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WOMEN IN COFFEE



The Role of Women-led Businesses in Southeast Asia's Coffee Value Chains

**Analysis of women's participation and opportunities
for growth in coffee value chains in Cambodia,
Indonesia, the Philippines and Vietnam**

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► Foreword

Coffee is one of the most widely consumed beverages in the world, but just how it is produced – and by whom – is still misunderstood.

The United States Agency for International Development (USAID) Green Invest Asia, a technical facility to increase private investment in sustainable agricultural and forestry businesses in Southeast Asia, conducted an eight-month study in collaboration with International Women's Coffee Alliance to learn more about the role that women-led businesses play in the coffee value chain in Southeast Asia, their competitive advantage and opportunities for growth in Cambodia, Indonesia, the Philippines and Vietnam.

The coffee sector has come under increased consumer pressure to produce more and better-quality beans. Coffee's popularity has grown in traditionally tea-drinking countries while consumers' more refined tastes worldwide demand higher quality. Southeast Asia's prominence as a global coffee exporter has grown in recent years, with Indonesia and Vietnam ranking among the world's top coffee producers.

That women play a large role in coffee value chains globally is widely known, but research has mostly focused on women at the producer level. Data remains scarce throughout the value chain. As the coffee industry faces challenges of changing land/growing conditions, consumer tastes and market demands, we ask: How can women be more integral in the solutions?

This is not an exhaustive or definitive study. Rather, it offers domestic and international coffee buyers insight into the potential opportunities and competitive advantages provided by women-led coffee businesses in Southeast Asia.

USAID Green Invest Asia
May 2019

► Overview

Coffee is a key commodity for several Southeast Asian countries, with total coffee exports from the region worth \$6.2 billion in 2017 or about 16 percent of world coffee exports. The region produces over 25 percent of the world's green beans¹ and includes the second and fourth largest coffee producers among its members – Vietnam and Indonesia, respectively. Nearly all coffee in Southeast Asia is produced on small farms of five hectares or less with millions of people relying on this production for their livelihoods.

Global demand for coffee is growing as more people in traditionally tea-drinking countries, such as China and India, increase coffee consumption. Growing sophistication in consumer taste and the rise of specialty and independent cafes have led to greater demand for premium coffee, which includes single-origin and Arabica coffee. Coffee chains now focus on sourcing better-quality coffee to meet this shift in consumer demand and taste. In Southeast Asia, while instant coffee mixes remain popular as an inexpensive convenient option, the expansion of international and local coffee chains frequented by students and business people alike, has exposed more people to higher-quality drinks.

In this context, this study focused on understanding the role and competitive advantages of women-led businesses in coffee value chains in four countries – Cambodia, Indonesia, the Philippines and Vietnam. Given the lack of data on women in coffee, particularly beyond the producer level, this study aims to plug the data gap by analyzing where women-led businesses tend to concentrate along the value chain, what their unique contributions are to the sector, and where their strongest growth opportunities lie.

Women's competitive advantages in the coffee sector that emerged in our reporting include: women are more meticulous than men in tasks that determine bean quality; women are better tasters², and have stronger sensory recollection than men, and; women, at least in Vietnam, are reported to be better business negotiators.

Women perform at least half the work in coffee farms in the region.³ They also lead tasks that directly affect bean quality - picking, sorting, and drying - and are found to be more meticulous than male farmers, thus improving bean quality and the value of coffee produced. With the market focus on sourcing better-quality coffee, recognizing and leveraging this competitive advantage becomes of critical importance for coffee buyers.

More women are also becoming first-generation coffee entrepreneurs, taking over family coffee businesses and making inroads into traditionally male-dominated fields, such as roasting and trading. In Indonesia, almost all (99 percent) of female-led coffee businesses reported growth in revenue, with one-third reporting growth of at least 20 percent. In Vietnam, women lead at least half of domestic coffee trading companies and are widely recognized as more effective negotiators between buyers and farmers. This study highlights women's potential to influence key sector parameters such as volume of production and quality, and how this potential is not yet fully recognized.

Important opportunities for businesses and investors to leverage women's skills and productivity in coffee value chains include:

¹ Coffee beans that are unroasted.

² Several studies/media reports have studied the phenomenon of gendered sensory differences, including NPR's 2015 report.

³ https://www.idhsustainabletrade.com/uploaded/2016/08/toolkit_total.pdf

Sourcing and processing specialty and premium Arabica. As the link between female producers and high-quality coffee becomes better understood, demand for coffee from female producers is on the rise, driven by quality-focused buyers and roasters who specifically request female producers. In the Philippines, there is a strong opportunity for women to capitalize on growing domestic demand for specialty coffee. In Indonesia, both the domestic and international markets present viable opportunities for women producing premium Arabica.

Providing women more market intelligence. Male producers have traditionally had more access to training and market information than female producers, as men are more commonly identified as heads of households/ focal points of production. However, the rise in the number of female cuppers and Q graders⁴, together with increasing recognition of female producers' skills, offers an opportunity to rethink traditional training and communication flows in the coffee sector. If female cuppers and graders reached out directly to female producers with market intelligence about what buyers wanted, this extra information in the hands of female producers can improve the quality of coffee production. Female-to-female support is already happening in the Philippines, facilitated by International Women's Coffee Association, and can improve production in regions with clearly defined divisions of labor between men and women (where women do not benefit from market feedback), such as Aceh province in Indonesia. Case examples show how targeting women farmers has increased the quality and farm gate price of beans in other parts of Indonesia.

Supporting women in coffee networks. There are successful examples of women-led cooperatives and networks in the region, adding value in terms of price, quality of beans and improving livelihoods. For those investors that place a premium on women in coffee brands (i.e. coffee produced by women), dedicated women's business networks and associations offer ready access to women-led businesses and female expertise throughout the value chain. For women in coffee, these networks create opportunities to access new markets, business connections, as well as information and training, thus accelerating production, quality and sustainability of supply.

⁴ Q graders are certified to score coffee bean quality based on several criteria, including size, density, and number of defects.

► Coffee at a glance

In 2018, the total global supply of coffee is estimated at slightly over 10 million tons of green beans, up 1.5 percent from 2017. Arabica beans contributed more than 60 percent of output.

Table 1: Global Production and Consumption (metric tons)

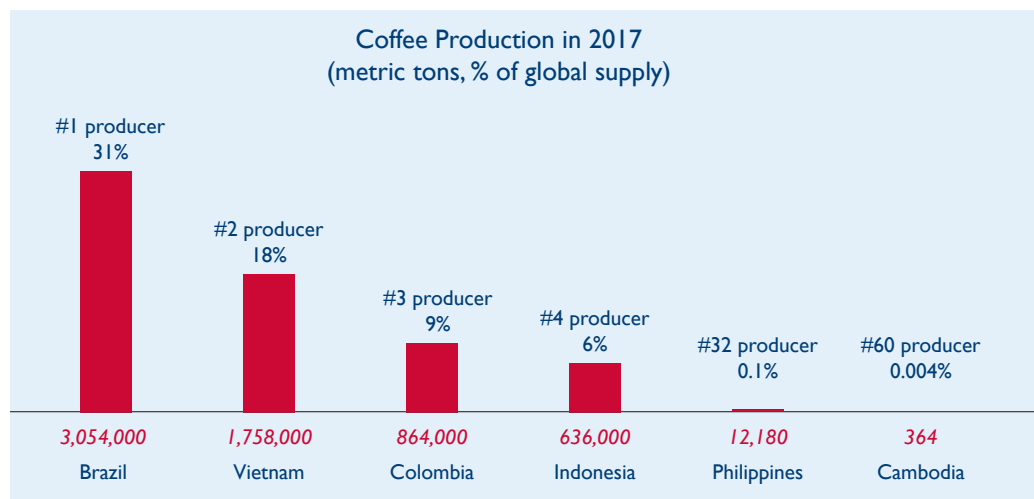
	2014	2015	2016	2017	2018*
PRODUCTION	8,981,580	9,355,800	9,444,000	9,899,580	10,050,540
Arabica	5,269,680	5,705,220	6,035,420	6,086,520	6,240,540
Robusta	3,711,900	3,650,580	3,408,600	3,813,060	3,810,000
CONSUMPTION	9,073,380	9,326,580	9,493,860	9,702,900	9,911,040
Exporting countries	2,790,300	2,850,000	2,907,480	2,976,300	3,018,060
Importing countries	6,283,080	6,476,580	6,586,380	6,726,600	6,892,980

Source: International Coffee Organization (ICO)
*preliminary estimates

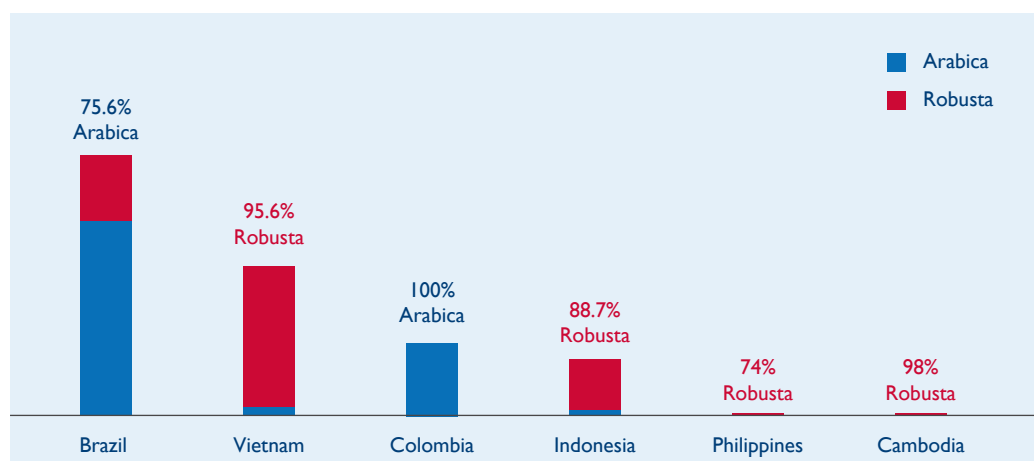
► Did you know?

Vietnam and Indonesia are among the world's top coffee producers, contributing 18 percent and 6 percent of global coffee supply, respectively.

Figure 1: Top Coffee Producers by Volume



Source: ICO, FAOSTAT (for Cambodia)



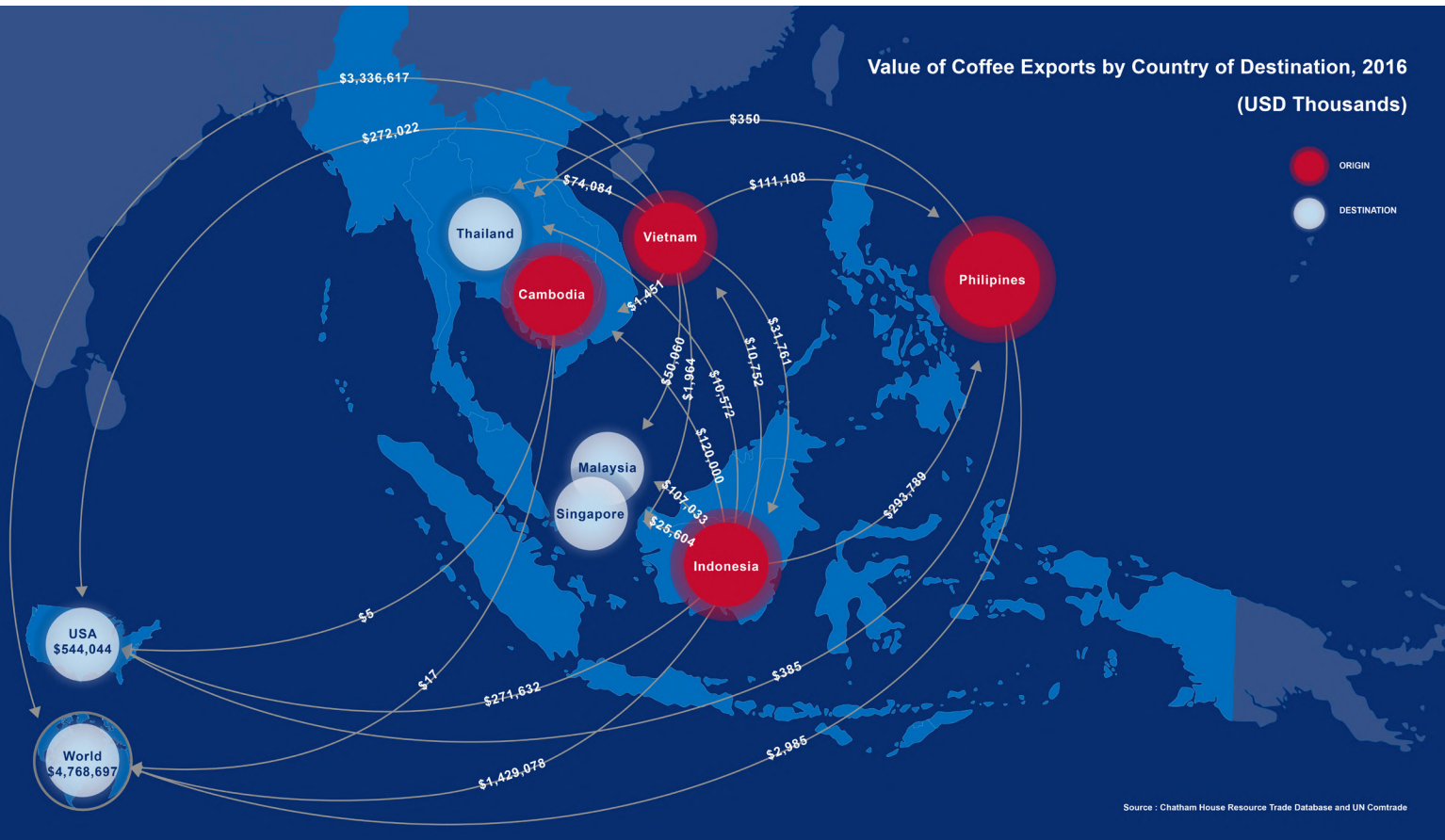
Source: ICO 2019

Southeast Asia produces about 26.5 percent of the world's coffee beans.

Close to 94 percent of green beans from Southeast Asia are of the Robusta variety (2 million tons in 2017).

Vietnam is the world's largest Robusta producer.

Figure 1: Top Coffee Producers by Volume



Source: Chatham House Trade Resource Trade Database and U.N. Comtrade

In 2017, Vietnam, Indonesia, Philippines, and Cambodia exported a total of \$5.34 billion of coffee with 84 percent exported in the form of beans and husks, and 16 percent as extracts and essences. This is an increase of 12 percent from 2016, with a similar product breakdown, and represents about 1.2 percent of total exports.

Coffee is a highly traded commodity within the region, with some countries being both exporters and importers of coffee from neighboring countries. For example, Vietnam exports coffee beans to Indonesia but also imports extracts and essences from Indonesia. Thailand, Malaysia, and Singapore are key destination countries for coffee from Indonesia, Vietnam and the Philippines. Thailand is also the top supplier of coffee beans to Cambodia.

The United States is an important trading partner for coffee producers in Southeast Asia. It imported 11.4 percent of the coffee output from the four countries in 2016 and 12.5 percent in 2017.

▶ Key production characteristics

*Cambodia has not been included due to insufficient data

	Vietnam	Indonesia	Philippines
Production (tons) 2017	1,758,000	636,000	12,180
Number of farms	500,000	2,000,000	276,000
Area (ha)	600,000	1,300,000	120,000
Number of trees per ha	1,100	3,000	698
Productivity per ha (kg)	2,500	500	300

In Southeast Asia, coffee is mostly produced in smallholder plots of 0.5-2 hectares, except for large state-owned plantations in Vietnam, which are estimated to comprise 5 percent of the country's total coffee-growing area. However, the way coffee is produced varies substantially across the region, in terms of cultivated land area, productivity levels, tree variety and density, and number of farms.

In **Vietnam**, production is intensive with a focus on Robusta trees using significant amounts of chemical fertilizers and abundant irrigation. Farmers tend to prefer high-yielding tree varieties, valuing the quantity of beans above quality. Production yields are the highest in the world, averaging 2,500 kilograms of coffee beans per hectare. In comparison, farmers produce on average 500 kilograms per hectare in Indonesia and only 300 kilograms in the Philippines. While the coffee-growing area in the Philippines is not likely to expand, tree rejuvenation programs to replace old trees with new varieties are expected to slowly increase yields.⁵

Indonesia has more than twice the cultivable area of Vietnam, but only one-third of its production volume. This is due to a combination of factors, such as low-yielding varieties, less intensive production, climate change and competing priorities for farmers. While output is much lower than Vietnam, Indonesia has gained recognition for the high quality of some of its Arabica, with several specialized origins well-known for producing premium beans.

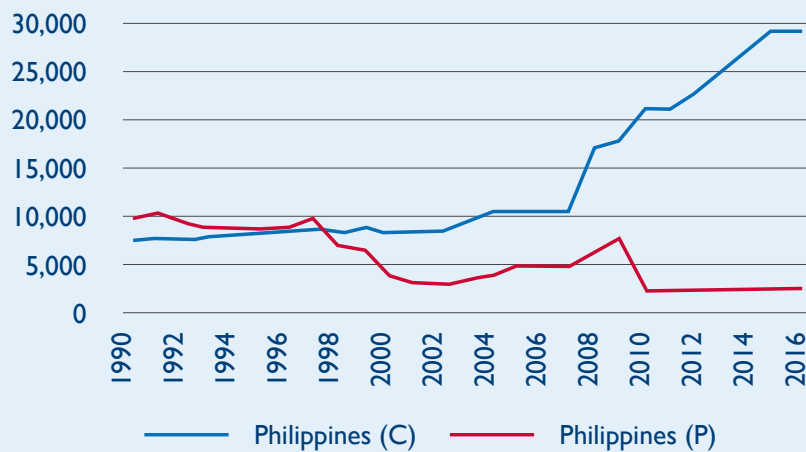
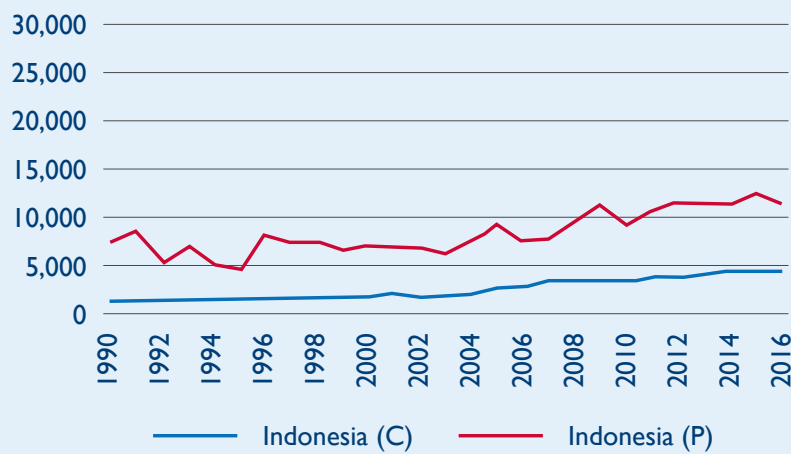
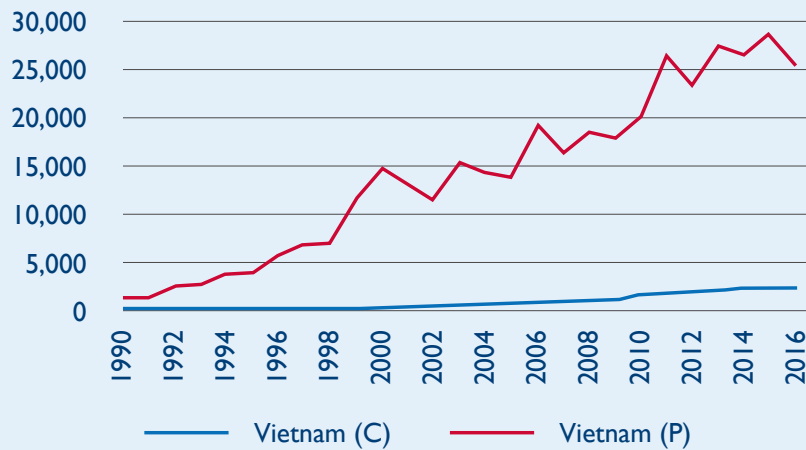
Once a strong coffee exporter, **the Philippines** now imports most coffee for domestic consumption. Coffee production in the Philippines is small – estimated at less than 1 percent of Vietnam's levels – and characterized by low productivity. Farmers prioritize other crops and have been slow to optimize and modernize production and processing practices despite training from the Ministry of Agriculture and the Philippine Coffee Board. The average age of a coffee farmer in the Philippines is 67. Driven by rising domestic demand, the country is now looking to revive its coffee industry and better leverage the country's potential as producer of all four coffee varieties.⁶

“The Philippines has a potential of becoming the third coffee tiger in Southeast Asia if international coffee platforms grant their support,” said Dave D’haeze, the Asia regional manager of Hans R. Neumann Stiftung, a foundation launched in 2005 by the Neumann Kaffee Gruppe (NKG), the world's leading green coffee service group.

⁵ Dave D’haeze, regional manager, Hans R. Neumann Stiftung Asia Pacific. 23rd International Coffee Conference, 2017. <https://www.hrnstiftung.org/dave-dhaeze-on-global-coffee-supply-shortage-think-philippines/>

⁶ Arabica, Robusta, Liberica, Excelsa

Trends in Production (P) and Consumption (C) (in thousand 60-kilogram bags)



Source: Neumann Foundation, 2017, based on ICO data.

The three countries have also experienced very different trends in the evolution of domestic coffee production and consumption since the 1990s.

In Vietnam, coffee production has grown exponentially while internal consumption has grown little over the years. As a result, only 10 percent of output is consumed internally. In Indonesia, both production and consumption have risen over the years and now about 40 percent of output is consumed domestically. The Philippines has seen production fall considerably while consumption has risen dramatically, particularly since 2017.

► Profile: Kokowa Gayo Cooperative, Aceh, Indonesia



Photo: Kokowa Gayo

Founded in 2014, Kokowa Gayo has 368 women members from 7 villages, covering a total area of 289 hectares with all members producing Arabica coffee. Kokowa Gayo is the sister organization of Permata Gayo, a male-led coffee cooperative with mixed membership.

Rizkani, Kokowa Gayo's chairwoman, explained that the cooperative was established to give more space and recognition to women, who would otherwise shy away from participating in meetings, and as recognition of the important role that women farmers play in coffee production and processing. "In the local culture, women are expected to listen rather than talk in meetings, particularly when male family members are present. We felt that over the years our recommendations to improve women's programs were not deemed of much importance," said Rizkani.

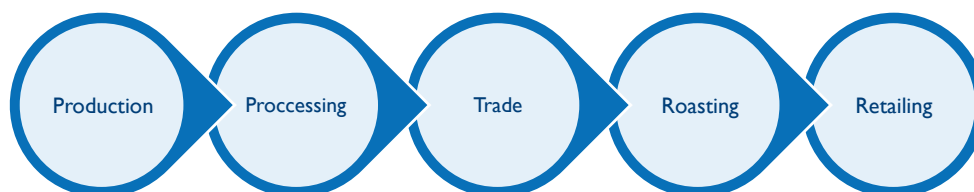
The cooperative produces up to 24 containers of green beans per year, or approximately 450 metric tons. All production from Kokowa Gayo members is destined for export, mainly to premium Arabica-focused buyers. To encourage members to prioritize quality, Kokowa Gayo has provided training on Good Agricultural Practices (GAP), financial management and sensory/cupping to farmers. The cooperative works with a female collector in each village and all farmers selling to the cooperative are required to sell to the designated collector in their village. This allows Kokowa Gayo to better trace the origin of the coffee beans.

The cooperative has partnered with Cafe Femenino Foundation, a U.S.-headquartered nonprofit foundation, and received a grant to build support facilities, such as a child care space where members can bring their children while working.

"The best thing about being a part of a women's cooperative is that we have the freedom to use the premium paid by buyers on programs that benefit us members," said Rizkani.

► Women’s roles in the value chain

Across the region, coffee is still widely seen as a “men’s crop” and the classic image of coffee farmers is often male. Typically, female farmers are referred to as the “farmer’s wife.” However, this study found that women not only play a more critical role in farming than often assumed, but also women are engaged throughout the value chain as producers, cooperative leaders, collectors, traders, roasters, cuppers and coffee shop owners. The growing emphasis on quality and traceability has also pushed for a more vertically integrated value chain, particularly for premium and specialty Arabica; there are several businesses that work at multiple nodes, for example, roasters, graders and retailers.



Production. Primarily a family business, coffee farming in Southeast Asia typically involves both women and men to differing degrees, depending on the country, tree variety and family circumstances. In some areas, such as the Cordillera Administrative Region in the Philippines, coffee farming is mostly done by women with very little male involvement. In Vietnam’s Robusta heartland, men do the bulk of coffee cultivation, with women sorting and selling.

In Aceh, in Indonesia, while both men and women work in coffee farms, men are traditionally more expected and given more influence in producer meetings. Women are expected to listen rather than talk during such meetings, particularly when male family members are present. This has encouraged some female farmers to create women’s cooperatives, where women are in decision-making positions and have more freedom to choose how to reinvest profits for the benefit of their members. Cooperatives Ari Aras Awali and Kokowa Gayo in Indonesia are notable examples. Anecdotal evidence collected from producers in the Cordillera region and from the Balukatay Coffee Farmers’ Association in Davao, both in the Philippines, found that female producers are linked to better quality beans.⁷

Women are more meticulous in picking and sorting - tasks that are key determinants of quality, according to Robert Francisco, Executive Director of the Philippine Coffee Board. In Indonesia, the SNV Netherlands Development Organization demonstrated that when women from their partner farmer groups in Flores had regular access to training, the quality of coffee beans improved and led to a 60 percent increase in the farm gate price.

“Women are more meticulous in picking and sorting - tasks that are key determinants of quality.”

Across Asia, leadership training is sometimes added to training on agricultural practices for female producers to build self-confidence and leadership skills alongside knowledge of coffee practices. In Indonesia, the Canada-Indonesia Trade and Private Sector Assistance Project delivered leadership training to six women-led cooperatives in Gayo, to increase knowledge of how women’s leadership and membership in cooperatives contribute to the cooperative’s economic success and improved governance. In the Philippines, the Philippines Coffee Board is part of the Great Women Project 2⁸ and has been conducting training sessions for women in the coffee value chain since 2017.

⁷ The Ultimate Coffee Guide, Philippine Coffee Board Incorporated, Volume XI, Issue 1. (2018).

⁸ The Gender Responsive Economic Actions for the Transformation of Women (GREAT) 2 is the second phase of a project funded by the Canadian government to support women’s economic empowerment in the Philippines.

Processing. Processing coffee is often highly fragmented, involving multiple actors from postharvest handling, to drying, sorting, grading and packaging. Women typically work in drying and sorting beans. With more knowledge and training available, some farmers are performing more of these tasks on-site with simple, homemade equipment. Jennifer Rimando of Ola’s Farm made her own all-weather dryer – a raised structure with drying beds and covered with UV-treated plastic. Jennifer is also the custodian of her cooperative’s huller and she trains other members how to use it so that her knowledge is shared with the cooperative members. In other cases, specialty coffee roasters have set up processing facilities to support or take over processing from farmers, particularly in the case of high-quality Arabica where processing can have a considerable impact on price. For example, Kalsada, a producer/processor/roaster focused on specialty coffee in Benguet province, Philippines, provides machinery, equipment and training to support coffee growers, including two micro-mills.

Trade. Coffee trading is mostly male-dominated in Southeast Asia, except for Vietnam where women lead at least 50 percent of domestic Robusta trading companies.⁹ In Indonesia, it is estimated that up to 5 percent of private traders and exporters are women-led businesses. In a highly competitive market where even tiny price fluctuations matter, women are reported to be more patient and attentive to details in leading negotiations with producers and buyers. “Women make better tasters, as biologically they have more sensory glands than men”, said Do Thi Quynh, sourcing manager for Volcafe Vietnam.

*“While in many cases businesses are owned by men, **women** are the point of contact to negotiate with farmers and buyers. They are believed to be better negotiators.”*

Roasting. With the increased popularity of microroasters and specialty/third-wave cafes¹⁰ which roast in-house, the number of female-led coffee roasters is increasing across the four countries. In Indonesia, it is estimated that, overall, women comprise about 10 percent of roasters and up to 25 percent of specialty roasters. Christine Abellon of Cafe Maleng-ag, an on-line coffee store based in La Trinidad in northern Philippines, used to run a coffee shop and now focuses exclusively on roasting of premium and specialty Arabica. Over the years, she has developed a trusted relationship with female farmers and farmers’ associations, which she has trained and occasionally invested in by purchasing equipment.

Cupping. Women are also playing a stronger role in grading. Women consistently perform well in cupping competitions and comprise 42 percent of certified Q graders in the Philippines and 20 percent in Indonesia. “Women make better tasters, as biologically they have more sensory glands than men,” said Pacita Juan of the Philippine Coffee Board and International Women’s Coffee Alliance Philippines. Grading experience positions women particularly well to advise coffee producers on how to improve the quality of coffee, as they test, analyze and rate the quality and type of coffee that is produced and know what coffee characteristics are prized by buyers and consumers.

*“**Women** make better tasters, as biologically they have more sensory glands than men.”*

⁹ IDG Sustainable Trade Initiative (2014). Sustainable Coffee as a Family Business.

¹⁰ The third wave is a movement to produce high-quality coffee. It considers coffee an artisanal food rather than a commodity and it places more emphasis on the sustainability of the entire value chain, with stronger relationships between coffee growers, traders, and roasters, higher quality roasting and skilled brewing.

Retailing. Across the four countries, women are well represented at this node of the value chain, increasingly as owners and co-owners of coffee shops and specialized baristas. In third-wave cafes, it is not uncommon to have owners establish a direct link to producers and provide training as well as loans and preferential financial terms to long-term suppliers. In Indonesia, Evani Jeslyn of First Crack Coffee in Jakarta serves premium coffee from several origins: Java, Gayo, Flores, Papua and Bali. To ensure a reliable supply of high-quality coffee, she sources directly from farmers whom she trains on good harvest and postharvest processing practices. Rosario Juan of Commune, a third-wave cafe in Manila, serves only Philippine coffee, roasted in-house and sourced from selected trusted producers, whom she knows personally.

► Sustainability challenges

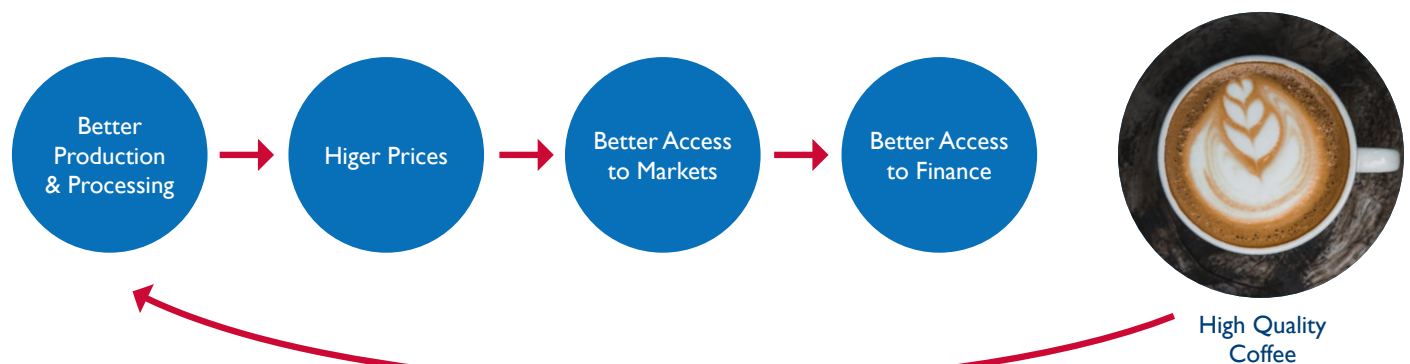
The coffee marketplace is very competitive. The past 12 months have seen a string of mergers and acquisitions, which has brought new entrants into the market – for example, Coca-Cola through its acquisition of Costa – as well as strengthened market share of legacy brands – for example, Nestlé acquiring the rights to sell Starbucks products.

Globally, consumers have become more health conscious and have developed a taste for more sophisticated coffee. This has led to a growing demand for higher-quality coffee, also supported by the rise and increasing popularity of third-wave cafes, which often act as community builders to raise awareness of coffee as an artisanal product and promote consumption of premium and specialty coffee.

“Even with soluble coffee, they are switching to higher-quality ones,” Do Thi Quynh Chau, Sourcing Manager, Volcafe Vietnam.

Ensuring a consistent, reliable supply of high-quality coffee is a top priority as well as one of the key challenges reported by cooperatives, traders, roasters, exporters and coffee shop owners. Farmer education and training were high on the agenda for all stakeholders interviewed between September and December 2018. With quality closely linked to price, farmers who have invested in improving their practices have typically been able to get a higher price for their coffee, particularly in the premium market segment. Others have been slow to improve their production and processing practices either due to insufficient training or a perceived lack of economic incentives.

With women heavily involved in tasks that affect quality, training female producers, strengthening women’s cooperatives and better leveraging the growing cadre of female trainers and graders can help buyers secure a more reliable supply of quality beans.



► Key sustainability challenges identified for producers:

Poor production and processing practices

Across the region, there is much room for improving coffee production and processing as well as adopting practices that are less aggressive on the soil, more sustainable and produce higher quality coffee.

In Vietnam, excessive use of fertilizers and overirrigation is a common concern. In the Philippines and Cambodia, key challenges include optimizing tree density and intercropping to increase productivity and balance the soil, good practices for harvesting, post-harvesting, processing and storing beans. As more men own land than women and are typically considered the primary farmer in farming households, women have less influence over production practices on top of less access to training.

Low productivity of coffee farms is a concern in Indonesia and the Philippines, where farmers tend to follow old practices and usually treat coffee as a secondary or tertiary crop.

“Consumers are more demanding. If you don’t have quality, you are in trouble. If coffee farmers don’t spend time improving their coffee, they will be left behind.”

Tran Nhat Quang, owner, La Viet Coffee

Changing climate conditions

Consistency of volume and quality is key for buyers. Producers and cooperatives consistently reported that extreme weather and changing climate conditions are resulting in an increase of pests and lower output, thus impacting coffee quality and quantity.

Traceability issues (Indonesia, Cambodia)

With increasing concerns about food safety and considerable price differences based on coffee origin, traceability has become increasingly important. Several producers and traders reported cases of conventional-grade coffee beans being mislabeled as premium from select origins or beans of different grades being mixed and sold as single origin. It is hard to estimate how widespread this is, but previous research has reported cases

of mislabeling coffee origins.¹¹ In Cambodia, it is unclear how much of the coffee sold as locally produced actually comes from Vietnam.

Farming not attractive to younger generation

Across the four countries and particularly in Indonesia and Philippines, producers reported that the younger generation is not interested in farming and prefers working in cities, threatening the sector's labor force.

Decrease in cultivable land (Philippines)

In the Philippines, the area planted for coffee decreased by 1 percent from 2004 to 2014 and by 3 percent from 2014 to 2015. With the average coffee farmer aged 67 years, combined with a boom in real estate developments in many areas of the country, more farmers have been selling their land, leading to a decrease in coffee-growing areas and an increase in deforestation (see page 17).

► **Profile: Ari Aras Awali Cooperative, Aceh, Indonesia**



Photo: Caterina Meloni/ USAID Green Invest Asia

Established in 2016, Ari Aras Awali is the women-owned arm of an older coffee cooperative Arinagata – both in Aceh, Indonesia. Ari Aras Awali means “the small wave of water” and its goals are to empower and give more voice to women farmers and improve their agricultural practices.

Ari Aras Awali has 346 women members who each own an average of 0.5-2 hectares of land.

¹¹ Brodie, Christopher & Weigt, Maryam & Kracht, Oliver. (2017). EA-IRMS: Tracing the geographical origin of green coffee beans using isotope fingerprint.

In Indonesia, land titles carry only one name – typically the husband’s name in a household. Thus, women require permission from their husbands to register the land in their name to become members of the cooperative. Ari Aras Awali convinced members’ husbands that joining the women’s cooperative would be beneficial for the whole family as international buyers value the bean quality of female producers and want to buy from women’s cooperatives.

“Women affect the quality of the coffee because they are more careful in processing the coffee,” reported Ara Siberani, Ari Aras Awali’s adviser. “The benefits of being part of a woman’s cooperative are that women make decisions and have an opportunity to improve their farming skills. Women actively participate in meetings.”

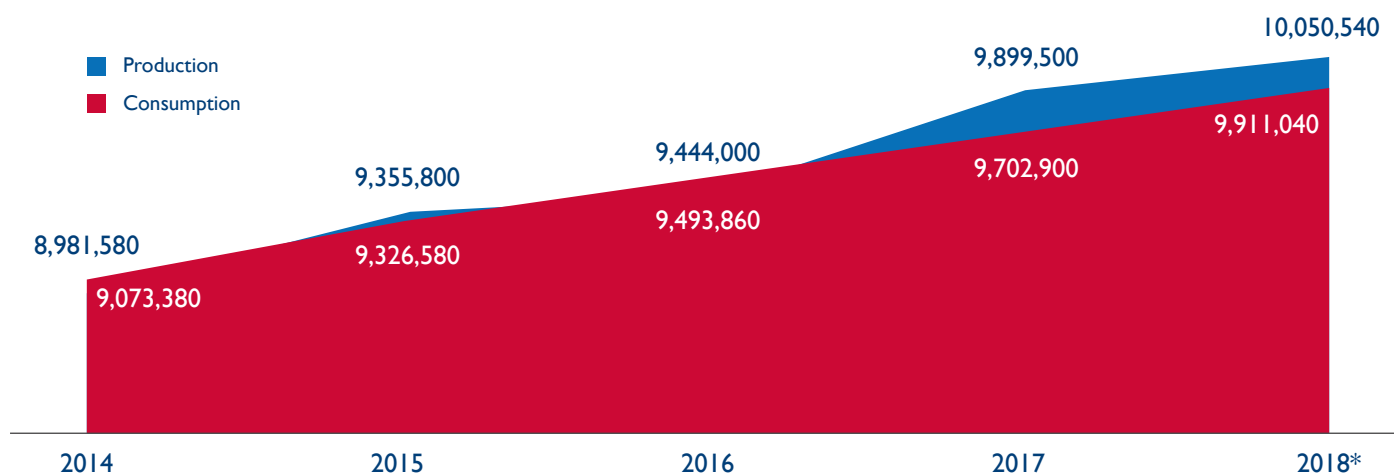
The cooperative produces up to 15 containers of green beans a year, or approximately 288 metric tons. All coffee produced is sold internationally through sister organization Arinagata, as Ari Aras Awali does not yet have an export license. The cooperative is certified organic.

Accessing finance to buy coffee from farmers is a key challenge. Farmers want to be paid upon collection and if the cooperative cannot afford to purchase their coffee at the requested price, farmers will sell to other traders. The cooperative found that sometimes farmers ask for higher prices than negotiated with international buyers. The cooperative is planning to apply for a working capital loan to buy beans from farmers. It also plans to acquire its own export license.

► Key Production Characteristics

World consumption is estimated at 9.9 million metric tons in 2018-2019 and global production at 10.05 million metric tons, leaving a supply surplus of about 140,000 metric tons. However, some sources estimate that if current consumption and production levels hold, there will be a global supply shortfall of 1.2 to 1.8 million metric tons by 2030¹² – equivalent to 150-225 billion espressos or total espresso consumption in Italy for at least four years

Figure: Global Production and Consumption of Coffee, 2014-2018 (in metric tons)



¹² Neumann Kaffee Group, 2017.

► What is behind a possible global supply shortfall?

Demand for coffee is increasing. Coffee consumption has grown at an average of 1.6 percent a year globally since 2013 with growth in Asia and Oceania at 3.4 percent, and the U.S. at 2.2 percent. The increased popularity of coffee in traditionally tea-consuming countries has led to a rise in global demand.

China's coffee consumption has been growing at about 13 percent annually over the past decade.

spread of “cafe culture” to urban areas in many emerging countries has also contributed to the increase in demand.

Poor climate conditions and soil management. Global warming and poor soil management practices have been linked to low productivity and reduced output. Droughts decrease nutrient uptake in coffee trees, warmer temperatures exacerbate pests, and soil erosion is frequent when farmers do not rebalance the soil. Similarly, old trees are less productive and need to be regularly pruned and rejuvenated.

Risk of Deforestation

It is forecasted that warmer climates will make some coffee-growing areas less suitable for production, pushing farming to new areas in the future. With approximately 60 percent of the global area suitable for coffee production covered by natural forests, this shift risks increasing deforestation. The rising demand for better-quality Arabica from emerging countries further increases risk as Arabica coffee trees require higher altitudes and cooler climates to thrive.

Source: Killeen & Harper, Coffee in the 21st Century, 2016

► Profile: Bea Belardo, General Manager, Belardo Coffee Enterprise and Kaffe Belardo, Cavite, Philippines



Photo: Caterina Meloni/ USAID Green Invest Asia

Bea Belardo has known coffee since she can remember. Her grandfather founded Belardo Coffee Enterprises, a coffee trading company in the 1970s, which soon became one of the country's top exporters and is now one of the longest-running millers and traders in the city of Cavite. When her father took over in 1994, he expanded the business to become a consolidator, processor and roaster of Robusta beans. As a third-generation employee, Bea has built on this by strengthening the relationship with the farmers and encouraging a focus on quality.

Belardo buys directly from farmers, not cooperatives. Over the years, the family has developed trusted relationships with farmers. The company does not use offtake agreements at the beginning of the season and farmers have the option to sell to other buyers if they wish. Since Belardo also supports farmers through training, it has managed to build loyal suppliers. The company usually purchases about 1,000 kilograms, or 20-30 bags of 40-48 kilograms, from each farmer.

As a certified Q grader, she has introduced cupping of the beans they receive from farmers and uses this as an opportunity to provide feedback to producers. "Many farmers have received training, but there is need to convince them to switch to better practices," she says. The green beans are sold to Nestlé, McDonalds and other buyers, while roasted beans are sold to restaurants, hotels, and other customers in the Philippines and the U.S.

Bea worries about the future of the local coffee industry and sees a shift to better quality as a key step to ensure its survival. "Cavite was originally considered the coffee basket of the Philippines, but support from the Department of Agriculture has waned in this province.

“ Farmers are old and follow traditional practices that compromise quality. Some coffee farmers are selling their land for real estate developments as the new generation is not interested in farming and prefer pursuing other income opportunities. ”

Bea opened a coffee store Kaffe Belardo in 2017 and has her own 1-hectare coffee farm for future production.

► Profile: An Thai Investment and Development Company, Buon Ma Thuot, Vietnam



From left: Giang Nguyen Ngo; Bui Thi Tuyet Nhung; Caterina Meloni. Photo: Caterina Meloni

Bui Thi Tuyet Nhung leads the family-owned An Thai, a group of three companies spanning coffee processing and roasting, fertilizer production and import-export of other agricultural products. The company trades about 40,000 metric tons of coffee annually and exports primarily to China and Singapore, although she would like to expand to the United States and EU. It supplies green beans to Nestlé and Volcafe as well as coffee powder and roasted coffee to domestic buyers and some international buyers under four different brands for its instant and powder coffee products.

Having worked with coffee for over 20 years, Nhung finds that the biggest challenge in her export business is to ensure high quality of the product.

An Thai buys both Arabica (20 percent) and Robusta (80 percent) from local traders and farmers in Da Lat, Dak Nong, Dak Lak provinces. “Quality depends on following the right farming and harvesting processes and there should be more coffee experts working closely with farmers to improve the quality of the coffee,” she said.

“Farmers are very interested in sustainable coffee as long as they can see better prices for their coffee.”

► Profile: Raksmeypich Peng, La Chronique Cafe, Cambodia



Photo: La Chronique Cafe Facebook page

Opened in 2016 by then 22-year-old Raksmeypich (known as Pich), La Chronique is a premium café and restaurant in central Phnom Penh. It sources coffee beans from Feel Good Coffee and focuses on specialty coffees.

La Chronique employs six people, all women, who work as kitchen staff, baristas and service staff. Pich, who was a barista for 18 months before opening La Chronique, trains her team on how to make coffee.

Key challenges include rising competition from local and international coffee chains, such as Brown, Amazon and Starbucks, as well as many other smaller coffee shops flooding the market.

“We have to build our own strong brand, so no matter how much competition, we have to improve our coffee knowledge and make sure the team are trained at making better coffee.”

She is already planning construction to expand into the building next door, so the cafe can have more seating. She and her parents are also planning to open a boutique hotel behind the cafe, which she will also manage.

► Summary: Key opportunities for women in Coffee

The analysis identified the following key opportunities for women in coffee:

Producing specialty and premium Arabica. Women have a comparative advantage in the production of specialty and premium Arabica coffee as women are consistently reported to be more meticulous in picking and sorting – critical tasks to ensure quality. Sustainability-focused buyers and roasters are driving up demand for coffee from female producers. In the Philippines, there is a strong opportunity for women to focus on supplying the domestic demand for specialty coffee and, if volumes go up, the niche export market. In Indonesia, both the domestic and international markets present strong opportunities for women producing premium Arabica beans. In Indonesia, an estimated 10 percent of exported coffee is of premium and specialty grade. For buyers and/or investors focused on premium Arabica, opportunities to engage with women-led businesses could be through capital (grants, debt or equity- products for smallholder finance) and/or technical assistance (training, facilitating access to markets, information, and other resources as needed).

Improving skills in grading and training. In the Philippines and Indonesia, women are taking up cupping and Q grading in considerable numbers. Some certified Q graders are supporting producers and cooperatives to improve their products and attract specialty coffee buyers/consumers. These relationships allow farmers to become more familiar with the whole value chain, including the marketing side of the coffee business. Women with specialized skills presents an opportunity for relevant coffee buyers and investors to establish a more direct link with women farmers and increase their training opportunities, particularly in areas where women and men typically work separately. As female producers play a key role in tasks that determine quality, this connection will likely improve both production and quality.

Support Women Coffee Networks. For investors keen to support and work with women in coffee because they recognize the link to quality and want to leverage market demand for women in coffee brands, these networks offer an excellent platform to explore potential opportunities throughout the supply chain. “Being part of the International Women’s Coffee Alliance is a way for us to connect to the rest of the world. International markets want quality coffee and they want traceability that comes from a woman coffee producer. There are specialty markets that look for this kind of traceability,” noted Pacita Juan, President of the International Women’s Coffee Alliance Philippines. Support could be in the form of finance and/or technical assistance.

As members, women can connect with a diverse group of female-led businesses and improve their access to business opportunities, markets, information and education. For example, the International Women’s Coffee Alliance (IWCA) has chapters in the Philippines, Indonesia, Myanmar and Cambodia. Since its founding in 2012, the Philippine chapter has provided training and facilitated member exchanges. “There is value in being part of IWCA. This is for women, not just in the coffee farms, but for women throughout the supply chain. So, we also engage processors, roasters, and cafe owners who are all women,” said Juan.

► Profile: Jennifer Rimando, Ola’s farm, Aguid, Sagada Province, Philippines



Jennifer Rimando, IWCA founding member. Photo: Caterina Meloni

A producer, certified Arabica Q grader and trainer, Jennifer cultivates her own coffee farm in Aguid, a village of 700 people from the Igorot community in the northern province of Sagada, Luzon. Her grandfather, Ola, is the pioneer of organic mountain coffee and was the first one to plant coffee in Aguid 20 years ago while most others in the village thought that mountains are too cold to grow coffee. Everyone laughed at my grandfather when he started planting coffee,” she recalls.

“The government gives training and they usually pick a few people from each cooperative, but not everyone shares the learnings with others when they go back. It’s better to bring the training to the community.”

says Rimando.

The combined family farms – branded as Ola’s farm – now have over 7,000 trees, all Arabica trees grown organically on the slope of the mountains and intercropped with different types of vegetable and legumes to supplement income and to improve soil fertility. Ola’s farm sells both green and roasted beans domestically, and seeds to other farmers. Jennifer also trains other farmers in the community on good production and processing practices. “There is lots of demand. I tell farmers that they can become entrepreneurs. Quality impacts price,” she says.

“Coffee farming is mostly done by women. Most men don’t like sorting coffee – they have some attitude that they can’t do it. Also, for the picking, women are gentler. Generally, men do strip-picking and also pick unripe cherries. They feel it’s very hard. Men were convinced that there was no opportunity in coffee in comparison to other sectors, such as mining, for example. I now see that some husbands are involved in coffee farming.”

► Profile: Evani Jeslyn, First Crack Coffee PT, Jakarta, Indonesia



Sample roasting. Photo: First Crack Instagram page

Evani founded First Crack Coffee in 2017, prompted by a desire to promote consumption of higher-quality coffee in Jakarta and make specialty coffee more accessible to the community. When she lived in the United States, she discovered high-quality Indonesian coffee that was available only in export markets. Her goal was to make such coffee available back home, and to educate the community about specialty coffee.

Now, she owns three coffee shops in Jakarta as well as a coffee academy where she offers barista, brewing and sensory training classes. First Crack plans to open more coffee shops in Jakarta with a focus on specialty coffee and sources from seven origins within Indonesia. “I now see a lot of women learning to become baristas,” she notes.

While micro coffee roasters and third-wave cafes have increased the popularity of premium and specialty coffee, Evani finds accessing high-quality beans still a challenge that requires constant interaction with producers and processors. To ensure a reliable and consistent supply of high-quality beans, she trains farmers on production and post-harvesting processing practices based on Specialty Coffee Association¹³ practices. She also supports farmers with pre-financing and equipment purchase when needed.

“When I started five years ago, I found that it was really hard for women to educate male farmers because men wouldn’t see women as coffee experts and didn’t value their knowledge. The gender biases in the coffee sector in Indonesia are very stark. Coffee farms are owned and run by the family and women are particularly involved in the harvest and postharvest processing. But since men are considered the head of the family, I mostly talk to them about how to improve processing practices.”

¹³ A nonprofit, membership-based association within the specialty coffee industry

► Profile: Sreygov Tan, Agape Coffee, Cambodia



Sreygov in her Phnom Penh roadside coffee shop. Photo: SHE Investments

Sreygov and her family own a farm in Koh Kong province, a rural province in north-west Cambodia. The family farm is a little more than 10 hectares and, until two years ago, was growing coffee trees to supply a Thai company with coffee beans. When the company owner from Thailand died, Sreygov's family wanted to cut down the trees and make space for farming something else, but Sreygov saw an opportunity to start a business instead. Sreygov decided to teach herself about coffee beans; she learned how to grow the trees, harvest the cherries and process them properly.

From YouTube videos, she learned how to roast the beans using a friend's roasting machine and practiced the process until, gradually, her beans were high quality and suitable for use by baristas.

In February 2017, Sreygov bought a small coffee machine and opened her own coffee shop in Phnom Penh. Since then, she has opened two more coffee shops – micro-sized enterprises with only a few staff at each.

Sreygov says she started her business for two reasons. First, the amount of fake coffee (mixed with corn and soy beans) sold to customers in Cambodia, which is very cheap and often the only option for people living on lower incomes. "People are poor and cannot afford to pay the higher prices for the real and higher-quality coffee." Sreygov wants to make real coffee (sans chemicals) accessible to all Cambodians.

Second, she is passionate about creating jobs for other women. "I want to create a small shop for women so they can take care of their families and also have their own business." Sreygov says she is committed to creating a business that engages more women in coffee microenterprises.

The farm now has more than 1,000 Robusta coffee trees, using seedlings from Thailand, intercropped with fruit trees. Sreygov wants to expand the family farm, and test growing Arabica coffee to blend with the current Robusta they grow. She also plans to open more coffee shops and scale-up current ones.

► Profile: Christine Abellon, Cafe Maleng-ag, La Trinidad, Philippines



Christine Abellon, IWCA founding member, at her roasting facility in La Trinidad, Philippines.
Photo: Caterina Meloni

Christine Abellon, a professor at Benguet State University, owns and operates a roaster in La Trinidad, Benguet, together with her husband Richard. From 2006 to 2012, they operated Cafe Maleng-ag, a coffee shop focused on premium Arabica. They source Arabica beans from farmer associations, whom they have trained over the years on good production and processing practices. The couple sells roasted beans to cafes and restaurants in Manila, Benguet, and Cebu mostly under their own brand as well as smaller quantities for other brands.

Finding the right volume of high-quality coffee is a challenge for Cafe Maleng-ag. Training farmers and farmer associations is a crucial and time-consuming part of their work as premium roasters. “Farmers need more assistance on fertilizers and pest management. We also teach farmers about proper storing practices, for example, not storing coffee in fertilizer bags,” she notes. Christine has also supported farmer associations with equipment purchases, such as hullers, to lessen farmers’ physical labor. While they have established trusted relationships with some farmers over the years, sourcing good beans remains challenging. “Sometimes other buyers will offer a higher price to some of the groups I have trained and farmers will sell to them instead,” reports Christine.

“**Pole vaulting, as we call it, is a key risk in this business. It’s hard to know the quantity of coffee you are going to get.**”

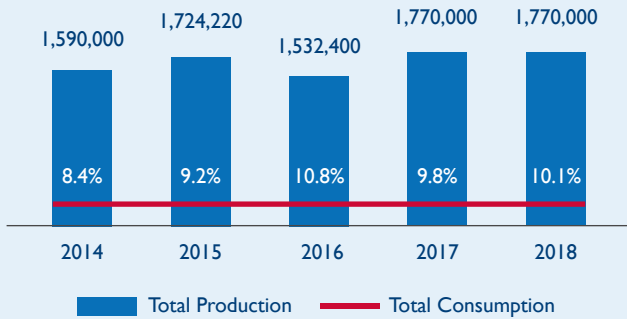
The segmentation of the coffee sector in the Cordillera is another important challenge, according to Christine and Richard. “We still have to organize ourselves to reach a large volume of quality coffee – right now it’s very segmented. Maybe only 20 percent of coffee produced in the Cordillera is premium and the Cordillera produces only 0.3 percent of our domestic supply. This is why most of us import coffee.”

Christine and Richard have a model coffee farm to demonstrate good production and processing practices, which they plan to expand in the future.

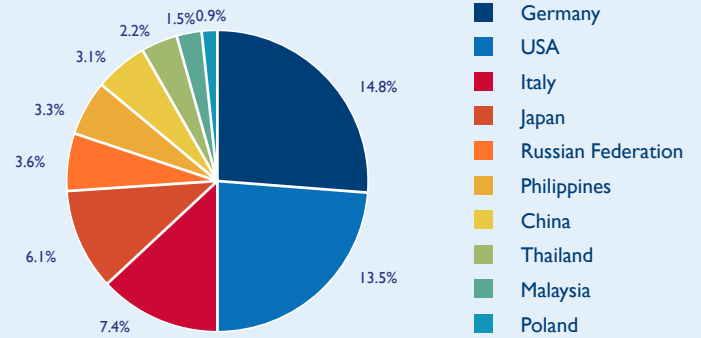
▶ Annex I: Country Snapshots

▶ Vietnam ◀

Production & Consumption
(in metric tons)



Top 10 Importers of Vietnam's Coffee (2016)



Source: International Trade Center

Vietnam is the second largest producer of coffee globally, and the top Robusta producer. Production in 2018 was 1.77 million metric tons, 95 percent of which is Robusta and 5 percent Arabica.

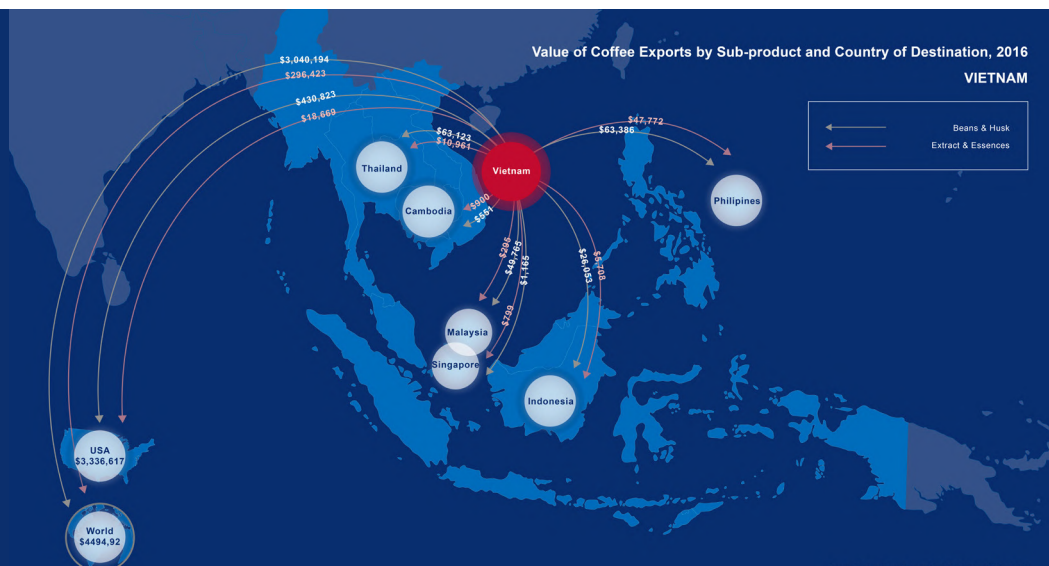
Four provinces produce most of Vietnam's coffee: Dak Lak, Lam Dong, Dak Nong and Gia Lai. Coffee is mainly produced in family-owned smallholder farms. It is estimated that less than 5 percent of coffee farms are large-scale and belong to state-owned groups.

Vietnam consumes only 10 percent of the coffee it produces, with the rest destined for export. In 2017, Vietnam exported \$3.68 billion of coffee, about 90 percent in the form of coffee beans.

The top importers of Vietnamese coffee in 2016 were: Germany (14.8 percent); U.S. (13.5 percent); Italy (7.4 percent); Japan (6.1 percent); Russia (3.6 percent); and the Philippines (3.3 percent).

Vietnam has mostly exported raw, unbranded coffee beans. The agriculture ministry reported that only 10 percent of coffee output is processed in-country and roasted, ground and turned into soluble products. Most of the processing and marketing is done in importing countries, such as Germany, United States and Italy.

This is expected to change as a new trade agreement with the EU will come into effect in 2019, which will remove tariffs on processed products (currently there is no tariff on the import of Vietnam's raw beans to the EU, but a tariff of nearly 12 percent on finished coffee products).



Source: Chatham House Resource Trade Database and UN Comtrade

Traders and exporters interviewed reported improving quality and building a strong brand for Vietnamese coffee as main challenges.

Vietnam's coffee value chain features significant government involvement in setting policies as well as the participation of state-owned enterprises as producers and processors /exporters.

As more international traders operate in Vietnam, increased competition has pushed out smaller domestic traders. Food safety and product quality are concerns driving a push toward more certification and farmer training to decrease excessive pesticide use at the producer level, and the practice of mixing coffee with corn and soy at the processor level.

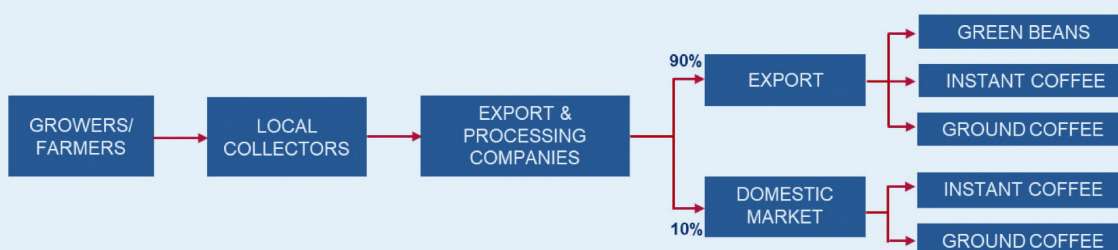
Large traders, such as Volcafe and Ecom, have built internal teams of agronomists who provide training on Good Agricultural Practices (GAP), to farmers to improve product quality and ensure a reliable supply, while helping farmers enhance their livelihoods. According to traders interviewed, farmers are willing to invest in sustainable practices if they can get a premium.

Because of coffee price volatility, coffee production has faced strong competition from passion fruit, avocado, and black pepper in the past few years in Dak Lak, Dak Nong and Lam Dong provinces. This led to a reduction in coffee production in some areas, especially in Dak Lak, where arable land is limited. With the most recent drop in black pepper prices, the decline in coffee production is expected to slow.

Another concern is aging, less productive coffee trees. According to the Ministry of Agriculture and Rural Development, about 200,000 hectares of coffee trees need to be replaced by 2020. This provides a unique opportunity to introduce higher quality varieties and GAP.

In higher production areas (usually Robusta) where there is considerable competition among buyers for coffee, market transparency and information mechanisms appear to work well. According to several traders, farmers follow the London coffee market for Robusta prices and even small changes in prices affect coffee availability. The situation is different for Arabica producers, who contribute only 5 percent of total domestic coffee output and are still trying to build market demand for Vietnamese Arabica by focusing on improving quality and a reliable supply.

Cafe culture and retail coffee shops continue to spread in Vietnam, including Starbucks, Trung Nguyen, Highlands, Vinacafe, Gloria Jean, and The Coffee Bean & Tea Leaf.

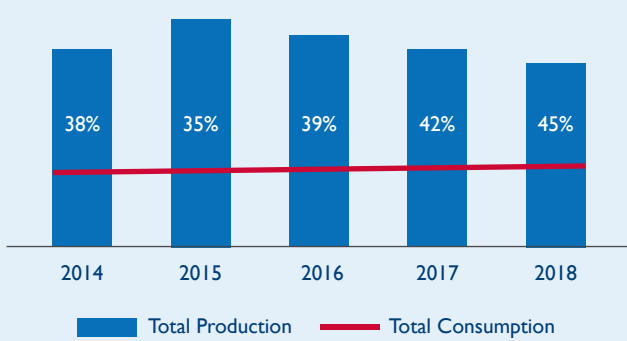


Women in the value chain

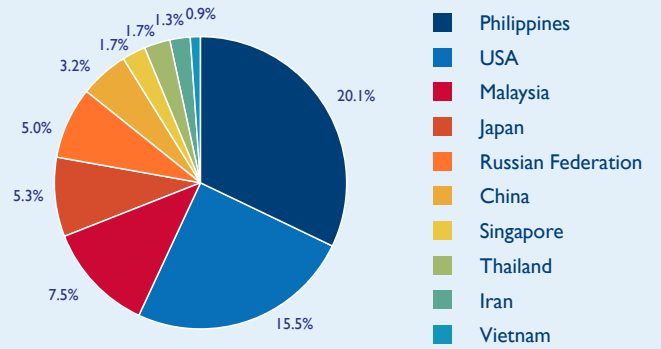
Women seem well represented at the helm of domestic traders, including large traders in Dak Lak. They are usually the point of contact to negotiate with farmers and buyers as they are widely considered to be strong negotiators. At the producer level, they participate throughout the production process, at different levels. Drying beans, selling coffee, and negotiating loans and repayments are the tasks where women's involvement seems the highest.

► **Indonesia** ◀

Production & Consumption (in metric tons)



Top 10 Importers of Indonesia's Coffee Imports (2017)



Source: International Trade Center

Indonesia is the world's fourth largest coffee producer, with 612,000 metric tons of coffee produced in 2018.

Robusta is the dominant variety, grown on 1 million hectares, accounting for 85 percent of total production, while Arabica is cultivated on approximately 300,000 hectares.

Domestic consumption of coffee has risen to 45 percent of total production in 2018, up from 38 percent in 2014. The remaining 55 percent is exported to international markets.

Indonesia exported \$1.66 billion of coffee in 2017, up from \$1.4 billion in 2016. Green beans comprise about 70 percent of total coffee exports and extracts and essences the remaining 30 percent.

Philippines (20.1 percent), U.S. (15.5 percent), Malaysia (7.5 percent), Japan (5.3 percent), and Russia (5.0 percent) are key importers of Indonesian coffee.

Value of Coffee Exports by Sub-product and Country of Destination, 2016

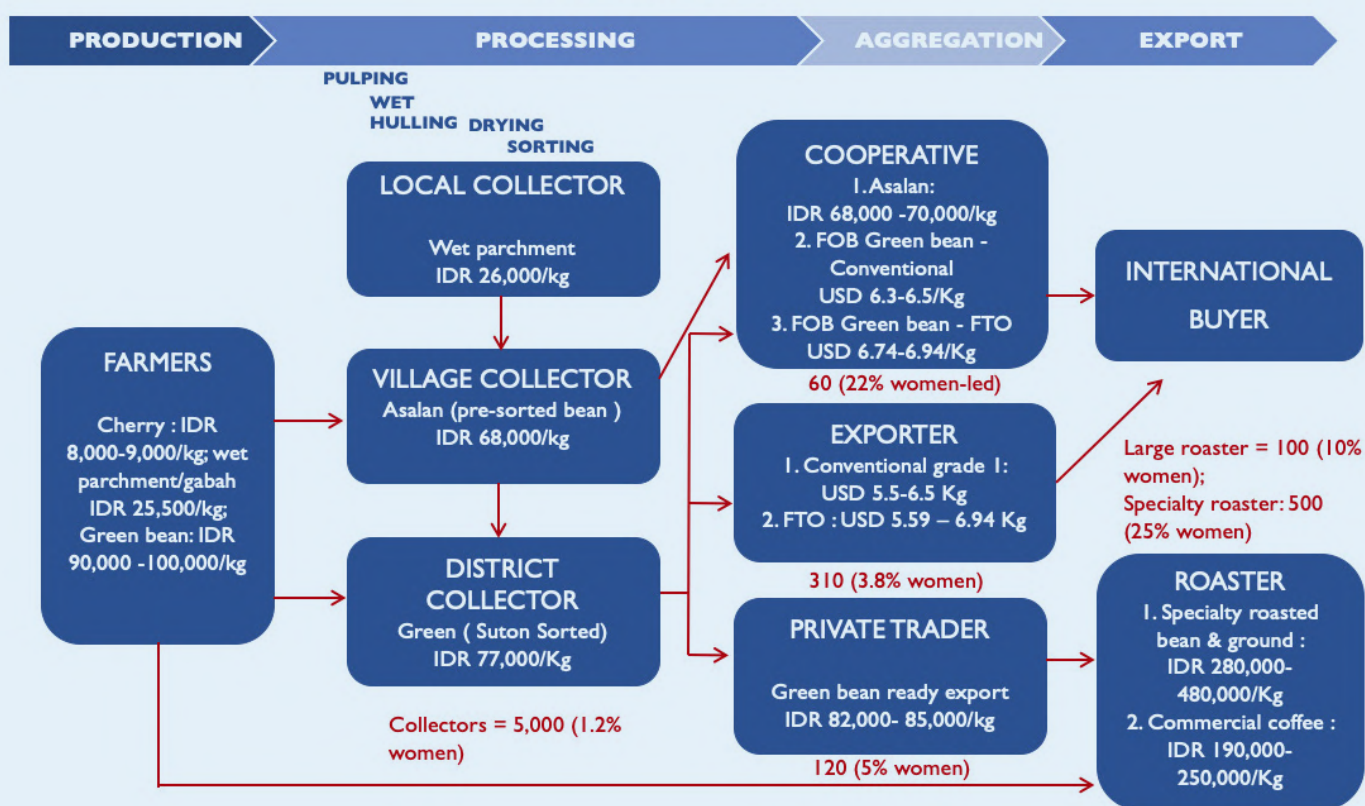


Source: Chatham House Resource Trade Database and UN Comtrade

The coffee value chain in Indonesia is segmented. Collectors operate at different levels, from village to district, to ensure coffee cherries and beans are collected from farmers and transported to cooperatives, private traders and/or exporters. Collectors play an important role in their communities beyond transporting coffee as they often support coffee farmers with short-term loans for non-coffee expenses, such as weddings, school fees, funerals, etc. Some collectors process beans until the presorted or sorted stage. Cooperatives and private traders typically provide further processing until the coffee is ready for export.

With several specific origins recognized for their unique taste, demand for Indonesian coffee is high. Improving productivity and ensuring a reliable supply of quality coffee are priorities for cooperatives and traders.

Mapping the Coffee Value Chain in Indonesia - ARABICA



Women in the value chain

While the coffee value chain in Indonesia remains male-dominated, women participate as producers, collectors, aggregators and roasters.

There is increasing demand for coffee from women's cooperatives from sustainability-focused international buyers and roasters. There are several women's cooperatives in Aceh, Sulawesi and Java.

Notably, women lead an estimated 22 percent of Indonesia's cooperatives and own/lead 25 percent of specialty roasters. Similarly, at the retail end of the value chain, women own or co-own an increasing number of coffee shops, particularly in the premium niche sector, including third-wave cafes and roasteries.

Women comprise 20 percent of certified Q graders and 20 percent of master trainers¹⁴ for Good Agriculture Practices certified by the Sustainable Coffee Platform for Indonesia.

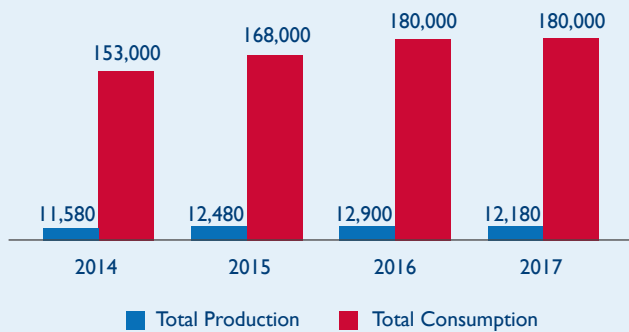
USAID Green Invest Asia's survey of 100 women-led coffee businesses in Indonesia found that:

- Up to 31 percent are roasters; 55 percent are coffee shop owners; 9 percent are traders and/or exporters; 5 percent are coffee producers.
- Businesses have an average of 17 staff, including full-time, part-time and casual workers.
- Only 2 percent export.
- Over half (56 percent) rated their company's cash flow as good, i.e., they always had sufficient cash after paying expenses and salaries. For 41 percent cash flow was "so-so," i.e., sometimes they struggled to pay salaries and expenses. Three percent rated their cashflow as bad.
- Almost two-thirds of businesses (65 percent) have been financing their business through their own savings/retained earnings. Bank financing (either personal or business loans) is used by 22 percent and another 12 percent are borrowing from microfinance institutions.
- Working capital (51 percent), marketing and promotion (26 percent), and expansion into new markets (8 percent) are the top reasons to seek funding.
- In the next year, 88 percent anticipate needing up to \$25,000 in funding, 10 percent will need between \$25,000 and \$71,000.
- The best sources of financing for coffee businesses are considered to be microfinance institutions (33 percent); banks (26 percent); family and friends (17 percent), and; cooperatives (12 percent).
- Over the past two years, 64 percent of coffee businesses grew up to 20 percent a year and 35 percent grew over 20 percent a year. Less than 1 percent reported no business growth.
- In the next two years, companies intend to increase production and/or services (52 percent); introduce new goods/products/services (22 percent); open a new business in a different sector (10 percent); automate/invest in technology/equipment (9 percent).
- Around 70 percent of businesses expect revenue growth of equal or more than 20 percent over the next two years, and another 10 percent expects growth of over 50 percent.
- To finance this growth, companies plan to borrow from banks (31 percent); use their own savings/retained earnings (21.5 percent); bring in equity investors (17 percent); borrow from a microfinance institution (16 percent); borrow from family and friends (14 percent).
- Obstacles to business growth include strong competition in the coffee sector (25 percent); limited access to capital (23 percent); limited marketing skills (17 percent); finding and retaining employees (16 percent).
- Almost half (47 percent) are part of a network/business association. Main goals are making business connections (50 percent); accessing information (17 percent); learning from experience entrepreneurs (15 percent).
- Just over one-third (35 percent) of coffee businesses do not have any sustainability standards, 37 percent have organic certification and 27 percent have Fairtrade certification.

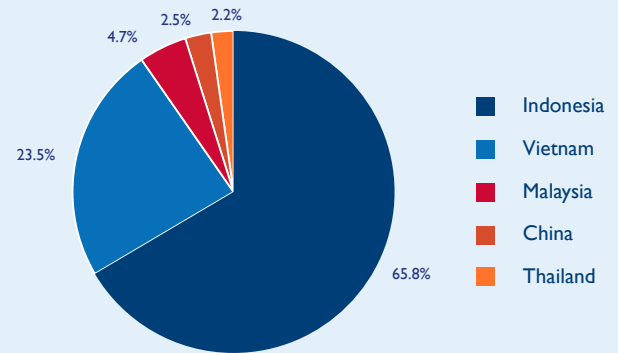
¹⁴ Master trainers are certified to train others.

► Philippines ◀

Production & Consumption
(in metric tons)



Top 5 Coffee Exporters to the Philippines



Source: International Trade Center

Data on coffee production in the Philippines varies considerably depending on the source. The International Coffee Organization estimates 12,000 metric tons in 2018, while estimates from the Ministry of Agriculture are close to 30,000 metric tons.

Four coffee varieties are produced: Robusta, Arabica, Excelsa, Liberica (locally known as Barako). Robusta is the dominant variety with about 75 percent of total production. Arabica accounts for another 20-22 percent. Coffee is produced throughout the country, from Mindanao to Benguet.

Local demand for coffee continues to grow, particularly for soluble coffee, which is estimated at 85-90 percent of total domestic consumption. Drinks such as 3-in-1 mixed coffee beverages are inexpensive, convenient and popular.

Consumption of coffee outstrips domestic production by several fold – between six to fifteenfold depending on the data source.

In 2017, the Philippines imported \$514 million of coffee. Indonesia and Vietnam are the Philippines' largest external sources of coffee, accounting for 90 percent of its imported coffee in 2017.

Indonesia supplies most of the Philippines' coffee solubles and extracts - its exports to the Philippines jumped from \$215 million in 2014 to \$338 million in 2017 as Indonesia upgraded its capacity to produce instant/soluble coffee. Vietnam is a major source of coffee beans for the Philippines while Malaysia, China, Thailand are also important suppliers for the country.

Value of Coffee Exports by Sub-product and Country of Destination, 2016



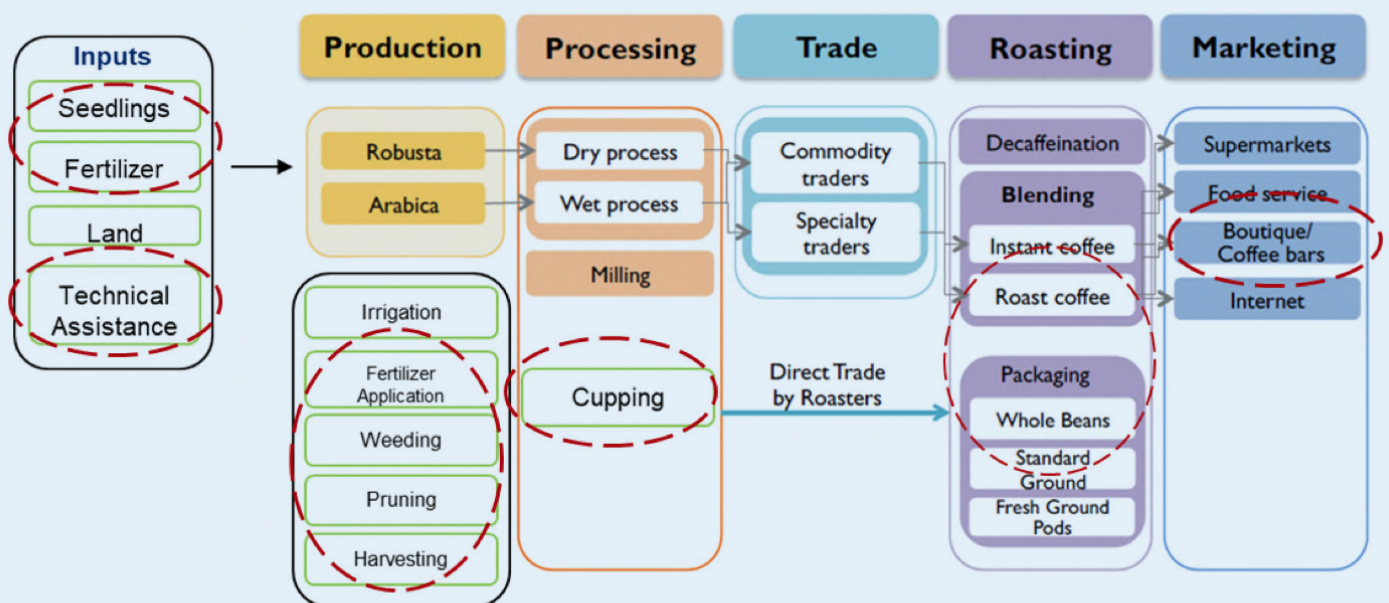
Source: Chatham House Resource Trade Database and UN Comtrade

There is a small number of roasters who have integrated production and processing, most often in Arabica (vertical integration). Some buyers/traders purchase red cherries from farmers to process the coffee themselves, such as Kalsada in Benguet. Other Robusta roasters, mostly in greater Manila, source about 25-30 percent from the Philippines and 70-75 percent from overseas, mainly Indonesia and Vietnam.

The largest coffee retailers are Starbucks, Bo's Coffee and Figaro. However, the number of third-wave coffee shops has increased over the past five years, particularly in Manila and larger cities. This has also led to a growing appreciation for premium Philippine coffee in the domestic market.

Challenges identified in the value chain include: 1) advanced age of coffee farmers and difficulty securing a next generation of farmers; 2) limited availability of quality seedlings; 3) reliance on traditional production techniques and crude postharvest processing methods; 4) industry fragmentation. Many cooperatives are not financially sustainable and are limited in the support they can provide to members.

Industry bodies such as the Philippine Coffee Board have been supporting coffee farmers for the past 15 years with training focused on good agricultural and processing practices as well as women's leadership training to support sustainable practices and better-quality coffee.



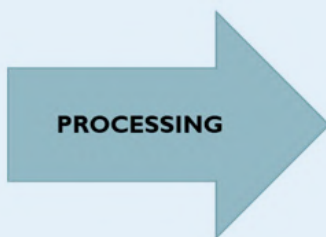
Source: Duke CGGC; Ponte, 2002; Fitter and Kaplinsky, 2001; Daviron and Ponte, 2005, Fernandez-Stark and Bamber, 2012.

Women in the value chain

Women are present throughout the coffee value chain in the Philippines as farmers, pickers, sorters, managers, business owners, roasters, Q graders, cuppers and retailers. Women producers seem to be particularly well-represented in the production and processing of premium Arabica.

A survey conducted among 90 women in coffee in the Philippines found:

- Well over two-thirds (70 percent) increased revenues over the past two years, with 39 percent growing by at least 20 percent.
- Just over two-thirds (67 percent) expect to increase production and services in the next two years.
- Half (50 percent) plan to finance this growth from savings and retained earnings (42 percent currently); 28 percent plan to borrow from banks or microfinance institutions (13 percent currently); 8 percent plan to borrow from buyers.
- The main constraints to expanding business are limited access to capital (55 percent), finding and retaining skilled employees (8 percent), management of existing workers (9 percent).
- Almost half (47 percent) are part of a network/association. Principal reasons are to make business connections, learn from seasoned entrepreneurs, and access information on business opportunities.

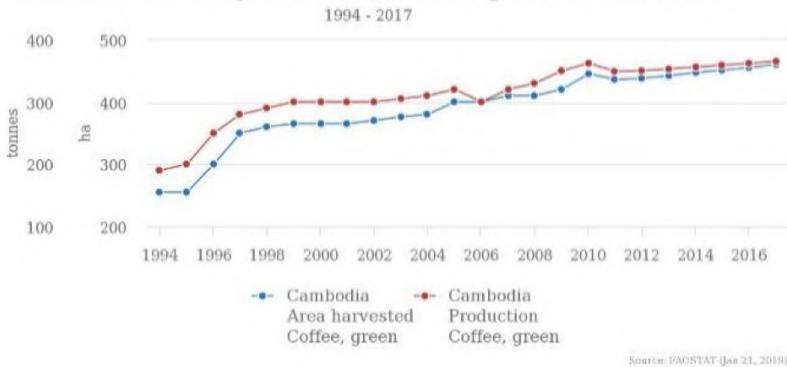


PRICES (in USD/Kg)	Commercial Robusta (≤79)	Specialty Robusta (≥80)	Commercial Arabica (≤79)	Specialty Arabica (≥80)
Cherries	0.38 - 0.94	0.38 - 0.94	0.56 - 1.12	0.56 - 1.12
Green Beans	1.70 - 3.0	3.0 - 6.54	2.80 - 4.67	4.67 - 9.34

Exchange rate (USD to PHP): 53.5416 as of 10/31/2018

► Cambodia ◀

Production/Yield quantities of Coffee, green in Cambodia



Cambodia is a small coffee producer, estimated to be the 60th largest producer country globally, based on FAOSTAT production data.

Coffee is grown in four provinces (Pailin, Kampong Cham, Mondulakiri and Ratanakiri). Production is almost all Robusta, although some domestic producers such as Chay Mao Mondulakiri Coffee grow Arabica.

There has been a recent increase in coffee farms due to higher market prices domestically, but coffee competes for space with other cash crops, such as rubber, cassava and cashews.

Value of Coffee Exports by Sub-product and Country of Destination, 2016

CAMBODIA



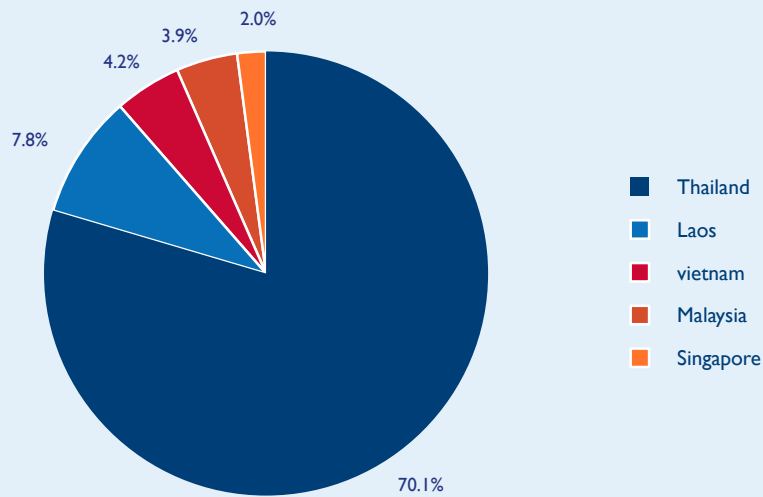
In 2016, the country exported only \$17,000 of coffee beans – including \$5,000 to the U.S.

There is informal trade between Cambodian farmers and Vietnamese traders, but no accurate statistics.

While there are no government statistics on coffee consumption in Cambodia, it is estimated to be on the rise with a growing cafe culture, particularly in the capital, Phnom Penh.

Regional and international chains, such as Amazon, Coffee Today and Starbucks are popular. Given low levels of domestic production, most coffee in Cambodia is imported.

Top 5 Coffee Exporters to Cambodia (2016)

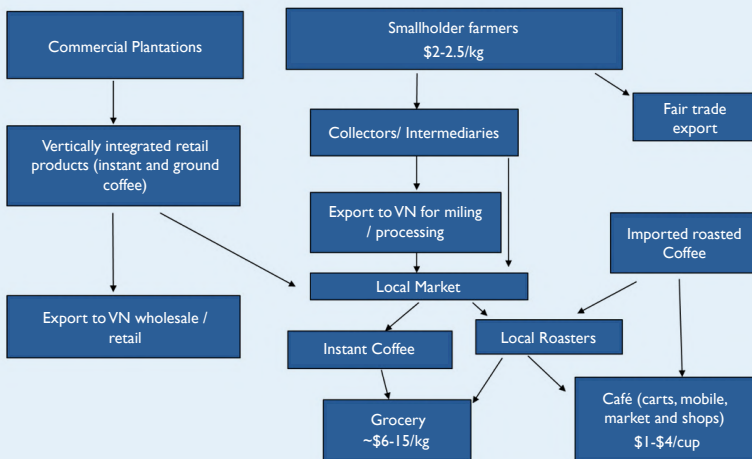


Source: Sources: ITC calculations based on UN COMTRADE statistics International Trade Center

In 2016, Cambodia imported \$11.8 million's worth of coffee, over 80 percent in the form of extracts and essences. Thailand is the most important trading partner, supplying 70 percent of Cambodia's coffee imports.

Other trading partners include Laos PDR (7.8 percent), Vietnam (4.2 percent), Malaysia (3.9 percent), and Singapore (2 percent). The value of coffee trading with Vietnam does not include informal trading.

Coffee Value Chain



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Source: USAID Green Invest Asia

Coffee produced by smallholder farmers is sold on the local market, either as instant coffee or roast coffee. Some of this coffee is processed and sorted in Vietnam, although with the rise of domestic producers and microroasters it is likely that more of these value-add activities will be done in Cambodia.

Women in the value chain

Women are well represented at the retail end of the value chain, with several cafes owned or co-owned by women. These businesses are largely concentrated in Phnom Penh.

▶ Annex 2: Methodology

This study investigated the role of women-owned coffee enterprises and identified challenges, opportunities and competitive advantages for women in Southeast Asia's growing coffee industry in Cambodia, Indonesia, Philippines and Vietnam. It was conducted over a period of eight months in collaboration with the International Women's Coffee Alliance, which has chapters in the Philippines, Indonesia and Cambodia, and with the support of locally based consultants.¹⁵

The study collected primary data through:

- Consultations with key industry stakeholders for an overview of market characteristics and trends (industry networks, producer organizations, large domestic and international buyers, traders, roasters, producers).
- An online survey of women-owned coffee businesses to understand business characteristics, such as average size, years in operation, focus within the value chain, and finance needs. Surveys were conducted in the Philippines (90 respondents), Indonesia (100 respondents) and Cambodia (not reported due to insufficient response).
- In-depth interviews with four to eight women-owned coffee enterprises in each country to better understand their needs, challenges and perceived growth opportunities in the industry. Businesses were selected based on their fit with the scope of the research, availability and location.

¹⁵ In the Philippines, Jennifer Rimando; in Indonesia, Rahmayana Fitri; in Vietnam, Giang Nguyen Ngo; in Cambodia, Celia Boyd.

► Annex 3: Participating coffee businesses

Vietnam		
La Viet	Based in Da Lat, central Vietnam, La Viet produces, processes, roasts and sells Arabica coffee (retail and wholesale of green beans). It has its own farm (35 hectares) and also trains other farmers how to improve agricultural production to make better coffee.	Ho Chi Minh
Volcafe	Sources about 100,000 tons/year of beans from Vietnam and sells them internationally. In 2017, it started producing soluble coffee.	Ho Chi Minh
Bosgaurus Coffee	A specialty coffee store focused on promoting Vietnamese Arabica coffee.	Ho Chi Minh
Phuong Coffee Power Production	A woman-owned and led chain of five stores in Buon Ma Thuot, Ho Chi Minh and Ha Noi. Main products are roasted and processed coffee (including coffee powder). Owner has been in the coffee industry for 35 years and was a coffee collector for seven years before starting her coffee processing business.	Buon Ma Thuot
Kotam Social Tourist Company – Quang Anh Coffee Production	In the coffee industry since the early 1980s, owner worked as farmer, collector, exporter until she switched her focus to a tourist company a few years ago due to increasing competition in the coffee market.	Buon Ma Thuot
Phuc Minh Coffee Company	Family-owned and woman-led trader of Robusta beans. Nestle is among its clients.	Buon Ma Thuot
An Thai Coffee Company	Family-owned and woman-led business, An Thai Group has three companies and deals with coffee (roasting and processing), producing fertilizers and import-export of other agricultural products.	Buon Ma Thuot
Vinh Hiep Coffee Limited Company	Ranked fourth biggest coffee exporter in Vietnam. Vinh Hiep exports green coffee beans to EU market (60 percent), U.S., Korea, Singapore and Japan. L'amant Coffee was established in 2018 to retail USDA-certified organic coffee produced on their 37-hectare farm. First company in Vietnam with USDA-certified organic coffee, certified in 2017.	Pleiku City, Gia Lai
GBF Coffee Production	Sources coffee from farmers and collectors and sells coffee powder (instant) – mostly Robusta but also a mix of Robusta-Arabica to five stars hotel in Ho Chi Minh city and Hanoi. Also exports to Russia and Hong Kong.	Pleiku City, Gia Lai
Thu Ha Coffee Production	Family business established in 1960. Has been producing coffee powder and instant coffee since 1971. Thu Ha sells domestically in Ho Chi Minh, Da Nang and Ha Noi. Also exports to Australia.	Pleiku City, Gia Lai
Hoang Quyen Agricultural Exporting Limited Company	Family business trading coffee and other agricultural products, such as pepper. Sells to international buyers (Neumann and ACOM).	Buon Ma Thuot
MyViet International Group	Company established for four years after separating from An Giang Vegetable Production Cooperation. Sources from cooperatives/farmer groups to produce coffee powder and roasted coffee beans (Arabica and Robusta).	Buon Ma Thuot

Indonesia

PT Bon Cafe	Previously known as PT Caswells Indonesia, PT Bon Cafe Indonesia was acquired in September 2017 by Boncafe Group of Companies. It supplies roasted and ground specialty coffee to hotels, established restaurants and cafes in Indonesia.	Jakarta
First Crack Coffee	A woman-owned and led specialty cafe and roaster, First Crack Coffee sources directly from farmers in Java, Gayo, Flores, Papua, and Bali and provides training on good agricultural and processing practices. Owner is a certified Q grader.	Jakarta
Monomania Coffee Roastery	A woman-owned and led specialty cafe and roaster. It supplies roasted beans to other establishments in Jakarta and other cities in Indonesia.	Jakarta
Kopi Katalis	A woman-owned and -led micro roastery that sources beans from farmers and farmer collectives in Indonesia and supplies to third-wave cafes in Jakarta and Bali. Focused on premium quality.	Jakarta
KSU Srikandi Kopi	A woman-led coffee cooperative established in 2015 with support of World Wide Fund for Nature. It has 200 members (including 20 men). It operates a revolving fund to support coffee farmers with their operational expenses. Coffee is processed, roasted and sold by the cooperative.	Lampung
D'Orange Brewing Coffee	An SCA Coffee Diploma holder who gives free classes to those in the community interested to learn more about coffee. Her first coffee shop is set to open in early 2019.	Lampung
Kokowa Gayo	Kokowa Gayo is a women's cooperative established in 2014 as a sister organization of Permata Gayo, a men-led cooperative with mixed membership (established in 2009). All members are women. Fairtrade and organic certified.	Takengon,Aceh
Ari Aras Awali	A women's cooperative established in 2016 as a sister organization of Arinagata, a men-led cooperative with mixed membership. All members are women. Organic certified.	Takengon,Aceh
Erfas	Established in 2016, Erfas is a women-led cooperative with 1,200 members, 30 percent of which are women. Fairtrade and organic certified.	Takengon,Aceh
Ketiara	Established in 2009, Ketiaras is a women-led cooperative with 800 members from 20 villages. Membership is mixed. Fairtrade and organic certified.	Takengon,Aceh
Ketiara Retu	Established in 2017 as a fully-female cooperative, formed from the Ketiaras cooperative. Ketiaras Retu has close to 1,000 members in 18 villages around Takengon.	Takengon,Aceh

Philippines

Commune	Woman-owned and -led third-wave cafe specialized in Philippine premium coffee. Also acts as community builder for coffee lovers in Manila. Member of IWCA.	Manila
Madchikom Multipurpose Producer Cooperative	Madchikom is a multipurpose cooperative with 20 members in Aguid, Sagada. All members produce coffee and all but one are women from the Igorot indigenous group.	Aguid, Sagada
Ola's Farm	Family-run Arabica coffee farm with over 7,000 trees on the Aguid mountains. Member of Madchikom cooperative. One of the farmers is a certified Q grader/trainer and supports other farmers improve their practices.	Aguid, Sagada
Mount Kalugong Cultural Village	Coffee shop focused on premium Philippine coffee. Owner is a certified Q grader and acts as buyer and cupper to farmers to suggest improvements. Buys from cooperatives or from roasters.	La Trinidad, Benguet
Cafe Maleng-ag	Roaster focused on premium Arabica (Philippine and imported beans). Sells to cafes and restaurants domestically.	La Trinidad, Benguet
Belardo Coffee Enterprises	A producer/trader/roaster/coffee shop, Belardo sells green beans to Nestle, McDonalds and other buyers; and roasted beans to restaurants, hotels and customers in the U.S. and Cebu.	Manila

Cambodia

Lot 369 Cafe	Lot 369 is a chain of three coffee shops in Phnom Penh. They source beans from Feel Good Coffee but have plans to expand and do their own sourcing and roasting in the future. They are Australian-owned and managed by a Cambodian woman, Lundy Chou.	Phnom Penh
Feel Good Coffee	A social business founded in 2012 that invests in ethical and sustainable sourcing, roasting and selling throughout the value chain, working directly with farmers to help train them and understand where all of their coffee comes from. Their business model includes sourcing and roasting coffee to sell wholesale to coffee shops and chains in Cambodia, and also running their own cafes. They are one of the most well-known coffee suppliers in Cambodia. They source green beans from Thailand, Vietnam, Laos and Cambodia.	Phnom Penh
Chay Mao Mondolkiri Coffee	Established coffee producer, processor, and trader with integrated value chain. One of the largest domestic coffee companies and a well-known brand with a suite of coffee products, mostly instant coffee.	Mondulkiri
Agape Coffee	Producer and cafe owner. Family-owned 10 hectare farm in Koh Kong with three coffee shops in Phnom Penh and Koh Kong. Coffee production of 1.5 tons green beans per year. Owner graduated from SHE Investments business incubator program ¹⁶ and will receive US\$6,000 from SHE's financing program, Thrive, to purchase a small roaster (capacity of four kilograms).	Phnom Penh
Legend Coffee	Founded in 2010, Legend Coffee is a restaurant and a coffee shop owned and led by a couple. Legend Coffee started with coffee beans, because they wanted to provide food and coffee that were healthy for their customers. Currently source from outside Cambodia, blended with Cambodian beans.	Phnom Penh
Woodstamp Coffee Roasters	Established in 2016, Woodstamp runs two coffee shops and restaurants and supplies coffee to specialty coffee stores in Phnom Penh. It focuses on premium Arabica beans and imports blends from a few different origins. Does not source from Cambodia.	Phnom Penh
Cyclo Cafe	Opened in 2016, this is a chain of three coffee shops popular with local customers. Buys coffee from Boncafe – a blend of international and local beans. Family-owned and run (brother and sister).	Phnom Penh
La Chronique Cafe	Opened in 2016 by a former Costa staff, La Chronique is a woman-owned and run cafe and restaurant. Coffee is procured from Feel Good Coffee and it is a blend of beans from Thailand, Laos, Vietnam and Cambodia.	Phnom Penh
Bunong Indigenous Peoples Association (BIPA)	Local association/small NGO which supports the livelihoods of Bunong farmers in Mondulkiri province, many of which have lost land due to land grabbing and have had to change their farming practices. Beneficiaries/families involved in the project include 200 families involved in coffee farming – each has an average of 0.5-1 hectare plots. Production is about 30 tons.	Mondulkiri
Feel Good KF Cafe	Opened in 2017, Feel Good KF Cafe is an informal franchisee of Feel Good, where the owner and manager Tina used to work. Located next to the Killing Fields.	Phnom Penh

¹⁶ SHE is a social enterprise that designs and delivers the first and only gender-focused and culturally tailored business incubator and accelerator programs for women in Cambodia.



United States Agency for International Development (USAID) Green Invest Asia is a platform that unlocks private investment into agribusiness and forestry companies committed to sustainable land use practices in Southeast Asia. The platform links investors with environmentally and socially responsible deals, while helping businesses scale and become investment-ready. Sustainable land use will contribute to reducing commodity-driven deforestation and land degradation, while helping corporates and investors meet their sustainability goals.

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