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**THE GEOGRAPHICAL INDICATIONS OF GOODS  
(REGISTRATION & PROTECTION) ACT, 1999**

**(To be filled in triplicate along with the Statement of Case accompanied by  
five additional representation of geographical indication)**

One representation to be fixed within the space and five others to be sent  
separately

**FORM GI – 1**

A	Application for the registration of a geographical indication in Part A of the Register Section 11(1), Rule 23(2) Fee: Rs.5,000/- (See entry No.1A of the First Schedule)	 <p><b>Robusta</b></p>
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Application is hereby made by Coffee Board, a statutory organization under the administrative control of Ministry of Commerce, Govt. of India established under the Coffee Act, 1942 (VII of 1942) for the registration in Part A of the register of the accompanying geographical indication furnishing the following particulars:-

**(a) Name of the Applicant:** Coffee Board (Ministry of Commerce & Industry,  
Govt. of India)

**(b) Address** : Secretary, Coffee Board, No.1, Dr.Ambedkar Veedhi,  
Bangalore-560 001, Karnataka, India.

**(c) List of association of persons/ producers/organization/ authority**

Currently, the following companies are involved in preparation of the Monsooned Malabar Robusta coffee in India.

Sl. No.	M/s.	Address
1	Aspinwall & Co. Ltd.,	P.B.No.901, Kulshekar Mangalore-575 005
2	Madhu Jayanthi International Ltd.,	P.B.No.511, 39, Cunningham Road Cross Bangalore-560 052
3	Ramesh Exports Ltd.,	4405/5, High Point IV, Palace Road Bangalore-560 001
4	Tata Coffee Ltd.,	"Brigade Point", No.57, Railway Parallel Road, Kumara Park West Bangalore-560 001
5	Allanasons Ltd.,	4, J.A.Allana Road, G.P.O.Box No.997, Colaba, Mumbai-400 001
6	Coelho Coffee Exports	437D, Industrial Estate, Baikampady, Mangalore-575 011

It is expected that the demand for Monsooned Malabar Robusta coffee is likely to increase in the future in the export and domestic market and more people would come forward to undertake its preparation. This GI Registration would also be extended to all such persons.

**(d) Type of goods:** Monsooned Malabar Robusta coffee

**(e) Specifications:** The Monsooned Malabar Robusta coffees are prepared and traded in four different grades viz., Monsooned Malabar Robusta-AA and Monsooned Malabar Robusta Triage.

The specifications prescribed for various grades of Monsooned Malabar Robusta coffee are given below.

**GRADE SPECIFICATIONS OF MONSOONED MALABAR ROBUSTA**

GRADE	SIEVE STANDARD	GARBLIN G STATUS	TOLERANC E FOR TRIAGE	TOLERANC E FOR BBB
MONSOONED MALABAR ROBUSTA AA	Minimum 90% by weight retention on a sieve with round holes of 7.10 mm (Screen-18). Not more than 1.5% by weight shall pass through a sieve with round holes of 6.70 mm (Screen-17)	Clean Garbled	Maximum 3% by weight	
MONSOONED MALABAR ROBUSTA TRIAGE	Minimum 90% by weight retention on a sieve with round holes of 6.00 mm (Screen-15)	-----	-----	3%

**(f) Name of the geographical indication (and particulars):**

“Monsooned Malabar Robusta Coffee” from India

**(g) Description of the goods:**

Monsooned Malabar Robusta coffee is a unique specialty coffee from India. This specialty coffee derives its name from the region (Malabar) and the special process (monsooning) involved in preparing it. Monsooned Malabar Robusta

coffee is carefully prepared by using the raw coffee beans (green beans), obtained from the whole crop cherry of Robusta coffee (*Coffea canephora Pierre ex Froehner.*).

The raw beans are subjected to monsooning process, during the South West monsoon period, at the specialized coffee curing works situated in the Malabar coast region stretching from Mangalore in Karnataka to Kozhikode (Calicut) in Kerala. By virtue of the unique natural elements present in the Malabar region of West coast, monsooning is a special process specific to the West Coast region of the country carried out only during the South-West monsoon season (June-September) when the atmospheric winds are fully saturated with moisture (up to 100% Relative Humidity).

During the monsooning process, many qualitative and quantitative changes occur in the coffee beans which impart a characteristic cup quality. The monsooning process makes the beans to swell to almost double their original size, change the colour from the initial golden brown colour to pale yellow/ straw colour. In the cup Monsooned Malabar Robusta coffee exhibit good body/ strength, mild acidity, rich toned sweeter and mellow taste which is the uniqueness of the specialty Monsooned Malabar Robusta coffees. Mellow reflects a harmonious balance in the body, not too acidic and not too bitter. Monsooned Malabar Robusta coffees are used in variety of ways.

Monsooned Malabar Robusta coffee commands a premium in overseas market not only for its distinctive quality also for its best blending attributes. These coffees are mainly used in blends to add body, crema and increase sweetness in the cup. India has established its unique identity as a single source of Monsooned Malabar Robusta coffees to the world market. During 2006-07, India exported about 1,560MT of Monsooned Malabar Robusta coffee with an export earning of Rs.12.25 crores.

### (h) Geographical area of production and Map:

Green coffee beans obtained from the whole crop cherry of Robusta (*Coffea canephora Pierre ex Froehner*) grown in different regions of the country are used for preparing Monsooned Malabar Robusta coffee. The Robusta cherry coffee beans are produced in coffee estates located in the following Robusta coffee growing regions of the country.

- Karnataka State: Chikmagalur, Manjarabad, Coorg and Biligiris regions
- Tamil Nadu State: Nilgiris region
- Kerala state: Wayanad and Travancore

The raw coffee beans are produced in estates located in hill slopes at higher elevations. The geographic and climatic conditions prevailing in Robusta coffee growing regions are as follows.

Factors	Ideal conditions
Soils	Deep, friable, rich in organic matter, well drained and slightly acidic (pH 6.0-6.5)
Slope	Gentle to moderate slopes
Elevation	500-1000m MSL
Temperature	20 <sup>o</sup> C-30 <sup>o</sup> C; hot, humid
Relative humidity	80-90%
Annual rainfall	1000-2000 mm
Shade	Mixed shade comprising of evergreen trees

The major varieties of Robusta coffee grown in these regions include Old Peredinia robusta, S.274 and CxR hybrid.

The process of monsooning is carried out in specialized coffee curing works under controlled conditions in the Malabar region of West Coast stretching from Mangalore in Karnataka to Kozhikode (Calicut) in Kerala during the South West monsoon period (June-Sept.).

The climatic conditions prevailing in the Malabar Coast during the South West monsoon months are described here under.

Month	Temperature (°C)		Relative Humidity (%)		
	Min.	Max.	Min.	Max.	Mean
June	23.0	33.0	66.0	98.0	78.0
July	22.0	31.0	69.0	94.0	86.0
Aug.	23.0	32.0	69.0	98.0	88.0
Sept.	23.0	33.0	76.0	99.0	87.0

Attached hereto as **Annexure-01** is a certified copy of the map showing the Malabar Coast where monsooning of Robusta coffee beans takes place.

**(i) Proof of origin (Historical records) :**

Historically, "Monsooning" of coffee first happened quite by accident in the days of sailing ships, when it took about six months for unwashed (cherry coffee) coffees to reach the Europe. During this period of long voyage from the Malabar Coast to the Europe, the coffee on account of being in the damp hold of ships exposed to sea winds saturated by high humidity, lost its original colour and acquired a special aged coffee flavour which was liked by the consumers in the Europe. However, with the opening of Suez and speedy transport by steam ships, the transportation time over the seas has drastically reduced to about one month and the coffees reached the European destination without prolonged exposure to high humidity winds over the sea. As a result, the unwashed cherry coffees reached Europe without the characteristic musty monsooned flavour.

This led to a complaint from the European consumers who missed the distinctive musty flavour of the unwashed Indian coffees (Nagabhushan Rao, 1989). With a view to cater to this demand for musty flavour coffees, the coffee exporters situated in the Malabar Coast devised and perfected the process known as "Monsooning of Coffee" in which they successfully recreated the unique aged coffee flavour preferred by many consumers in the Norway, France and Switzerland.

One of the earliest references to monsooning of Indian coffee is made by Cecil Gifford way back in January 1950 in an article titled "Monsooning of Robusta Coffee" published in the 'Indian Coffee' Journal. In his article, Gifford describes the making of monsooned coffee and goes on to mention that a large portion of the sales of coffee in the world's markets before the war were Monsooned coffees, which were sold at high prices. Later in the year 1957, Mr.M.S.P.Rajah, an eminent planter from Sheveroy, in his capacity as a Member of Coffee Board had toured many European countries as a member of Indian Trade delegation and in his report stressed the need for reintroducing the monsooned coffees for exports, which was affected due to world war (Rajah, 1957). In January 1963, Dr.V.Subrahmanyam *et.al.* of the Central Food technological Research Institute (CFTRI), Mysore discussed the various physico-chemical and biological changes associated with the monsooning of coffee and various factors influencing the production of a good quality monsooned coffee. In March 1989, Mr.L.Nagabhushan Rao, a Market Research Officer of the Coffee Board discusses the origin, preparation and export of monsooned coffee in his article appearing in 'Indian Coffee' Journal. Annexed hereto are copies of the aforesaid articles and reports collectively marked as '**Annexure-02**'.

Over the years, the Monsooned Malabar Robusta coffee has been well recognized as the unique offering of India to the world specialty coffee market by coffee aficionados, researchers, coffee traders and consumers worldwide.

**(j) Method of Production:**

**Production and primary processing of raw cherry coffee beans at estate level:** Monsooned Malabar Robusta coffee being a specialty coffee, only 'AB' grade beans retained on a sieve of 6.0 mm obtained from whole crop cherry (dry processed) of Robusta coffee are used in its preparation.

The production of Robusta cherry coffee (raw material for preparation of Monsooned Malabar Robusta coffee) at estate level is done by adopting Good Agricultural Practices (GAP) involving Integrated Nutrient Management (INM) and Integrated Pest Management (IPM) practices in the conventional estates as well as the package of practices prescribed for organic coffee in case of certified organic coffee. Estate level processing is carried out by adopting Good Manufacturing Practices (GMP) (**Annexure-03**).

The Robusta cherry coffees are dried to a moisture content of  $11\% \pm 0.5\%$  at the estate level.

**Secondary processing of raw cherry coffee beans at curing works:** The dried Robusta cherry coffee from the estates is procured by the coffee curing works located in the Malabar Coast region and are subjected to secondary processing which involves hulling (removal of dry outer fruit cover i.e., husk), grading, sorting to remove defects. After grading and sorting, only the 'AB' grade beans are taken for monsooning and the remaining grades are traded separately as such without monsooning.

**Monsooning of Robusta cherry coffee:** The Monsooned coffee curing works located in the Malabar Coast commence the monsooning process during the active South West monsoon season (June-Sept) in highly humid weather conditions. In this process the 'AB' grade beans of Robusta cherry coffee are spread in the well ventilated cement floored warehouses in layers of 10cm to



15cm thickness and subject them to frequent raking at an interval of about every 3 hours, so as to ensure uniform exposure of beans to the monsoon winds. The saturated winds enable the beans to absorb moisture to about 14-15% in about 10 days time.

Later, the coffees are packed loosely in gunny bags upto half the capacity without stitching and arranged in stacks of four bags high in rows by leaving sufficient space in between the rows, to enable the monsoon air to circulate freely around each bag. The coffees in bags are bulked and repacked once a week and rearranged in rows as stated above, to prevent them getting mouldy and to ensure even monsooning. This entire process of monsooning completes in about 12-16 weeks time.

The coffees are considered fully monsooned when the beans assume pale yellow/ straw colour. At this stage, the coffees are polished by passing through the polishers/ hullers (without blades) to give a slight shine. At this stage, the moisture content of monsooned coffee would be in the range of 13% to 14.5%  $\pm$  0.5%. (Final moisture content of finished product) They are then passed through grading machines to obtain various grades of Monsooned Malabar Robusta coffees viz., Monsooned Malabar Robusta-AAA; Monsooned Malabar Robusta – AA; Monsooned Malabar Robusta – A and Monsooned Malabar Robusta Triage. Finally, the graded coffees are manually garbled (sorted) where the un-monsooned hard beans, black beans and cuts are removed and bulked gradewise to bring in uniformity within the grade. After bulking, the coffee is packed in clean gunny new bags and fumigated before storage.

The monsooned coffee is highly susceptible to the attack of coffee bean weevil (*Aracerus fasciculatus*) during storage and therefore it needs to be fumigated. Fumigation is adopted with Aluminium phosphide tablets equivalent to 1.5g of phosphine/m<sup>3</sup> with an exposure period of 3-7 days. Fumigation with Aluminium

phosphide did not result in any residues after 30 days and did not affect the cup quality of coffee.

After fumigation the monsooned coffees is stored in well ventilated warehouses until shipment. The ballooning technique standardized by the Central Food Technological Research Institute, Mysore (Majumdar *et.al.*, 1961. *Food Science*. 10: 321-331) is very effective for storing Monsooned Malabar Robusta coffee upto 6 months without any insect infestation and quality loss.

At the time of shipping, the monsooned coffee is repacked into 60kg capacity Hydrocarbon free IJIRA bags and loaded into containers. The coffee in containers is again fumigated with Aluminium phosphide (or) as per the requirements of the importing countries.

For control of insects in the premises of monsooned coffee curing works, spraying of the empty premises and floors with safe chemical like malathion is adopted prior to commencement of monsooning process.

For fumigation and spraying purposes, trained warehousemen or authorized pest control operators are employed. They are provided with protective devices like gas masks.

The Coffee Board has prescribed a 'Manual for Preparation of Monsooned Malabar coffee', which is reproduced at **Annexure-05**.

### **Changes associated with monsooning of coffee**

The physico-chemical and biological changes and changes in cup quality occurring during monsooning process are described here under:

**Physical changes:** During the monsooning process, the cherry coffee absorbs moisture gradually and the moisture content in the beans goes up to 14-15%. As a result of this the coffee beans swell to about double their normal size and the colour changes to pale yellow/ straw colour. The colour as measured in reflectance equipment by the amount of light reflected from the surface, increases showing bleaching of the original colour. The density (weight per volume) of the beans also decreases making the beans become light and porous.

**Chemical changes:** No appreciable changes in the chemical constituents are observed. However, a slight increase in the soluble solid content and decrease in sugars is observed.

**Biological changes:** Microbial population show progressive increase during the process of monsooning. In general the yeasts and bacteria predominate during early stages of monsooning. But this is followed by moulds very soon. When the moisture goes above 14%, the moulds grow fast and lead to further increase in the moisture content. At this stage a spurt in population of bacteria and yeasts is noticed. Prior to monsooning, there is a predominance of filamentous types of moulds such as *Penicillium*, *Aspergillus*, *Cephalosporium* and *Actinomycetes*. It is followed by predominance of *Cunninghamella*, *Trichoderma*, *Aspergillus* and *Penicillium* species during the monsooning process. The activities of microflora results in changes in the texture, colour, flavour, taste and some chemical constituents that contribute to the unique characteristics of monsooned coffee.

The physico-chemical and biological changes recorded in a study conducted by the scientists of CFTRI, Mysore (Natarajan *et.al.*, 1961. *Food Science*, 10:315-321) are extracted in the following table.

Parameter	Before monsooning	After monsooning
Moisture %	9.8-10.5	13.0-13.4
Colour value (%)	14.0-17.0	19.0-21.0

refelectance)		
Density (g/ml)	1.10-1.18	0.94-1.02
Chlorogenic acid %	7.25-8.60	7.18-8.43
Caffeine %	1.95-2.36	1.76-2.21
Microbial counts (CFUs/g)	5,000-6,000	35,000-62,000

**Cup quality:** The raw cherry coffee samples before monsooning show maximum fruitiness and with the monsooning process, the coffee gives a mellowed cup with decrease in fruitiness and bitterness. In the cup Monsooned Malabar Robusta coffee exhibit good body/ strength, mild acidity, rich toned sweeter and mellow taste which is the uniqueness of the specialty Monsooned Malabar Robusta coffees. The normal profile of cup taste characteristics of Indian Monsooned Malabar Robusta coffee are as follows:

Sensorial parameter	Range
Body	6.5-7.5
Acidity	1.5-2.5
Neutrality	6.0-8.0
Bitterness	2.0-3.0
Mellowness	6.0-8.0
Softness	6.5-8.0
Aroma	6.0-7.0

**Note:** 0 -2: mild-low; 2-4: slight-moderate; 4-6: moderate-fair; 6-8: good-strong; 8-10: intense-excellent.

**Residues:** Majority of Indian Robusta coffee samples tested at M/s.VIMTA Labs, Hyderabad which is accredited under NABL (National Accreditation Board of Testing & Calibration Laboratories) were found to be free from residues of commonly used agro-chemicals like lindane, chlorpyriphos, endosulfan,

triademifon, hexaconazole, propiconazole, paraquat-di-chloride and glyphosate. Fumigation with Aluminium Phosphide tablets at recommended dose (tablets equivalent to 1.5g phosphene/ m<sup>3</sup>) did not leave any residues after 30 days of fumigation (Rangaswamy, J.R. 1989. *Indian Coffee*, 53 (6): 5-8.). Although microbial processes predominate during the monsooning process, majority of monsooned coffee samples are found to have less than 5ppb residue, which is well within the acceptable tolerance limits prescribed by many importing countries for the raw coffee beans (Gopinandhan T.N. et.al., 2006. *J.Food Sci. Technol.*, 44 (3): 247-249).

### **Standards on Monsooned Malabar coffee**

The term monsooned coffee was included under the Indian Standard "Glossary of Terms for coffee and its products. IS 7236: 1974 (reaffirmed 2001)" which was later aligned with the ISO standard "Coffee and its products: Vocabulary. ISO 3509: 1989".

The standard for grading of monsooned coffee was adopted under the Indian Standard "Grading of Monsooned coffee. IS4074: 1981 (second revision) (reaffirmed 2001)". Subsequently, the moisture content, grade specifications for different grades of Monsooned Malabar Robusta coffee have been standardized by Coffee Board, which will be taken for incorporation in the next revision of the standard IS4074: 1981 (second revision) (Reaffirmed 2001).

For sampling purposes, the BIS standard 'Method for sampling green coffee beans in bags'. IS10814: 1984 (reaffirmed 2001).

For construction of warehouses for storage of Monsooned Malabar coffee, the BIS standard 'Code of practice for construction of coffee seed storage structures' IS.6399:1971 (reaffirmed 2001). are applicable.

### **(k) Uniqueness**

The Monsooned Malabar Robusta coffee is unique to only India, which has pioneered the process of monsooning of coffees for the first time in the world. The uniqueness of Indian Monsooned Malabar coffee has been recognized much prior to 1950 (Cecil Gifford, 1950. *Indian Coffee*. January 1950), wherein it has been classified as the specialty coffee from India. Even within India, the coffees subjected to monsooning process in the Malabar Coast region during South West monsoon alone would acquire the unique characteristics of Monsooned Malabar Robusta coffee. Efforts to prepare monsooned Malabar coffee on mainland, by some enterprising exporters, under controlled conditions failed to produce characteristic flavour of monsooned coffee, indicating that the unique geographic association of monsooned coffee to the Malabar Coast.

Apart from the unique monsoon weather conditions prevailing in the Malabar Coast, the microbial processes dominated by yeasts and molds are found to be pre-requisites for the monsooning process of coffee beans. Added to this, monsooned coffee requires special care during preparation, as prolonged exposure to high moisture would attract microbiological and insect infestation affecting quality.

Besides, the raw coffee beans used in the preparation of Monsooned Malabar Robusta coffee are grown under a mixed shade canopy at high elevations ranging from 500-1000m MSL. It is now well established world over that the shade grown coffees are superior in quality when compared to coffees grown under open conditions in many other countries.

In the processing of Monsooned Malabar Robusta coffee, the sorting is carried out manually by women workers, to remove defective beans. No child labour is employed either in cultivation of raw coffee beans at estate level (or) in the preparation of Monsooned Malabar Robusta coffee at Monsooned Malabar Robusta coffee curing works.

In the cup, Monsooned Malabar Robusta coffee exhibits good body/ strength, mild acidity, rich toned sweeter and mellow taste which is the uniqueness of the specialty Monsooned Malabar Robusta coffees.

Today, the uniqueness of Indian Monsooned Malabar Robusta coffees is well recognized world over. Mr.Kenneth Davids, an internationally renowned coffee quality expert, in his review article titled 'Mysores and Monsooned Malabars: Coffees of India' compared the Monsooned Malabar coffees as unique as intensely soft-ripened cheeses or peaty Islay single malt whiskies.

The Monsooned Malabar Robusta coffees from India are one of the finest quality specialty coffees in the world which command a premium in the overseas market not only for its distinctive quality but also for its best blending attributes. These coffees are mainly used in small quantities (10-20%) in the premium espresso coffee blends to add body, crema and increase sweetness in the cup.

### **(I) Inspection Body**

Coffee Board, Ministry of Commerce and Industry, Government of India with its head quarters in Bangalore has a well regulated inspection mechanism in place and is the Inspecting Authority which inspects all the curing works (factories) in the country including those producing Monsooned Malabar coffee. No coffee is allowed to be cured elsewhere other than in a licensed curing works, and the Board is the sole authority to issue and grant such licenses to operate curing establishments.

The Monsooned Coffee Curing works are required to establish documentation and maintain a quality system as a means to ensure that the final product (Monsooned Malabar coffee) processed is as per the requirements of Indian Coffee Board Standards.

**(m) Others:**

The Coffee Board is a statutory organization that represents the interests of Governments of the principal Coffee Growing States, coffee growing industry, coffee trade interests, curing establishments, interests of labourers, and interest of consumers in India and abroad. The Coffee Act (VII of 1942) along with The Coffee Rules, 1955 is annexed hereto as 'Annexure-06'. Being the sole body which regulates export of coffee from India, the Board strives to maintain quality of the Indian coffee in the International market.

One of the objects of the Board is to offer the consumers a guarantee of quality by means of use of "Monsooned Malabar" Logo, to regulate the sale and export of coffee monsooned in the region of Malabar coast, and assist the producers of Monsooned Malabar Robusta coffees to market their coffee in the International market at a premium for their value added coffee.

The Board as a regulatory authority has devised a generic logo for Indian Coffee titled "Coffees of India" and a specific logo for "Monsooned Malabar" coffee and permits the producers/ exporters/ traders to make use of the said logo while exporting the said coffees to the buyers abroad.

The unique characteristic cup quality of Monsooned Malabar coffee with its special aged, musty flavour has garnered patronage and recognition of discerning consumers worldwide. Any member of the trade or public in India or abroad ordering Monsooned Malabar Robusta coffee or seeing the coffee advertised or offered for sale as Monsooned Malabar Robusta will expect the coffee so ordered, advertised or offered for sale to be the monsooned Robusta coffee processed in the Malabar region of West coast and having the special characteristics of monsooned Malabar Robusta coffee.



Consequently, the name "Monsooned Malabar" is exclusively associated worldwide with monsooned coffee prepared and processed under the unique natural elements present in the Malabar Coast. The name Monsooned Malabar immediately invokes in the minds of the consumers in India as well as abroad the distinctive flavored coffee prepared and processed (monsooned) only in the Malabar Coast. Therefore, the name "Monsooned Malabar" when used in relation to monsooned coffee, qualifies as a geographic indication. The Board is accordingly making application for registration of the "Monsooned Malabar" logo as a geographic indication.

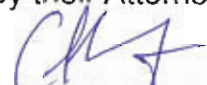
The Board submits that it is in the interest of both trade and public that there should be registration for "Monsooned Malabar Robusta coffee" as a Geographical Indication to ensure that the coffee sold under it is recognized as coffee monsooned under the unique natural elements present only in the region of the Malabar coast and having distinctive qualities of musty flavour and mellow tastes.

Such a registration would assist in enforcing the provisions of the geographical Indications of Goods (Registration & Protection) Act, 1999.

Dated this Friday the 12<sup>th</sup> day of October 2007.

Coffee Board of India

By their Attorneys

  
Of K&S Partners

To,  
The Registrar of Geographic Indications,  
Office of the Geographic Indications registry,  
At: Chennai