

# Growth of Coffee Cultivation, Consumption & Production in India – An Overview

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## Growth of Coffee Cultivation, Consumption & Production in India – An Overview

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### ABSTRACT

**Purpose:** *The purpose of this paper is to learn about how in India coffee producers as well as how the country is gaining international recognition, as well as how India's coffee growing integration with the global process has caused major difficulties that arise in the coffee industry's agricultural sector in India and to know how suitable areas for coffee cultivation. To comprehend major issues confronting coffee-producing countries, and the situation is steadily deteriorating. To be aware, coffee is thought to have been cultivated for the longest time outside of the world in India.*

**Objective:** *The focus of this article is to understand the background of how coffee was discovered and brought to India. Additionally, to understand the many varieties and areas of India that produce coffee utilizing PESTEL analysis*

**Design/Methodology/Approach:** *The information for the study was obtained from secondary sources like google, journal papers, new stories, literature, reports, magazines and books.*

**Findings:** *Coffee species that are important for breeding or production are described. Soil preparation, seedling production, harvesting, and post-harvest processing are all discussed as important aspects of coffee cultivation. The most critical technological aspects of this crop are compared, including full sun vs. shaded cultivation systems, arabica vs. Robusta coffee production, and low vs. high technological input.*

**Research limitations/implications:** *There are few sources for references, few topics are not highlighted, and most of the information is obsolete, thus gathering relevant data was difficult.*

**Originality/Value:** *This research is unique in that it aims to trace the past of India's coffee industries as well as the various coffee laws implemented as an outcome of coffee growers.*

**Paper type:** *A Research Case study paper on Growth of Coffee Cultivation on Plantation in India an overview.*

**Keywords:** Coffee origin, Coffee growth, Cultivation, consumption, production, PESTEL Analysis.

### 1. INTRODUCTION :

Coffee is grown primarily in India's southern states and is heavily reliant on the south-west monsoon [1]. Coffee is the 121st another very traded agricultural commodity in the world, with a total trade value of \$30.9 billion and much more than 9.5 billion kg produced [2]. Coffee is grown in approximately 80 tropical countries [3]. Outside of the Arabian Peninsula, coffee is thought to have been grown in India for the longest time [4]. India ranks among the top ten countries in the world in terms of coffee production. India's coffee is regarded as among the best in the world [5].

In India, coffee production has long been a hot topic. To increase the sustainability of coffee production, an emphasis should be placed on improving coffee quality through sustainable, environmentally friendly cultivation practices, which can result in higher net returns in the long run [6]. India is becoming known around the world as one of the world's leading coffee producers. The top five coffee-producing states in India are listed below [7]. India is the world's leading coffee producer, ranking among the top

ten worldwide [8]. India produces some of the world's best coffee, which is grown in the shade. With over 3 million coffee growers, coffee cultivation is a source of employment in India. In the fiscal year 2014-15, India produced 3.27 million metric tons of coffee. The economics of the coffee industry have changed in recent years, with international market prices falling [9].

In India, Different coffee plantations were established in the 18th century. The Indian coffee industry has made a distinct mark over time on the global coffee map. All coffees in India are cultivated beneath a “well-defined two-tier shadow canopy of evergreen legumes,” which is unique in the world [10]. India today has 16 distinct coffee kinds grown in 13 different coffee-growing regions, the majority of which are in the country’s southern region. Indian coffee varieties are ideal for cappuccinos and espressos, and there is no equivalent in any other coffee-growing country on the planet [11].

**2. RELATED WORKS :**

In addition to being a popular beverage, coffee is also a precious commodity. The economics of the coffee industry have changed recently as a result of declining pricing on the global market. India is the only country in the world where coffee is grown under a "well-defined two-tier shadow canopy of evergreen legumes." Examined are the main factors affecting coffee output in various regions. This review paper is entirely based on secondary data obtained from published research works accessible on Google Scholar. These research contributions are examined and summarized in a descriptive and tabular format below.

**Table1:** Contribution by different scholars for Growth of Coffee Cultivation on Plantation in India.

SL. NO	Area	Contribution	Authors
1.	Environmental Impacts in Coffee Plantations	The purpose of this study was to highlight the risks of developing global environmental management systems. The fundamental approaches based on participation to landscape conservation in this region, according to this paper, are diametrically opposed to the global certification schemes now being recommended to increase coffee sustainability.	Neilson, J. (2008). [12]
2.	Coffee in the Global Economy	The origins of coffee and how it grew into a global commodity are discussed in this article, as well as the contemporary global coffee trade environment. The key aspects of coffee production in various geographies are examined. Following that, notable firms with a global coffee market impact are discussed.	Redden, J. (2022). [13].
3.	Coffee industry production and export	Coffee is a widely consumed beverage as well as a valuable commodity. Coffee exports contribute a major amount of India's tax revenue and gross domestic product, as the country is ranked fifth in coffee industry and seventh in global coffee exports. As a result, a research of coffee export trends is made. The purpose of this article is to see if increased coffee output in India is paving the way for massive coffee exports to other markets.	Malladi, P., (2015). [14]
4.	Climate change on coffee production	Climate change is having an impact on these countries both locally and globally because any variation in Heat, rain, humidity, soil quality, evaporation, bright sun, aeration, and ambient temperature can all have an implication on coffee plant development and productivity. In order to reduce the influence of climatic changes on coffee output, it is imperative to adapt mitigation strategies that include steps to reduce global warming.	Gokavi, N., (2020). [15]

5.	Cost of production of coffee	Investigations into cost on growing coffee in India have been attempted on occasion. Individuals, plantation associations, and government accountants were among those who took part. The cost of producing coffee mostly dictates the basic release price in the coffee board's sales.	Madappa, P. P. [16]
6.	Trade liberalization on Indian coffee exports	The pre- and post-liberalization tale of the coffee business revealed various variances in production, export volume, and overall value. Despite the difficulty of holding the market.	Malladi,P., (2014). [17]
7.	Investigating Markets Focused on Sustainability	The Indian coffee industry is at a crossroads, straddling the quality and value markets. The shift from the quality portion of the industry has been blamed on the shift toward Robusta coffee, which has reduced the share of Arabica coffee. Coffee value chains are primarily distributed in nature, according to a value chain evaluation of traditional, certified, and organic coffee disclosed that there was little coordination in terms of criteria and quality in the standard chain.	P. G. Chengappa C.M. (2018). [18]

### 3. RESEARCH GAP :

There are significant problems confronting coffee producing countries, and the situation is steadily deteriorating. The additional environmental burden is regarded as significant. There is no single solution, but research into solutions that combine environmental protection with resource recovery will be extremely beneficial.

### 4. RESEARCH AGENDA :

- The study has following agenda:
- Where was the coffee originated?
- what is the evaluation of coffee growth in India?
- What are the different types of coffee beans grown in India?
- What is different coffee growing regions in India?
- What are the political, economic, social, technological, legal and environment of coffee industry in India?

### 5. OBJECTIVES OF THE STUDY :

- (1) To know the beginning of coffee in India.
- (2) To study the coffee production and coffee growing regions in India.
- (3) To know the importance of Coffee Industry and top ten coffee Producing and coffee consumption countries in the world.
- (4) To examine the many varieties of coffee beans grown in India and the database of coffee plantations in significant states, districts, and zones in India.
- (5) To evaluate the Growth of Coffee cultivation using PESTEL analysis.

### 6. METHODOLOGY :

There are significant problems confronting coffee producing countries, and the situation is steadily deteriorating. The additional environmental burden is regarded as significant. There is no single solution, but research into solutions that combine environmental protection with resource recovery will be extremely beneficial. This paper is a study on secondary data gathered from several growth of coffee industry sources. Sources of information for this article include research articles, journals, publications, and books. The PESTEL analysis was used to analyze the growth of coffee in India.

### 7. ORIGIN AND DISCOVERY OF COFFEE :

According to a legend, the story of coffee begins with its discovery in **Kaffa**, a region in today's Ethiopia. The unusually vivid and erratic behavior of his goats after consuming a certain type of fruit

made the shepherd called **Kaldi** curious enough to research into the cause. His curiosity eventually led to the discovery of the stimulating effect of the coffee plant [19]. Known to us is that since the 11<sup>th</sup> century people were using various parts of the coffee plant in different ways. They ate raw coffee berries, made liquid stock from green coffee beans and even processed it into an edible mixture with the help of animal fat [20].

Through slave traders, the very first coffee plants and the knowledge about their unique effect made their way from Ethiopia to Arabia and into the, at the time much larger, Arabic-speaking area around it. The Arabs started experimenting with the exotic beans and quickly developed the oldest roasting culture in the world. Quickly coffee started to become more and more popular throughout the whole area [21].

The Arabs also became the first ones to ever cultivate coffee plants in the form of plantations in present-day Yemen. The center of the Arabic coffee monopoly was the nearby city of **al-Mukha**, also known as **Mocca**. Especially during the 16<sup>th</sup> century, coffee conquered the whole Arab Kingdom and the Ottoman Empire as a revitalizing and therefore popular alternative to the forbidden alcohol. The first opening of a real coffeehouse was documented in Mekka in 1511. Syria, Asia Minor, Egypt, and other regions followed shortly and coffeehouses became the lynchpin of social life. Until their prohibition in the late 16<sup>th</sup> century, friends, businessmen, and families of higher classes frequently visited the popular cafes [22].

### 8. MYSTICAL BEGINNING OF COFFEE IN SOUTH INDIA :

Coffee has an almost 400-year history in India, dating back to the 17th century. Around 1670, coffee made its first appearance in India. BABA BUDAN, a guide who took a pilgrimage to Islamic holy sites, is credited with bringing the history of coffee to India. According to legend, an Indian traveler to Makkah, Baba Budan, returned to India with seven mystical raw coffee beans hidden in his beard from Yemen, a country located along the Arabian coast. He smuggled even beans from Yemen to India (it was illegal to transport) At the time, he brought coffee seeds from Arabia and planted them in the Karnataka Chandragiri hills. Coffee became increasingly popular in this region, filling the air with blooms and fragrance. Though the origin is unknown, it is thought to have originated in India, near the Chandragiri highlands of the Chikmagalur district. This is where India's coffee industry began, and it is now part of the state of Karnataka [23] [24].

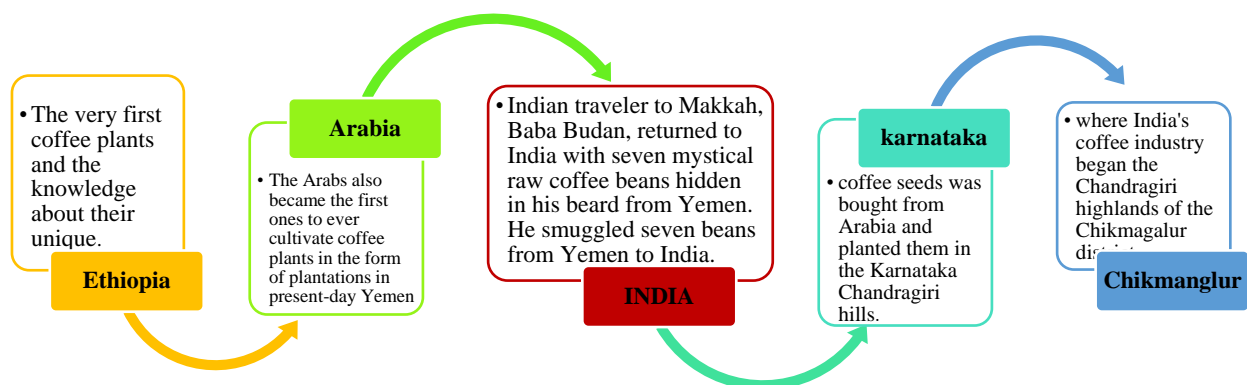


Fig.1: Mystical Beginning of Coffee From Ethiopia to India

Source: Compiled by the author

### 9. COFFEE GROWING REGIONS IN INDIA :

The coffee sector in India is the world's sixth biggest producer of coffee. Outside of the Arabian Peninsula, coffee is thought to be have been grown in India for the longest period of time [25]. The country has approximately two lakh fifty thousand (2,50,000) coffee growers, with 99 percent of them being small. Indian coffee is known as “Indian monsooned coffee” since it is grown primarily in southern states during the monsoon season. “The best Indian coffee achieves the flavor characteristics of Pacific coffees, while at its worst, it is simply bland and boring,” according to its flavor profile [26].

## INDIA COFFEE MARKET-KEY DATA

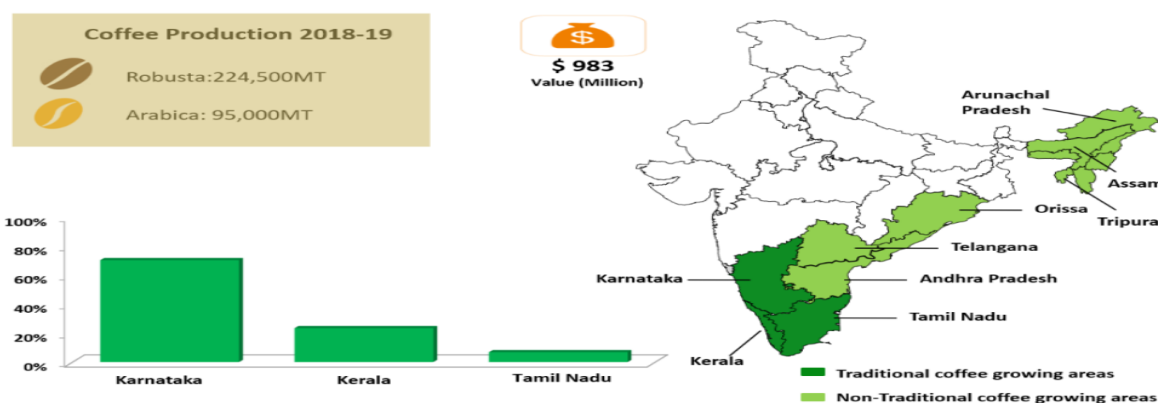


Fig. 2: Coffee Growing Regions In India

Source: Coffee Board Of India (2002) [27]

Table 9.1: Largest Coffee Producing States in India

9.1 Largest Coffee Producing States in India		
In India, there are three types of coffee growing regions. Traditional coffee producing states include Karnataka, Kerala, and Tamil Nadu. Non-traditional (i.e. new) coffee growing regions on the Eastern Ghats, such as Andhra Pradesh and Orissa. Assam, Manipur, Meghalaya, Mizoram, Tripura, Nagaland, and Arunachal Pradesh are among the coffee-growing states in the northeast [27].		
SL. No	State	Context
1.	Karnataka	Karnataka is a major producer of coffee. The states produce roughly 71% of the total. As per the records, Karnataka had a total production of 2.33 lakh MT coffees [28].
2.	Kerala	Areas such as Malabar region in Kerala are highlight acclaimed for coffee production. Kerala contributes approximately 21% of India's total. Kerala's total production is recorded of 67700 MT of coffee [29].
3.	Tamil Nadu	Tamil Nadu produces 5% of all coffee beans. They produce 5% of India's coffee beans. The Nilgiris district, Kodaikanal, and Yercaud districts are well-known for this. According to records, Tamil Nadu produced 17875 MT of coffee [30].
4.	Andhra Pradesh	Major production of coffee beans happens in Andhra Pradesh state too. If you have ever visited the Araku Valley Hill Station, you will notice the fresh aroma of coffee beans all around you because the district is the ideal coffee plantation area in AP. Andhra Pradesh produces 7425 MT of coffee [31].
5.	Orissa	Some major areas that pay attention in coffee bean production in Orissa are Koraput, Keonjhar, Rayagada, and Kalahandi. The coffee plantations in these regions are the talk of the town. The total produce is 550 MT of coffee [32].
6.	Tripura	Tripura is in great demand for coffee, rubber, and tea. The soil is apt for coffee beans production and thus it is largest producers of coffee in India. Let's take a look at some more top states in India based on coffee production. Tripura has produced 13 to 14 MT of coffee [33].

7.	Nagaland	Nagaland is the land for coffee beans. Coffee farming in this state is the talk of the town. The monsoons in Assam are ideal for growing a variety of coffee beans. Two new states have been added to India's top ten list of coffee-producing states [34].
8.	Assam	Although Assam is known for its tea gardens, there are areas in the state that specializes in coffee cultivation [34].
9.	Meghalaya	The gorgeous hills of Meghalaya not only enjoy great attention in its tourism sector, but also enjoys a great deal in coffee production too. The east hills are suitable for coffee production. Check out the other activities of Meghalaya is are popular in our other topics on India. The coffee produce in Meghalaya is recorded to be 6-8 MT [35].
10.	Manipur	Various regions of Manipur are focusing on coffee production due to its apt soil fertility. In fact, Manipur is the most suitable state for Arabica [36].

### 10. IMPORTANCE OF COFFEE INDUSTRY :

Boosting domestic coffee consumption is crucial for coffee-producing countries because it provides the producers - and thus the coffee industry - with the following benefits.

#### 1. It increases market growth

In general, excessive over consumption increases demand. If supply is constant, producers may be able to secure increased costs for coffee. Earnings growth can assist producers in obtaining financing while also improving their lives, farms, and coffee quality [37].

#### 2. Greater Control Over Exchange Rates

Coffee producers must typically negotiate sales determined by the international C market price, bearing on production costs. This worldwide price is set in US dollars and goes up and down on a regular basis, pressuring coffee producers to sell at rates that barely cover their expenses [38].

#### 3. Less compete from other origins

If the C market crashes and prices come down, stable internal environment usage should ensure that there is someone willing to buy the coffee. Producers can concentrate on supplying coffee to a local market when demand comes from domestic consumers or roasters. This could lead to long-term sales relationships, providing producers with a consistent monthly income regardless of what happens in the C market [39].

#### 4. It removes some logistical obstacles.

A number of licensing and legal requirements must be met before selling coffee on the international market. Direct exportation necessitates a significant amount of paperwork and payments to various authorities. Failure to obtain insurance or a single signature on a form could result in your coffee being unavailable for sale. Purchasing coffee in this manner enables roasters to provide customers with traceable and seasonal coffee, allowing for better marketing [40].

#### 5. It enables producers to keep more money.

When coffee is sold internationally, several intermediaries are involved until the final product is delivered to the customer - and each person involved takes a cut of the profit. There will be fewer intermediaries when selling coffee locally [41].

### 10.1 World's top Ten Coffee Producing and Coffee Consuming Countries:

Seventy percent of the world consumes Arabica coffee, which is mild and aromatic. The remaining 30 percent consumes Robusta, which is bitterer but has 50 percent more caffeine than Arabica.

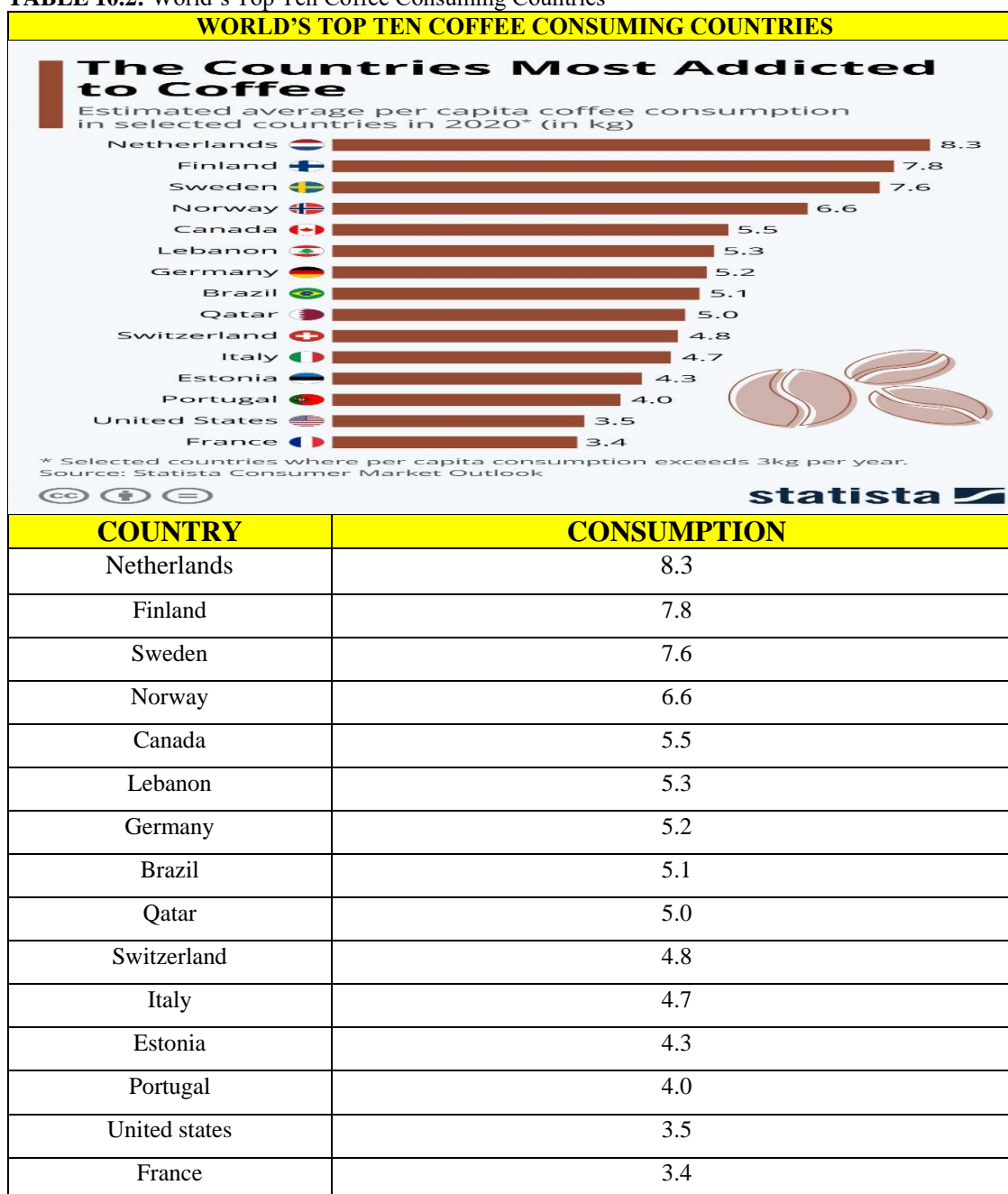
Table 10.1: Top Ten Coffee Producing Countries

COUNTRY	PRODUCTION (000 bags)
BRAZIL (R/A)	50826

VIETNAM (R/A)	22000
INDONESIA (R/A)	12730
COLOMBIA (A)	9500
ETHIOPIA (A)	8100
INDIA(R/A)	5258
HONDURAS (A)	4900
PERU (A)	4133
MEXICO (A)	3900
UGANDA	3200

Source: ICO statistics on coffee (2021). (A)-Arabica, (R/A) – Robusta/Arabica [42]

TABLE 10.2: World’s Top Ten Coffee Consuming Countries



Source: Statista (2020) [43]



**11. DIFFERENT VARIETIES OF COFFEE BEAN CULTIVATED IN INDIA :**

<b>11.1 Varieties of Coffee Bean Cultivated in India</b>			
<b>Types of Coffee Beans</b>			
<b>S. No</b>	<b>Type</b>	<b>Botanical Name</b>	<b>Origin</b>
1.	Arabica	Coffea arabica	As the name suggests, Arabica is the gift from the Yemen country of the Arabian Peninsula. The oval-shaped and aromatic beans have a blend of sweet and bitter flavor. Its caffeine level is relatively low too [44].
2.	Robusta	Coffea canephora	Robusta beans have a bitter and grainy flavor with an undertone of the peanuts. The caffeine level in robusta is twice as compared to Arabica beans. Robusta has a higher yield and accounts for 25% of the world's demand. <b>Note:</b> In India, the production of robusta is twice that of the arabica coffee beans [45].
3.	Liberica	Coffea liberica	These coffee beans have a smoky and nutty flavor with a lingering note of the dark chocolate. Liberica is one of the highest costing beans in the world, thanks to its rare cultivation. It is not as popular as the other two in India [46].
<b>11.2 Majorly Cultivated Coffee Bean Varieties of India</b>			
4.	Kent	Kent is a popular Arabica variety. The beans are less prone to damage by rust and are known for good cup quality [45].	
5.	S.795	S.795 is one of the most famous cultivars of India and Southeast Asia. Its light flavor, resistance to rust, and excellent yield make it the top choice of growers [47].	
6.	Cauvery	It is the result of crossbreeding between Caturra with Hybrido-de-Timor. The coffee bean has the taste of the former and pest resistance of the latter [48].	
7.	Selection 9	Tafarikela and Hybrido-de-Timor breeding resulted in Selection 9. This rust-resistant variety won the Cupping Competition in 2002 and the Fine Cup Award for the best Arabica flavor in India [49].	

**AREA, PRODUCTION AND PRODUCTIVITY of COFFEE IN SOUTH INDIA**

Source: Coffee Board of India (2022) [50]

**12. PLANTED AREA OF COFFEE IN MAJOR STATES/DISTRICTS (ZONES) OF INDIA (IN HECTARES) :**

Table 12.1: Planted Area by States - 2021-2022 (in hectares)

<b>State</b>	<b>Arabica</b>	<b>%</b>	<b>Robusta</b>	<b>%</b>	<b>Total</b>	<b>%</b>
Karnataka	107186	22.7	138864	29.4	246050	52.2
Kerala	4231	0.9	81649	17.3	85880	18.2
Tamil Nadu	29338	6.2	6314	1.3	35652	7.6
<b>Total for Traditional Areas</b>	<b>140755</b>	<b>29.8</b>	<b>226827</b>	<b>48.1</b>	<b>367582</b>	<b>77.9</b>
Non-Traditional Areas	99115	21.0	264	0.1	99379	21.1
North Eastern Region	2882	0.6	1813	0.4	4695	1.0
<b>Total (India)</b>	<b>242752</b>	<b>51.5</b>	<b>228904</b>	<b>48.5</b>	<b>471656</b>	<b>100.0</b>

Source: Coffee Board of India (2022) [50]

**Table12.2:** Planted Area of Coffee in Major States/Districts (zones) of India (in hectares)

S. No.	State/District	2021 – 2022			2020-2021		
		Arabica	Robusta	Total	Arabica	Robusta	Total
<b>I</b>	<b>Karnataka</b>						
1	Chikkamagaluru	55225	42357	97582	55225	42357	97582
2	Kodagu	27838	79883	107721	28146	79450	107596
3	Hassan	24123	16624	40747	24468	16273	40741
	<b>Sub total</b>	<b>107186</b>	<b>138864</b>	<b>246050</b>	<b>107839</b>	<b>138080</b>	<b>245919</b>
<b>II</b>	<b>Kerala</b>						
1	Wayanad	0	67705	67705	0	67705	67705
2	Travancore	2146	11094	13240	2146	11094	13240
3	Nilliampathy	2085	2850	4935	2085	2850	4935
	<b>Sub total</b>	<b>4231</b>	<b>81649</b>	<b>85880</b>	<b>4231</b>	<b>81649</b>	<b>85880</b>
<b>III</b>	<b>Tamil Nadu</b>						
1	Pulneys & Bodi	16312	882	17194	16312	882	17194
2	Nilgiris	3805	4900	8705	3805	4900	8705
3	Shevaroy (Incl.Kollihills)	6951	102	7053	6951	102	7053
4	Anaamalais (Coimbatore)	2270	430	2700	2270	430	2700
	<b>Sub Total</b>	<b>29338</b>	<b>6314</b>	<b>35652</b>	<b>29338</b>	<b>6314</b>	<b>35652</b>
<b>IV</b>	<b>Total for Traditional Areas</b>	<b>140755</b>	<b>226827</b>	<b>367582</b>	<b>141408</b>	<b>226043</b>	<b>367451</b>
	<b>Non Traditional Areas</b>						
1	Andhra Pradesh	94692	264	94956	88692	264	88956
2	Odisha	4424		4424	4339		4339
	<b>Sub Total</b>	<b>99116</b>	<b>264</b>	<b>99380</b>	<b>93031</b>	<b>264</b>	<b>93295</b>
1	North Eastern Region	2882	1813	4695	2882	1737	4618
	<b>Grand Total</b>	<b>242752</b>	<b>228904</b>	<b>471657</b>	<b>237321</b>	<b>228044</b>	<b>465365</b>

Source: Coffee Board of India (2022) [50]

### 13. PESTEL ANALYSIS :

A PESTEL analysis is a strategic framework that is commonly used to evaluate a company's business environment. It gives a clear picture of the situation as well as the related internal and external factors which is especially useful when starting a new business or entering a foreign market [51].

#### What PESTEL analysis can tell us in coffee Industry?

Imports become more expensive as the exchange rate rises, forcing these businesses to raise their prices in order to maintain their earnings. Exchange rates have an impact on businesses that import raw materials from other countries. Fair-trade and sustainable agriculture have resulted in contradictory outcomes, with environmental (and farmer) benefits offset by higher consumer costs. Tea, coffee, and other high-end beverages become more popular as consumers' incomes rise. Furthermore, as consumers'

income levels rise, they are more likely to splurge on higher-quality produce, such as coffee grounds [52] [53].

12.1 PESTEL ANALYSIS		
<b>1.</b>	<b>POLITICAL</b>	<p>These variables all revolve all over how and to what extent the government gets involved in the economy or a specific industry [54]. Mainly, all business could be classified here. This could encompass practical concerns such as:</p> <ul style="list-style-type: none"> <li>• Political stabilization</li> <li>• Fiscal policies</li> <li>• Regulations and Deregulations</li> <li>• Taxation</li> <li>• Regulations and deregulation</li> <li>• Special tariffs</li> <li>• Subsidies</li> <li>• Intergovernmental connections</li> <li>• Import-export regulations/ restrictions</li> <li>• Trade control</li> <li>• Dimensions Government budget</li> <li>• Trade Relationships</li> </ul>
<b>2.</b>	<b>ECONOMIC</b>	<p>The majority of the coffee economy's economic activity is produced in the foodservice industry, where coffee is prepared for consumers - a reflection of the investment in equipment, labor, and materials required for service. Economic variables affect the performance of an economy [55]. This includes factors such as:</p> <ul style="list-style-type: none"> <li>• Rate of growth</li> <li>• Rate of interest</li> <li>• Rate of exchange</li> <li>• Credit availability</li> <li>• Amount of disposable income</li> <li>• Government fiscal deficits</li> </ul>
<b>3.</b>	<b>SOCIAL</b>	<p>Social factors are dimensions of the overall atmosphere that represent the demographic information, social rules, traditions, and principles of the population [56]. It includes factors such as:</p> <ul style="list-style-type: none"> <li>• Size of the population and rate of development</li> <li>• Age structure</li> <li>• Social categories</li> <li>• Income per capita</li> <li>• Family size and structure</li> <li>• Lifestyles</li> <li>• Immigration and emigration rates</li> </ul>

<p><b>4. TECHNOLOGICAL</b></p>		<p>The use of innovative and advanced technology that may have a positive or negative impact on industry and market operations is referred to as a technology factor. These machines make it simpler than ever to drink coffee, encouraging people to start brewing at home. The use of innovative and advanced technology that may have a positive or negative impact on industry and market operations is referred to as a technology factor. All Coffee machines are now available in every electronics store [57]. There is also various innovation is that introduction of new coffee-specific appliances. These may include factors such as:</p> <ul style="list-style-type: none"> <li>• Life cycle of technology</li> <li>• Technology incentive programs</li> <li>• Automated test</li> <li>• Research and development</li> <li>• Technological advancement</li> <li>• Gaining access to new technology</li> <li>• Degree of innovation etc.</li> </ul>
<p><b>5. ENVIRONMENT</b></p>		<p>Because of the scarcity of raw materials and the government's pollution targets, environmental factors have become increasingly important. The coffee industry is heavily reliant on crop harvesting, which, like all crops, is subject to the whims of nature [58]. Here are a few examples: Earthquakes, rain, drought, and crop failure are all examples of natural disasters. These factors aspects such as:</p> <ul style="list-style-type: none"> <li>• Season</li> <li>• Weather conditions</li> <li>• Environmental policies</li> <li>• Climate changes</li> <li>• Natural disasters</li> <li>• Recycling standards</li> <li>• Sustainable farming</li> </ul>
<p><b>6. LEGAL</b></p>		<p>Legal factors refer to the wide range of rules that govern how it is handled, transported, and brewed. In order to conduct business successfully and ethically, the industry must understand what is and is not legal [59]. These regulations are becoming more stringent, but safe coffee handling is so straightforward that the industry should be fine. These include factors such as:</p> <ul style="list-style-type: none"> <li>• Healthy and safety laws</li> <li>• Copyright and patent laws</li> <li>• Education law</li> <li>• Consumer protection law</li> <li>• Employment law</li> <li>• Antitrust law</li> <li>• Data protection law</li> <li>• Food standards Coffee</li> <li>• FDA regulations</li> </ul>

Source: Compiled by the Author

#### 14. FINDINGS :

1. The discovery of coffee is beginning in kaffa. The Arabs became first ones to ever cultivate coffee plants in the form of plantation. The first appearance of coffee in India was in 17<sup>th</sup> century and was placed in Chandragiri hills chikmagalur district.

2. India's coffee industry is the 6<sup>th</sup> - largest producer of coffee. The large number of Indian coffee is expanded in the southern states during the monsoon season.
3. Karnataka is a leading state in coffee production. The state contributes nearly about 71% of total produce. As per records Karnataka had a total production of 2.33 lakh MT coffee.
4. There are varieties of coffee bean cultivated in India such as coffee arabica, coffee canephora, coffee liberica, kint, s.795, Cauvery, selection 9.
5. The coffee plantation starts from coffee cultivation, processing and then roasting of coffee.
6. According to the PESTAL analysis, the overall business environment has both advantages and disadvantages for the coffee industry.
7. The fair-trade and sustainable farming developments have already had mixed results, with environmental (and farmer) benefits but higher consumer costs. Without a doubt, the most significant coffee-related disadvantage in today's workplace environment is increased caffeine consciousness.

#### 15. SUGGESTIONS :

- Because science and technology are advancing at such a rapid pace, businesses are expected to perceive environmental analysis, collect user data using modern electronic technologies and online equipment, and perceive changes in the marketplace using growth and evaluation process.
- To effectively manage Coffee berry borer in coffee growing areas, a combination of different integrated pest management that are financially sustainable, financially viable, and environmentally sustainable should be advocated.

#### 16. SUMMARY AND CONCLUSION :

The coffee industry is rapidly expanding, and the coffee market is diverse. The government and the coffee association should play their roles and complement each other; the industry should place a high value on technological input and talent introduction, as well as strengthening the comprehensiveness of information; and businesses should recognize the value of brands. There are still gaps in the exploration of the coffee market, and much more research is needed to identify and solve problems and countermeasures in the coffee industry. This increase in production has not been matched by an increase in demand, resulting in a downward trend in international coffee prices for nearly a decade, with serious consequences for the entire industry. Its infestation rate, for example, varies with altitude; coffee grown at low elevations is more severely affected than coffee grown at higher elevations.

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