Sustainable Coffee Marketing : Challenges and the Way Forward

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Abstract

This paper analyzed markets for sustainable coffee by taking into account five individual sustainable coffee initiatives, that is, 4C (Common Codes for Coffee Community), Utz, Rainforest Alliance (RFA), Fair-trade Labeling Organization (FLO), and Organic coffee. The sustainable coffee production experienced a phenomenal growth over the past decade. However, the volumes of sales represent only a minor portion of production. Less than 25% of sustainable coffee produced was 'actually sold' as sustainable, while the remaining was just sold as 'ordinary' conventional coffee, without receiving any extra market benefits. Among the individual coffee certification initiatives, 4C (Common Codes for Coffee Community) signaled a more serious over-supply in the global market, wherein only 6% of its overall sustainable production was actually sold as sustainable over 2008-12. During the same period, Utz coffee certification could sell 25%, Rainforest Alliance (RFA) could trade 50%, and organic certified coffee could sell 55% of its standard-compliant production as sustainable. The study revealed that global sustainable coffee market is characterized by massive 'over-supply'; demand being a major constraint. Underpinning this issue is the need for sustainable coffee market. The current market challenge is to stabilize mismatch between demand and supply for sustainable coffee. From a sustainable development perspective, this remains a serious matter of concern for policy makers, public institutions, and multi-stakeholders to engage in market-based control mechanism in constructing effective 'supply- management base' as a strategy for price-stabilization and to enhance further sustainable growth. At a micro level in India, coffee certification is still at an infancy stage, contributing to just 2% of total global sustainable production. The Indian Coffee Board and apex coffee organizations need to work in this direction to encourage both sustainable production and marketing, so as to assist growers in assessing preferential market benefits, besides supporting high quality 'Indian coffee' being traded at both the global and domestic levels.

Keywords: **Sustainable coffee, certification, standards, markets, price premiums**

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The Indian coffee plantations are known for their rich biodiversity in the world. The market pressure to expand production has resulted in excessive utilization of valuable natural resources, with its irreparable damage to local biodiversity. The commercial pressures have threatened plantation ecology (Kushalappa & Kushalappa, 1998), consequently impacting the surrounding environment adversely. A response to this from the conservationists has been to tag conservation principles with marketing aspects. One such initiative to promote conservation with marketing is through 'certification,' a market based tool for differentiating products in mainstream markets.

The so called 'sustainable coffee' has to be grown under a specific set sustainable standards (social, economic,

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Table 1. Major Certification Schemes for Coffee

Certification Schemes	Labels	Objective	Top Three Producers	Price Premiums
Organic Coffee		Develops a verified sustainable coffee system in harmony with nature, promotes bio diversity and natural soil health.	Peru (25%) Ethiopia (18%) Mexico (18%)	USD $0.04-0.30 per pound
Fair-Trade Coffee		Improving livelihoods of small producers, improved market access, fair prices, direct trade, and environmental stewardship.	Colombia (28%) Peru (16%) Brazil (13%)	Minimum price of USD$ 1.25 per pound, addition of UD$ 0.30 per pound of organic coffee besides USD$ 0.20 per pound of social premium.
Rain Forest Alliance (RFA) Coffee		Bio-diversity conservation, sustainable farm management and community development.	Colombia (32%) Brazil (25%) Peru (8%)	No guaranteed minimum price
Utz Certified Coffee		Maintains sustainable supply chain and traceability issues, provides a holistic approach for coffee production.	Brazil (33%) Vietnam (22%) Colombia (11%)	USD$ 0.07 per pound
4C (Common Codes for Coffee Community) **		Sets up Base line standards for sustainability in coffee. Enhances good practices for better livelihoods. Business to Business without labeling.	Brazil (55%) Vietnam (20%) Colombia (15%)	No individual negotiation.

Source: Adapted from Kline (2010) and Ponte 2004

** Eco-labeling of '4C Logo' is not seen in the marketing of coffee. The 4C concept does not believe in building up a 'Brand name' for communicating to consumers, but believes in improving the sustainable practices in coffee.

and environmental standards) by the producers, accredited and verified by the independent third party certification organizations. If the production practices are in compliance with the standards, then the certificate is issued to the producers. The certified coffee producers are then authorized to use 'logos' or 'trademark' to market their products, which fetch a higher price in the market, besides fulfilling consumers' trust and taste. The major coffee certification initiatives are Organic, Fair trade, Rainforest Alliance (RFA), Utz, and Common Codes for Coffee Community (4C).

In the recent years, there has been an increasing interest among consumers of the developed countries to purchase coffee that follows strict sustainable standards that guarantees them good health and food safety requirements, for which they are willing to pay a higher price in the market. Such a 'cause related' ethical market has gained much attention in the global coffee sector from the past decade, being increasingly promoted by manufacturers, retailers, consumers, and government agencies.

Rise in Sustainability Standards: A New Revolution in the Coffee Sector

Coffee is ideally thought to be the pioneer sector for sustainability and certification standards (Reinecke, Manning, & Von Hagen, 2011). Sustainability is disreputably a hot topic in the coffee sector, though threatened by market imperfections. The earliest most certification scheme in the coffee sector was organic certification, which was set up in 1967. Another labeling, namely Fair-trade, under Max Havelaar was established in 1988, Rainforest Alliance in 1992, Utz in 1997, and 4C (Common Codes for Coffee Community) in 2003 (Table 1). Additionally, there are two important private initiatives namely, Starbucks CAFÉ established in 2004 and Nespresso AAA established in 2005 to serve the growing demand for sustainable coffee. The first three programs dominated sustainable coffee markets till the end of the 20th century. During the early part of the 21st century, when coffee markets experienced worst price crashes, sustainable coffee proved a 'new niche'. A close proximity indicates that conventional markets

Table 2. Trends in Sustainable Coffee Production and Sales at Global Level During 2008-12

Year	Total Global Coffee Production (metric tons)	Total Sustainable Coffee Production (metric tons)	Share of Sustainable Coffee Production out of Total Global Production	Growth rate per Annum of Sustainable Coffee Production	Sustainable Coffee Sales (metric tons)	Growth rate per Annum of Sustainable Coffee Sales	Sales: Production (Ratio of sales and production)
2008	7718160	1300000	16.84%		410000		1:3
2009	7377180	1800000	24.39%	38%	440000	7.32%	1:4
2010	7978980	2200000	27.57%	22%	510000	15.91%	1:4
2011	7938240	2700000	34.01%	23%	630000	23.53%	1:4
2012	8706960	3300000	37.90%	22%	840000	33.33%	1:4
Average	**7943904**	**2260000**	**28.44%**	**26%**	**566000**	**20%**	**1:4**

Source: Coffee Board of India, 2013; International Coffee Organization, 2013 and Potts et al., 2014

exhibited a stagnant growth, while market expansion occurred only for differentiated or specialty coffees (Liu, 2008).

Main Objectives and Methodology

This study attempts to understand markets for sustainable coffee over the years in terms of volume of sustainable coffee produced and volume of sales. The paper looks into major certified coffee markets, that is, Common Codes for Coffee Community (4C), Utz Certification, Rainforest Alliance (RFA), Fair-trade, and Organic coffee certification. At a micro level, the paper analyzes the status of sustainable coffee certifications in India.

The study is based on secondary data sources collected from various published documents, that is, Utz certified annual report, Rainforest Alliance and Sustainable Agriculture Network (SAN) reports, Common Code for Coffee Community(4C) annual reports, Coffee Board of India, and International Coffee Organization (ICO). Compound annual growth rate (CAGR) was calculated to understand the changes in volumes produced and traded over the years.

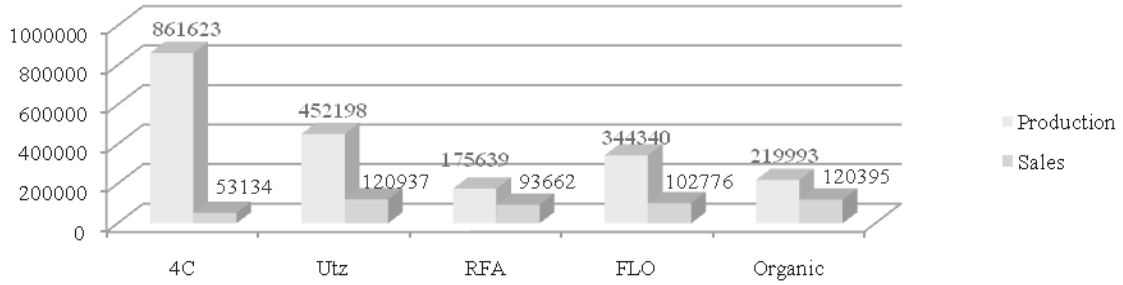
Global Production and Sales of Sustainable Coffee

This section presents details about total global coffee production and out of that, what is the volume of coffee that is sustainably produced and how much is sold in the market. Certified coffee (including Organic, Fair-trade, Rainforest Alliance, Utz, 4C, Starbucks Cafe, and Nespresso AAA) represented only 16% of the total global coffee production in 2008, while in 2012, about 38% of the global coffee was certified as sustainable, thus representing a significant proportion of global production (Table 2).

The sustainable coffee production almost tripled from 1.3 million metric tons in 2008 to 3.3 million metric tons in 2012. Over the years, sustainable coffee production exhibited an average per annum growth rate of 26%. Both production and sales of sustainable coffee exhibited a positive growth. The sales volume doubled from 4, 10,000 metric tons in 2008 to 8, 40,000 metric tons in 2012, with an average growth of 20% per annum.

From the Table 2, it can be inferred that though the sustainable coffee production reached a significant level over the years, its actual sales represented only minor proportion of the production, thus supply outpaced demand. Over 2008-12, it was estimated that production was approximately four times its sales. It means that not all coffee produced as sustainable was 'actually sold' as sustainable. It can be interpreted that in sustainable coffee markets, only about 25% of the standard-compliant coffee was actually sold as 'certified' in the market, receiving extra benefits of higher price premiums and preferential market access. The rest of the coffee, though certified for its

Figure 1. Average Production vs Sales of Various Certified Coffees During 2008-12 (In Metric tons)



Source: 4C Annual Report, 2013; Utz Annual Report, 2013; Potts et al., 2014

Table 3. Demand Supply Gap of 4C over the Years

Year	4C Production (metric tons) (Supply)	4C Sales (metric tons) (Demand)	Demand: Supply
2008	366540	11640	1:31
2009	606780	29547	1:20
2010	646440	23160	1:27
2011	906300	48617	1:18
2012	1782058	152708	1:11

Source: Potts et al., 2014

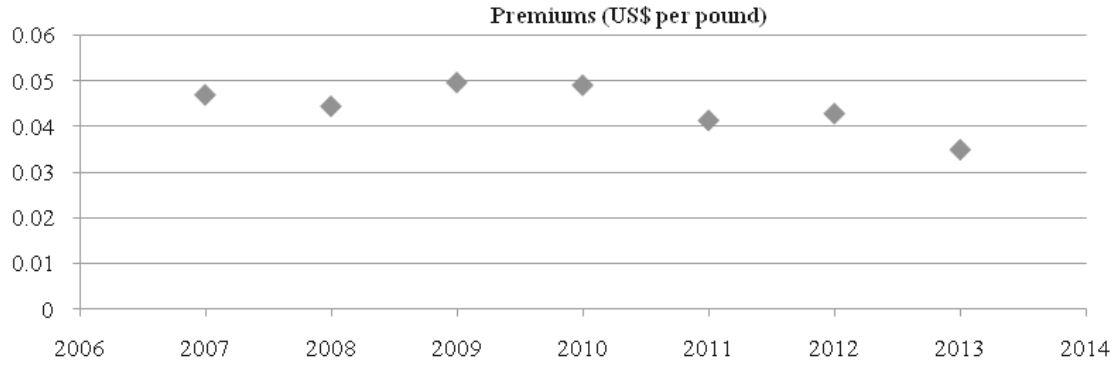
sustainable practices, was merely sold as 'ordinary' conventional coffee without any market benefits. Thus, it can be concluded that sustainable coffee market is characterized by a massive 'over-supply' situation, whereby demand being a major constraint.

Markets for 4C Certified Coffee

This section discusses global markets for individual coffee certifications, that is, 4C, Utz, Rainforest Alliance (RFA), Fair trade, and Organic certification. We discuss about the volumes of sustainable coffee produced and actually sold as sustainable, and reasons for oversupply of sustainable coffee and under sales in global markets. The Figure 1 indicates the average production and average sales of 4C, Utz, Rainforest Alliance (RFA), Fair trade, and Organic certification over 2008-12. Self-assessment being the pre-requisite to participate in the 4C system, average certified coffee production was 8.6 lakh metric tons, while average sales were only 53 thousand metric tons, that was only 6% of the total production. It was found that 4C production was 16 times its sales. The 4C certified coffee exhibited highest variation in terms of volumes of coffee produced and traded, thus exhibiting a massive oversupply in the global market, while its demand being a major constraint. The average figures calculated over a period of 5 years indicate that only 6% of its total coffee certified as 4C was actually sold as 4C compliant, rest being sold as just normal conventional coffee, signaling a more serious over supply in turn of reflecting lower capacity of 4C to sell its products in a highly competitive market. It was observed that actual sale of 4C compliant coffee was much below the industry average of 25% being sold as sustainable compliant coffee.

Prior to 2011, the 4C Association adopted the 'supply driven model' by encouraging growers to produce more coffee in compliance with 4C standards. By training producers for application of baseline sustainability standards, the 4C Association was successful in sourcing huge volumes of 4C compliant coffee from producers, while also bearing their certification costs. The traders did support such a strategy by purchasing excessive quantities over

Figure 2. Weighted Average Premium Paid for Utz Certified Coffee



Source: Utz Annual Report, 2013

Table 4. Fair-Trade Minimum Price for Coffee (US$ per pound)

Type of coffee	Fair-trade Minimum Price (FMP) or Floor Price	Organic coffee premium (FMP + US$0.30)	Social premium
Arabica parchment	1.40	1.70	0.20
Arabica cherry	1.35	1.65	0.20
Robusta parchment	1.05	1.35	0.20
Robusta cherry	1.01	1.31	0.20

Source: Fair-trade Labeling Organizations, 2014, Fair-trade Minimum Price and Fair-trade Premium table

time; however, not being able to meet purchasing requirements of buyers. Later on, the 4C industry realized that it made no sense to produce coffee at an extra cost which had no markets. In 2012, 4C shifted its business from the 'supply-driven model' to the 'demand-driven model' to deal with the demand and supply mismatch.

The 4C industry adopted the 'demand-driven' business model to seek commercial viability in sales of 4C coffee. The industry aimed to focus on quantity 'actually demanded' by buyers, rather than to focus on 'supply,' as done by the previous model. Under the demand-driven model, the additional 4C certification costs were imposed on growers that earlier 4C industry was bearing itself. Though it is unclear under the existing literature about the strategies adopted in the new model, the statistics on 4C over the years indicate that the new demand-driven model has been successful in reducing supply-demand gap from 27:1 in 2010 to 11:1 in 2012 (Table 3).

Markets for Utz Certified Coffee

Over 2008-12, Utz certified coffee distinguished itself, representing a significant proportion of sustainable sales, average being 1.2 lakh metric tons, the highest sales among all certified coffees. The average annual growth in sales of Utz certified coffee was 26% per annum. The ratio of average production and sales was found to be approximately 4:1 over the last 5 years. It means that only 25% of the Utz certified coffee was actually sold as sustainable, while the remaining 75% of the Utz certified coffee was sold in conventional markets. This is similar to the industry average of 25% sold as sustainable. Generally, Utz certified coffee received a premium of USD 0.07 per pound (Kline, 2010).

Multi-certification is considered to be one of the reasons as to why not all Utz coffee was sold as sustainable. It was estimated that about half of Utz certified producers go for multiple coffee certifications, for example, Utz and Organic, so as to get preferential market access. Besides, multiple certifications make them less vulnerable for price risks. Another cause for over-supply can be attributed to structural changes in volumes of supply, with its

concentrated supply from Brazil (43%), Colombia (18%), and Vietnam (16%), consequently leading to over-supply. Moreover, there were large roasters who preferred to choose Utz certified coffee from a wide variety of origins, while there was not enough Utz certified coffee from such origins of their choice and that roasters could not commit themselves for purchasing large quantities (Ponte, 2004). The average premium for Utz certified is recorded as US$ 0.044 per pound (Figure 2).

Markets for Rainforest Alliance Certified Coffee

The average estimates of Rainforest Alliance certified coffee (average production being 1.76 lakh metric tons and average sales around 94 thousand metric tons) represent a relatively less over-supply in the global market. The average production and sales ratio of Rainforest Alliance (RFA) was found to be 2:1, which means that approximately 50% of the Rainforest Alliance (RFA) certified coffee was sold as sustainable, much above the industry average of 25% of sustainable sales. During 2012, RFA produced 3.5 lakh metric tons of coffee, representing 4% of the total global production. The Rainforest Alliance is a leader in sustainability standards, targeting major roasters like Sara Lee and Krafts. The Rainforest Alliance mandates a minimum of 30% of certified content to market products with its 'Green Frog' logo.

The major barrier for limited demand for RFA certified coffee is that companies that purchase certified coffee have limited knowledge about Rainforest Alliance coffee seal and believe that it hardly adds value in their marketing because of lower consumer recognition about RFA seal and lack of sustainable buying behavior. The lack of effective communication and lack of awareness limited their purchase decisions.

Markets for Fair-Trade Coffee

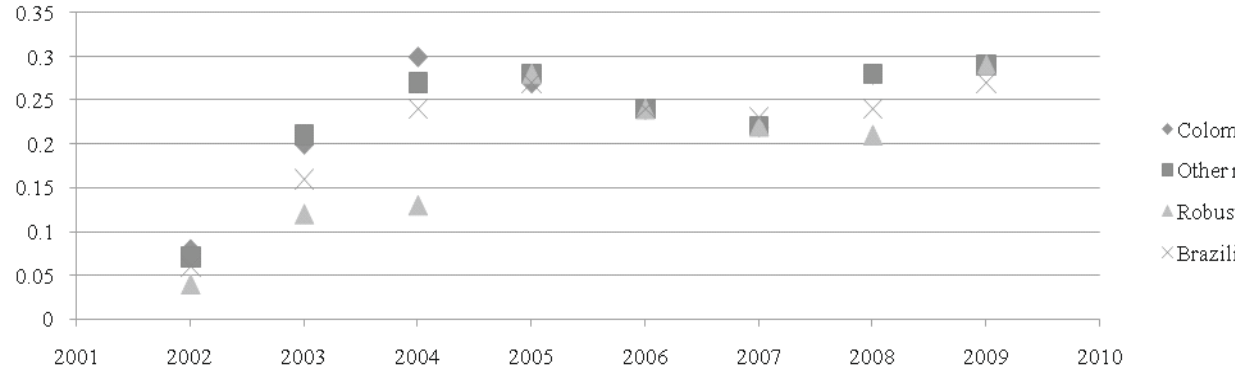
Although Fair-trade is one of the earliest sustainable coffee certifications, it still experiences a slow pace growth in sales. Only about 30% of Fair-trade labeled coffee is being actually sold as sustainable, which is slightly above industry average.

There are interesting reasons for such low proportion of sales. Neilson and Pritchard (2007) arguably warranted that the market distorting nature of 'minimum floor price' paid to the producers as sustainable by the Fair trade was the main reason for the 'over-supply'. The Fair-trade premiums differ from other coffee certification premiums in the sense that Fair trade pays a Fair-trade minimum price (FMP) to producers. FMP refers to minimum price paid to coffee producers by the company for following production practices in compliance with Fair-trade standards. The certified Arabica parchment attracted a minimum floor price of US$ 1.4 per pound, Arabica cherry : US$ 1.35 per pound, Robusta parchment : US$ 1.05 per pound, and Robusta cherry : US$ 1.01 per pound (see Table 4 for details). An additional amount of US$ 0.30 per pound was paid to the producers if the coffee was double certified with organic. At the aggregate, about 40% of fair trade is also certified for organic, which receives the above mentioned additional premiums (Ponte, 2004). Besides, a social premium of US$ 0.20 per pound was the additional payment to producer groups or co-operatives for social developmental activities. Such premiums are pushed on to the buyers, that is, coffee roasters, retailers, and consumers in the form of costs. The fair-trade coffee thus becomes very expensive in the market to final consumers, who display high price sensitivity in their purchasing decisions.

At the retail level, it was estimated that Fair-trade coffee was 50-150% expensive than other coffees. Besides the Minimum Floor Price, licensing costs and transaction costs associated with Fair-trade certification cause exorbitant price hikes in the retail market that makes the coffee out of reach of ordinary buyers. This has caused lower market penetration for Fair-trade coffee. Though for Fair trade certified coffee, the prices being too high and above equilibrium remains the major cause for over-supply.

On the other hand, Fair-trade organizations face strong pressure from international organizations to reduce the

Figure 3. Price Premiums for Different Types of Organic Coffee (US$ per pound)



Source: Potts et al. (2010)

Minimum Floor Price to curb 'over supply' of Fair-trade certified coffee in the global market. One advantage in this certification to producers is that unlike other certification systems, producers need not pay any certification costs. This has encouraged more farmers to adopt fair-trade farming systems, which ultimately lead to over production. The over production might be hard to sustain in the long run, due to drastic 'over supply' in global markets, resulting in much of coffee unsold as Fair trade certified. Contrarily, the decision to reduce price premium in fair trade coffee might discourage the producers from producing high quality coffee to meet international standards, which in the long run adversely affects sustainability. Nevertheless, Fair-trade has the highest brand recognition among sustainable coffee, besides carrying multiple certifications (E.g. Fair trade + organic, Fair trade + Shade grown, Fair trade + Utz) (Fox, 2007).

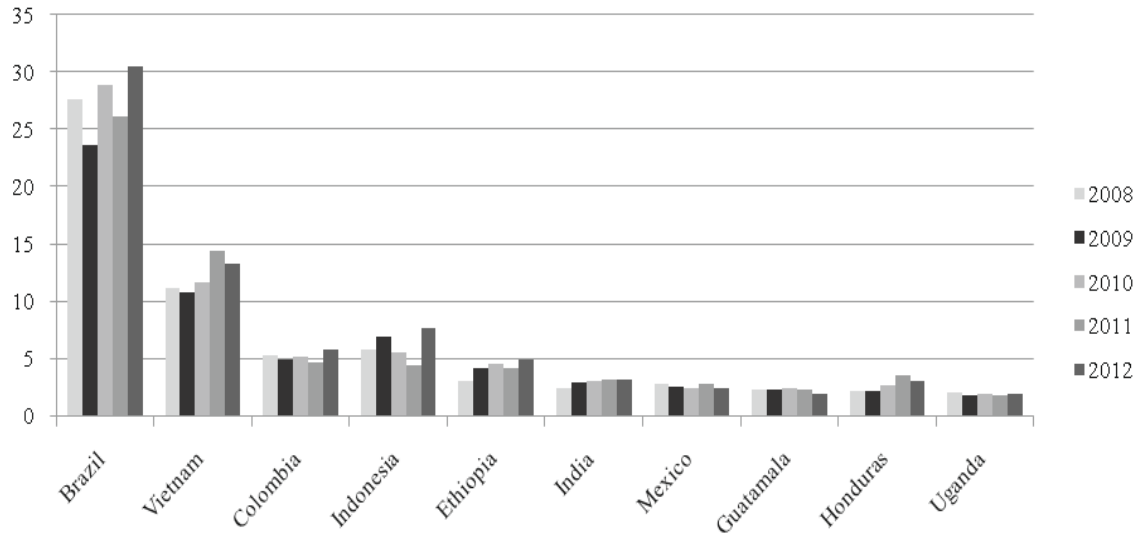
Markets for Organic Coffee

The organic coffee market is considered to be the most mature sustainable market which has relatively high demand among all sustainable initiatives. About 55% of the organically produced coffee was actually sold as 'organic,' much above the industrial average of 25% during 2008-12. The average production was found to be 2.2 lakh metric tons, while its average sale was worked out to be 1.2 lakh metric tons, that is, the largest sales volume among all sustainable coffees. Production to sales ratio was found to be 1: 1.8. The compound annual growth rate in sales of organic coffee was 4% per annum. There has been a massive supply of organic coffee from Peru (25%), Ethiopia (18%), and Mexico (18%) together accounting for 61% of the total organic production.

Generally, organic coffee is sold along with Fair-trade certified coffee (i.e. dual certification of Organic + Fair-trade). Henceforth, there has been extensive overlap between organic and fair-trade coffee. As mentioned earlier, about 40% of organic certification is also certified under fair-trade for which it commands an additional premium of $0.30 per pound along with Fair-trade minimum floor price (Table 4). Normally, organic coffee commands a premium of $0.04 - $ 0.30 per pound, depending on quality. For instance, average organic premiums for Colombian mild and other mild are about US$ 0.23 per pound, while Robusta commands an average organic premium of US$ 0.19 per pound and Brazilian naturals US$ 0.21 per pound (Figure 3). However, in the recent years, the organic premiums have indicated a steady decline despite higher quality, attributing to oversupply. The lower organic premium has encouraged roasters in the organic sector, while decline in premium has reduced commitment of coffee producers in organic (Rice & McLean, 1999). There has been higher consumer awareness for organic coffee, which can be stated as one of the reasons for higher sales of organic coffee.

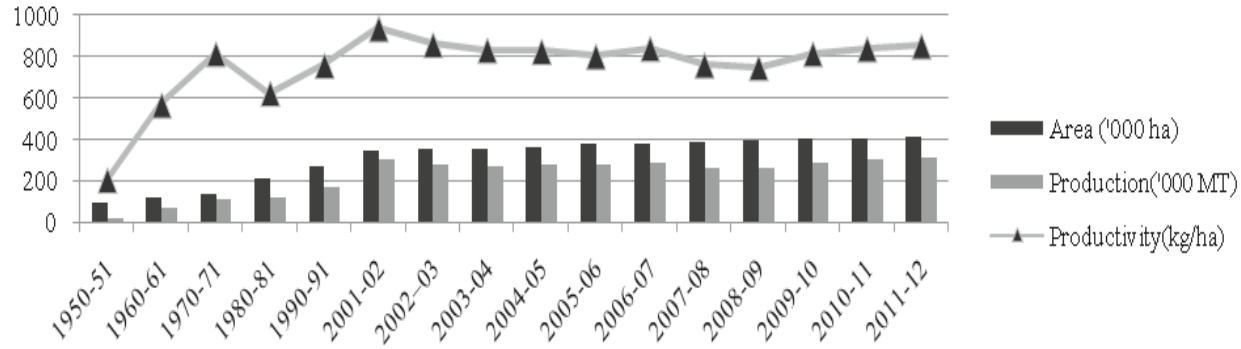
The above statistics notably argue that sustainable coffee is not necessarily demand driven, but is generally led by supply and thereby leading to 'over-supply'. Though certification certainly adds value to a coffee's image,

Figure 4. Top Ten Coffee Producers in the World (Lakh Metric Tons)



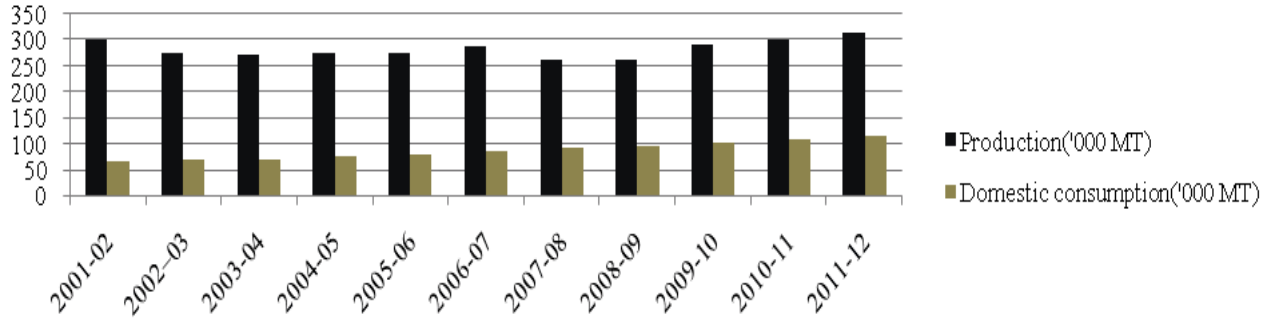
Source: Coffee Board (2013)

Figure 5. Area, Production, and Productivity of Coffee in India



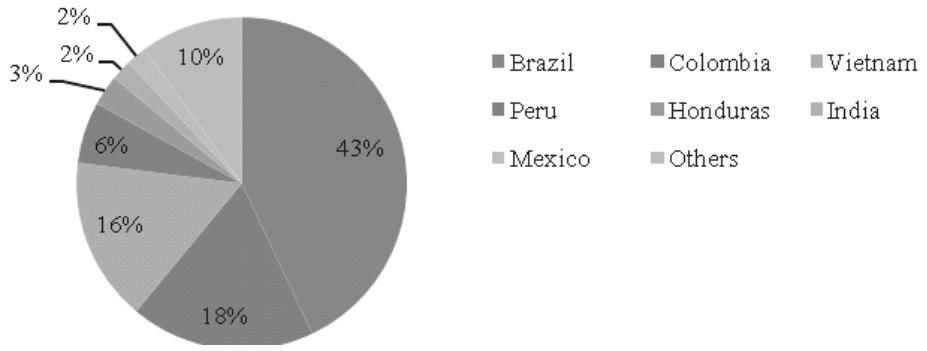
Source: Coffee Board (2013)

Figure 6. Coffee Production Vs Consumption in India



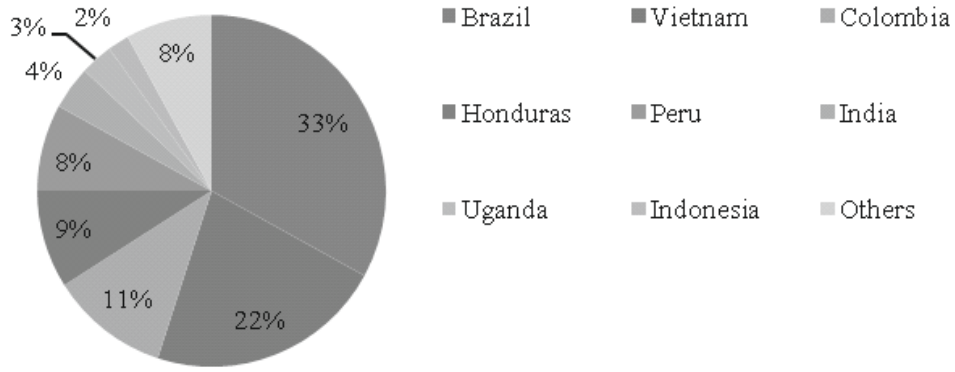
Source: Coffee Board (2013)

Figure 7. Country Wise Share of Sustainable Coffee Production 2012



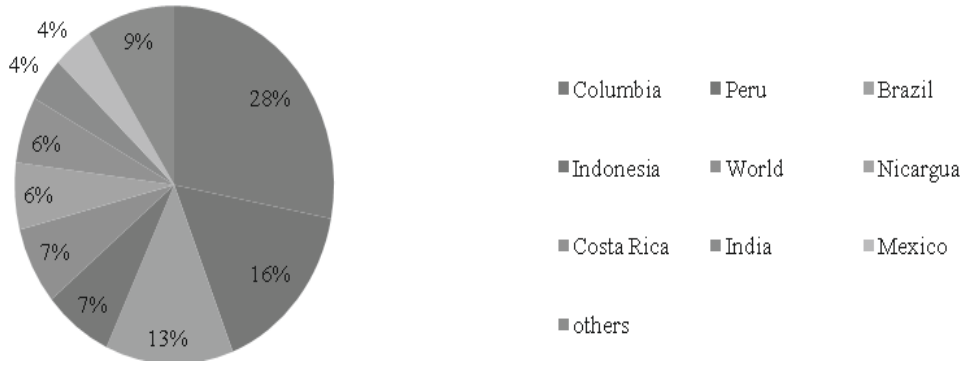
Source: Potts et al. (2014)

Figure 8. Country- Wise Share in Utz Certified Coffee Sales 2012



Source: Utz Annual Report (2012)

Figure 9. Country-wise Share of Fair Trade Coffee Production in 2011



Source: FLO (2012)

certification by itself does not ensure market guarantee of price premium in the long run. On the other hand, several companies have already stepped into the coffee sector as a broader base for sustainable development; it might provide ample opportunities for sustainable coffees, requiring more supply beyond the current purchase to meet future demands.

The Indian Scenario

This section describes coffee production and consumption in India, status of coffee certification in India, and provides brief details about major coffee certifications in India. Coffee in India is more than an agricultural export, as a significant part of it is also consumed domestically. India ranks 7th in area, 6th in production (Figure 4), 3rd in productivity, and 6th in exports with respect to coffee in the globe. It can be noted that there has been a steady increase in area, production, and productivity of Coffee in India over the years (Figure 5).

India's share in global production was 3.89 %, and its share in global export was 5.16% in 2011-12. Among the plantation crops, coffee contributes significantly to the nation's economy, as exports in coffee earn a substantial foreign exchange of ₹ 4000 crore. The strength of Indian coffee lies in its export potential, as only 30% of the country's production is domestically consumed (Figure 6). However, the Indian Coffee Board targets 50% of national consumption by 2017. In India, mainly two types of coffee are cultivated that is, Robusta and Arabica. The Indian Robusta - with its buttery cup and mild taste from Western Ghats regions of Coorg and Chickmangalore in the state of Karnataka - is known to be the best in the world, commanding highest positive differentials of 700 points premium in the London market, besides being highly demanded by Italy as a major component for Italian espresso (Mercereau & Vignault, 2008).

↳ **Coffee Certification in India :** In India, coffee certification is still at an infancy stage despite the growing demand for certified products and well established certification programs across the globe (Upendranath, 2012). The main reason for such low market penetration of coffee certification was due to lack of active co-operatives engaging in such activities (Achoth, 2005). Besides, majority of the Indian growers are small growers with holdings of less than 10 hectares, and they exhibit a lack of interest to market their coffee as sustainably certified, and prefer to sell their coffee at the farm gate itself. Moreover, majority cannot afford to bear certification costs, which are quite cumbersome for small growers. However, only estates with large holdings and corporates do carry out certification and market their coffee with sustainable labels. Another reason for low sustainable coffee certifications in India is the excessive application of fertilizers, chemicals, insecticides, and pesticides to control diseases and pests like white stem borer, while sustainable standards strictly prohibit chemical application to conserve the environment.

The certified coffee production has a low status in India. For instance, the share of India towards global sustainable production in 2012 was merely 2% (Figure 7). Currently, the two major sustainable initiatives existing for Indian coffee are Utz certification and Organic certification. In the non-traditional coffee belt of Arakalu Valley in Andhra Pradesh, the dual certification of Fair-trade and Organic is being adopted, marketed on a co-operative basis and branded as 'Araku Emerald,' massively supported by the Government of India (see Appendix 1).

Utz is a major coffee certification in India that was introduced to make sustainable coffee production and marketing a norm in collaboration with Dutch based NGO Solidarid. The Utz certification requires professional management of farm and good agricultural practices (GAP) protocols. In India, Utz closely works with a Bangalore based NGO, Prakruthi, actively involved in training coffee producers and supply chain actors to meet sustainable standards in chain of custody, besides expansion of local markets for Utz certified coffee. India contributes to about 4% of the total global sales of Utz (Figure 8).

In India, Utz coffee certification is adopted by large corporate plantations like Tata Coffee, ABC (Coffee Day), BBTC (Bombay Burmah Trading Corp. Ltd), which markets all its coffee as Utz certified. The major exporters

sourcing Utz certified coffees are Ned Commodities, Allanasons, ECOM Gill Coffee Trading, ITC, General Commodities, and so on. The traceability and market transparency along the supply chain ensures consumers that they trust Utz certified products in total.

The organic certification in India is largely being supported by the Coffee Board. This involves a large number of small growers and is regulated by the National Program for Organic Production (NPOP). In India, the two major certifiers for organic coffee are Skal International and Institute for Marketecology (IMO). Phalada is a major company that tries to focus on small growers interested in organic farming, and follows SKAL international standards for organic certification. Phalada is actively involved in exporting green coffee beans to international markets, mainly to Europe and United States, after conducting lab tests for cup quality. Though organic coffee being a mature market among sustainable initiatives, price premiums are not very attractive to producers.

Fair-trade certification in India has been adopted in 'Araku Valley' in Eastern Ghats of Andhra Pradesh on a co-operative basis. About 4% of global fair-trade production is sourced from India (Figure 9). The technical assistance for Fair trade in India is hugely supported by the Coffee Board of India and various government agencies. The major drawback in Indian plantations for non-adoption of Fair trade certification is the prevalence of the former colonial system, which does not allow fair trade certification (Mercereau & Vignault, 2008).

Policy Implications

(1) The Coffee Board, Karnataka Planters' Association (KPA), United Planters' Association of Southern India (UPASI) need to take initiatives for sustainable coffee production and marketing through invoking brands and image creation for coffee of Indian origin and sensitize sustainable coffee production through proper extension services.

(2) A mission-oriented approach in coffee is required to address growers' needs to meet sustainability standards, while also simplifying procedures for certification could further encourage more number of small and marginal growers to adhere to certification requirements. This could improve livelihoods of growers through price premiums they receive in the market.

(3) Linking sustainable coffee producers with large roasters and retailers could be another major initiative. The retailers and roasters have always occupied a powerful position in the coffee supply chain. Linking sustainable coffee producers with large roasters and retailers could secure higher market premiums to producers, while the retailers and roasters could build brand reputation and consumers' trust.

(4) Sustainability could be used as a part of product differentiation in domestic markets. The domestic consumption of coffee is increasing at the rate of 6% per year. With this positive rise, certification could be used as an integral tool for 'product differentiation' strategy in the market. This could also create awareness among the consumers that the coffee is sourced from reliable socio-environmental estates, for which they are willing to pay a higher price.

Conclusion

Though sustainable coffee production represents a significant proportion of global production, its sale is considerably small in the global market. Though factors such as weather conditions, market prices, and producers' sales decision together constitute a strong base of supply, there is a definite mismatch between demand and supply in the sustainable market, leading towards 'over supply'. It is a clear indication of inherent limitation of certification as a market-based instrument. This can adversely affect coffee prices with its major impact on livelihoods of developing countries, since 90% of the coffee is produced by developing countries.

As J.M. Keynes in his theory of over production strongly advocated the role of government interventions to curb overproduction so as to ensure effective demand, the major challenge for policy makers and institutions lies in ensuring effective demand for sustainable coffee(s). There is a dire need to have demand and supply stabilized in the long run while focusing more on demand and at the same time, supply should be according to market requirements, taking into account the cultural differences between countries through effective communication.

The policy makers and institutions should engage in market-based controls in building 'supply management strategy' to enhance market growth in coffee. On the supply side, measures should reduce entry barriers for the new entrants, support producer associations and cooperatives, while on the demand side, there should be support for 'buyers' networks' , at the same time, demand need promotion for certified coffee needs to be done through advertisements, labeling, branding, trade magazines, newsletters, and so on, for there exists limited knowledge at the consumers' end regarding sustainable coffee.

Limitations of the Study and the Way Forward

The present study has largely relied on secondary data, and hence, the limitations have to be acknowledged. Though the secondary data were collected from reliable and authenticated sources, at times, these are not very specific. This has led to only fair conclusions. Secondly, different certifying agencies have their own sustainability standards that may vary from time to time. Thereby, none of the sustainability standards, that is, social and environmental standards were found to be the most accurate. Thirdly, in India, sustainability is still at an infancy stage, particularly in coffee. This was one of the serious limitations found during the study.

Since no marketing studies should be undertaken without a prior research on secondary data, there are several grounds for further field studies with regard to sustainability in coffee. Within coffee, an in-depth analysis on sustainable Robusta and sustainable Arabica could be conducted. In a similar fashion, a study on adoption and non-adoption of sustainable standards by growers can be conducted to sensitize growers regarding sustainability in the future.

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Appendix 1

Case Study 1 - Tribal Blend of Fair-trade and Organic Coffee Certification Hits Global Markets : A story of Araku Emerald Worth Telling

Araku Valley is located in Eastern Ghats in the state of Andhra Pradesh, a non-traditional coffee growing region. The region is home to a number of tribal communities. Since 2000, coffee was introduced to the tribals in this region by the government's Integrated Tribal Development Agency (ITDA), supported by the Coffee Board, with assistance of non-government organizations like Naandi foundation. The tribals were trained to convert semi-waste lands into organic coffee cultivation. The entire production process followed organic certification standards. Naandi invited the eminent Dutch organic accreditations agency, SKAL (now known as Control Union) to inspect and certify the plantations. The coffee grown in this region was certified by Fair trade also. The double certified organic and fair-trade coffee branded as 'Araku Emerald' is country's only organic and fair trade certified coffee grown by tribal co-operatives. This coffee has buyers in Norway, France, and United States for 500 metric tons per annum. In a bid to fetch higher prices in international markets, Coffee Board initiated this branding initiative in coffee. The Coffee Board refers to it as 'Brown revolution'.

The 'Araku Emerald' coffee is highly successful in creating niche markets. During 2003-04, average prices realized by farmers were between ₹ 25-35 per kg. In 2004-05, prices tripled upto ₹ 90 per kg, while in 2007-08, the prices shot up to ₹ 123 per kg. It has carved its own niche in international market, winning 'Best Arabica Coffee Award' in the 'Flavour of India Fine Cup Award' at Nice, France for 2013.