

# GREEN INSIGHTS

NEWSLETTER ON  
Eco-Labeling & Eco-Friendly Products



## Coffee and the Environment



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# Foreword

Coffee has been widely used for many years. One of the world's most traded commodities after crude oil, it is the economic backbone of some countries in Latin America, Asia and Africa. In India, coffee is the second largest traded commodity and is an extremely important foreign exchange earner. The coffee industry of India is one of the largest producers of coffee in the world. Coffee is one of the important plantation crops of India and in 2012-13 it was cultivated on 409.69 thousand hectares mainly in the southern states of Karnataka (72%), Kerala (20.2%), Tamil Nadu (5.6%) and to a small extent in other non-traditional areas such as coastal tribal Andhra Pradesh and Odisha, and the North East.

The latest Harvard study on coffee and health brings good news for coffee drinkers. The researchers did not find any relationship between coffee consumption and increased risk of death from any cause, whether cancer or cardiovascular disease. Even people who drank up to six cups of coffee per day were at no higher risk of death. In fact, a researcher involved in a recent Swedish study has said: "The caffeine turns off the signal paths to breast cancer cells. This results in slower cell proliferation and increased cell death."

Love drinking coffee but worried about the environment? Good coffee no longer just means good taste, quality and price. There is also a growing interest in the conditions in which the coffee was produced. Today's consumers demand that it is made responsibly, with care for people and the environment. Not all coffee is bad for the environment. Luckily, we coffee consumers do have environmentally friendly options. There are organic coffees which are free of chemicals. Fair trade coffees assure farmers are not being taken advantage of. Certified coffee is audited by independent bodies that ensure that coffee producers meet environmental and social standards.

The present issue presents different types of ecolabels for coffees grown conforming to economic, social and environmental standards. It illustrates the great Indian coffee story and Ecomark criteria for coffee. It also gives information on how environmentally conscious consumers support eco-friendly coffees.

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There are a number of ecolabels in the global food industry and over hundreds of seals and logos which represent ecological, ethical, ingredient or sustainability attributes. Ecolabels are mushrooming in the market and some may not be genuine. The majority of ecolabels in the food industry are for organic products.

## ECO-FRIENDLY COFFEE LABELS

### Sustainable Coffee Certification



Coffee causes less environmental damage compared to annual crops but this depends on how it is grown. Certification schemes have emerged as one method to try and raise the economic, social and environmental standards of coffee production and trading. Third-party certifications develop confidence in consumers who want to know that their coffee was produced under specific standards. All certification schemes share the goal of transforming the world's production systems and value chains to make them more sustainable.

### Bird Friendly Coffee



This certificate is developed by Washington DC based Smithsonian Migratory Bird Center. Coffee plants should grow under a minimum of 40% shade cover with 11 species of shade trees and canopy should be at least 12 metres high. Additionally, the coffee must also be certified as being organic. Bird-Friendly certification has the most robust shade/habitat standards of any coffee certification. Its seal of approval ensures tropical 'agroforests' are preserved and migratory birds find a healthy haven when they travel from backyard to faraway farms producing the beans. It requires presence of a variety of native shade trees throughout the coffee plantation. The combination of foliage cover, tree height and diversity provide suitable migratory bird habitat while maintaining productive farms. Producers must be recertified every three years to ensure they continue to

meet these requirements and can truly call themselves Bird Friendly. The logo is verified by a third party for coffee that has been grown using shade management practices that provide good bird habitats.

>><http://nationalzoo.si.edu/scbi/migratorybirds/coffee/>

### Rainforest Alliance



New York-based Rainforest Alliance is a non-profit organisation. Its mission is to conserve biodiversity by promoting sustainability in agriculture, forestry, tourism and other businesses. It certifies coffee, as well as other products and services, when it is produced under certain standards. Products with its logo/seal have ingredients sourced from Rainforest Alliance Certified farms or forests.

These are managed as per environmental, social and economic criteria designed to conserve wildlife; safeguard soils and waterways; protect workers, their families and local communities; and increase livelihoods in order to achieve true, long-term sustainability. Farms are regularly audited by members of its certification team or one of its international partners in the Sustainable Agriculture Network (SAN).

>><http://www.rainforest-alliance.org/work/agriculture/coffee>

### USDA Certified Organic



United States Department of Agriculture (USDA) certifies coffee which must be grown using at least 95% organic fertilisers and without the use of chemical pesticides. The practices conserve or enhance soil structure. USDA organic standards describe the specific requirements that must be verified by a USDA-accredited certifying agent before products can be labelled. Overall, organic operations must demonstrate that they are protecting natural resources, conserving biodiversity, and using only approved substances.

>><http://www.usda.gov/wps/portal/usda/usdahome?contentonly=true&contentid=organic-agriculture.html>

### UTZ Certified



UTZ Certified is a sustainability programme for coffee. UTZ is based in Amsterdam, The Netherlands. It emphasises transparency and traceability in the supply chain and efficient farm management including good agricultural practices such as soil erosion prevention, minimising water use and pollution, responsible use of chemicals and habitat protection. UTZ Certified provides manufacturers with the assurance of responsible production and provides opportunities to credibly demonstrate this to their consumers.

>><https://www.utzcertified.org/products/coffee>

## Fairtrade Certification



Fairtrade standards provide security to coffee producers so that they will get a price that covers their average costs of sustainable production. An independent certifier - FLOCERT- checks a product's compliance with Fairtrade standards. When a product carries the Fairtrade Mark it means the producers and traders have met standards designed to address the imbalance of power in trading relationships, unstable markets and the injustices of conventional trade. The Fairtrade Foundation is a charity based in the UK that works to empower disadvantaged producers in developing countries.

>><http://www.fairtrade.net/what-is-fairtrade.html>

## Fair Trade USA



Fair Trade USA is the leading third-party certifier of fair trade products in the US. Its certification model is designed and audited to ensure equitable trade practices at every level of the supply chain. Its standards aim to fulfil its mission of empowerment, economic development, social development and environmental

stewardship to farmers and workers around the world. Fair Trade USA is partnering with SCS Global Services to conduct compliance assessments.

>><http://fairtradeusa.org/certification/standards>

## CarbonFree® Certified Coffee



Grounds for Change is a family owned and operated coffee roasting business located in the Pacific Northwest. It has partnered with Carbonfund.org to offset 100% of the global warming emissions associated with its coffee. To get a product certified CarbonFree®, a company must submit the item for a detailed Life Cycle Analysis, A third-party process that formally scrutinises the carbon emissions associated with every step in production.

>>[http://www.groundsforchange.com/learn/carbon\\_neutral.php?](http://www.groundsforchange.com/learn/carbon_neutral.php?)

>><http://carbonfund.org/partners/item/grounds-for-change-3>

## Direct Trade Certified



Direct trade is a trade practice by which coffee roasters purchase directly from growers and co-operatives ensuring a fair price for a quality product. Direct trade entails the creation of respectful relationships with the growers and small co-operatives as well as friendly environmental practices and sustainable social practices. There are some roasters who use the term 'direct trade' in more specific ways. For instance, Chicago-based Intelligentsia, a roaster who sells coffee by mail in addition to operating coffee shops, has trademarked the term Intelligentsia Direct Trade to promote its direct business relationship with growers. Counter Culture Coffee, another roaster, established in 2008 what it calls Counter Culture Direct Trade Certification.

>><https://counterculturecoffee.com/sustain/direct-trade-certification>

>><http://www.ethicalcoffee.net/direct.html>

>><http://www.intelligentsiacoffee.com/content/direct-trade>

There are several other private or voluntary initiatives that provide standards under which coffee is produced.

## Starbucks CAFÉ Practices



**C.A.F.E. Practices**

Starbucks does sell certified organic and Fair Trade coffees. It also has its own green coffee sourcing standard- CAFÉ (Coffee and Farm Equity) Practices. It was developed in partnership with the non-profit environmental group Conservation International and SCS Global Services. (SCS), an independent evaluation and verification company. The CAFÉ Practices programme covers four categories. Product quality and economic accountability are two criteria that are required by all Starbucks suppliers. The other two categories are social responsibility and environmental leadership.

>><http://www.starbucks.in/responsibility/sourcing/coffee>

>><http://www.coffeehabitat.com/certification-guide/>

## Nespresso



**NESPRESSO.**

It is a division of the giant Swiss multinational food corporation Nestlé. The Nespresso AAA Sustainable Quality™ Program was launched in 2003 in collaboration with the NGO The Rainforest Alliance. It aims to protect the future of the highest quality coffees and secure the livelihoods of the farmers that grow them. The AAA Program stands for quality, sustainability and productivity.

>><http://www.nestle-nespresso.com/sustainability/the-positive-cup/coffee>

# INDIAN COFFEE

Coffee was introduced in India when the legendary saint Baba Budan Giri Hills on his pilgrimage to Mecca in 1670 AD brought seven seeds from Mocha, Yemen. On his return home, he planted the beans in the hills of Chikkamagaluru, which are now named Baba Budan Hills in his honour.

Commercial planting of coffee started in India in the 18th century. Coffee in India always grows under the shade canopy of evergreen leguminous trees. India's coffee growing regions have diverse climatic conditions, which are well suited for cultivation of different varieties. Coffee is traditionally grown in the Western Ghats - Karnataka, Kerala and Tamil Nadu. Cultivation is being expanded to non-traditional areas like Andhra Pradesh, Odisha and the North Eastern states.

There are two main varieties grown in India - Arabica and Robusta. Arabica is mild but more aromatic while Robusta has more strength. Being more aromatic, Arabica has higher market value while Robusta is used to make various blends because of its strength.

A wide variety of spices and fruit crops like pepper, cardamom, vanilla, orange and banana grow alongside coffee plants. Indian coffee has created a niche for itself in the international market and Indian coffees are earning high premium. Coffee is an export product with low import intensity and high employment value.

## Rules and Regulations

There are institutions involved in the control of coffee quality and safety. Several national research and training institutes, private analytical laboratories and management institutes are also involved in advice and training.

The Government of India established the Coffee Board through a constitutional act Coffee Act VII of 1942 under the administrative control of Ministry of Commerce and Industry. The main focus of the Board is research, development, extension, quality upgradation, market information, and the domestic and external promotion

of Indian coffee. The Coffee Board is a statutory organisation involved in the control of coffee quality and safety in the coffee production/marketing chain.

The Food Safety and Standards Act, 2006 has provision of compulsory licensing of import/export, standards for food articles and regulates their manufacture, storage, distribution, sale and import/export to ensure availability of safe and wholesome food.

The Coffee Act 1942 includes compulsory registration of all owners of coffee estates, a provision that coffee should be cured in licensed curing establishments and need for authorisation for export of coffee. The ministry has also introduced the Coffee Control Rules 1955.

There are other food control orders and administrative directives at the central and state level which are related to food safety.

- Directorate of Marketing and Inspection of Ministry of Agriculture and Agriculture Produce (Grading & Marketing) Act 1937 (AGMARK)
- Bureau of Indian Standards (BIS) and the Bureau of Indian Standards Act, 1986 (63 of 1986)
- Export Inspection Council of India and the Export (Quality Control and Inspection) Act 1963
- Agricultural and Processed Food Products Export Development Authority (APEDA)

The main institution engaged in advising or training in quality and safety management of coffee is the research wing of the Coffee Board. The quality control division is involved in the development and implementation of quality standards for Indian coffee and also in creating awareness among growers/curers/traders through training programmes. The Regional Coffee Evaluation and Upgradation Centre and the Central Coffee Research Institute (CCRI) have well-equipped laboratories and modern facilities for research and manpower training.

>> [http://www.fao.org/fileadmin/user\\_upload/agns/pdf/coffee/Annex-G.2.pdf](http://www.fao.org/fileadmin/user_upload/agns/pdf/coffee/Annex-G.2.pdf)

## Ecomark Criteria for Coffee



The Central Pollution Control Board (CPCB) has identified 14 product categories and 'food items' is one of these. Food items cover edible oils, tea and coffee. There are general and specific product requirements for each item.

### General Requirements:

- All formulation of coffee shall meet relevant standards of BIS pertaining to quality.
- The product manufacturers must produce the consent clearance as per the provisions of Water (Prevention and Control of Pollution) Act, 1974, Air (Prevention and Control of Pollution) Act, 1981 and Water (Prevention & Control of Pollution) Cess Act, 1977, respectively along with the authorisation, if required, under Environment (Protection) Act, 1986 and rules made thereunder, to BIS while applying for Ecomark. Also, the product shall be in accordance with the Food Safety and Standards Act, 2006 and the rules made thereunder unless otherwise specified.
- The product must display a list of critical ingredients in descending order of quantity present (C/o. W/W, or V/V). The list of such ingredients shall be identified by BIS
- The product packaging may display in brief the criteria based on which the product has been labelled environment friendly.
- The material used for product packaging shall be recyclable or biodegradable and the parameters evolved under SLEFP (Scheme on Labelling of Environment-Friendly Products) on the specific subject of packaging shall apply.

## Product Specific Requirements: Coffee

1. Coffee beans shall be free from infestation due to insect, fungus and rodents.
2. Product shall be free from any extraneous matter like strings, stone, dirt, wood, glass and metallic pieces.
3. Product shall be free from any added colouring, flavouring and also free from rancidity and should have its characteristic flavour.
4. Product shall be free from adulterants like dandelion and other roots, nerons, fige, date, stones and cereals.
5. The pesticides residues (if any) in the product shall not exceed the limits as prescribed in Food Safety and Standards Act, 2006 and Rules made thereunder.

The following BIS standards have incorporated the Ecomark criteria:

S. NO.	Indian Standards	Reaffirmed/ Revised	
1.	IS 2791:1992	2009, 3rd Revision	Soluble coffee powder with Ecomark (1995)
2.	IS 3077:1992	1995, 2nd revision	Roasted and ground coffee
3.	IS 3309:1992	1995, 2nd Revision	Soluble coffee chicory powder
4.	IS 3581:1982	1995, 2nd Revision Reaffirmed 2012	Grading for green coffee
5.	IS 3802:1992	1995, 1st Revision	Roasted coffee chicory powder

>> [http://cpcb.nic.in/EnvironmentalPlanning/Eco-label/food\\_items.pdf](http://cpcb.nic.in/EnvironmentalPlanning/Eco-label/food_items.pdf)

>><http://rt.com/news/251041-coffee-cancer-prevention-study/>



# CONSUMERS AND COFFEE

Millions of people around the world love to start their day with a steaming cup of coffee. Its smell, taste and the kick of caffeine have become an essential part of our modern life and culture.

## Consumer prefers coffee with ecolabels

According to a study conducted by scientists of the University of Gavle and University of Chicago environmentally-friendly coffee tastes good. The study, titled 'Who Needs Cream and Sugar When There Is Eco-Labeling? Taste and Willingness to Pay for "Eco-Friendly" Coffee', was published in the scientific journal PLOSone (December 4, 2013).

Results show that ecolabels like 'fairtrade' or 'organically produced' promote a willingness among consumers to pay more for the product. People also tend to think that products with ecolabels taste better than identical, but unlabelled products. Researchers conclude that their findings could help in devising ways to promote sustainable consumer behavior. They have dubbed these biased consumer responses as 'ecolabel effect'.

The study consisted of three experiments. Two cups of coffee were given to 44 participants in the experiments and they were asked to rate the coffee. In the first experiment, the participants were informed about which cup contained which type of coffee before tasting. The results indicated that the participants – those who scored high in a questionnaire on attitudes towards sustainable consumer behaviour – were willing to pay more for the 'eco-friendly' coffee and preferred its taste.

Results from the second experiment suggested that high sustainability consumers were willing to pay more for 'eco-friendly' coffee, even when they were told that the cup they chose contained the non-labelled alternative.

Finally, in the third experiment (like in the first) participants were told before tasting which cup contained which type of coffee. The eco-label effect

does not appear to be a consequence of social desirability, as participants were just as biased when reporting the taste estimates and willingness to pay anonymously.

## Main findings

The series of experiments revealed three main findings:

- There is an eco-label effect on taste and willingness to pay such that people are biased to prefer coffee that has been arbitrarily labeled 'eco- friendly' over an objectively identical non-labelled alternative
- Social desirability (i.e., the need to express beliefs and behaviour to gain the appeal of others) appears not to underpin the ecolabel effect; and
- People who are willing to pay a premium for eco-friendly coffee do so even when they believe that they prefer the taste of a non-labelled alternative

The researchers suggested that taste perception of consumers may be influenced by the production process which differs for eco-friendly and conventional products. One difference that could influence taste is crop-spraying. Also, morally loaded labels – like 'fairtrade', 'organic' and 'eco-friendly' – have general halo effects that favourably influence subjective product characteristics.

The researchers concluded that "ecolabels not only promote a willingness to pay more for the product but they also lead to a more favorable perceptual experience of it. Understanding the psychological mechanisms that underpin the eco-label effect and how to modulate its magnitude could potentially be a key to promote sustainable consumer behaviour."

>><http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0080719>

>><http://theglobalfool.com/eco-label-effect-the-good-taste-of-coffee/>

## Impact of consumers' choice on coffee producers and the environment

Consumers International, in collaboration with International Institute on Environment and Development (IIED) and member organisations in Latin America, Asia, Europe and North America, has brought out a report that examines consumer awareness of the impact of sustainable certified coffees on producers and the environment. This report is targeted primarily at stakeholders who can influence consumption patterns in developed countries, as this is where the demand for certified coffee is likely to grow.

Coffee is one of the world's largest traded commodities. It is produced in more than 60 developing countries and consumed mainly in developed countries with over US\$70 billion of retail sales each year. Around 100 million people are involved in the farming, selling and other steps in coffee production worldwide. Many of these tasks provide livelihoods in developing countries.

Consumers are now facing a growing complexity of ethical and environmental claims in coffee and there is concern about confusion and declining standards. Certification may become another requirement for market access and a barrier for small producers. Certification schemes have emerged as one approach to raise the economic, social and environmental standards of coffee production and trading in the international market. Over the last few years a number of certification schemes for coffee like 'fairtrade', 'organic', 'Rain Forest Alliance' and 'bird friendly' have come to prominence, building on established organic certification schemes. The report presents the results of a survey carried out in two developing and four developed countries on the growers of certified and conventional coffee, the status of certified coffee and barriers to market expansion. Revenues for coffee growers have generally increased as a result of certification, and access to export markets has been facilitated.

## Confusing labels

The study finds that consumers face a number of barriers when purchasing certified coffees. These include product visibility, uncertainty over quality, and confusion about what certification labels actually mean. It argues that consumer support is essential to the development of the certified coffee sector. It looks at coffee production in Brazil and Vietnam and consumption patterns in Europe and North America and finds that certified coffee initiatives benefit both producers and consumers.

The report sends a compelling message to the mainstream coffee industry that there is a growing business case for adopting more socially and environmentally responsible practices. Richard Lloyd, CI Director General said: 'More and more consumers want to know where their coffee is coming from and want a better deal for developing world communities. Consumer country governments and the big players along the coffee commodity chain must respond to this demand by raising public awareness about the range, purpose and high-quality taste of certified coffee products.'

According to Camilla Toulmin, IIED Director: 'Case studies of coffee producers in Brazil show that sustainable initiatives make a real difference to the environmental and social conditions of coffee farmers and the wider local community. Consumers want to support these schemes and should be given every opportunity to do so.'

>>From Bean to Cup: How Consumer Choice Impacts Upon Coffee Producers and the Environment: [http://www.consumersinternational.org/media/306514/coffee%20report%20\(english\).pdf](http://www.consumersinternational.org/media/306514/coffee%20report%20(english).pdf)  
>><http://demo.zus.st/coffeeexplorer/index.php/de/news/buecher-magazine/1121-from-bean-to-cup>

### World's most expensive brew



Kopi Luwak is the most expensive coffee in the world because of the way the beans are processed and the limited supply. The civet cat (luwak), a wild creature, selects only the finest, ripest coffee cherries to eat. It

can't digest the coffee beans and craps them out, its anal glands imparting an elusive musky smoothness to the resultant roasted coffee. The stomach acids and enzymatic action involved in this unique fermentation process produces the beans for the world's rarest coffee beverage.

While this coffee is hugely popular worldwide, wild luwaks are being poached and caged in terrible conditions all over South East Asia, and force fed coffee cherries to produce commercially viable quantities of the precious coffee beans in their poo.



>><http://www.brewed-coffee.com/caffeine-addicts/places-which-consume-the-most-coffee>



The Environment information System acronymed as ENVIS was implemented by the Ministry of Environment & Forest by end of the 6th Year Plan as a Plan Scheme for environmental information collection, collation, storage, retrieval and dissemination to policy planners, decision makers, scientists and environmentalists, researchers, academicians and other stakeholders.

The Ministry of Environment and Forest has identified Consumer Education and Research Center (CERC), Ahmedabad, as one of the centers to collect and disseminate information on Eco-labelling and Promotion of Eco friendly Products. The main objective of the ENVIS Centre is to disseminate information on Eco products and International and National Eco Labeling Programmes.



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