, including Indonesia and Papua New Guinea.

Despite this, across all the regions examined here, there is obvious scope to increase coffee quality and thus the income generated from it. While the specifics differ, there is hardly anywhere where farming and processing practices could not significantly be improved. In the case of Vietnam, a major disincentive to do so is that global buyers seem happy with the low prices of its coffee. But, like elsewhere, there is also the problem of low farmer training and sub-par extension services. In Papua New Guinea one of the major issues is a lack of processing facilities brought about by the decline of its coffee plantation system. And in parts of Indonesia it is traditional cultural practices that prevent farmers from investing more time and energy into coffee farming.

Voluntary certification schemes have made their inroads everywhere, but their impacts are mixed. Similar to evidence from elsewhere across the coffee-growing world, there is evidence that such schemes can provide very positive outcomes across the board:

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from training and education, to improved practices, productivity and income. But there is an equal amount of evidence that this does not have to be so. A number of different factors must all fall into place for such schemes to be successful, and the way in which these are expressed locally are different from location to location.

It is a similar picture with geographic indications, which are being hailed as the tool to overcome the limitations of regular voluntary sustainability schemes. They are hailed as properly de-commodifying specialty coffee, where VSS have led to a re-commodification, and thus make coffee farmers the producers of high-value origin products. But in reality geographical indications in coffee have so far been very limited. While there have been some success stories, they are far from a magic bullet, and it remains doubtful that they can be implemented for the majority of coffee producers.

And the same also goes for direct trade initiatives. The limited evidence from Indonesia shows very well how they can initially provide a number of benefits to farmers. They are provided with training and know-how, good prices and market access. That is, until the roaster pulls out and leaves the farmers to fend for themselves. For all the positive impacts that relationship coffee can have, being at the mercy of one buyer is not one. If this can be overcome, either by securing multiple potential buyers, or forging successful long-term relationships, the RCM would have significant potential.

Out of all the factors examined here, farmer organisation is probably the most vital to achieve improved outcomes for farmers. In many cases the benefits thought to accrue from certifications turn out to be more directly the result of an increase in farmer organisation as a result of the certification process. Well functioning farmer organisations improve the relative strength of smallholder farmers in the value chain not only by increasing their bargaining power, but also by spreading know-how and improved marketing. Furthermore, they have a great potential to increase coffee quality, by sharing improved processing infrastructure as well as collectively improving farming and processing practices.

One of the big questions that remains, however, is that of how any of this is to aid rural modernisation and development. There are many examples of coffee farmers using their increased incomes to improve the education of their children, or collectively investing in communal businesses and improving infrastructure, so there is of course some scope for positive development. But it is doubtful whether this can be anywhere enough to significantly contribute to whole scale rural development.

The second question connected to this is that of who desires modernisation. Rural development and modernisation is naturally proclaimed by various international organisations as a means to improve the living conditions in developing countries. And the governing elites of these countries will also consider it a matter of image. It is no question that objectively rural development has led to improved living standards across the developed and developing world, but it also has historically come with displacements and disruption of traditional ways of life. And it is possible that smallholders will want to

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resist full scale modernisation and content themselves with a marginally increased income from cash crops. In the words of one farmer of Papua New Guinea:

What happens if they don't want your kind of development? What do we do if they want to go back to the way things were before you people came and disturbed their lives? (O'Collins, 2007: 117)

This is not an easy question to answer, and in many cases, smallholder coffee farmers have embraced modernisation and development and want to improve their coffee and the income it generates. In any case it is a question that will not be asked by the global coffee value chains alone. If global economic processes and domestic political will drive forward modernisation there will be little to stop it, as was the case in the past.

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