

International Studies Through a Coffee Bean

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Everyday we engage in foreign relations, ranging from our own personal choices to major decisions made at the national level. The effects of globalization can be seen and felt everywhere; it can be something as seemingly simple as buying a latté from the local café down the road. As energy-deprived college students chug down these confections of caffeine and sugar, few ponder the origins of the coffee beans that provide the short (yet addicting) caffeine highs that fuel millions around the world each day. Those beans may have been grown as far away as Ethiopia or closer by such as in Mexico; perhaps they were fair-trade, shade-grown or even organic. However, whenever we drink coffee, the only question that ever seems to pop up is, “How can this one latté be so expensive?” Rarely do we hear coffee-addicted students muse over deeper questions such as “How much energy was spent on processing and transporting these beans, from picking them in the fields to shipping them to Moscow, Idaho?” or “Did the coffee farmers in Northern Kenya receive fair pay for these beans?” Most of us are too detached to wonder through how many hands of middle men each bag of coffee beans passed through or which major corporation eventually bought the beans. Was it Nestlé? Or Starbucks? Why should we even care? Coffee beans are the same everywhere, right?

The coffee plant and its associated roasted seed, commonly called the coffee bean, seems relatively simple. However, coffee is actually quite a complicated crop and is a major part of global trade. In fact, coffee is one of the most traded commodities on the planet and ranks as the second most valuable primary commodity exported by developing countries (NCA, 2011). Curiously enough, the coffee bean was not always as popular. Until the ninth century, Africans used the coffee bean very little, sometimes mixing it with animal fat to produce a primitive “energy bar” (Coffee, 1999). Then, during 800 AD, the word about coffee’s energizing effects took off after an Ethiopian herder noticed how his goats reacted after grazing upon coffee shrubs. The word quickly spread across the Red Sea and around 1000 AD the

first coffee beans were roasted in Arabia (*Coffee*, 1999; NCA, 2011). The addicting black brew became very popular and by the thirteenth century coffee basically became an inseparable part from Islamic day-to-day life (*Coffee*, 1999). Since alcohol is forbidden by the Qu'ran, Muslims found coffee to be an acceptable (as well as tasty and energizing) substitute (NCA, 2011). For a few hundred years, coffee remained a specialty restricted only to the Arabs. However, due to the influx of thousands of pilgrims to Mecca each year, the fabled "wine of Araby" sparked an interest across the Middle East as well as in Europe (NCA, 2011). Although the Arabs were the first to trade coffee, its cultivation soon began to spread to nearby areas such as Persia, Egypt, Syria and Turkey (NCA, 2011). Then in 1615, a merchant brought the elusive beans to Venice (*Coffee*, 1999). Initially there was some opposition by the local clergy who deemed the dark beverage as a "bitter intervention of Satan," but the Dutch took a great interest in coffee beans and soon founded the first European-owned coffee estate on colonial Java in 1696 (NCA, 2011). Coffee shops began to spread throughout Europe, mostly in England, Austria, France and Germany. Although tea remained widely popular throughout Europe, the trend began to shift after the Boston Tea Party incident, a revolt led by colonists in opposition to a heavy tea tax imposed by King George (NCA, 2011). This gave way to high demand for coffee in the New World and beyond; the coffee bean was a catalyst for global trade.

From there on, the coffee bean became a global commodity. Although the Arabs tried to maintain their monopoly over coffee cultivation, they could not compete with other countries where large coffee plantations were beginning to take off. The Dutch spread their trade onward throughout Indonesia, even to Sumatra and Celebes (NCA, 2011). Several political and economic flare-ups occurred as European countries were pitted against one another, each trying to capture treasured coffee seedlings. In fact, a young naval officer named Gabriel de Clieu even stole a coffee sprout from King Louis XIV's Royal Botanical Garden in Paris (*Coffee*, 1999). After a long voyage, that one sprout was planted and eventually led to a major coffee cultivation boom in Martinique; within fifty years, eighteen million coffee trees grew

and spread all over the island (NCA, 2011). There was no stopping the spread of coffee as the demand only increased. The coffee bean continued its global journey, setting up major cultivation and production regions in Brazil during the 1700s (*Coffee*, 1999). Within the following century, coffee established itself as a worldwide commodity crop.

Although the coffee bean initially spread itself throughout the globe in terms of trade as well production, coffee bean cultivation is now restricted to a certain region known as the “Bean Belt,” an area roughly between latitudes twenty-five degrees North and thirty degrees South (*Coffee*, 1999; NCA, 2011). This region offers favorable conditions for growing coffee beans, specifically moderate sunshine and rainfall, consistent temperatures around seventy degrees Fahrenheit (twenty degrees Celsius) as well as nutrient-rich, absorbent soil (*Coffee*, 1999). Interestingly enough, these very factors of location, climate and soil composition largely influence the quality as well as flavor of coffee. For example, coffee beans from Guatemala tend to make a coffee that is a medium-to-full bodied and has an “almost spicy or chocolately” taste whereas those cultivated in the Ivory Coast are usually strongly aromatic with a light body and acidity (NCA, 2011). Coffee beans are produced in nearly fifty countries throughout the Bean Belt, additionally serving as the main livelihood of over twenty-five million people (NCA, 2011). The largest amounts of coffee are grown in and exported from the following countries in terms of total production : Brazil (which makes up roughly 20% of world coffee bean production), Vietnam, Colombia, Mexico, Indonesia, Ivory Coast, India, Guatemala, Ethiopia and Uganda (Ponte, 2002).

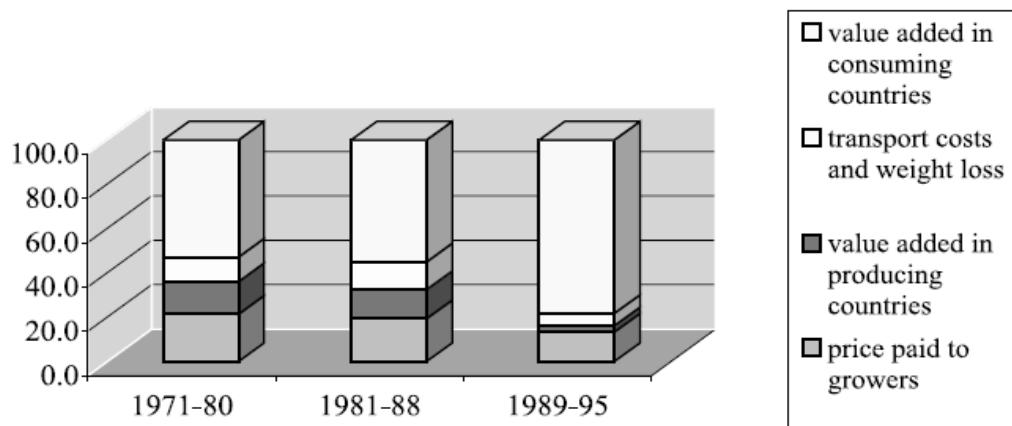
How can coffee be so popular? What makes one bean, a small cherry-like bush, so important to the world? Consider this: each day, over 2.25 billion cups of coffee are drunk around the world (Ponte, 2002). In fact, among natural commodities, coffee has a monetary value surpassed only by oil (NCA, 2011). As such a global commodity, coffee beans have led to stiff competition and complicated webs of cultivation, trade and (of course) profit. Coffee is traded through what is called a global commodity chain, which is a “network of labor and production processes whose result is a finished commodity,” or more

specifically, a “set of inter-organizational networks clustered around one commodity or product” (Ponte, 2002). These networks are moreover situationally specific, socially constructed, and locally integrated. For a product such as coffee that involves several steps, it can make sense to develop networks in coffee bean production. For example, coffee beans can only be grown in specific regions around the world with certain climate and soil conditions- on the other hand, coffee beans can be roasted anywhere. Thus it can be expected for coffee cultivation networks to be established in “Bean Belt” regions and perhaps coffee bean roasting networks elsewhere. However, these steps from the field to the café have become incredibly complicated, usually with the most profit going to coffee bean brewers and corporations (such as Starbucks and Nestlé) rather than coffee bean field workers (Ponte, 2002). Furthermore, through deregulation, new consumption patterns and changing corporate strategies, power relations have shifted to transnational corporations (Ponte, 2002). There is no longer an equal balance between coffee producing and consuming countries.

This was seen as early as 1902, the year that coffee became the first commodity for which control of world trade was attempted (Ponte, 2002). São Paulo tried to carry out the “valorization” process which involved political action and policy to raise the price of coffee and thus manipulate and monopolize the world coffee market. However, these attempts failed and in 1962 the first international coffee agreement (ICA) was signed (Ponte, 2002). Under this new system, a target price (or a price band) for coffee was set and export quotas were allocated to each producer- regulations that would hopefully reduce the chance of one network or country exporting enough coffee to control the entire market. Although the ICA was somewhat successful in terms of ensuring an equalized “playing field” in world coffee production and trade, it was soon met with innumerable problems (Ponte, 2002). There was much concern over the quotas; major corporations and trading businesses disagreed with these types of regulations and preferred a more free, “liberalized” coffee market. Other problems included non-member importing countries who were beginning to sell increasing volumes of coffee at lower prices, fragmentation of the

geography of production, as well as increasing diversity of development models that gave some richer, more developed coffee-exporting countries unfair advantages over others (Ponte, 2002). In addition to all these problems, Cold War politics between the United States and Latin America changed during the 1980's, eventually causing the collapse of the ICA. This caused a major shift in the politics and economics of the world coffee trade, moving from a regulated, somewhat fair contest between producers and consumers to the dominance of a few major traders and corporations over farmers, local traders as well as country governments (Ponte, 2002).

Without the ICA, there were few to no regulations or quotas thus allowing countries to produce as much coffee as they wished; this in turn has led to chronic oversupply and in turn decreasing international price and price volatility, affecting farmers and small-scale traders the most (Ponte, 2002). Outside of price regulations, the collapse of the ICA has also increased consolidation in the coffee industry and distribution of total profits generated through the coffee bean chain. For example, during the 1970's, about 20% of total income was kept by producers, while the average proportion retained in consuming countries hovered near 53% (Ponte, 2002). The trend remained the same during the 1980's; however, after the ICA failed in 1989, the situation changed radically. In the 1990's, the proportion of total profits acquired by producers dropped to 13%; on the other hand, the proportion kept in consuming countries rose to 78%.



Moreover, without the ICA, there was less public intervention and regulation in markets, leading to the breakdown of various coffee boards, institutes and other export-regulating organizations. Thus coffee-producing countries had even less access and capability to control exports and build up stocks (Ponte, 2002). As coffee-producing countries as well as local traders have begun to lose control over their production and exportation of coffee, major international traders and corporations have quickly swooped in. Mid-size and local traders simply cannot compete with these corporations; thus many have gone bankrupt, merged or been bought up by other major, international traders. For example, a few groups dominate the entire coffee market. One is Kraft Jacobs-Suchard (KJS), the food sector associated with the Philip Morris corporation, which is the world's largest agro-industrial group; KJS alone controls 32% of the world's coffee business (Renard, 2002). Other notable corporations include Nescafé (the third largest agro-food company and the largest instant-coffee seller), Douwe Egberts and Folgers Coffee (Renard, 2002). However, beyond these massive agro-food companies, supermarkets are starting to play an influential role as large distributors of coffee. Companies such as KJS and Nescafé rely almost exclusively upon supermarkets and other distributors to commercialize their products but distributors have begun to create competition in the area of production by developing their own brands (Renard, 2002). Regardless, together all of these major, dominating companies and various distributors make it nearly impossible for small or new brands to enter the market. Large companies have access (through economic and political relationships) to power and capital; they arguably set market prices and trends. Smaller coffee traders and field workers have little to no influence or control in the world market, let alone their very own means of production and exports (Renard, 2002).

In response to the coffee monopoly, specialty coffees have begun to open and expand a certain niche in the major coffee sector of world trade. These specialty coffees include specific gourmet coffees, those with pure origins, mild coffees as well as organic coffees. There are even coffees with Labels of Certification of Origin, ranging from Sidamo (Ethiopia) to Blue Mountain (Jamaica) to Antigua Logo Azul

(Guatemala) (Renard, 2002). Because of increased government withdrawals from provision of services to farms (especially prevalent after the collapse of the ICA) innumerable entry barriers to world trade and production have been created, such as the end of price stabilization mechanisms (Ponte, 2002). Small-scale coffee roasters and farmers do not stand a chance in the major coffee monopoly and thus have begun to diversify their products and moreover target specific groups of consumers (Renard, 2002). This niche and its consequent explosion in popularity has been dubbed the “Latté Revolution;” coffee is no longer a simple homemade beverage but it has become a specialty drink part of small cafes and coffee roasting boutiques “where customers [can] hang out and consume an ‘experience’ that [is] neither home nor work” (Ponte, 2002). Although this economic niche has helped struggling, small-scale coffee roasters and farmers around the world, the “Latté Revolution” has also been the catalyst behind major coffee corporations, such as Starbucks. Although Starbucks has certainly exploited specialty coffees, it serves as the perfect poster child. As described by Ponte, Starbucks’s achieved international success “by combining ‘ambience’ consumption and the possibility for consumers to choose type, origin, roast, and grind, Starbucks managed to de-commoditize coffee” (Ponte, 2002)

Perhaps the most interesting specialty coffees that have come from this “Latté Revolution” have been fair trade and organic coffees. Despite a certain degree of exploitation in these two specialty coffees, the demand behind these coffees has been of ethical and environmental concern. In a globalized world, it is nearly impossible to ignore the harsh realities behind the products that we consume each day. For example, the average amount that Americans spend each day on a latté at Starbucks or the nearest coffee house (roughly \$3) is equivalent to the daily wage of a Central American coffee picker (Straus, 2000). Consumers are beginning to see the connections between where products come from as well as the conditions under which they are cultivated or manufactured. In fact, nine in ten Americans are concerned about the working conditions under which products are made in Asia and Latina America, everything from clothing to cars to coffee (Straus, 2000). This increasing global awareness has led to the

development of what Straus calls the “ethical consumer:” citizens that buy based on criteria of economic justice and environmental sustainability (Straus, 2000). Fair trade coffees basically ensure that coffee farmers receive a just compensation; under fair trade, coffee farmers receive at least \$1.29 per pound. Fair trade tries to reduce the number of middlemen in the coffee trading process who scoop up the most in the trickle-down transfer of profits, usually only leaving \$0.35 per pound for coffee farmers (Straus, 2000). Although that extra \$1.00 per pound may seem like a rather trivial increase in payment, fair trade coffee has doubled over 500,000 coffee farmer’s annual incomes (additionally placing them above the poverty line) in twenty developing countries worldwide (Straus, 2000). In a globalized world with complicated economic relations, one small cup of coffee can now have far-reach humanitarian effects.

Fair trade coffee functions differently from the traditional major coffee market. There is no real drive for huge profits or vertical integration to swallow up the competitors (Straus, 2000; Renard, 2002). Instead, this segment of the coffee market has been founded around ethics: values of solidarity and fairness. Fair trade coffee is made up of associations that serve to “guarantee compliance” with certain conditions, which include ensuring that coffee is purchased from “democratically managed co-operatives of small producers, with the role of intermediaries reduced to a minimum, and a price estimated to be (as) fair (as possible)” (Renard, 2002). Moreover, these associations do not actually buy or sell coffee; rather, they help establish contacts between groups of coffee growers and producers to coffee roasters who must make a commitment to respect and follow fair-trade conditions. From there on, the coffee is sold in mass distribution under the fair trade label along with a slightly higher price than that of similar non fair-trade coffees; the slight difference in cost ultimately is received by the coffee producers and farmers (Renard, 2002).

Along with fair trade coffee, organic coffee is becoming increasing popular and important. As a globally traded commodity (the highest-valued after oil), coffee has not only shaped the world economy but it has drastically changed the ecology and natural landscape of certain regions, specifically areas

situated within the “Bean Belt” (Valencia, 2001). These certain regions often also happen to be “hotspots:” places where “biological diversity is the richest” but also the most threatened (Hotspots, 2011). Out of the thirty-four hotspots worldwide, coffee is grown in sixteen of them (Hotspots, 2011). Although coffee has been an integral part of the natural forest communities in these hotspots for hundreds of years, increased cultivation of coffee is starting to have adverse effects in these regions. Moreover, climate change is the most noticeable and severe in hotspots where it has the potential to greatly disrupt temperature as well as precipitation levels (Hotspots, 2011). This in turn will negatively affect coffee farmers’ livelihoods and the stability of the ecosystem at large.

Coffee’s negative consequences are seen and felt throughout the “Bean Belt” region but it is perhaps the most noticeable in the Latin America, which produces more than half of the world’s coffee (Valencia, 2001). In fact, coffee has represented as much as one-third of export earnings in numerous Latin American countries (Valencia, 2001). Since the 1950’s, coffee production has increased almost fourfold and because of continuing (and growing) demand, coffee farmers and producers are shifting to more intensive and efficient cultivation techniques. In Latin America (as well as other major coffee producing countries), small, traditional coffee farmers who utilize low-density, diversified plots have been replaced by major plantations with industrial cultivation (Valencia, 2001). The traditional coffee farmers create a sort of “agroecosystem” in which coffee grows in the shade cover of fruit trees and other hardwood species. These diverse plantations are quite effective and sustainable as they ensure soil protection and fertility while creating a favorable habitat for a wide array of species; indeed, these traditional plantations are often home to over 180 different species of birds, an amount rivaled only by that of tropical forests (Valencia, 2001; Coffee, conservation, n.d.). Moreover, traditional coffee plantations provide other useful and profitable materials, such as fruit, firewood and timber- all goods that are important and give flexibility in terms of income to small-scale coffee farmers who (often) live at or below the poverty (Valencia, 2001). However, in the last thirty years these small farms have been

quickly replaced by major, “sun coffee” plantations; in fact, “sun coffee” now produces between 30-40% of the all the coffee cultivated in Colombia, Mexico, Central America and the Caribbean (Valencia, 2001). Although “sun coffee” increases overall yield at first, it can have devastating long-term consequences especially when used (as it usually is) with pesticides and fertilizers.

Currently, coffee is the culprit of many environmental problems throughout the “Bean Belt” region. One of the largest and most devastating issues is that of deforestation, which has decimated tropical rainforests throughout Latin America, Africa and Asia. For example, only one fourth of the moist tropical rainforests remain in Colombia; the rest of the land has been cleared, burned and is now used for cash crops, mainly coffee (Coffee, conservation, n.d.). Along with the loss of tropical forests comes a massive loss of biodiversity- life that is necessary for an ecosystem’s stability. In addition, atmospheric dynamics and water quality are affected by deforestation as well (Coffee, conservation, n.d.). The new “sun coffee” plantations as mentioned are quickly becoming the most common among cultivation methods in deforested areas; however, this farming method greatly decreases the amount of flora and fauna within the plantation. In comparison to traditional, shade-grown coffee farms, “sun coffee” plantations only support 10% or less bird species (Coffee, conservation, n.d.).

Along with increased rates of deforestation, there is also an greater use of synthetic pesticides and fertilizers. Although they may boost yield at first, these agrochemicals ultimately cause serious environmental damage and can eventually threaten public health as well as water quality (Coffee, conservation, n.d.). For example, nitrates are among the most-heavily applied agrochemicals; however, this fertilizer has resulted in contamination of groundwater and has suspected links to certain cancers, birth defects, hypertension, and developmental problems in children (Coffee, conservation, n.d.). Despite banning certain agrochemicals in the U.S., several are still used through Latin America, Africa and Asia and continue to pose human and environmental health issues (Coffee, conservation, n.d.). Beyond water quality and human health, coffee production (especially the processing portion) produces “enormous

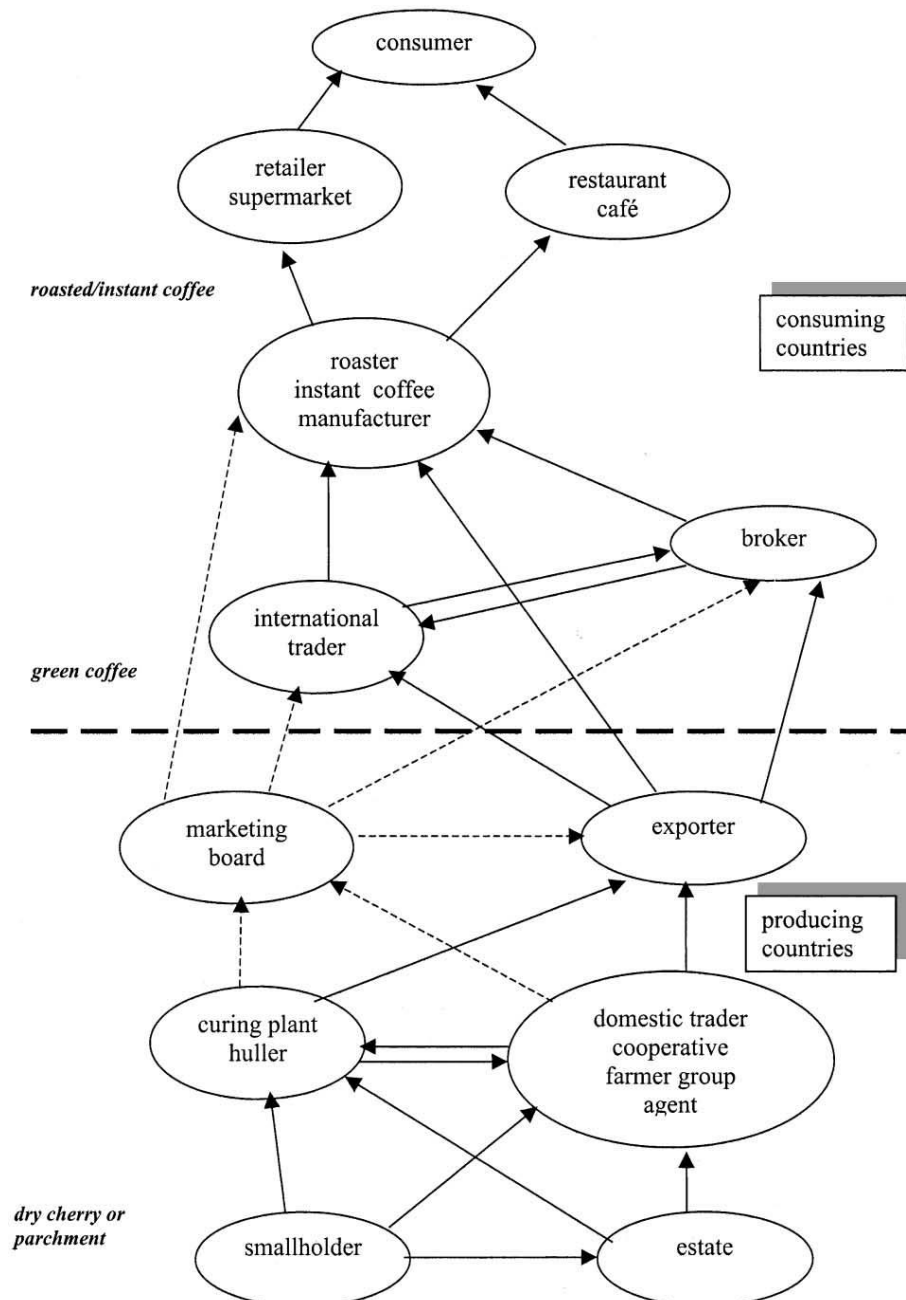
volumes of waste material in the form of pulp, residual water and parchment,” which in turn causes major water pollution problems (Coffee, conservation, n.d.). In conjunction with nitrate runoff, the byproducts of coffee processing can result in cultural eutrophication, which is the excessive growth of plant life known as an algal bloom, drastically changing the fragile food webs in water systems and also reducing the amount of dissolved oxygen (Coffee, conservation, n.d.). Soil is yet another site of environmental concern; “sun coffee” plantations have much higher erosion rates as well as less soil moisture and organic material than traditional, shade-grown coffee farms (Coffee, conservation, n.d.). In the absence of fruit trees and other hardwood species, “sun coffee” soil is exposed to the elements and subject to leaching of nutrients, threatening not only the sustainability of the plantation but the stability of the surrounding environment.

Fortunately, like fair trade coffee, organic coffee is gaining a foothold in the global coffee trade. Organic coffee, which is produced in a sustainable manner without any agrochemicals, “responds not only to the demand for healthy, non-toxic products... but also to the demand for respect for the environment and to the decision to use agricultural practices which are not harmful to the environment” (Renard, 2002). Interestingly enough, many coffee farmers (mostly small-scale traditional farmers) are already growing organic coffee, but continue to be paid lower prices for nonorganic coffee. These small-scale coffee farmers lack information about the certification process and as well as the investment and time to achieve certification, which can take up to three years (Renard, 2002; Ponte, 2002).

What began as the base for the mysterious, dark beverage in Arabia has now become a commonplace drink consumed by millions each day around the world. The coffee bean is a global traveler but certainly has acted as a catalyst for economic development as well. Millions depend upon coffee for their livelihoods; it is the second highest traded commodity, only exceeded by petroleum. Coffee is arguably the vehicle commodity that brought isolated coffee plantations together in one massive coffee trade. So, the next time as you sit there sipping your skinny, 12-ounce, hazelnut latte fuming over the ridiculous cost

for such a small drink, consider just how complicated the history, growth, trade as well as human and environmental aspects of coffee are. In your hands, you are holding a milky mixture of complicated economic ties and intense international relations. Who knew that one simple bean could have such far-reaching, global consequences?

The complex journey of the coffee bean from farmer to consumer:



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