

Coffee Interconnections

Dr Susan Bliss
GeoWorld 7, 8, 9, 10 (Macmillan)

GEOGRAPHY SYLLABUS

PERSONAL CONNECTIONS	ICT TECHNOLOGY	PRODUCTION CONSUMPTION	TRADE
<ul style="list-style-type: none"> Cultural (coffee), future trends Impacts on places (countries, regions, rural, urban) Fieldwork/Investigation –local shopping centre, café, large global coffee company – Starbucks 	<ul style="list-style-type: none"> Impacts of technology –production equipment and communications allows large scale production at a low cost. ICT used by Starbucks 	<ul style="list-style-type: none"> Production process – machines, technology, transport Consumption of coffee, growth in Asian countries, organic and specialty blends 	<ul style="list-style-type: none"> From producer to consumer (movement), trade agreements, Fairtrade. Price fluctuations

'Black as the devil, hot as hell, pure as an angel, sweet as love.' That's the recipe for coffee according to French statesman Talleyrand (1754 –1838).



People drink more than 2.5 billion cups of coffee each day coffee, ranging from instant, strong Turkish, Italian espresso, specialist gourmet, organic and no caffeine varieties. Aside from the satisfying 'buzz' first thing in the morning, coffee's greatest power is how it connects people, places and environments across the world in a complex network of international trade.

Coffee is the world's most traded product, second in value to oil. Brazil is the world leader in coffee production and USA the largest consumer. Interconnections along the coffee 'supply chain', involves producers, exporters, importers, roasters, and retailers before reaching consumers.

The coffee industry worth over \$100 billion a year, produces large profits for transnational organisations (TNC) such as Nestle and Starbucks. Unfortunately not all stakeholders along the coffee 'supply chain' benefit fairly from its profits. When we pay for luxury lattes at the local café, the price paid exceeds half the daily income of many small-scale coffee farmers. This inequality has led to Fairtrade organisations working to provide coffee growers with improved working conditions and larger slice of the profits. You are aware of the lingo 'medium mocha macchiato decaf grande skim latte' now become fluent with the details!

INTERCONNECTIONS:

COFFEE MOVES TO ISLAMIC COUNTRIES

Ethiopians were the first people to recognise the energising effect of the coffee bean plant. It is believed that Kaldi, a goat herder in Ethiopia, noticed goats were friskier after eating red berries from the plant. The energising substance is called 'caffeine'.

The earliest coffee drinking appeared in the mid 15th century, in Sufi monasteries in Yemen. The Sufi's or Whirling Dervishes drank coffee as a stimulant, to help them stay awake during meditation and prayers. Sufi's spinning is referred to as physically active meditation. It occurs when Sufi's spin in repetitive circles aimed to unify their mind, emotion and spirit. Today, it is practiced by the Sufi Dervishes of the Mevlevi order in Turkey.

Whirling Dervishes in Turkey

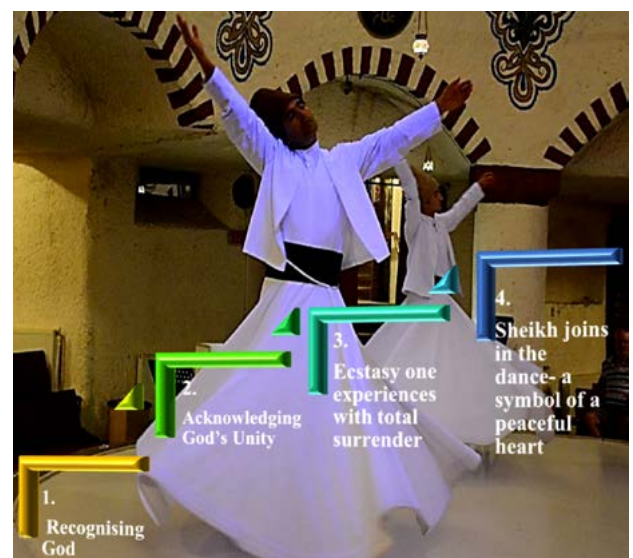
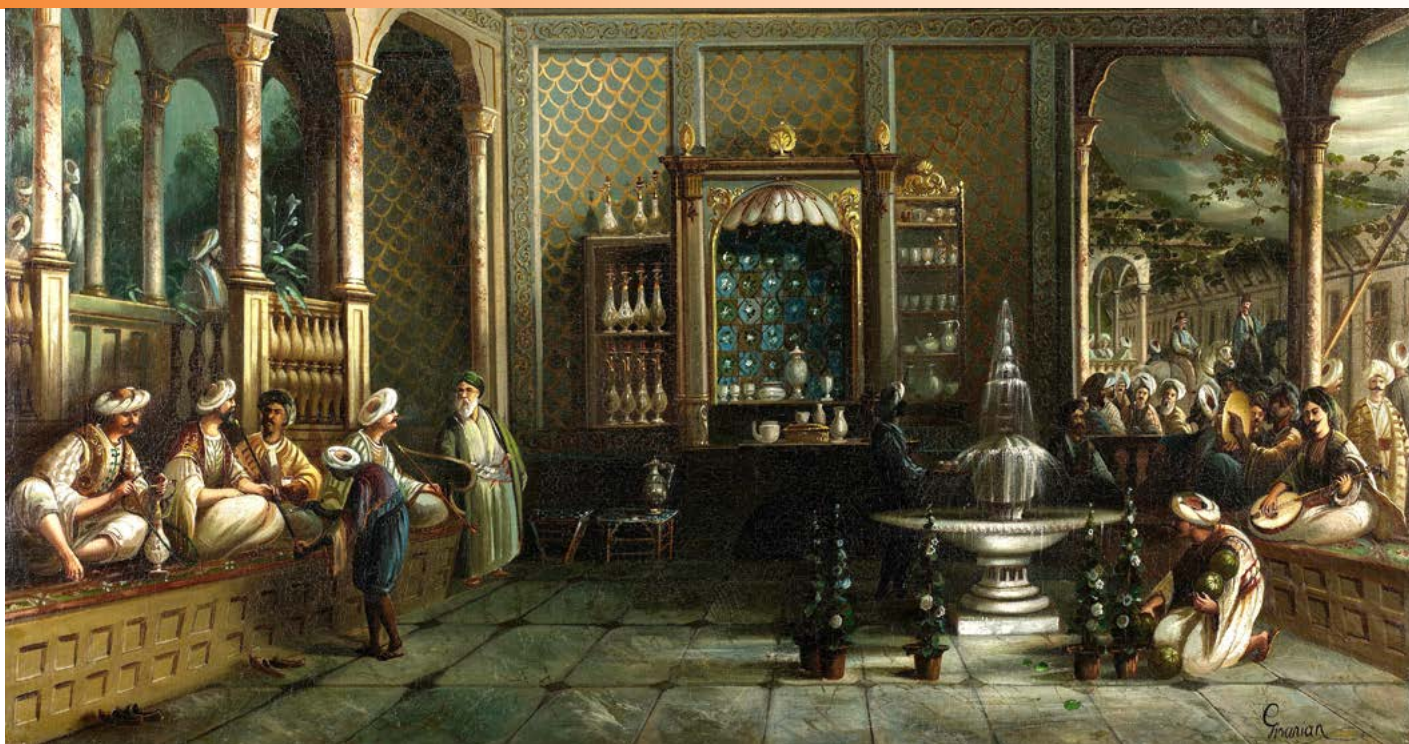


Image: Cappadocia, whirling dervish, (J. Bliss)



A Coffee House in Tophane (Istanbul). 19th Century painting by Megerdich Jivanian (1848–1906)

Source: [https://commons.wikimedia.org/wiki/File:Megerdich_Jivanian_\(from_Thomas_Allom\)_-_A_Coffee_House_in_Tophane_-_Google_Art_Project.jpg](https://commons.wikimedia.org/wiki/File:Megerdich_Jivanian_(from_Thomas_Allom)_-_A_Coffee_House_in_Tophane_-_Google_Art_Project.jpg)

Pilgrims, traders and travellers, spread coffee drinking throughout the Islamic world. It reached Mecca (Saudi Arabia), where it was drunk in mosques, and in 17th century Syrian businessmen established coffeehouses in Istanbul. Coffee became available throughout the Ottoman Empire. Formation of culture around coffeehouses dates back to the 14th century in Turkey. As coffee was a powerful aid to intellectual discussions, people met and conversed. The coffee was brewed in large cauldrons, flavoured with saffron, cardamom, opium, hashish and/or ambergris. The Sultan's coffee service consisted of golden braziers to heat the coffee. Golden pots held on gold chains by slave girls, gracefully passed the coffee in the finest porcelain cup to the Sultan's lips.

In 1672 the first Parisian coffee café opened and in 1713 King Louis XIV was presented with a coffee tree. Coffee's growth is tied up with the explosion in trade networks brought about by the spread of international empires. For example, Belgium (9th largest global coffee consumer) established coffee plantations across the Congo and Rwanda in Africa. In London many coffee houses became the world's most powerful businesses such as Lloyd's Coffeehouse became Lloyds of London and the Baltic Coffeehouse became the East India Company.

In 1952 the Pan-American Coffee Bureau, promoted the 'coffee break' in the workplace. Its uptake was facilitated by the popularity of instant coffee and vending machines. Today coffee has become an institution in the Australian workplace

GLOBAL COFFEE CULTURE

In Saudi Arabia ceremonies are performed around the consumption of coffee and in Ethiopia their love of the beverage, can necessitate an hour to merely make the drink. Today, coffee is consumed in café's and sold by street vendors, extending across age, gender and cultural barriers. Coffee drinking is displayed on television such as *Frasier*, where Frasier and Niles drink lattes in the *Café Nervosa*, and the six characters in *Friends*, provide youthful camaraderie, while drinking coffee at *Central Perk*.

As the world has evolved into a 'gotta-have-it-now', transnational corporations such as Starbucks have established a chain of restaurants around the world.



Cartoon: <https://runningintherealworld.files.wordpress.com/2011/05/barista.gif>

Coffee Interconnections

GLOBAL COFFEE PRODUCTION & CONSUMPTION

Approximately 90% of the world's coffee production occurs in developing countries between the Tropic of Cancer and Tropic of Capricorn such as Brazil and Vietnam, but is consumed in developed countries experiencing temperate climates, such as Europe and USA. In many developing countries coffee is the main export such as 50% in Uganda and 75% in Burundi.

According to International Coffee Organisation (ICO) roughly 25 million families depend on growing and exporting beans, most of them are small-scale farmers.

OVERVIEW: GLOBAL COFFEE PRODUCTION & CONSUMPTION

Production:

- Grown in 70 countries, most in developing nations located around the tropics such as Latin America, Indonesia, Papua New Guinea, Ivory Coast
- About 33% of world's coffee beans are produced in Brazil.

- Growth in production in Asia-Pacific region

Consumption:

- USA is the world's largest coffee consumer. Growth in the Asian market
- Finland is the highest per-capita coffee consumers in the world
- Coffee drinkers consume 3.3 cups of coffee per day. 35% of coffee is consumed at breakfast

TRADE CONNECTS COFFEE PRODUCERS TO COFFEE CONSUMERS

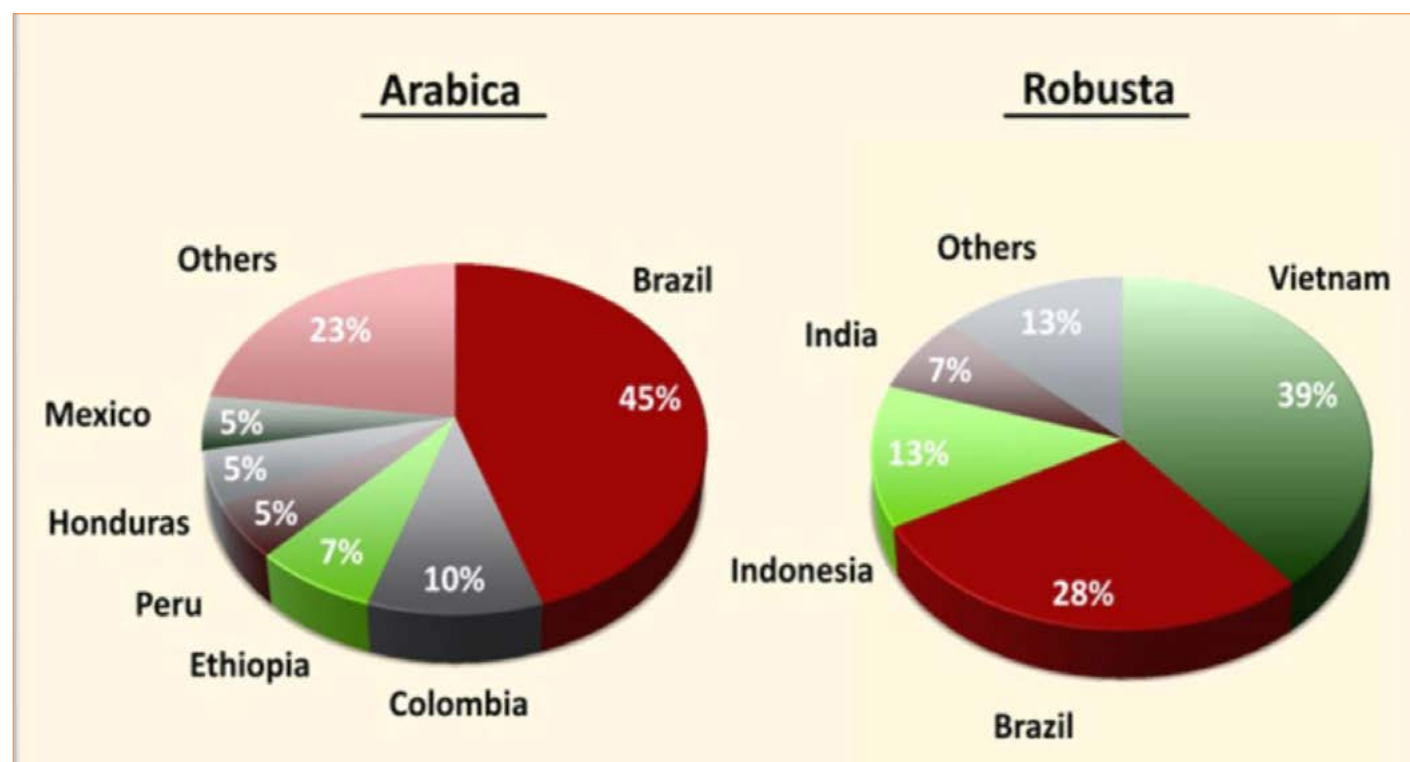
Main coffee exporting countries

Brazil, Vietnam and Colombia. However, only about \$7bn out of \$100bn coffee sales goes back to coffee producing countries

Main coffee importing countries

USA, Germany, Japan, France, Italy and Spain. Coffee trade is essential for USA that spent \$74.2bn on coffee in 2015.

Main countries producing Arabica and Robusta coffee species



Pie graphs: <http://photobucket.com/gallery/user/vcyee/media/cGF0aDovQXJhYmJjYVJvYnVzdGEzX3pwc2NkMDBiYTQ1LmpwZW==/?ref=>



Coffee Interconnections

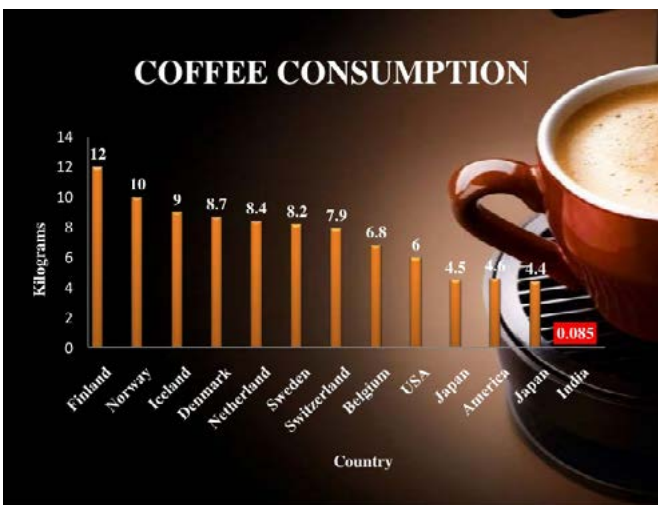
Once picked, coffee travels long distances, changing hands a great many times. In fact a typical coffee bean changes hands 150 times on its journey from plant to cup. Most coffee is transported by ships. Currently there are 2,200 ships involved in transporting beans each year.

Map of main exporting & importing countries



Map: <http://www.geocurrents.info/economic-geography/hot-caffeinated-and-expanding-the-global-geography-of-coffee-tea-and-yerba-mate>

Graph: Main consumers of coffee by highest per capita consumption

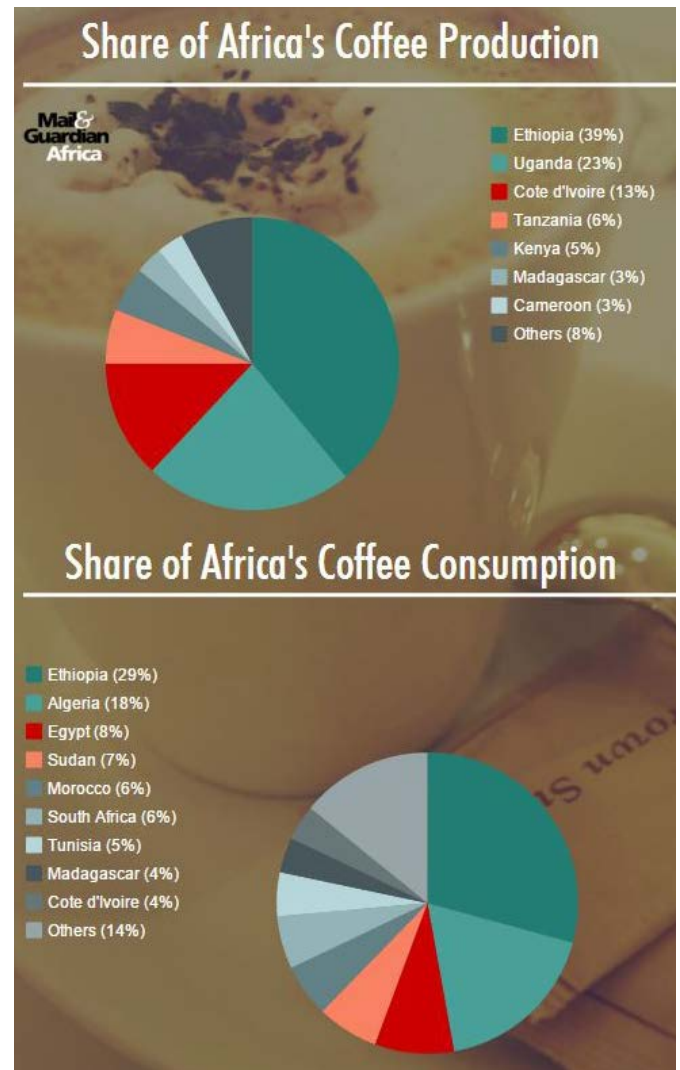


Graph: <https://image.slidesharecdn.com/coffeeindustry-131228133454-phapp02/95/coffee-culture-in-india-industry-analysis-7-638.jpg?cb=1388237912>

PRODUCTION & CONSUMPTION OF COFFEE IN AFRICA

Ethiopia and Uganda dominate the region's coffee production. However, with the exception of Ethiopia, Africans drink very little coffee. Globally per capita coffee consumption is low, with leading consumers – Ethiopia (2.27 kg), Madagascar (1 kg) and Cote d'Ivoire (0.9kg). However, this is changing with the growing urbanised middle class driving up coffee consumption, reflected by the growing number of local coffee shop chains. Historically coffee has mainly been grown for exports.

Pie graphs: Share of Africa's coffee production and consumption



Pie graphs: <https://assets.weforum.org/wp-content/uploads/2015/10/151021-Africa-coffee-production-consumption-MG.jpg>

COFFEE SUPPLY CHAIN-'FROM SHRUB TO MUG'

The coffee supply chain is complex, open and dynamic. It is composed of different processes and multiple stakeholders of different sizes that compete on price, brand and market share.

Stakeholders

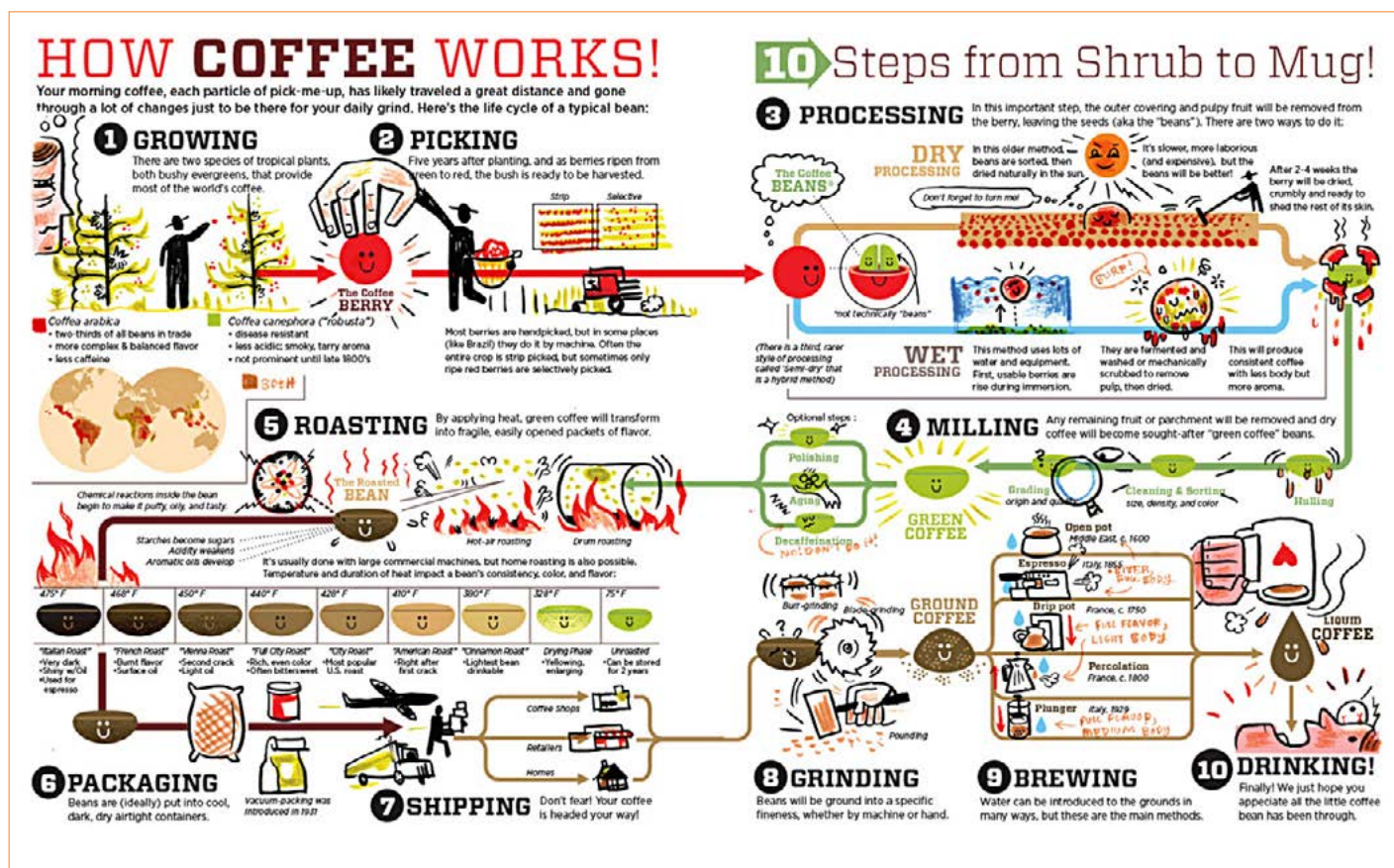
Farmers, buyers, shippers/transporters, importers, traders, roasters, labelers/packagers, distributors, shop owners/grocery store owners, consumers.

Processes

Grow (Arabica or Robusta species), pick (hand or machine), process (dry or wet), mill (hull, clean, sort, grade), roast, package, ship/transport, grind, brew, drink.

Coffee Interconnections

Coffee supply chain combines stakeholders and processes



Infographic: https://tazzadiluna.files.wordpress.com/2014/05/zettwoch_coffee_blueprints_ketch.jpg?w=1400

COFFEE SUPPLY CHAIN – UGANDA, GERMANY, AUSTRALIA

Germany:

Big roaster but not a single coffee bush found!

- Uganda
Coffee grown at the Nambongo Company Farm in Eastern Uganda is processed in Germany.
- Germany
One of the leading coffee exporting countries – without growing a single coffee bush.
 - 98% of coffee imports come from developing countries e.g. Uganda
 - Makes a profit out of processing and re-exporting coffee (30% of coffee is re-exported) large quantity goes to the USA and some to Australia
- Australia
Coffee grown in Uganda and processed in Germany is sold in Australian supermarkets and restaurants.

Coffee roaster, Karen Blixen's house, Kenya Nairobi



Image source: (J. Bliss)

Karen Blixen who wrote *Out of Africa*, lived on a property 15 minutes from Nairobi in Kenya. Today the coffee garden contains hundred year old coffee trees. Karen and husband hired local workers, predominantly the Kikuyu to work on the coffee farm.

COFFEE GROWTH TRENDS IN ASIAN COUNTRIES

The global coffee industry continues to experience growth driven mostly by Asian markets. Four out of the five fastest growing retail coffee markets are located in countries in the Asia region. The global leader is Indonesia growing a 17.5% followed by Asian countries, such as Turkey (17.5%), India (15.1%) and Vietnam (14.9%). This growth is attributed to an increase in the number of new coffee products on the market, and many traditional tea drinking consumers converting to coffee.

Starbucks and Nestle are two of the major US companies with a presence in Asia. Several European coffee companies compete for the Chinese market, including Illy, Lavazza and Jamaica Blue Mountain.

Top five fastest growing markets



Image: http://www.beveragedaily.com/var/plain_site/storage/images/media/images/mintel-top-five-coffee-markets-march-2017/11749696-1-eng-GB/mintel-top-five-coffee-markets-march-2017_reference.jpg

China imports coffee from 50 countries and today almost one third of the Chinese population consumes coffee outside their home. However, over the last few years production and consumption of coffee have grown at double-digit rates. Vietnam (49%) is the largest supplier of coffee to China, followed by Indonesia (14%) and Malaysia (7%). The Chinese have an overwhelming preference for tea, however coffee consumption has tripled over the past four years. Instant coffee makes up 99% of sales but fresh roasted coffee is growing rapidly. Coffee shops have become a fixture in the urban landscape and specialist coffee shops are appearing.

The Chinese government is promoting the expansion of thousands of hectares of coffee production in Yunnan Province to cater for this growth.



Source: <https://www.worldcoffeepress.com/wp-content/uploads/coffee-in-china.jpg>

YUNNAN PROVINCE, CHINA

China's massive population and largely untapped market presents a huge opportunity to increase coffee production in the country. Coffee (Arabica) is predominantly grown in Yunnan Province as it possesses an ideal environment with a mountainous landscape and mild climate bordering the Coffee Belt. In fact the Province accounts for 98% of China's coffee output. Coffee giants such as Nestle and Starbucks have been purchasing Puer coffee, from Yunnan Province. A hectare of coffee in Puer earns more than \$10,000 a year, triple the amount for tea, and five times more than rice.

Increased production in the country has resulted in China producing more coffee than the combined output of Tanzania and Kenya. China now exports coffee to 97 countries with Germany (71%) its biggest destination.

China provides opportunities for coffee traders as it mainly grows Arabica beans but generally drinks Robusta beans.

Coffee output in Yunnan Province

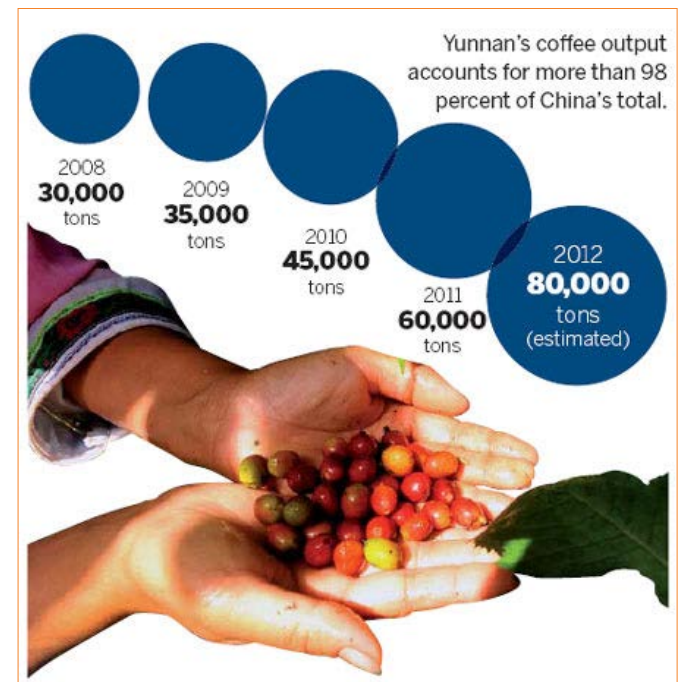


Diagram: <http://europe.chinadaily.com.cn/epaper/images/attachement/jpg/site24/1/20121130/0013729e4771122264eb0c.jpg>

Map: <http://www.coffeehabit.com/wp-content/uploads/2010/02/china-coffee-map.jpg>



ELEPHANT DUNG COFFEE – THE WORLD’S RAREST COFFEE

Black Ivory Coffee is produced by the Black Ivory Coffee Company in northern Thailand. The coffee has been described as very smooth without the bitterness of regular coffee and is among the world’s most expensive coffees, at US\$1,100 per kilogram.

Process

The Golden Triangle Asian Elephant Foundation (GTAEF) selects the best 100% Thai Arabica beans picked from an altitude as high as 1500masl.

The elephants are fed 33 kilograms of Arabica coffee cherries to produce one kilogram of coffee. The Arabica coffee beans are digested by the elephants for around 24 hours. Once the elephants have defecated the wives of elephant mahouts (*mahouts work, ride and tend elephants), collect the dung, break it open and pick out the coffee. They are then sundried and roasted.

The elephants’ digestive enzymes breaks down the coffee’s protein, that contribute to coffee’s bitterness. The elephants do not get over active from the coffee, as caffeine is only released when beans are heated.

Increased wellbeing

- Provides valuable income for the wives of mahouts to help cover school fees, health expenses, food and clothing
- Women can earn a legal day’s wage in 45 minutes
- About 8% of Black Ivory coffee sales funds elephant veterinarians and medicine to treat sick elephants.

Elephants at Black Ivory coffee



Image source: <http://m5.paperblog.com/i/37/376635/the-black-ivory-coffee-L-DGIw.jpeg>

Cat ‘shit’ coffee



Image: <http://www.look4ward.co.uk/wp-content/uploads/2016/06/simg1.jpg>

Civet coffee or Kopi Luwak is one of the most expensive coffees in the world. It is produced in Indonesia (Sumatra, Java, Bali and Sulawesi), Vietnam and the Philippines.

An Asian cat-like animal called a palm civet or civet cat eats ripe coffee cherries. After they have been partly digested (takes about 24 hours), they are defecated. The faeces are collected, washed and roasted, then sold as kopi luwak.

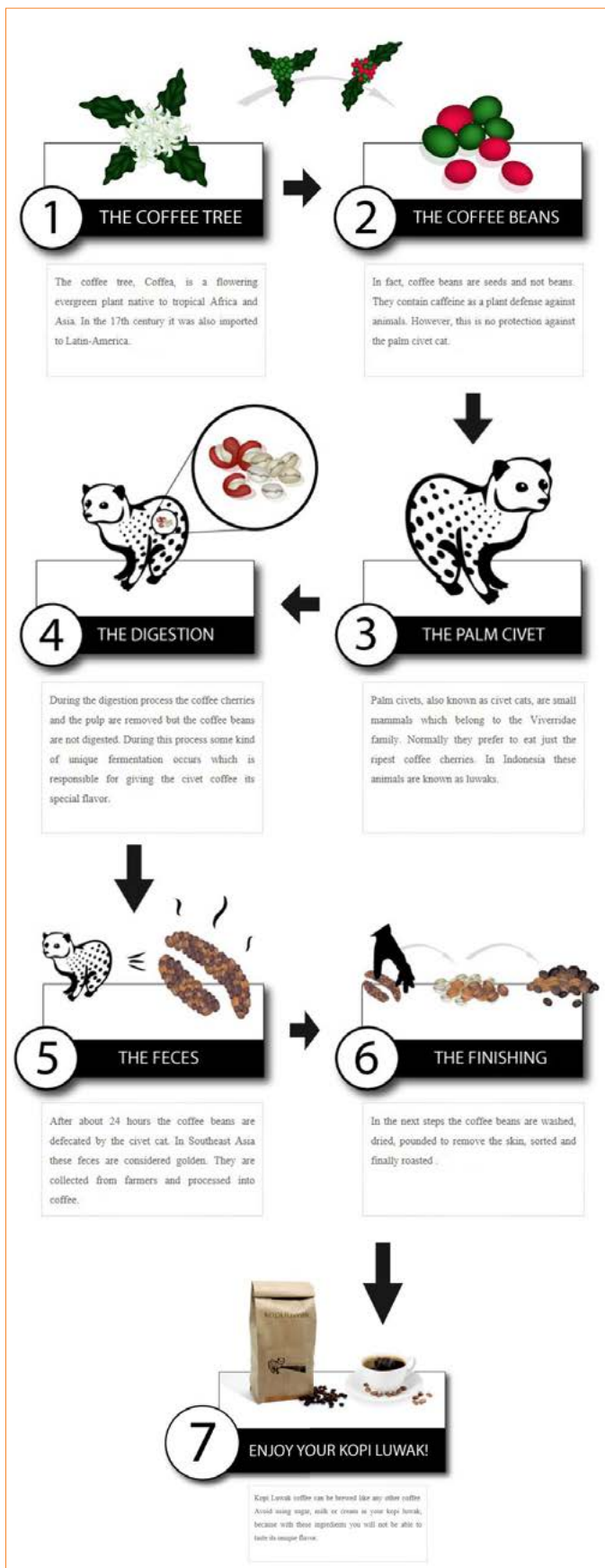
The digestive process is supposed to improve the flavour of the beans. The short supply of this coffee, different taste, and unusual production methods explains the reasons for its high cost.

	Kopi Luwak	Average coffee
Per cup–ordered in shop	\$35–\$100	\$2–\$5
Price per 500g	\$100–\$600	\$3–\$10

Problems

- intensive farming of civets in battery cage systems are forced fed coffee cherries
- some regard kopi luwak as a novelty drink, and sold for the story – not superior quality
- trade in civets is threatening wild populations
- some producers label coffee from caged civets as ‘wild sourced’ and about 50% of civet coffee is supposedly counterfeit
- in 2004, all civets (approximately 10,000) in Guangdong, China were exterminated by Chinese authorities, as it was believed they transmitted SARS to humans.

Civet coffee process



Adapted <http://www.most-expensive-coffee/make-kopi-luwak-coffee/>



Patent Steam Coffee Roaster, 1884. Source: Wikimedia Commons

INEQUALITY: RICH VERSUS POOR IN COFFEE INDUSTRY

Production: from farmer to roasters

A large number of small businesses/farmers producing coffee sell their product to a handful of big companies, called transnational corporations (TNC).

Farmers sell to roasters

TNCs undertake contracts with farmers who sell them seeds, fertilisers and pesticides and in return buy their harvests at low prices. As a result, 25 million small coffee farmers receive about 10% of the cost of a jar of coffee, often toiling in what is described as 'sweatshops in the fields'.

Roasters buy from farmers

TNC control the world's coffee roasters such as Nestle, Kraft and Sara Lee. Nestle has now launched its 'fair trade' label.

Consumption: from retailer to consumer

However, the reverse is true when it comes to consumption. In many Western countries, coffee shops are dominated by a few players. The leading coffee sellers are McDonald's, Dunkin' Donuts and Starbucks.

Poor farmer (producer) providing wealthy retailer Starbucks (consumption) with coffee

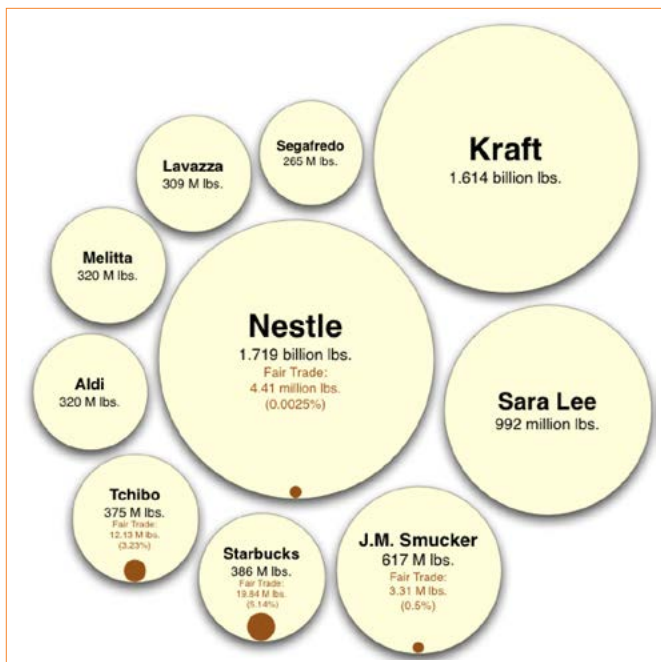


Cartoon: <http://s3.amazonaws.com/corppwatch.org/img/original/ethiopiastarbucks.jpg>

Coffee Interconnections

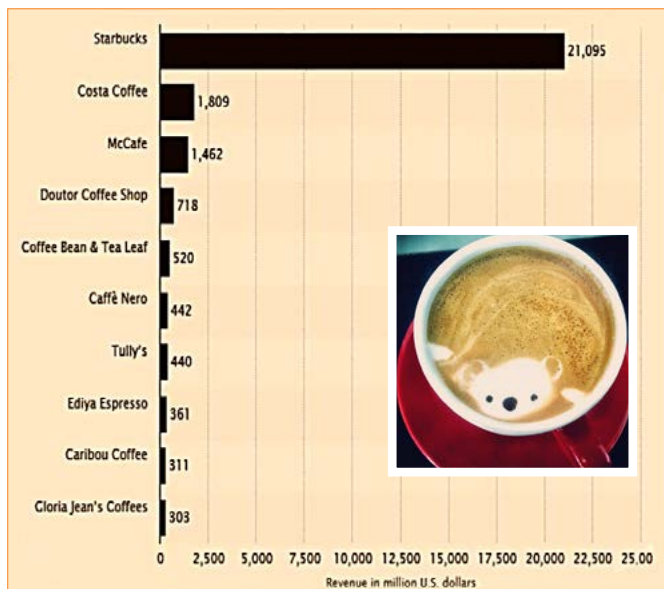
COFFEE IS BIG BUSINESS

Top world coffee roasters: Non Fairtrade purchases.
Brown dots – Fair Trade Certified



Graph: http://www.mdpi.com/sustainability/sustainability-05-00072/article_deploy/html/images/sustainability-05-00072-g001-1024.png

Revenue from selected coffeehouse chains worldwide in 2015 (million US\$)



Bar graph: <https://www.statista.com/statistics/270091/coffee-house-chains-ranked-by-revenue/>

BITTER AFTER TASTE – HOW MUCH DOES THE FARMER GET?

If coffee is such a valuable commodity, why are coffee farmers so poor?

Despite billions of dollars received by large coffee companies, coffee producing economies only receive about \$7bn of the \$100bn yearly global coffee sales. According to Oxfam, farmers receive 2.5% of the final price that coffee sells in the UK market. This has repercussions for small farmers, who are heavily dependent on coffee in developing countries such as Uganda.

Coffee farmers are getting poorer from producing coffee that is bought every second in the world. In Africa, millions of smallholder coffee farmers live below the poverty line. Many sell their beans at a lower price than the cost to produce them. For example, a coffee farmer

in Tanzania made \$60 a year from coffee production—only 16 cents a day! This money did not cover the costs of producing coffee beans and provide for the family.

Coffee farmers receive little money from coffee beans sold to a company. Without access to processing and milling services, markets and capital, these farmers are forced to sell coffee at low prices. The Gates Foundation Coffee Initiative working across Rwanda, Ethiopia, Kenya and Tanzania aims to increase coffee farmers' income and lift communities out of poverty.

Farmers proportion of coffee profits



Diagram: <https://s-media-cache-ak0.pinimg.com/originals/73/60/d1/7360d1e5f5828570776de0c8258082ab.jpg>



IMPACTS OF LOW PRICES ON COFFEE FARMERS

Most of the beans produced in Brazil, Colombia and Ethiopia are Arabica. However, these beans now fetch around \$106 a 60kg bag- this is less than 50% of what farmers received a couple of years ago. The reason is the production of cheaper Robusta beans, is booming.

A decade ago Vietnam grew an insignificant quantity of Robusta beans. However, today it has expanded production to 25million bags of beans a year. Additionally more expensive Arabica coffee is being substituted for cheaper Robusta varieties. This has resulted in an oversupply of coffee that particularly hurts Arabica coffee producers.

Around 70% of the world's coffee is grown on farms of less than 10 hectares. These farmers are poor, earn little money and work very hard. Some earn half a dollar a day while the rich people sip a \$5-\$10 coffee in luxury cafes.

Impacts of low coffee prices on coffee farmers



VOLATILE COFFEE MARKET

The coffee industry's prices are decided in conference rooms and stock exchanges. As the highest returns in the global coffee industry is skewed towards the latter stages of the value chain (e.g. retailers), more equitable distribution of profits is required for coffee farmers. Most small-scale coffee farmers lack resources and/or opportunities to diversify away from coffee, making them vulnerable to the changing global market prices.

The international coffee exchanges and dealings of trade ministers at the World Trade Organisation (WTO) hinder solutions to pay coffee farmers a 'living wage'. However, Fair trade and activist groups work towards a fairer deal for the coffee farmers.

GAP BETWEEN COFFEE PRODUCERS AND CONSUMERS

Coffee price fluctuations have a minimal impact on coffee drinkers compared to the impact on small farmers in developing countries, at the beginning of the supply chain. The world coffee market, referred to as the 'coffee paradox', has resulted in a widening gap between producers and consumers:

- coffee 'crisis' in producing countries: trend toward lower prices; declining producer incomes and profits; reduced export revenues; and reduced

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living standards for millions of people in developing countries dependent on coffee

- coffee 'boom' in consuming countries: rising retail sales and profits for coffee retailers.

As consumers in developed countries enjoy affordable coffee many noted a wide gap between consumer and producer prices. One response is Fairtrade labelling where producers are guaranteed a negotiated price before harvest begins.

GAP BETWEEN SMALL FARMERS, SMALL CAFES AND RICH GLOBAL COFFEE CHAINS

Small coffee farmers, traders, processors and retail outlets operate in a global competitive market where there are severe inequalities in wealth and power.

Consumers also have little negotiating power when it comes to purchasing coffee from large retailers such as supermarkets (Woolworths) and corporate coffee chains (Starbucks).

By contrast large TNCs controlling trading, roasting and retailing of coffee, earn huge profits. These organisations push prices for coffee produced down and prices consumers pay for coffee up.

They capture the financial gap and make billions of dollars.

Coffee Kids

Coffee Kids is an international, non-profit organisation (NGO). It works with local organisations in Latin America to create education, health care, microcredit and community-based programs for coffee farmers and their families. These efforts allow coffee farmers to reduce their dependence on the volatile coffee market

Oxfam (NGO)

Oxfam provides over \$1.6m of annual support to development programs in coffee producing regions. These programs seek to strengthen the position of poorer coffee farmers in the market by increasing their business and technical skills. They help small farmers to diversify out of coffee and improve quality of their coffee.

World Vision (NGO)

World Vision and Jasper Coffee, Australia's Fairtrade coffee company, sells organic certified coffee from Ethiopia. The Yirgacheffe beans come direct from a community called Kochore, where World Vision assists farmers gain Fairtrade and Organic accreditation for their coffee. Farmers' receive higher wages through fair trade and children are healthier and are able to attend school.

Roaster companies such as Kraft, Nestlé and Sara Lee

It is recommended they commit to: paying a decent price to farmers; labelling coffee products on basis of quality; buying increasing volumes of coffee under Fair Trade conditions directly from producers.

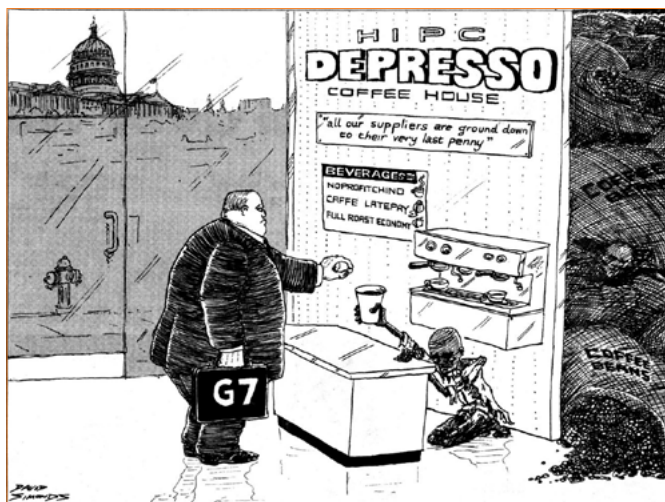
GOOD AND BAD NEWS

Coffee impacts on education

Bruno Selugo, 17, and his brother Michael, 15, who live in Mpigi District, Uganda, have both had to drop out of school because they cannot afford the fees. *'I can't be successful if I don't go to school,'* says Bruno. *'I will just be left here, growing a little food. I have been sent home again and again from secondary school ... They just send you away if you don't have the fees ... This is the main coffee season. Everyone used to go back to school with the money from coffee, but now the money is not there. The price is so low people are not even picking coffee ... I wish the people who use our coffee could give us a better market. All I want is to go to school.'*

Patrick Kayanja, head teacher at Bruno's school, explains, *'The number of students is very low. Much as we try to reduce the fees, the parents cannot pay. They always took cash from selling coffee but now it is gone. There was a time, between 1995 and 1997, when we had 500 students. Three years ago we had 250. Last year we started with 140 and ended with 54. This year we cannot go beyond 120, the way I see the situation with farmers.'*

Source: http://www.oxfamamerica.org/newsandpublications/publications/research_reports/mugged/mugged_coffee_report.pdf



Cartoon: http://www.anglonauts.eu/images/ill_caric_poor/ill_caric_poor_rich_coffee.jpg

CITIZENSHIP: FROM POVERTY TO POWER

Intergovernmental organisation

The International Coffee Organisation (ICO) is the main intergovernmental organisation for coffee. It consists of 77 producing and consuming countries. It tackles the challenges facing coffee through international cooperation.

Malnourished and bare-footed primary school pupils of Namabo, Kafumu Parish in Mgipi district, Uganda



Source: <http://www.jameskarinaitwe.com/blog/>

COFFEE BIKES IN RWANDA

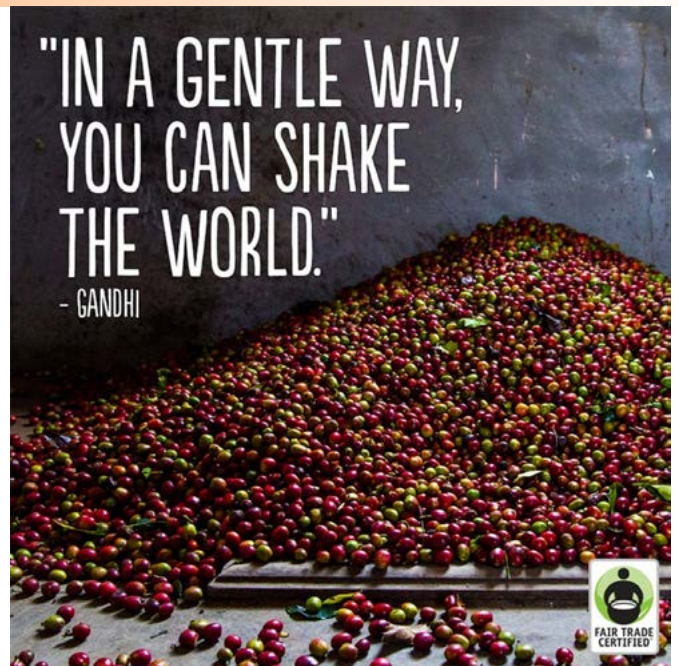
Rwanda has 500,000 small coffee producers with approximately 200 coffee trees each. These farms produce high quality coffee beans, as trees grow in rich volcanic soils. As farmers cannot afford to buy a vehicle or an animal to transport their harvest, they are forced to carry their load to a collection point, taking up to 12 hours of travelling time. Unfortunately coffee bean deteriorates from time it is harvested until it is pulped, reducing farmer's profit if it takes too long to get product to market. By providing farmers with specially designed 'coffee bikes', it reduces transport time up to 4 hours, thus yielding the farmer a higher profit for his harvest.

Microcredit provides farmers with \$300 to be paid back over two years to buy Coffee Bikes. This transport helps farmers rise above poverty, giving Rwanda the potential to create a prosperous rural economy.

Source: <http://zum.io/2010/11/18/micro-financing-rwandas-coffee-farmers/>



Source: <http://equipdisciples.org/missions/followup/bike/cb-profile-lg.jpg>



Poster <https://s-media-cache-ak0.pinimg.com/736x/32/a2/f6/32a2f675ff1560a207852f3bf44ed89e.jpg>

FAIRTRADE COFFEE

Coffee's complex supply chain from 'crop to cup' illustrates how coffee is an unfair industry especially for the person behind every bean – the small farmer. However, the good news that global pressure is driving the lucrative multi-billion dollar business towards a fairer, more sustainable way of trading called Fairtrade.

Globally, about 1.6 million farmers and workers are involved in Fairtrade and about 812,000 are small scale coffee farmers. Fairtrade aims to improve the lives of people along the coffee supply chain by giving *them a fair share of the pie*.

Fairtrade Coffee: Key data 2014

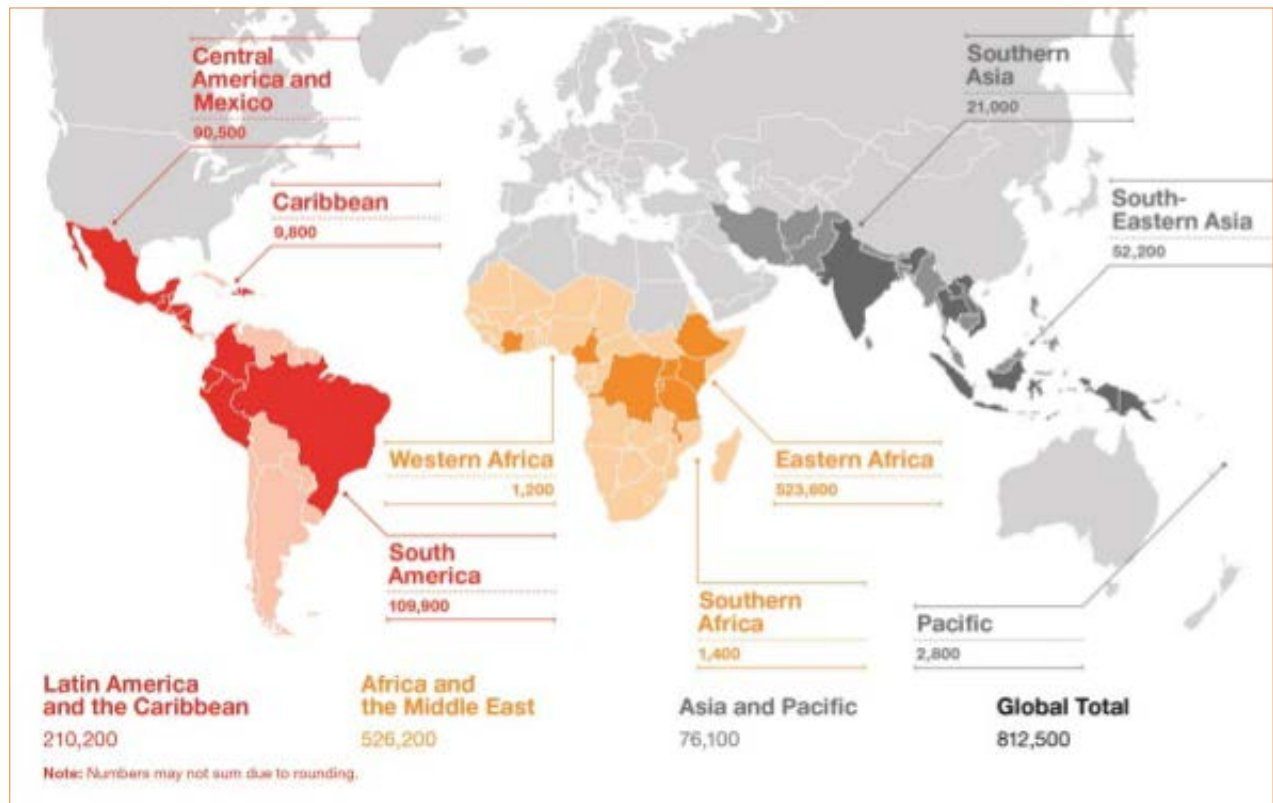


Statistics: <https://www.fairtrade.net/products/coffee.html>



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Fairtrade Coffee: Number of farmers by region



Map: <https://www.fairtrade.net/products/coffee.html>

FAIRTRADE CERTIFICATION

In 1988 Fairtrade certification for coffee was introduced. Fairtrade guarantees farmers a fixed minimum price for their coffee, seeks greater equity in international trade and prohibits forced and child labour. Fairtrade eliminates middlemen exporters who often pay farmers below market rates and then sell at rates set by the New York Coffee Exchange, pocketing excess money for themselves.



Fair trade coffee must meet several criteria. Growers must be organised into democratically run cooperatives that agree to independent inspections and use sustainable methods of agriculture. Today, coffee farmers spend at least 25% of the Fairtrade Premium to enhance productivity and quality and their Fairtrade-certified coffee products have won 28 Great Taste Awards.

Ten principles of fair trade



Diagram: <http://wfto.com/sites/default/files/10%20FT%20Principles.png>



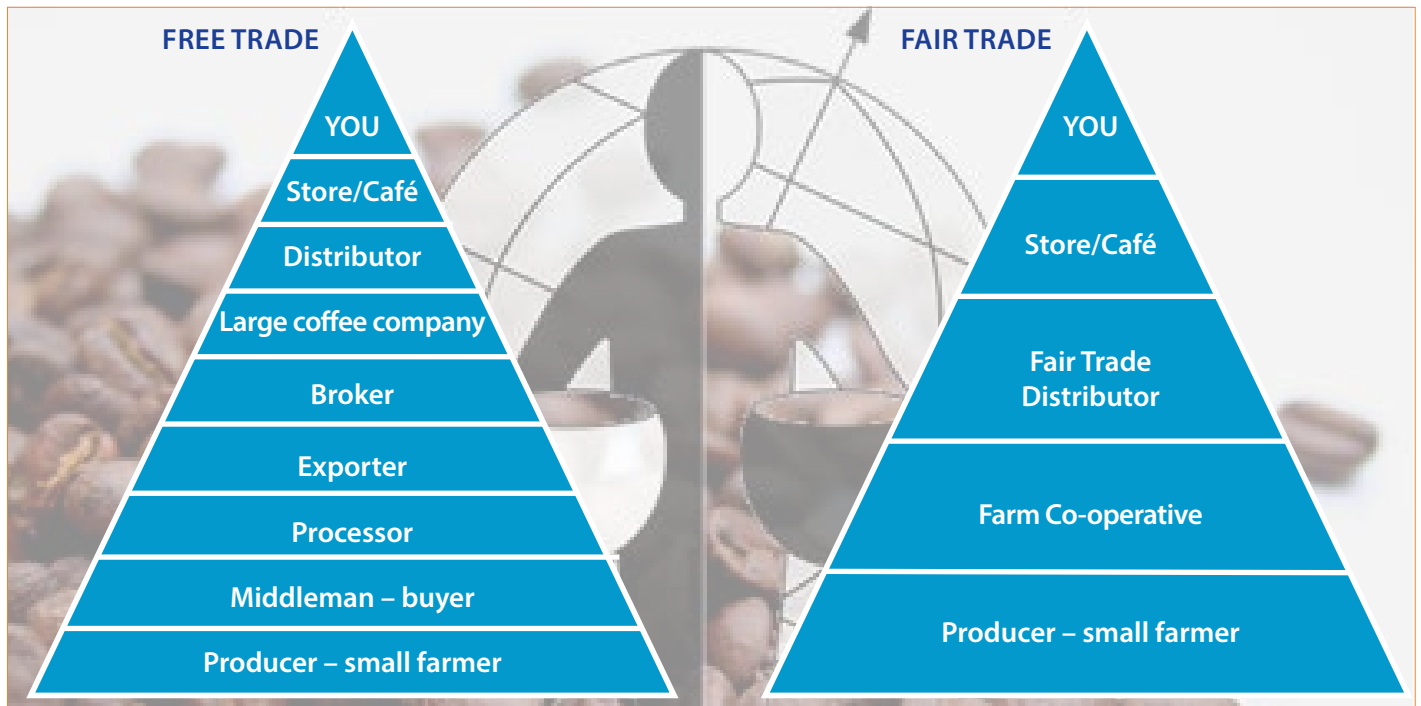
'The Grumpy Mule' promotes sustainable roasting and sourcing and has earned Fair Trade, Rainforest Alliance and Organic certifications. 'Rise Up Coffee Roasters' roasts organic and Fair Trade beans and other brands include 'Conscious Coffees' and 'Kickapoo Coffee'.

Image source: [http://images.selfridges.com/is/image/selfridges/554-78042186-80824_M?\\$PDP_M_ALL\\$](http://images.selfridges.com/is/image/selfridges/554-78042186-80824_M?PDP_M_ALL)



Cartoons: <http://www.ethicalconsumer.org/portals/0/gee2/cartoon%20coffee-peanuts.jpg>; and http://developmenteducation.ie/app/uploads/2016/02/deved_1270113692.gif

Supply Chain: Conventional trade versus Fairtrade



Notes and diagram S. Bliss Background: https://media.licdn.com/mpr/mpr/shrinknp_800_800/p/6/005/081/1fb/3f51e5f.jpg

What can you do?

- Write to coffee companies for improved conditions for coffee farmers
- Certify that coffee consumed is not tainted with labour exploitation
- Ensure local shops and schools ethically source their coffee
- Consume a sustainable sip!

Consumption of coffee is increasing and farmers are struggling to keep up with demand. Unsustainable practices have created loss of biodiversity, deforestation, pesticide pollution, habitat destruction, and soil and water degradation. Hopefully more people mindful of their coffee consumption habits will purchase Fair Trade Coffee (fair salary/treatment of farmers) and shade-grown coffee (natural and environmentally friendly methods of growing coffee).'

(Adapted <https://saman3230.wordpress.com/2012/09/>)

FUTURE: TOMORROW’S CUP THE FOURTH WAVE

Countless homes in developed countries proudly possess automatic espresso machines and electric grinders. However, the ‘millennials’ are moving coffee-drinking from home to specialist coffee locations. From 2008 to 2016, consumption of ‘gourmet coffee beverages’ rose 19%-41% among 25-39year-olds. This is good news for small independent coffee retailers!

The National Coffee Association (NCA) predicts the rise of the Fourth Wave of coffee i.e. specialty coffee serving coffee by artisanal craftsmanship. Craft-brewed beers with coffee, and a Pumpkin Spice Latte can now be consumed.

Table: Four waves of coffee

First Wave	Second wave	Third wave	Fourth wave?
Escalating coffee consumption	Enjoyment of specialty coffee	Purchasing coffee based on source (farms not countries) and roasting methods	Consumer interested in brewing methods- nuances of flavours, rise of specialty coffee, ‘roast to order’ businesses. No longer does ‘BIG COFFEE’ influence the market.
After WW2 Growth of instant and vacuum sealed coffee.	Late 1960s Espresso, latte, coffee shops become Big Business e.g. Starbucks. Development of coffee shop chains	From 2000 Focus on taste, methods of production and sustainable business practices.	

Notes and diagram S. Bliss



Source: https://www.bristolnicaragua.com/Content/Images/uploaded/ta_coffee102412d_8col.jpg.



Source: <https://previews.123rf.com/images/studiom1/studiom11102/studiom1110200607/9027406-COFFEE-Globe-with-different-association-terms-Wordcloud-vector-illustration--Stock-Vector.jpg>

CHALLENGES

For many people a coffee crises occurs when there are no beans left in the kitchen to brew the morning elixir! However, on a more serious note millions of farmers are facing hunger as the price of coffee plummets with increased sales of soft drinks and increased price of fuel.

- Producers-Farmers:** face difficult challenges such as:
- oversupply (glut) of coffee beans leading to lower prices
 - under supply –natural occurrences (frosts, hail, storms, droughts, pests, diseases)
 - increased competition –Asian countries (e.g. China, Vietnam) are expanding production that is impacting adversely on traditional coffee farmers
 - growth of specialist coffee brands
 - climate change-adverse impacts on farmers and all stakeholders in the coffee supply chain

At present coffee production is struggling to keep pace with the growth in coffee demand especially in traditionally non-coffee drinking countries, like China and India. According to Illy, in order to meet the rising demand, current production levels need to be doubled by 2050.

‘Whether this is social phenomenon or buyers discovering good-tasting products but it seems coffee consumption will continue to change at rapid speed.’

(Market Mogul, 2017)

Coffee Interconnections

ACTIVITY: ROLE PLAY-PERSPECTIVES

Divide class into five groups and assign them a role. Hand out the cards.

Hold up a jar of coffee and inform the students it costs \$10 to purchase in Australia.

Ask each group to decide how much of the selling price they should get for their work, and provide reasons.

Five Roles

1. COFFEE GROWERS

You live in rural Indonesia on a small farm two hectare in size. Robusta coffee is the key crop grown and the main source of income. You plant coffee trees in the shade, weed the ground and industriously monitor that there are no pests or diseases. When the coffee beans are ripe you harvest the coffee 'cherries' by hand. You then dry the cherries in the sun and sell them to a local trader.

The money earnt from coffee sales pays for the family's medical bills and children's school. You have to spend money on pesticides and fertilisers, and every 15 years you buy seedlings to replace the old coffee trees.

However, you are experiencing competition from large plantations, Arabica and organic varieties, expensive specialty brands such as Kopi Luwak and climate change.

2. COFFEE EXPORTERS

Indonesia is among the world's top coffee producing and exporting countries.

You visit the growers to but their coffee. As the growers are scattered over a wide area, you pay for transport and fuel to collect the coffee. Your factory processes the coffee 'cherries' to extract the 'green beans'. You sort the beans, pack them in bags and transport them to the port where you sell them to a shipping company. The market for coffee is unpredictable, so you sometimes have to pay to have it stored.

5. RETAILERS

You buy the instant coffee, store it until you need it, label it with the price, put it on display and sell it to the customer. You have to pay high rents to sell your coffee at a popular location. You make your shop attractive, which means expensive decorations as well as train and pay sales people to provide first class customer service.

4. ROASTERS

You purchase the 'green' coffee beans from a shipping company and mix the different varieties of bean to get a 'blend'. You roast the beans and process them to make instant coffee then package it into jars and sell it to retailers. It is a competitive business, so a large amount of money is spent to advertise your brand and provide attractive packaging. You constantly need ti invest money to improve coffee taste and keep ahead of the competition.

3. SHIPPING COMPANIES

You buy the bags of 'green' coffee beans from the coffee exporter, load them on your ships and transport them to Japan, South Africa and the EU, where you sell them to the coffee roaster. You pay for fuel, skilled people to operate your ships, and insurance for ships and their cargoes. You also pay port fees and taxes for importing coffee.



ACTIVITY

Answer the following questions.

Refer to the article on Coffee Biomes (page 29)

What are the differences between free and fair trade?

- What are the main types of coffee grown?
- Why are many small coffee farmers poor?
- What are the four waves of coffee?
- Name large companies involved in the coffee industry
- Where are coffee beans grown?
- How do low prices for coffee impact on small coffee farmers?
- What are the environmental problems surrounding the growing of coffee beans?
- Why do coffee farmers only receive a small percentage of coffee sales?
- Name some specialty coffee brands grown in Asia?
- List the process from bean to cup
- Brainstorm how many ways can you drink your coffee.
- Coffee-making paraphernalia abounds domestic kitchens. More recently, gourmet and organic blends have made a come-back, heralding the return of the coffee-shop. List coffee products you can purchase from a department store or supermarket.
- Debate for and against growing coffee rather than food crops in developing countries.
- Coffee has long stood for both privilege and poverty. Explain this sentence.
- Research the role of the International Coffee Organisation.
- Explain the impact of frost, hail and droughts on the coffee market.
- Explain why people are more tolerant to a rise in coffee prices than oil prices– *‘one fuels your body and the other your car.’*
- Peak coffee (like peak oil) is the point at which the world begins to run out of its global commodity. Describe the scenario if coffee production declines.
- The consequences of the price of a cup of coffee reaches further than the change given to baristas. Explain this statement.
- Discuss the production of two specialty coffees produced in Asian countries.
- Explain the following quotes
 - *‘Wake up and smell the sweet but sour coffee’*
 - *‘The consumer can bring change if they ask for fair trade products’*
- Research the following terms: coffee glut, falling

coffee supplies and price volatility.

- Describe the impacts of low coffee prices on farmers and their families.
- Compare conventional trade with Fairtrade.
- Coffee has been a leader in ‘ethical consumer’ habits whereby individuals are beginning to build their attitudes towards poverty and high retail prices. Explain this statement

ICT Activities

- Follow your coffee dollar from the grower to retailer as it goes along the coffee chain. Interactive website: <http://www.pbs.org/frontlineworld/stories/guatemala.mexico/coffee1.html>.
- Coffee trade – interactive student activities: http://www.globaleye.org.uk/secondary_autumn04/eyeon/coffeetrade.html. Complete coffee culture questions, interactive production map and futures market
- Complete the Fairtrade quiz – http://www.cafod.org.uk/resources/primary_schools/fairtrade

Websites

- A fair price for our coffee: activities for lower ability students or primary school – <http://www.cafod.org.uk/var/storage/original/application/phpVty7pL.pdf>
- Coffee Kids – <http://www.coffeekids.org/>
- Co-operative coffees – <http://www.coopcoffees.com/>
- Fairtrade resource network – <http://fairtraderesource.org/>
- Global exchange and fair trade – <http://www.globalexchange.org/campaigns/fairtrade/coffee/background.html>
- International coffee organisation – <http://www.ico.org/>
- Coffee at National Geographic – <http://www.nationalgeographic.com/coffee/>
- Trouble in coffee lands – <http://www.bos.frb.org/economic/nerr/rr2002/q2/coffee.pdf>
- What’s behind the label – <http://www.pbs.org/independentlens/blackgold/beans.html>
- World coffee and cocoa map – http://www.rabobank.com/content/images/Coffee_tcm43-37607.jpg
- Poverty in your cup of coffee – http://www.oxfamamerica.org/newsandpublications/publications/research_reports/mugged/?searchterm=mugged
- List of companies that ethically source all their coffee products in Australia are found at – <https://campaign.worldvision.com.au/wp-content/uploads/2014/04/Good-Coffee-Guide-to-Australia1.pdf>