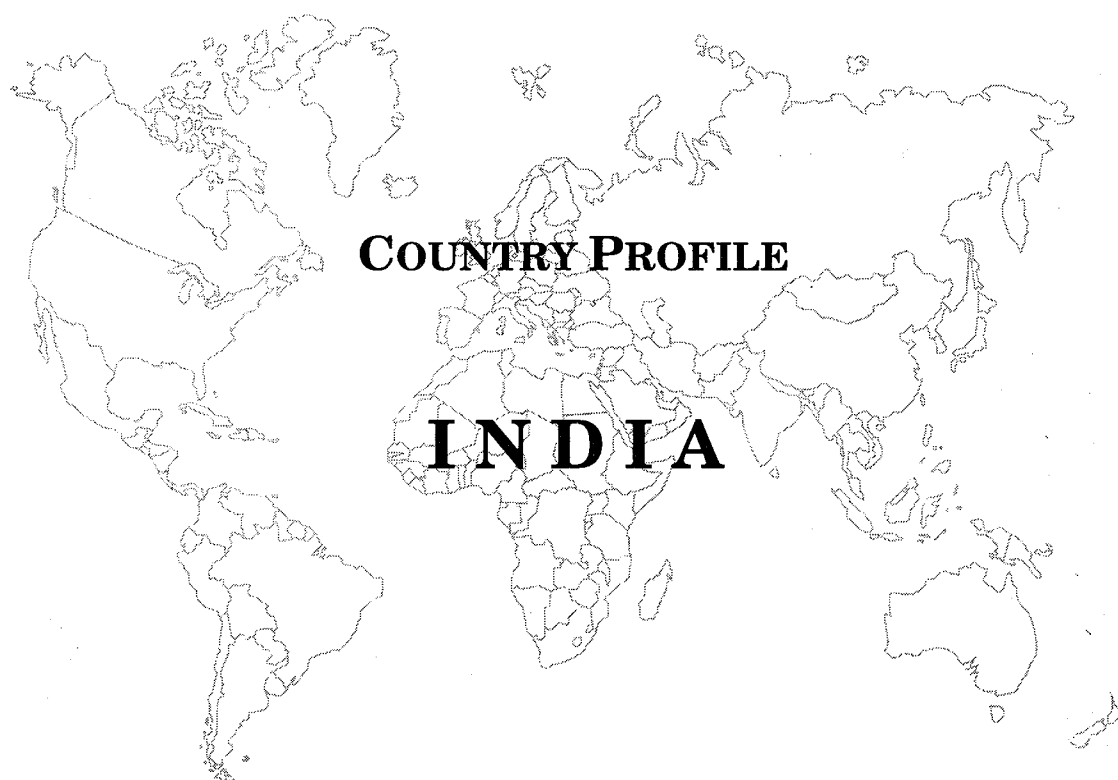


**ICO/CFC STUDY OF
MARKETING AND TRADING POLICIES AND SYSTEMS
IN SELECTED COFFEE PRODUCING COUNTRIES**



COMMON FUND FOR COMMODITIES



INTERNATIONAL COFFEE ORGANIZATION



THE WORLD BANK

The experience gleamed from this and eight other country studies has been incorporated into an overall project review published by the Common Fund for Commodities (CFC): Study on marketing and trading policies and systems in selected coffee producing countries. Amsterdam, 2000. CFC Technical Paper No. 3.

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**ICO/CFC Study of
Marketing and Trading Policies
and Systems in Selected Coffee
Producing Countries:
INDIA COUNTRY PROFILE**

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Executive Summary: India

BACKGROUND

Prior to liberalisation, coffee marketing in India was carried out by the Coffee Board under a system in which producers' coffee was pooled and auctioned in two separate auctions, one for the domestic market and one for the export market. After harvest, washed coffee was pulped and dried, and unwashed cherry was dried and both were delivered to a curing factory licensed by the Coffee Board. On delivery, growers were paid an advance for their coffee, with the remainder following after the coffee had been sold at the auction. Because of inefficiencies in the system, many growers did not receive the final payment for their coffee until up to two years after the Coffee Board had taken possession of it. The auctions were held throughout the year and equal amounts of coffee were auctioned each month. Private exporters bought the coffee at the auction and sold green bean to international trade houses and roasters.

The drive for liberalisation came from producers who were dissatisfied with the pooling system, late payments and the Government's continued imposition of export tax. All of these factors reduced the growers' price at a time when international prices were declining. Liberalisation was phased in gradually over a period of four years, starting in 1992/93, when producers were allowed to directly market up to 30% of their crop on the internal market, with the remaining 70% continuing to be pooled by the Coffee Board for auction. By 1996, the Coffee Board's involvement in marketing had been completely removed and growers were free to market their crop as they chose. The Coffee Board now concentrates on research, extension, promotion and information dissemination.

THE REFORMS

The process of liberalisation of the coffee sector was reasonably smooth, owing principally to the fact that India already had a very active and developed private sector, since exports had been conducted by the private sector before liberalisation. The most positive result of liberalisation is that growers now receive total payment for the coffee within days of sale, instead of the piece-meal payments under the Coffee Board's pooling system. With higher world market prices from 1994, this has led to new on-farm investment.

Some problems still remain in the system, one of which is the sales tax. Producers and traders believe the sales tax creates an obstacle to efficient marketing, which reduces the price paid to growers, particularly the small growers. The sales tax (which has been reduced from 14% to 4% following liberalisation) is applicable to all transactions along the marketing chain, except at export and the transaction prior to export, which are exempt on the condition the purchase is directly connected with a prior export contract sale. Because exporters often face logistical complications in ensuring that the export contract sale is obtained prior to purchase, most exporters mark down their purchase price by the amount of the sales tax. This reduces the grower price particularly for the small growers, who, unlike many larger growers, have no possibility of directly exporting their coffee.

One of the main impacts of liberalisation is the exposure of producers and traders to the vagaries of international price volatility. Price risk management becomes an important issue, particularly for the middle traders and exporters. Until October 1988,

exporters were not permitted to hedge on the New York or London futures markets and most had either to speculate or trade back-to-back. The Indian futures exchange was established in 1998 and, with a small 600 kg lot size, is especially designed for domestic hedging.

Prior to liberalisation, the scope for achieving significant quality price differentials for growers was lost under the Coffee Board's pooling system, in which different growers' coffees were bulked. This reduced the incentives for farmers to improve coffee quality beyond the minimum requirements. Since liberalisation, the quality of some plantation production has improved significantly as differentials have emerged. However, positive quality differentials have been slower to emerge with smaller growers. While Indian arabica is of a good overall quality, international buyers can easily substitute with other coffees, especially in times of a good Brazilian harvest. However, India produces some of the world's best robustas, particularly the washed. India has the possibility to market many of its coffees as speciality, shade grown, gourmet and perhaps explore organically grown production.

After liberalisation, the Coffee Board has continued some subsidised financing for small growers for development, machinery purchase, and extension of their planted area or re-planting. Outside these schemes, borrowing from banks for crop financing and internal trading is at an interest rate of about 21%, while that for exporters is at a lower rate of 14%. However, with higher international prices in recent years, growers' demand for credit has declined. Some exporters and banks have set up structured systems of warehouse financing for growers and middlemen, but this is also at a high annual interest costs of between 21% to 24%.

Supporting Services

Inputs have always been supplied by the private sector. Traditionally, various companies, often holding the Coffee Board's curing factory licences, were merchant houses who supplied inputs to coffee plantations. However, in the last twenty years, there has been ever increasing competition in the marketing of inputs and supplies. Inputs are now available throughout the coffee producing regions, even in the more remote areas. Very few co-operatives play a cohesive role in the supply of inputs.

Agronomic research is conducted by the Coffee Board's Central Coffee Research Institute (CCRI) in plant breeding, agronomy, entomology, soil science, pathology, physiology and post harvest technology of coffee. Activities have concentrated mainly on developing high yielding varieties, of both robusta and arabica, and integrated pest management. Quality aspects have only been considered for size of bean if at all, rather than cup quality. The largest private company, Consolidated Coffee Ltd, has recently established its own research station which includes a tissue culture laboratory for clonal plant breeding. Coffee extension is provided by the Coffee Board.

INTRODUCTION

India is a producer of both robusta and arabica coffee and prior to liberalisation was an example of a Coffee Board type of marketing system with a compulsory auction. Liberalisation of the coffee market began in 1992/93.

The process of liberalisation of the coffee sector was reasonably smooth, owing principally to the fact that India already had a very active and developed private sector, since exports had been conducted by the private sector before liberalisation. The most positive result of liberalisation is that growers now receive total payment for the coffee within days of sale, instead of the piece-meal payments under the Coffee Board's pooling system. Combined with higher world market prices this has also promoted new investment in on-farm and pre-export processing. The higher prices and greater percentage grower returns have reduced their borrowing requirements.

The India profile firstly provides an overview of the Indian coffee sector and the macroeconomic setting under which the marketing system operates. The profile then details the supporting services that are provided to the farmer and how the provision of these services has changed with liberalisation. The marketing system, both before and following liberalisation, is then described and the effects of the changes to the marketing system on pricing policy, regulation, crop finance, risk management, taxation and institutions are then discussed. Finally, the reforms are evaluated by examining changes to grower prices, quality and production. Changes in production should not be viewed solely in the context of the change in the marketing system but should be seen in the wider context of the fall in international prices in the early 1990s and the macroeconomic background.

OVERVIEW

Trends in Coffee Production and Exports

Production

India produces about 3.25 million bags of robusta and arabica coffee in roughly equal proportions. More than 90% of the total 305,000 hectares is in the southern states of Karnataka, Kerala and Tamil Nadu. Table 1 shows that the trend is for increased robusta production, with 53% of the acreage yielding 57% of the tonnage compared to the reduced 47% of the arabica area producing 43% of the total crop.

Table 1: India — Coffee Production, Trade and Prices

	Production			Exports	Grower price	EUV
	Total	Robusta	Arabica			
1960s (average)	1,129					
1970s (average)	1,622					
1979/80	2,601	1,222	1,379	1,034		
1980/81	1,962	923	1,039	1,656	82.99	109.69
1981/82	2,484	1,267	1,217	1,507	79.39	115.06
1982/83	2,212	1,040	1,172	1,143	69.87	111.02
1983/84	1,452	682	770	1,118	69.78	121.98
1984/85	3,262	1,533	1,729	1,283	71.85	164.25
1985/86	1,570	738	832	1,695	103.68	145.73
1986/87	3,668	1,724	1,944	1,586	59.09	110.63
1987/88	2,091	964	1,127	1,385	87.00	109.97
1988/89	3,000	1,550	1,450	1,993	58.92	89.59
1989/90	1,800	800	1,000	2,057	52.95	64.42
1990/91	3,000	1,528	1,472	1,486	55.09	68.04
1991/92	2,823	1,605	1,219	2,023	43.86	54.16
1992/93	3,467	1,992	1,475	1,822	48.60	57.42
1993/94	3,002	1,685	1,317	2,705	59.28	82.96
1994/95	3,717	1,996	1,721	1,894	81.02	140.61
1995/96	3,417	1,909	1,508	3,404	62.70	101.38
1996/97	3,800	2,175	1,625	2,476	102.47	-
1997/98	3,842	2,174	1,667	3,260	-	-

Source: Coffee Board of India, ICO, LMC

Annual production increased from 1.1 million bags in the 1960s to 3.4 million bags in 1996/97, albeit with considerable annual fluctuations. The production increases followed the doubling of the planted area from 135,000 hectares in 1970 to 271,000 hectares in 1990 (Table 2). The increases were also associated with planting in the 1980s of high yielding varieties with resistance to many pests and diseases. The varieties were first found in the 1950s and thereafter developed by the coffee research arm of the Indian Coffee Board (CB).

Both washed and unwashed arabica and robusta are produced alongside the special "monsooned" coffee. Around 70% of arabica and 8% of robusta is washed. The remainder is dry processed. India is the largest producer of washed robusta.

There are more than 140,000 individual coffee plantations in India, 98% of which are under 10 hectares. Smallholders account for 65% of the acreage and 60% of the production, while larger estates account for 35% of the acreage and 40% of the production. These figures deviate slightly from the real situation since many medium sized "joint family" units of 20 and 50 hectares have been divided to gain more favourable credit terms and status under the Agricultural Income Tax (AIT) rules.

Table 2: India — Share of production under different sizes of holdings 1994-95

	Size	Number of Holdings		Area under Coffee	
		Number	%	Area (Ha)	%
Smallholder	0-2	120,252	85.7%	129,091	42.2%
	2-4	10,827	7.7%	29,978	9.8%
	4-10	6,564	4.7%	40,379	13.2%
Sub-total		137,643	98.1%	199,448	65.2%
Largeholder	10-20	1,521	1.1%	26,613	8.7%
	20 -40	561	0.4%	17,131	5.6%
	40-60	213	0.2%	11,624	3.8%
	60-80	121	0.1%	9,483	3.1%
	80-100	64	0.0%	7,036	2.3%
	Over 100	170	0.1%	34,567	11.3%
Sub-total		2,650	1.9%	106,454	34.8%
Total		140,293	100.0%	305,902	100.0%

Source: Coffee Board of India.

Most of the coffee in India is inter-planted with shade trees, which are eventually sold for timber. In the interim many shade trees have pepper vines growing on them. The coffee planted area is interspersed with other agricultural crops such as arecanut, cardamom, and some areas with cloves. The practice of inter-planting orange was discontinued a decade ago due to the widespread occurrence of "Citrus Decline" disease.

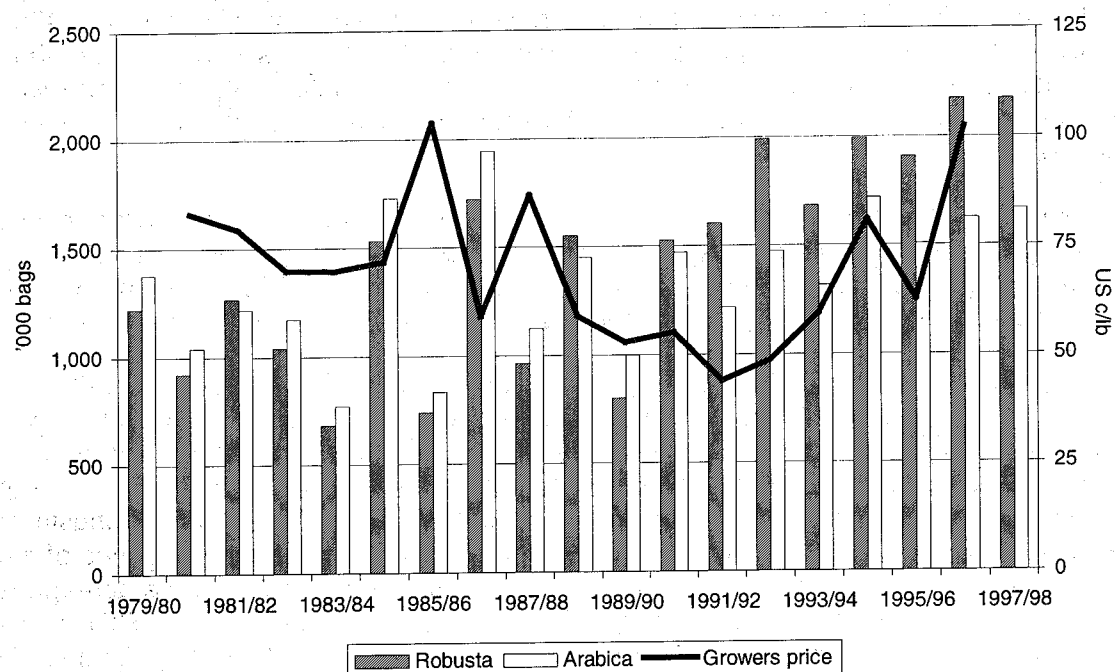
Inter-planting diversifies producers' income and reduces the risk of income losses resulting from a fall in the market price of coffee or due to pests and diseases affecting coffee production. Inter-planting also greatly increases the total bio-mass production per hectare, which in India is probably the highest amongst plantation crops worldwide.

Average robusta yields are 850-950 kg per hectare and arabica yields are 700-900 kg per hectare (Table 3). Yields have increased substantially since the mid 1980s with replanting of high yielding varieties which now account for an estimated 70% of the total planted area. Robusta in particular has increased in yields. This could be due to more widespread use of irrigation for flower blossoming in the summer when robusta is particularly sensitive to the level of precipitation, instead of relying on the vagaries of the natural rainfall. Yield figures are distorted to the extent that the actual coffee acreage is higher than officially registered under the Coffee Registration Certificate (CRC) of the Coffee Act. This may occur due to the encroachment of coffee planting into neighbouring government forest or "revenue" land. However, the encroached area is estimated to contribute to around only 3% to 4% of production.

Table 3: India — Area Under Coffee (hectares)

Year	Arabica			Robusta		
	Planted Area	Harvested Area	Yields (kg)	Planted Area	Harvested Area	Yields (kg)
1950-51	67,613			24,910		
1960-61	70,650			49,670		
1970-71	80,433			55,030		
1980-81	109,454			98,815		
1990-91	127,934	108,500	722	142,887	115,000	795
1991-92	126,889	108,500	814	151,742	115,000	797
1992-93	141,546	108,500	674	149,465	115,000	837
1993-94	143,491	108,500	906	148,976	118,000	964
1994-95	142,644	108,500	728	150,465	120,000	842
1995-96	145,901	120,100	860	159,252	121,900	982
1996-97	143,239	120,100	753	160,582	121,900	945
1997-98	143,928	130,485	747	161,974	155,167	841

Source: Coffee Board of India.

Diagram 1: India — Coffee Production and Grower Prices 1980/81-1997/98**Exports**

Coffee exports have increased from around 0.5 million bags in the 1960s to more than 3 million bags in 1996/97 as production has increased. The majority of exports are of green bean with an estimated 400,000 bags (green bean equivalent) of soluble coffee exported in 1996.

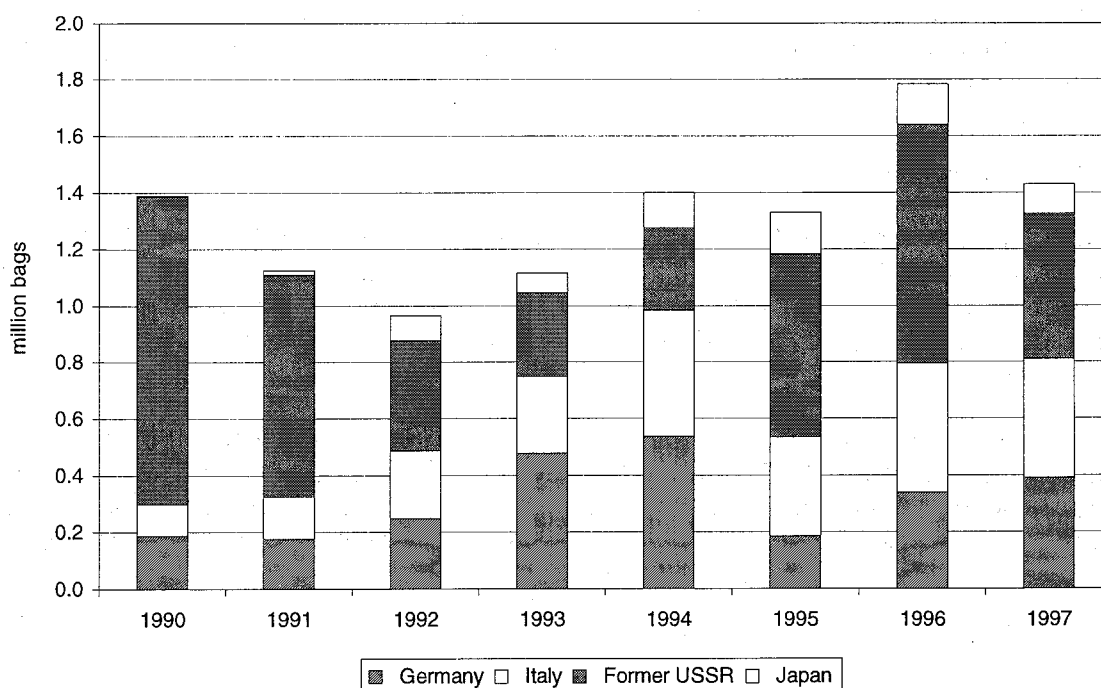
The most important markets for green bean are the former USSR, Germany, Italy and the USA. During the period when the International Coffee Agreement (ICA) was in force with economic clauses, India's allocated export quota to member countries was only about 0.75 million bags and India was forced to look to non-member markets, such as the former USSR, for exports.

The importance of the market in the former USSR declined from 55% of exports in 1990 to only 12% of exports in 1994, increasing to 27% of exports in 1996. Part of the reason for this decline was the collapse of the former USSR and the reduction in barter sales between India and the former USSR. The other main reason was that the breakdown of the ICA economic clauses and the export quota restrictions in 1989 allowed India to freely export more quantities to ICA member countries. In the past, export figures to the former USSR have been overstated to the extent that exporters utilised the discounts offered for rupees (against US\$) within the India-USSR bilateral trade agreement but have conducted triangular trade, thus boosting the figures but not actual exports to Russia.

Exports to the European Union (EU) have increased from 20% to 36% of total exports over the period, while exports to Japan increased from 0.3% to 5% of total exports. Germany has also gained significantly during 1998. Italy imports most of the washed robusta (Diagram 2).

The majority of soluble production is exported to the former USSR, which accounted for over 80% of India's total soluble exports in 1996. The second largest soluble export market is Hungary, which overtook the UK and Polish markets in 1995 and accounted for 5% of exports in 1996. With the complete collapse of Russia's economy in 1998, the short term future of this market is very uncertain.

Diagram 2: India — Main Export Markets, 1990-1997



Domestic Consumption

In the 1960s and 1970s domestic consumption was not encouraged. The idea was to maximise foreign exchange earnings through exports. However, with increasing production in the 1980s and a relatively low ICA quota at the time, policy changed to one of encouraging domestic consumption.

India is primarily a tea drinking country. Tea is much cheaper and makes many more cups per kilogram. Domestic consumption of coffee increased from just over 0.5 million bags in the mid-1970s to peak at around 1.1 million bags in the mid-1980s, still a meagre 0.07kg per capita per annum. Consumption increased initially when the CB subsidised domestic prices by holding separate auctions for coffee to be roasted domestically with lower reserve prices. However, domestic consumption stagnated and with the ending of the subsidised auctions in 1994, domestic prices rose, which has led to a fall in domestic consumption. Domestic consumption is officially calculated at about 0.85 million bags per annum.

Consumption is of both roast and ground, and soluble coffee. Around 90% of the total domestic consumption is in the three major producing states of Karnataka, Kerala and Tamil Nadu. Of this, two thirds is consumed in Tamil Nadu. These traditional consumers in South India predominantly drink roast and ground coffee blended in varying proportions with chicory powder.

Soluble coffee is consumed more in urban areas. Also, like most traditional tea drinkers, the North Indians drink soluble rather than roast and ground coffee. However, they contribute only 2.4 grams per capita per annum towards the official weighted national average consumption of 54 grams per capita per annum. The South Indians drink 240 grams per capita per annum.

The CB operates 72 coffee bars to promote consumption. Private enterprise has now opened 150 franchise type coffee shops. Some businesses provide specially blended roasted beans, and sophisticated espresso/cappuccino machines to large urban offices and hotel chains for promotion.

Coffee in the Economy

The Indian economy is well diversified with agriculture accounting for 30% of GDP. For the country as a whole, coffee is not an essential crop: coffee accounts for just over 1% of export earnings and contributes only 0.2% to GNP. Approximately 5 million people, concentrated in the South of the country, are dependent on the coffee industry for their livelihoods.

From a total of about 491,700 wage earning workers in production at the coffee plantation level, about 405,700 are in Karnataka, 47,000 in Kerala and 30,000 in Tamil Nadu. These figures reflect the larger coffee acreage of Karnataka, and the fact that there are more plantations in Karnataka and more small family worked coffee holdings in the other two states.

GOVERNMENT POLICY

Macroeconomic Environment

Before 1991, India's planned approach to the economy succeeded in reducing the illiteracy rate and in avoiding famines. However, it resulted in financial imbalances and an over-extended public sector. It also insulated the country from the rest of the world in terms of trade and direct foreign investments. This approach became untenable as it resulted in high inflation with large fiscal and external deficits.

Consequently, in June 1991, the new Government started to implement stabilising and liberalising policies. The measures undertaken have impacted on investment, the exchange rate, trade regimes, the financial sector and the tax system. Consequently, domestic markets were gradually deregulated and the government's role has been reduced.

The economy responded fairly quickly to this change in approach. Since 1992 annual GDP growth rates have been over 5% after experiencing growth of less than 1% in 1991. With strict monetary policies and part liberalisation of interest rates, inflation declined from 14% in 1991 to 6% in 1997. Exports increased significantly from 1993/94 in response to a sharp depreciation of the real exchange rate and a change in the trade regime.

India has not come away completely unscathed from the crisis in other Asian economies since mid-1997. The rupee fell below Rs.40 to the U.S. dollar in mid-January 1998. In a bid to stem the slide, the Reserve Bank raised inter-bank interest rates from 9% to 11%, although they were lowered again to 10% in April 1998. The crisis has not deterred inflows of foreign direct investment (FDI) which has increased from 1996 levels, with 388 billion rupees of FDI approved in the first nine months of 1997, compared to the 361 billion rupees approved in all of 1996.

India faces sanctions from the USA and the postponement of development loans from the World Bank in protest against the nuclear tests it carried out in May 1998. In June 1998 a \$64.2 billion national budget was approved which sharply increased public-works spending to revive growth and raised import tariffs to protect domestic industry. The total population is estimated at almost 970 million and is growing by more than 2% per annum.

Although India has come a long way in liberalising its economy, there are still a number of issues it has to address to achieve sustainable growth. These include continuing high public sector deficits (especially those of the states), high levels of protection for producers and manufacturers, high degrees of regulation and taxation, as well as explicit and implicit subsidies.

Table 4: India — Macroeconomic Conditions 1990-1997

	1990	1991	1992	1993	1994	1995	1996	1997
Exchange Rate, Rupees per US\$	17.5	22.7	25.9	30.5	31.4	32.4	35.4	36.3
Real GDP Growth	6%	0%	5%	5%	8%	8%	7%	5%
GDP (1995 prices) Bn Rupees	8,574	8,610	9,078	9,516	10,237	11,061	11,874	12,468
GDP (1995 prices) Bn US\$	365	316	304	298	329	341	365	385
Per Capita GDP (US\$)	437	371	351	337	358	365	382	394
Interest Rate (lending rate)	17%	18%	19%	16%	15%	15%	16%	14%
Annual Inflation (CPI)	9%	14%	12%	6%	10%	10%	9%	6%
Population (mn)	835	852	868	884	919	936	957	978

Source: National statistics, IMF International Financial Statistics, EIU.

Agricultural Policies

Reform of the agricultural sector has been just part of the Indian government's wider efforts to liberalise the economy. Piece-meal reforms notwithstanding, the government has yet to articulate an agricultural reform strategy to the extent seen in other sectors. Growth in the agricultural sector, which has accelerated from 1% to 3% per annum over the last ten years, is attributable to the increased use of highly subsidised inputs such as water, power and fertiliser, and a series of good monsoons, rather than structural reform of the sector. With most products being tradeable, the sector benefited from the depreciation of the Indian currency and the reductions of manufacturing protection that began in the 1980s. The sector also benefited from large public spending for infrastructure, support services and subsidies.

Public expenditure on agriculture is very high and its average share of agricultural GDP for the period 1990-93 is 29%. This rate is three to five times as high as that in many other Asian countries. These expenditures can be classified into three categories: productivity growth-enhancing programs; subsidies; and safety-net programs. Productivity growth-enhancing expenditures include those on economic services and on new irrigation investments. Subsidies are provided for fertiliser, food, credit, irrigation and power. Safety net expenditures include spending on rural development and employment programs, and special area programs.

Among the three categories of public expenditure, the subsidies component has been increasing its share. During the 1980s, subsidies increased three times faster than productivity-enhancing expenditures. Subsidies on power are almost one half of the total subsidies while fertiliser about one fifth. In recent years, the Central Government has attempted to restrain the growth of these subsidies.

Quantity Restrictions (QRs) of only a few minor commodities were relaxed in the 1991/92 trade reforms, but in 1994 the full liberalisation of a few important commodities was implemented. These include rice and wheat exports, imports of most edible oils, sugar and cotton. Open internal trading and export of food commodities have been allowed in a controlled manner provided it does not jeopardise national food security. With greater imports, the share of tradeable agricultural production protected by non-tariff barriers (NTBs) has reduced substantially.

Extension/Inputs

Inputs have always been supplied by the private sector. Traditionally, various companies, often holding CB's curing factory licences, were merchant houses, who supplied inputs to coffee plantations. However, in the last twenty years, there has been ever increasing competition in the marketing of inputs and supplies. They are available throughout the coffee producing regions, even in the more remote areas. Very few co-operatives play a cohesive role in the supply of inputs.

Coffee extension is provided by the CB.

Research

Agronomic research is conducted by the CB's Central Coffee Research Institute (CCRI) in plant breeding, agronomy, entomology, soil science, pathology, physiology and post harvest technology of coffee. Activities have concentrated mainly on developing high yielding varieties, of both robusta and arabica, and integrated pest management. Quality aspects have only been considered for size of bean if at all, rather than cup quality. The largest private company, Consolidated Coffee Ltd., has recently established its own research station, which includes a tissue culture laboratory for clonal plant breeding.

Pest and disease problems are mainly caused by the white stem borer¹ and *broca* the berry borer, of which the first outbreak occurred in 1992. Broca is still localised within a few districts and a parasitic fungus is being developed for biological control.

The research stations also provide coffee seeds prepared for making nurseries. The nurseries are mostly at each plantation. There are private nurseries that raise seedlings for purchase by small growers for whom preparing nurseries may be uneconomical.

MARKETING SYSTEMS

Marketing Channels

Pre-Liberalisation

The Board controlled coffee marketing system that existed before liberalisation was created by the Coffee Act of 1942. Under this act all coffee was to be pooled and sold by the newly established CB. This system was created to alleviate the very low prices suffered by producers when they sold coffee soon after the harvest. The situation was serious because world coffee demand was low or difficult to fulfil due to the War engaging the major ports. Producers considered that the system with the CB taking control would bring some order to the market.

¹ White stem borer is widespread and elusive. Its effects become apparent only months after attack on the main trunk and the only way to control it is to try to prevent its spread by chemical swabbing of the main stem or to uproot and dispose of the entire affected bush. Since liberalisation, the research stations and some larger company estates are co-operating on field trials to restrict the insect's breeding using sex hormones. For example, Consolidated Coffee Ltd. assists neighboring small growers to eradicate the white stem borer to prevent its spread and also lends pipes for irrigation.

Thus, prior to the start of liberalisation, the CB controlled the whole of the marketing chain from grower to exporter. After harvesting, pulping washed coffee and drying to a specified moisture level, the grower brought the coffee to a curing factory, licensed by the CB. On delivery of the coffee to the curing factory, the CB took possession and paid an advance to the growers.

In these factories, registered private operators hulled, cleaned, sorted, graded and polished the coffee for a fixed fee which was initially paid by the CB and the costs were later deducted from the payment to the grower. The licensed factory notified the grower of the percentage outturn of clean coffee after hulling, and the percentages of various grades. The coffee was stored at the curing factories prior to auction.

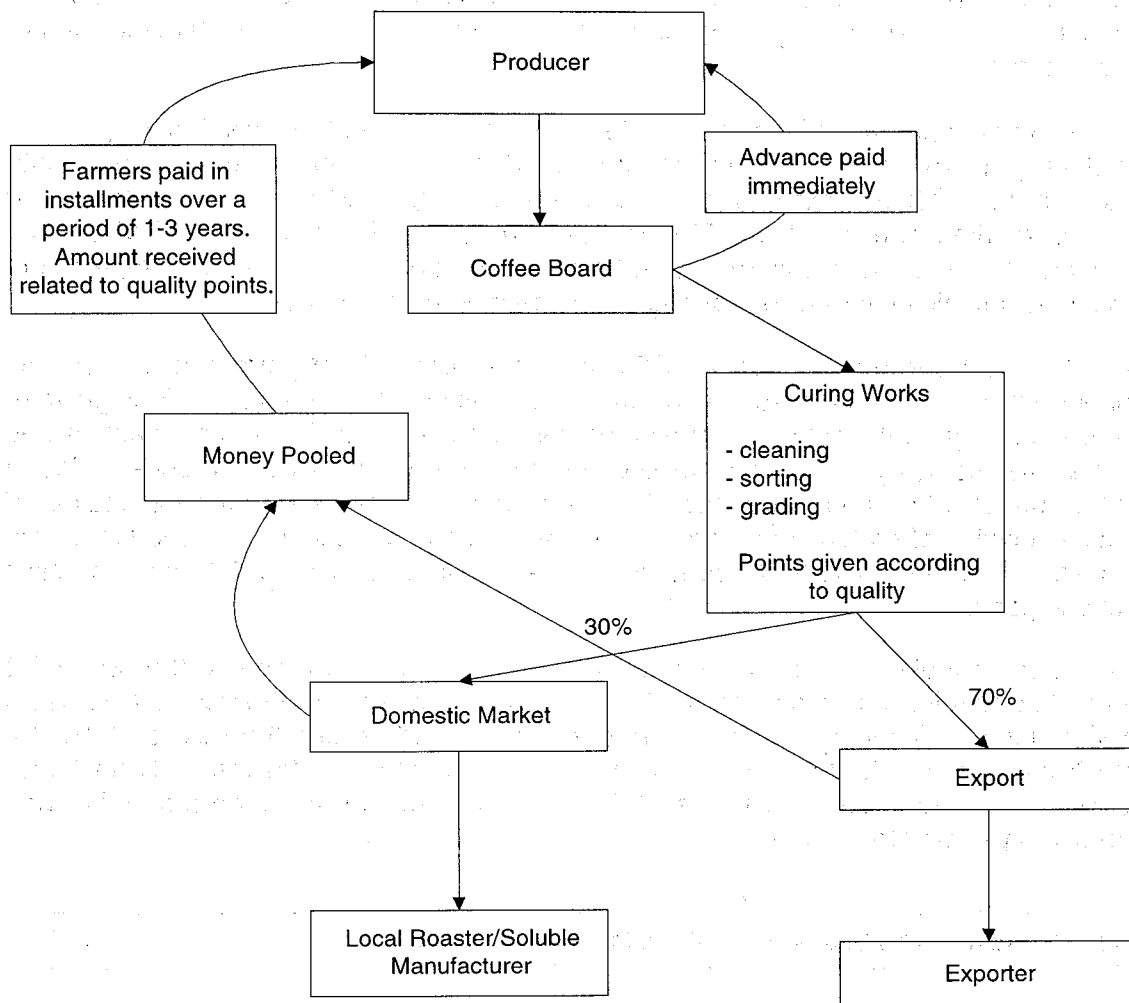
The CB marketed all coffee through separate auctions, approximately 30% to the domestic market and 70% for export. Although a significant proportion of coffee was sold through the CB's "bulk contracts" and exported directly to Eastern Europe, mainly Russia, via the *escrow* barter agreement.

The auctions were held throughout the year twice a month and approximately equal amounts of coffee were auctioned each month. Prior to auction, the coffee was sampled and analysed at the CB's cup testing laboratory. Points were awarded according to quality after processing, taking into account factors such as moisture content and defects.

The reserve prices set for coffees in the domestic market auctions were 15% to 20% below those for the export markets. Coffee auctioned for the domestic market was prevented from being sold on the export market by a system of licences (Diagram 3). The prices set for bulk contracts were an average of the previous two or three export auction prices, prior to shipment. Buyers had a form of "backward look" in fixing the quantity and prices.

All the exporters were domestically owned. Only about ten exporters were active out of an approximate total of fifty exporters. They bought at the fortnightly auction and sold green bean to international trade houses and roasters.

Diagram 3: Pre-liberalisation Marketing Chain



Liberalisation Process

Producers were generally satisfied with the pooling system so long as the prices they received were high. In the eyes of the producers, the system continued to work well during the 1970s and most of the 1980s.

In 1989, the decline of world coffee prices after the collapse of the ICA's economic clauses and the collapse of the Soviet Union adversely affected prices received by Indian producers. This made producers doubt the efficiency of the CB and the marketing system. Furthermore, producers learned that they were effectively paying state sales tax, although constitutionally all exported commodities are to be exempt from such taxes. (In 1989, the Supreme Court judgement forced the CB to pay a vast sum of sales tax retrospectively). The growers also learnt that the export duties, levied by the government, took an additional significant percentage of their gross sales revenue. Large producers also started demanding liberalisation because they wanted the freedom to export directly to its customers and sell high quality coffee at more favourable prices. Also, by exporting directly they could avoid paying state sales tax.

These incidents prompted producers' associations of small to medium producers to join forces with the United Planters' Association of South India (UPASI) (an association whose members are mainly large producers and plantation firms) to demand market liberalisation.

The Government was willing to liberalise the coffee market but wanted to proceed cautiously. Liberalisation started with the introduction of a 30% internal sales quota (ISQ) in 1992/93: this allowed producers to market up to 30% of their crop, on the internal market. The remaining 70% was pooled by the CB for auction. Initially, many growers, small and large, were hesitant and did not take immediate advantage of the option. Domestic buyers were not eager to raise their buying prices.

In 1994, a 50% free sales quota (FSQ) was introduced, allowing producers to directly market up to 50% of their crop either on the internal or external market. Many growers took advantage of the option to market the coffee themselves. The main attraction was immediate total payment. With the second step in the liberalisation process, also in 1994, the CB abolished the auction for domestic sales, resulting in the elimination of price subsidies of coffee sold for domestic consumption. A ceiling of 110,000 tons was placed on coffee exports to reduce domestic coffee prices and boost domestic consumption.

Due to the benefit of receiving immediate cash, many growers ignored the 50% FSQ marketing restriction and directly marketed a larger proportion of their crop. This was a major factor in pushing for subsequent reforms which increased the FSQ to 100% for small growers and to 70% for larger growers. Eventually in 1996 the FSQ for larger growers was increased to 100% and the CB's involvement in coffee marketing was completely eliminated (Table 5).

Table 5: India — The Sequencing of the Marketing Reform

1989	Collapse of ICA and subsequent fall of international prices.
1992/93	Introduction of Internal Sales Quota (ISQ). Growers can market 30% of their crop themselves, confined to the domestic market.
1992/93	Central Excise duty abolished. Changes to the structure of CB proposed. Inception of Karnataka Brokers' Association and alternative voluntary auctions.
1994	50% Free Sale Quota (FSQ) introduced. Growers can market up to 50% of their crop themselves, into both the domestic and export markets.
1994	Government places a ceiling of 110,000 tons on coffee exports to reduce domestic coffee prices and boost domestic consumption.
1995	All restrictions on exports are lifted. Smallholders' FSQ increased to 100%, Largeholders' FSQ increased to 70%.
1996	Largeholders' FSQ increased to 100%. End of CB's involvement in coffee marketing. Auctions run by the private sector.
1998	June: Inception of Internal Futures Market (COFEI) for two main grades. October: Reserve Bank of India permits bona fide exporters to trade in international futures markets.

Post-liberalisation

Producers have several ways of marketing their coffee under the liberalised system; (i) export directly from the plantation, after curing and grading at the plantation; (ii) sell directly to domestic roasters, soluble manufacturers, or exporters; (iii) hold coffee under growers' own title at a curing factory after processing and then to sell by a channel of his choice; (iv) submit the coffee to the curing works and warehouses for

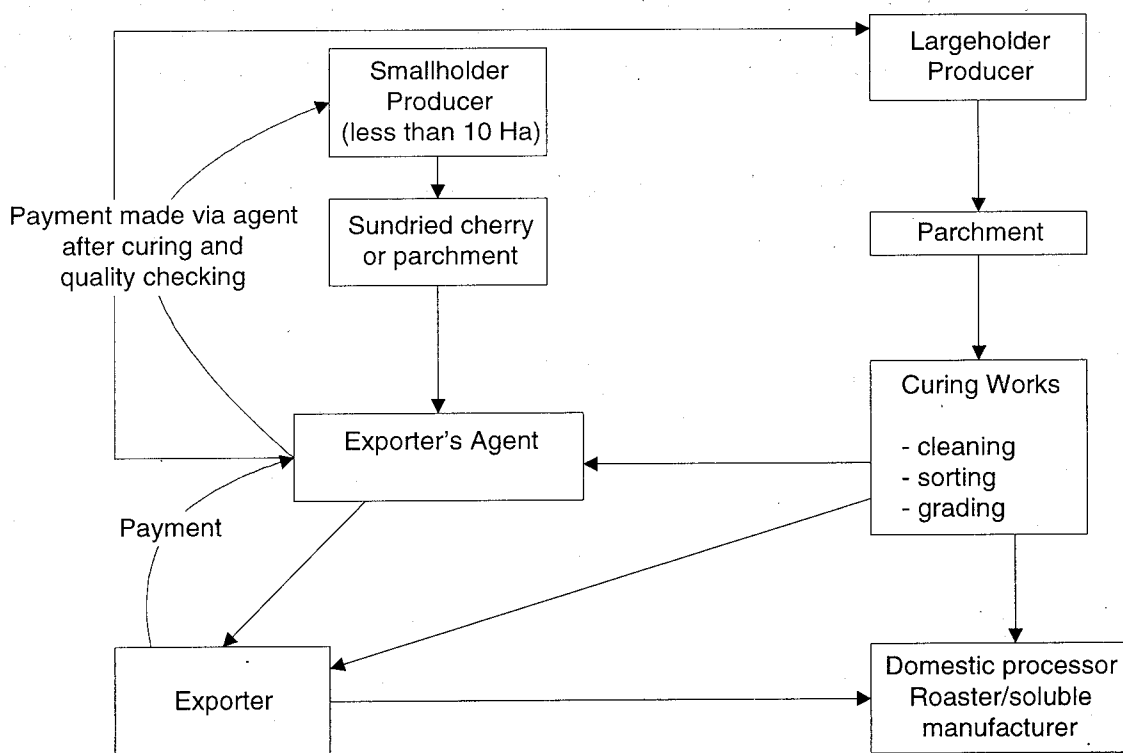
marketing through the private auctions; and, (v) tendering 600 kgs lot of graded Plantation A or Robusta Cherry AB into the domestic futures market, although this last method is yet to be tested.

Most exporters buy most of the coffee directly from growers at the farm gate. Even if one or more intermediaries are involved, the paper work is mostly done between the grower and exporter, especially in Karnataka, for sales tax reasons. To give a simplified typical example of this system: smallholders prepare washed parchment (*pergamino*) or unwashed cherry in 50 kilogram bags and sell it to an agent, who works on behalf of one or more of the curers and/or exporters. The exporters and agents exchange workable prices on a daily basis. The price is quoted in Indian rupees per bag. The agent procures coffee from the farm and arranges for a truck to take the coffee to the curing factory.

At the curing factory samples are taken from 10% of the bags to check moisture content and quality. The percentage of grades outturn is tested by running the lots through a sample hulling machine. If the coffee meets minimum standards specified by the exporter, he sends a banker's draft to the agent in the name of the grower. This way the agent maintains his relationships with his clients and he also delivers the payment directly from the exporter to the grower.

With this direct sale, the grower receives payment two to three days after the collection of the coffee. The agent bulks the coffee from the growers into lots of 9 tons, i.e. one truckload, which is the standard lot size bought by the exporter. The agent works on a commission basis and is paid Rs.10-15 per bag for robusta coffee and Rs.15-25 per bag for arabica coffee. More than one agent sometimes share the commission (Diagram 4).

Diagram 4: Marketing Chain, Direct Marketing to Exporter or Domestic Processor



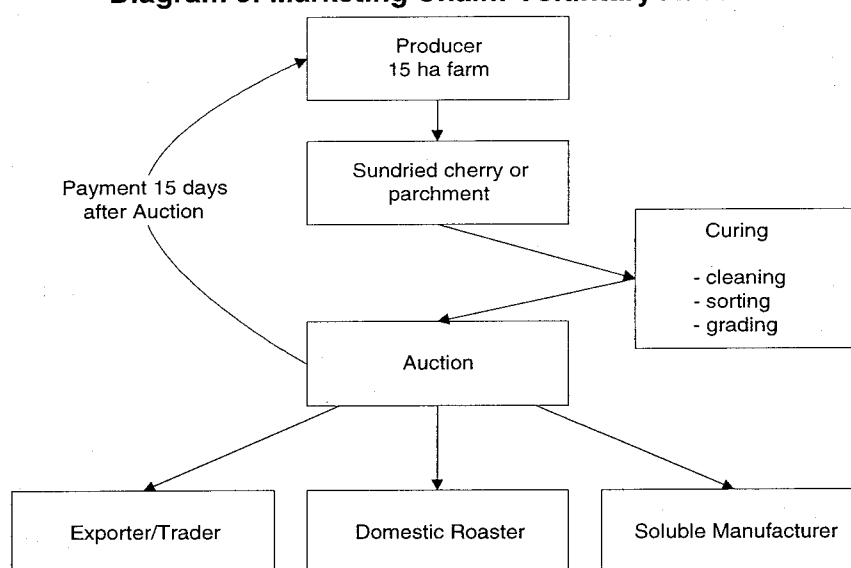
The liberalised system allows the grower to sell the coffee when he considers the timing appropriate, as regards price and the marketing conditions. In some cases, curing factories provide storing facilities for growers. Under this system, the grower takes the coffee to the curing factory and receives 50% to 70% of the market value as an advance payment on the coffee. The grower is then charged an interest rate of 1.5% to 2.0% per month against the total advances, which are deducted from the final value of the sale when the grower decides to fix the price for the coffee with the lender and buyer.

Growers also have the possibility of selling through the voluntary auction. Private auctioneers have taken over the role from the CB and conduct auctions under the rules of the India Coffee Traders' Association (ICTA). It is mainly the larger growers who choose to take their coffee to the auction. The coffee is taken to the curing factory for secondary processing and the graded green bean is stored in one of the auction warehouses, which could be that of the same curing works. The coffee is sampled for auction.

The auctions are held once a week, on a Thursday, and one private company after another takes the podium to auction the coffee. To participate in the auction, bidders require only a dealer's licence issued by the municipality. The auction charge is 1% of the selling price, and the grower receives payment 15 days after the auction. Withdrawals have been as much as 70% when reserve prices are set too high, usually at times of heavy price volatility and speculation in international prices. However, most of the withdrawn coffee has been sold later by private negotiation between the participants at the auction (Diagram 5).

Less than 10% of total production goes through the auction. Lot sizes at the auction generally range from 200 kgs to 7,500 kgs but may be as small as 20 kgs. The coffees are identified by estate names or by the curing works where they were processed. The grade names and classifications are the same as set and used by the CB. The reserve price at the auction is set either by the grower, or alternatively by the company managing the auction and determined by converting the ruling futures price in New York (for arabica) or London (for robusta), minus/plus a differential into rupees per kilogram, ex-auction.

Diagram 5: Marketing Chain: Voluntary Auction



Immediately following liberalisation of internal marketing, the number of active exporting companies increased from 5 to 10 to between 20 and 25 but has now fallen to around 15. However, these 15 companies handle about 80% of the total exports. Many of the less experienced companies suffered losses due to the decline in world prices in 1996.

Regulation/Quality Control

Grading standards are set according to coffee type (robusta and arabica), method of processing (washed and unwashed), bean size and the number of defects. There are also three special preparations of coffee to serve the gourmet market, namely, Mysore Nuggets EB, Robusta Kapi Royale and Indian Monsooned coffee.

Following liberalisation, the CB has retained no controls over industry regulation or quality, with the exception of ensuring the repatriation of foreign exchange. This involves the requirement that exporters receive a license to export each lot. The documentation required for issuance of the licence includes information on the volume of coffee to be exported, the quality and grade of the coffee and the price at which the coffee will be sold, including a copy of the contract with the foreign trade house or roaster. The exporter is also required to obtain an exchange control licence from the Reserve Bank. After shipment, the exporter must provide a bill of lading and the CB checks with the bank that the remittance has been paid.

There are no longer any restrictions on exports as regards the quality of coffee. Bulk and blended coffees are also exported. The CB provides a quality control and cup testing service to those traders who require it, as do other private laboratories such as Coffee-Lab. Furthermore, while exporters must initially register with the CB, before they commence exporting, they do not need to renew the licence. The CB still has the power to remove a licence if an exporter defaults on contracts or fails to maintain the quality of exports, but it is only in exceptional circumstances that this sanction is applied. The CB is in discussion with exporters to establish rules for quality arbitration procedures. This will include drawing of samples for each transaction, export shipment and/or domestic sale.

Self-regulation involving new bodies, such as the Indian Coffee Trade Association for auctions and Coffee Futures Exchange India, is developing. Warehouses have been nominated and approved with stricter standards for storage conditions. Cup quality analyses are planned to enhance the underlying coffees and the bases of the marketing instruments. A properly legalised warehouse receipt system can evolve from such foundations. A well structured approach would create trust amongst all market players and facilitate bankers' participation to finance a greater percentage against the value of stored goods secured to them.

Again, a generally better structured legal and regulatory financing system, using warrants or transferable receipts issued by strictly maintained warehouses, could allow the grower (or any owner of the coffee) to separately choose the most favourable finance and also independently decide to whom he sells the coffee.

Credit and Financing

Prior to liberalisation, the CB provided direct loans to small growers, who had 25 acres or less of coffee. For hypothecation loans against the current year's crop financing, coffee delivered to the CB's auction was used as collateral and loan payments were deducted from receipts.

Slightly longer term loans were given at lower than market interest rates, for hire or purchase of equipment; such as, sprayers and pulpers; replanting aged areas and infilling borer uprooted spots; intensive cultivation using fertilisers or drip and overhead irrigation; and extensive cultivation, for instance, new coffee planting. The collateral for these loans was land titles for larger loans (up to Rs. 200,000) and the CB issued Coffee Registration Certificates (CRC) for smaller amounts (up to Rs. 50,000). Annual amounts of between Rs. 20 to 40 million rupees per annum were initially loaned at 6% to 7% per annum although interest rates were later increased to 9% to 10% per annum. With mounting interest costs and poor collection, a number of farmers became indebted.

Traditionally, plantations used to purchase their input requirements from trading houses on credit against crop hypothecation loans. These loans were then repaid once harvested coffee was delivered to the curing process. Now, large growers also have access to credit from banks at an annual interest rate of between 14% and 18.5%. Small growers can obtain finance from co-operative banks. However, with the higher prices due to liberalisation and Brazilian frosts, few growers have taken loans over the past four or five years and many have had sufficient capital of their own for investment.

For crop finance, prior to liberalisation the CB's crop purchases were financed by a loan from the Central Government, the cost of which was eventually paid from the pool funds.

Through the CB, the Government is still providing growers who have less than ten hectares of land a subsidy towards development loans over a period of five years. These loans are available to improve production, for example, by installing irrigation sprinklers or constructing dams, wells and ponds and to improve quality by financing pulpers, hullers and graders or for building drying yards and storage space. The money is channeled through commercial banks and is loaned to growers at a 14% rate of interest. 25% of the loan is a grant. The loans can be used for development work but cannot be used for working capital.

Now exporters finance through the banking system's "packing credit" which uses the goods for export as collateral. Exporters borrow up to 70% to 80% of the contract value and use their own funds for the balance. There is no pre-financing from overseas buyers. One or two international commodity trading houses have recently set up their own Indian based companies. Restrictions have now been totally removed for this.

The Karnataka Brokers' Association (KBA) assists growers and exporters with financing and hedging in the recently established local futures exchange. The KBA has established a number of specified warehouses for crop storage. Similarly the Skanda group operates a warehouse financing scheme through two commercial banks, Corporation and Syndicate. The Jayanti Group offers its own financing scheme which incorporates the possibility for the grower to fix the contract price, with built in stop loss levels, as per daily buying levels broadcast on radio. Up to 70% of the stop loss level is loaned at a 21% p.a. interest on amounts advanced.

This suggests that warehouse based financing is developing in several directions. The newly developed futures market, Coffee Futures Exchange India (COFEI), has also appointed approved warehouses and a few banks are designing products for financing around this scenario. However, a properly legalised and regulated, negotiable warrant based system would benefit the entire industry, and indeed other commodities in the country.

Risk Management

Although a need to manage price risks has all along been expressed by exporters, particularly after the market liberalisation, they were prohibited from hedging on the New York or London terminal markets until October 1998. The reason for this restriction was that speculation on these markets in the past led to capital flight. In spite of this prohibition, many large exporters evidently had been surreptitiously using New York and London exchanges to hedge.

An Indian coffee futures exchange was established in Bangalore in June 1998. The basis of the futures contracts are Plantation A for arabica coffee and Cherry AB for robusta. Each is traded in 600 kg lots. In October 1998 the number of contracts traded daily averaged about 80. This trade volume is respectable given that the exchange trades only one hour a day, is only four to five months old and that October is not a coffee harvesting month. Government restrictions do not yet allow options to be traded. Many producers and traders are taking a wait-and-see stance and are yet to hedge on the exchange. The open contract volume is very low and market participants are only likely to use this terminal market if the transaction volume increases. Judging from the experience of other countries, whether this market will be viable in the long-run will depend on the extent to which speculators participate in the trading.

At present, only Indian based companies are allowed to participate as this is considered to be a domestic exchange. On the other Indian futures exchange, the international pepper exchange, foreign companies are allowed to trade although issues arising on tax and repatriation of funds by overseas participants are still being sorted out. Recently, trading has commenced in US dollars. Another lesson to be learnt from the pepper exchange is that it has a rather fragile tendering system, allowing a seller one week to deliver directly to the buyer, rather than secured tendering through a certified warehouse. This has limited its use.

At present, coffee traders tend to engage in back-to-back sales in order to eliminate their price risk. Exporters are able to sell forward, either on an outright basis or on a price to be fixed basis, although there are considerable price and quantity risks associated with the first option and quantity risks associated with the second.

Liberalisation has also increased exporters' flexibility in handling price risk. Prior to liberalisation exporters had to sell daily to international markets but could only purchase coffee fortnightly at the auction. Now the exporters can also purchase coffee daily and offset some of the volatility.

As market liberalisation coincided with rising world coffee prices, producers felt little need for price risk management until recently. However, since mid-1998 world coffee prices have been declining and consequently producers, especially small ones, have increasingly felt the need for hedging. There are some trading firms that handle sales for small growers and they are seeking ways to hedge prices given the recent volatile world market.

With the liberalisation permitting the use of foreign terminal markets and the establishment of the Indian coffee futures exchange, some Indian based user-friendly futures brokerage firms would be beneficial to the coffee sub-sector. These firms could develop various risk management instruments that are easy for producers and traders to use for the purpose of hedging themselves against price fluctuations.

Coffee Taxation Policy

There are mainly three kinds of tax imposed on the coffee industry: agricultural income tax; sales tax; and export duty. Taxation is a major policy issue being discussed by the industry at present, particularly with regard to the state sales tax, especially in Karnataka State.

Some of these tax issues create unnecessary paper work, cash flow deficits, and cause inefficiencies in the current liberalised market, and probably lead to tax evasion. There is the insinuation that the current situation and systems suit the tax collecting agencies as some considerable proportion of the AIT and sales tax collectibles go into their own private coffers.

Agricultural Income Tax

Taxation of growers in the coffee sector is relatively simple. Agricultural Income Tax (AIT) is imposed by the State government and paid by producers with over 15 acres, on a sliding scale up to 65% of annual income. The small farms of up to 15 acres are completely exempt while farmers of up to 50 acres pay AIT at a nominal sliding rate ranging between Rs.250 and Rs.600 per acre. This is called compounding rate of tax, which was introduced so that growers do not have to maintain any books of accounts. However, small growers do have the option of paying tax according to their accounts (on the sliding scale of percentage and income levels) if their income is below Rs.100,000 but very few do as they would need to show break-even or a loss for this option to be viable. The taxation rates vary from state to state. For instance, the compounding rate of AIT ranges from Rs.700 to Rs.3,000 per hectare in Kerala State; and the maximum AIT in Tamil Nadu is 50%.

Surprisingly, the total Agricultural Income Tax collected from all coffee growers in Karnataka is only Rs.400 million. Less than ten of the large growers, large company estates, are said to account for more than 50% of this amount.

One anomaly of liberalisation in the collection of the AIT has been that while registered exporters pay central income tax and receive the relevant rebates on exports, small and large growers who export directly do not receive similar incentives as there are no such provisions in the AIT rules.

Sales Tax

The level of sales tax varies between states. The state sales and/or purchase tax on green bean coffee is 8% in Tamil Nadu, 4.4% in Kerala and 4.2% in Karnataka. This tax is only meant to be applicable to coffee sold on the internal market, but adversely affects the free flow of marketing for export. The Karnataka sales tax on coffee has been reduced in the last four years from 14% to 4%. This is partly due to pressures from the growers, many of whom are also involved in politics and legislation and partly due to a policy based decision to try and promote domestic consumption. The total collection of sales tax has declined from Rs.410 million to 50 million.

In Tamil Nadu and Kerala, there is a three to six month grace period before the trader must present an "X-form" showing the coffee has been sold for export. In Karnataka, however, the penultimate sale is also exempted from the tax, provided there is a prior export contract in the hands of the buyer exporter, pertaining specifically to the goods purchased. Otherwise, the buyer exporter is liable for the tax on the transaction. Thus, every transaction, except export and the last one prior to export, is liable to this tax. This hampers the exporters' trading pattern, as they are officially bound to make a sales contract first before purchasing, whatever their opinions about market conditions or expectations. The export house then passes on the buying requirements to dealers or agents who procure coffee from the growers. The transaction has to pass directly from the grower to the export house in order to avoid any unnecessary costs on tax. The intermediary has to ensure that the exporter produces the relevant "H-Form", which has to be submitted with export shipment details to obtain exemption.

It can be easily envisaged that by the very nature of the business, there would be more than one stage in the transactional chain when coffee is procured from the smaller growers. As such, the buyer/s are bound to build the tax element into the purchase price. Consequently, the small grower is likely to receive a lower farm gate price when compared to the larger grower who can more easily arrange a direct sale to an export house.

The exporter could also face many problems from the enforced short sale:

- If market prices rose immediately after finalising a contract with a buyer, and the domestic producers renege on their commitments, the resulting default could tarnish the shipper's reputation unless he absorbs the loss himself;
- As happened in 1997/98 for robusta, after entering into a forward export transaction, despite falling market prices, the relevant coffees are physically not available, making it impossible to supply the overseas buyer. Non-fulfilment would incur penalties or washout costs or damages; or
- For special transactions conducted on approval of samples, new lots would have to be purchased to replace the original lot if rejected, and the latter would incur a sales tax. If the rejected coffee were eventually sold elsewhere, one could not claim exemption since this had not been a *prior* order.

The dilemmas of an export-trading house are exaggerated by the seasonal nature of the coffee harvest between December and April, whereas exports are throughout the year. To manage some of the implied risks, exporters are bound to factor the potential sales tax liability into the price offered to the grower.

The collective components of a 4% State sales tax on green bean, 16.5% sales tax on the eventually sold retail pack, 18% Central excise duty on the ex-factory price, and a turnover tax of 1.5% add over 40% on the ex-factory price of soluble coffee for

domestic consumption. This acts as a deterrent to the promotion of the domestic consumption of a product whose demand is already very price sensitive. Soluble coffee manufacturers often have to wait for up to three years for sales tax rebates on exported goods. Prior to liberalisation, tax collection was much easier since coffee collection was at one point organised by the CB.

Export Duty

Between 1966 and 1993, the government imposed an export duty on coffee although export duties on other commodities were abolished. The export duty was as high as 50% of the export price in 1976/77 and was also high in 1979 and 1986. The realisation by growers of the extent to which the tax was diminishing their income contributed to the growers' demands for liberalisation. The exporters complained that frequent revision of the export duty added to their speculative price risk on pipeline stocks, since the levy fluctuated with global prices.

Currently, exporters pay only a very small cess of Rs.50 per 100kg exported at the port just prior to shipment. However, the paperwork involved is very bureaucratic. There is also a turnover tax varying from 0.5% to 2% depending on the turnover of the merchant or exporter.

INSTITUTIONS AND ORGANISATIONS

Coffee Board

Before liberalisation, the CB was probably the most important organisation in terms of its impact on the sub-sector. It had a monopsony of purchasing coffee from producers and sold coffee for domestic use and exports through respective auction centres. In addition, it provided credits to coffee producers and undertook research, extension and promotion. The CB was financed by the Consolidated Fund of India, which also collects a small cess by way of a levy from the Industry. The CB uses this fund for the research and extension services to the growers and promotional activities.

Since market liberalisation, the entire marketing system has been in the hands of the private sector and consequently the role of the CB was reduced substantially. The CB's staff was reduced to one third with the liberalisation. At present, the CB's activities are limited to research, extension and promotion. The extension services to farmers are mainly aimed at improving the cultural practices of smallholders, with approximately one extension officer per 2,500 farmers.

Although the CB is a parastatal, its members are primarily drawn from the industry. Of the 33 CB members, 11 are from the government and 22 from the industry. In the latter case, this includes representatives from all sections of the coffee industry: smallholders, estates, exporters, processors, roasters and soluble manufacturers. A controversial point is that these board members are supposed to represent various segments of the industry but are appointed by the Minister of Commerce. Some producers' associations have been proposing to the Government that the industry representatives should be selected by the industry. They feel that the board members appointed by the Minister do not feel free to represent the interests of the respective segments of the industry but feel obliged to follow the Ministry's policies. The Ministry's argument is that the current system assures that respectable and responsible persons are selected as the board members.

The CB publishes in English, Kannada, Tamil and Malayalam, an in-house monthly bulletin called "Indian Coffee", to guide coffee planters and traders. Other services that the CB has started or is planning to provide are: domestic consumption promotion, provision of international market information; estimations of total crop tonnage by random sampling and remote satellite sensing; registrations of export contracts; setting up an arbitration system for quality checks and improving overseas reputations. The CB is also providing cup test results. Many of the CB's cup-tasters have left to work in private companies, where there is a growing demand. The CB has started training a lot of the extension officers in cupping and other quality matters.

The Indian Institute of Plantation Management (IIPM) is a four year old parastatal which works closely with the United Planters' Association of South India (UPASI) in training management level staff of larger plantations, tea and coffee. The IIPM has also done some work in trying to involve small coffee farmers from within the same watersheds to co-operate in value addition by pulping and washing coffee and making white pepper.

Private Organisations

The industry has a plethora of private organisations. For producers, there are essentially two types of producer associations. One is the 105 year old United Planters' Association of South India (UPASI) based in the Nilgiris which is essentially an association of large plantations. UPASI has almost 1,000 members and is composed of large tea (95 estates plus 200 small growers), coffee (223 estates and 200 small growers), rubber (64) and cardamom (91) producers and 173 firms. The majority of the members' crop area is tea (53,000 hectares against 25,000 coffee and 23,000 rubber). Therefore UPASI is better known for conducting agronomic research on tea. UPASI's coffee research is limited although it is the body that started the research on coffee leaf rust disease which was continued by CCRI. UPASI is considered to be politically influential nationally because its members include plantation firms that belong to India's representative business conglomerates such as Tata and Birla as well as prominent individuals.

Small and medium sized producers have formed their own associations. One large apex organisation of these associations is the Karnataka Growers' Federation. It has numerous producer associations under it at the District and Taluk levels in the state of Karnataka and the total number of the members are about 10,000. The state of Kerala has a similar small growers' association, Wynaad Planters Association. These associations, including the Karnataka Planters' Association (KPA), deal more with matters such as labour wages, laws and disputes, pollution regulations, rather than cultivation problems.

The Karnataka Brokers' Association (KBA) was founded at the initiation of liberalisation. The KBA has taken over from the CB the service of conducting the weekly private auctions. The auctions are conducted by a few of the tea brokering companies who hold similar auctions for tea in Cochin and Coonoor (Nilgiris). However, less than 10% of the coffee production goes through the auction system.

Started in June 1998, the Coffee Futures Exchange India (COFEI) presents the opportunity for price risk management in Indian currency by an outright hedge, but not options. The small contract size should encourage small traders and farmers.

Other prominent coffee industry associations include the Coffee Exporters' Association, the Coffee Curers' Association and the Coffee Federation. The former two

represent the interests of the corresponding groups while the Coffee Federation was created in 1993 with the aim of representing all the segments of the industry. Its 100 members consist of exporters, curers (processors), traders, roasters and producers.

The numerous associations and organisations that exist in the Indian coffee subsector today are essentially political pressure groups. As discussed elsewhere in this report, they played an important role in promoting market liberalisation. Currently, a great interest of many is the removal of the state sales tax. The problem most of these organisations face is the lack of actual or perceived benefits of membership. While they facilitate exchange of information and ideas regarding the coffee business and policies, concrete benefits for a member are limited.

An issue related to the producers' association is that small producers' interests are usually not represented. Most of the members of the existing producers' associations are medium to large size producers.

EFFECTS OF LIBERALISATION

The process of Indian coffee market liberalisation is uncommon in that it was mainly the producers that demanded it. Possibly the most important impacts of the market liberalisation in India have been the number of options that growers have in selling coffee and the emergence of various new organisations and institutions. The emergence of these institutions has made the industry much more vigorous and dynamic.

Grower Prices

Prior to liberalisation, the realised money was pooled and the growers were paid in instalments throughout the year, according to the grade and the quality points awarded at the curing factory. Premiums for good cup quality coffee were small. All growers with the same total of quality points received the same amount of money. More than 90% of the total payment was made within one year after delivery of the coffee to the pool, as and when the auction sales were made. Small growers usually received a greater percentage and more quickly. However, there were often long delays of up to three years before final payments to growers. This was due to the sales and audit process.

Since liberalisation, coffee sold at auction or procured at the farm gate can be sold on both the domestic and export markets. The proportion of the export unit value received by growers has increased as sales to local roasters are no longer below free market levels and export taxes have been abolished. Another important benefit under the liberalised system is that growers are paid much more promptly than in the past.

Grower prices (an average of robusta and arabica prices) fell from an average of 73 US c/lb during the 1980s to 30 c/lb in 1992/93, after the collapse of the ICA and the fall in international prices. Lower grower prices were partially offset by the effects of the devaluation in 1991, which preserved farmers' incomes in rupee terms. Grower prices have since recovered in line with international price movements in 1993/94 and especially following the 1994 Brazilian frosts. Grower prices stood at 112 c/lb in 1996/97.

Growers can receive price information for fair average quality (FAQ) parchment and cherry through local exporters' agents, by early morning radio broadcasts from curer and exporter buyers, through newspapers and pager services. The CB is currently faxing information on New York and London futures prices through extension officers and

farmers' associations. Auction prices are recorded and the CB monitors the ICTA/IBA auction prices, which are incorporated in quarterly Coffee Market Intelligence Reports. These reports also contain information and articles from international sources worldwide.

Diagram 6: India — Arabica Grower Price as a % of Export Unit Value

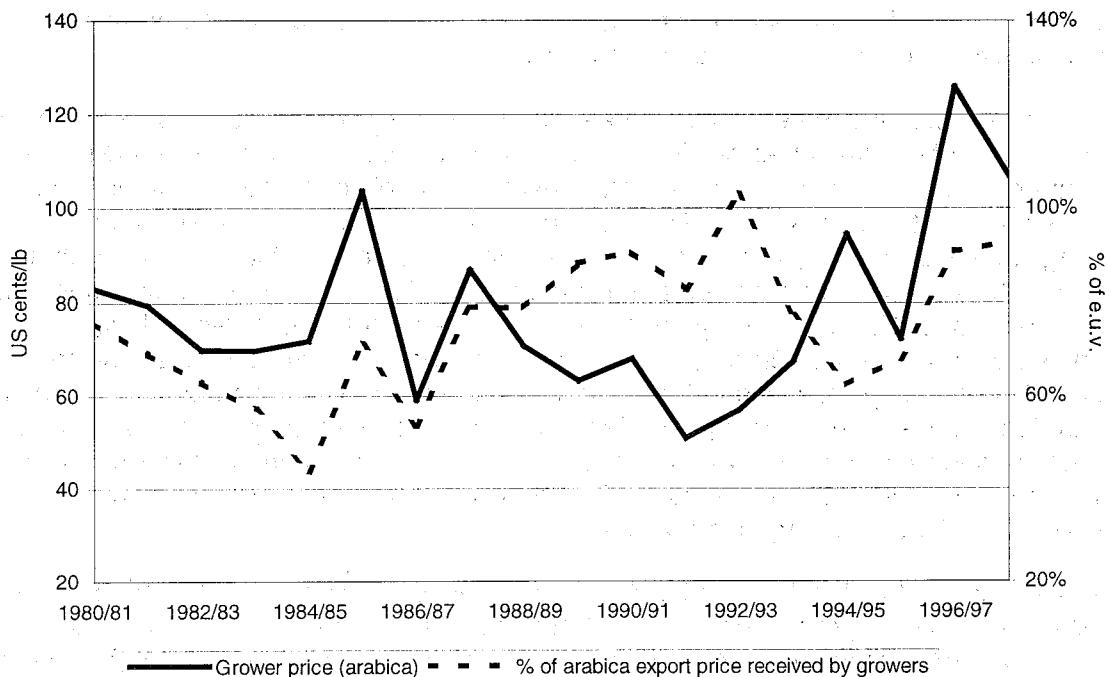
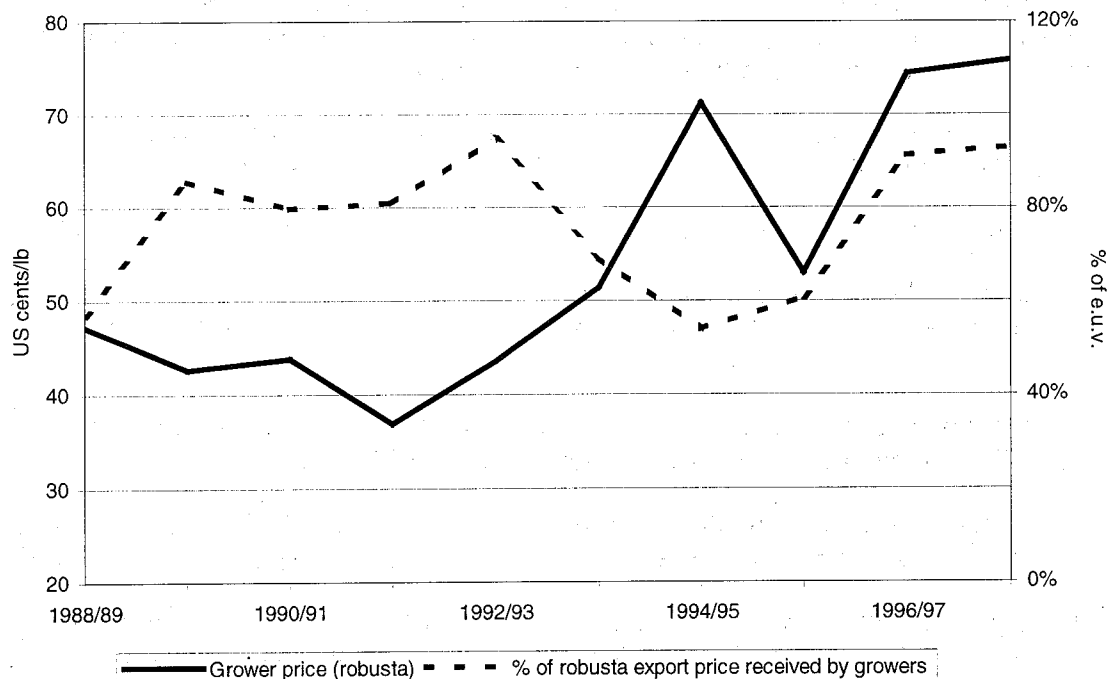


Diagram 7: India — Robusta Grower Price as a % of Export Unit Value



Quality and Quality Control

The scope for achieving significant quality price differentials for growers was lost under the CB's pooling system, in which different growers' coffees were bulked. This reduced the incentives for farmers to improve coffee quality beyond the minimum requirements. Since liberalisation, the quality of some plantation production has improved significantly as differentials have emerged. However, positive quality differentials have been slower to emerge with smaller growers.

In addition, with the recent high coffee prices coinciding with liberalisation, coffee quality at the farm level has declined. With buoyant prices, farmers are usually under pressure to sell their coffee quickly, with buyers scrambling for goods without looking too deeply into the quality. Sometimes the reason for selling immediately is the lack of drying and/or storage space. This can result in a problem of high moisture content (above 13%) as growers are keen to sell the coffee quickly without properly drying it. In addition, prior to liberalisation, growers usually carried out two or three pickings during harvest, with a final strip picking of the coffee. Nowadays, some growers tend to pick ripe only once, strip harvesting all the cherries afterwards. This leads to the harvesting of unripe coffee along with ripe coffee. The harvesting of unripe cherry produces reduced yields and unwanted cup characteristics. An indiscriminate unsorted harvest will also have more black beans. This leads to smallholders' coffee quality being generally below that of large plantations.

On the other hand, small growers often feel aggrieved when they are told after making deliveries to their buyers, exporters or curers or agents, that the coffee is not up to the expected quality standard and a deduction is made in the amount paid. The small grower does not have the means to countermand a moisture level reading which discounts the price for his coffee.

Indian exporters and their buyers also feel that the overall level and consistency of exportable quality has declined and the image of Indian coffee has been dented since liberalisation. In the past four years, as the market has been liberalised, Indian price differentials have remained within a fairly narrow range:

- Arabica Plantation A has been between 10 c/lb under and 10 c/lb over New York, and has recently touched a low of 14c/lb under for bleached faded lots;
- Monsooned Malabar AA has been between 8 c/lb and 35 c/lb over New York;
- Arabica cherry has been between 10 c/lb and 50 c/lb under New York (this competes with Brazilian coffee and therefore follows Brazilian differentials closely);
- Robusta washed has been between \$100 per tonne and \$1,000 per tonne over LIFFE, on average \$200-\$400 per tonne over LIFFE; and
- Robusta unwashed has been \$80-\$100 per tonne under to \$200 per tonne over LIFFE, on average between \$50 per tonne under and \$50 per tonne over LIFFE.

All price differentials quoted are on a free-on-board (FOB) at an Indian port basis. Like Honduras and Mexican arabica, Indian arabicas generally fall into an in-between category within blends, which means that it suffers in price and is more neglected during years of high production in Brazil. At these times, it makes more financial sense for a roaster to increase the percentage of Brazilian coffee in a blend, with little change in the final cup quality.

Many major roaster buyers feel that very few exporters make the effort to inquire and learn their quality and service requirements². Under the current system it is unlikely that the growers can receive any constructive feedback from the exporters through the marketing chain. The CB and the private Coffee-Lab have started programs to train classes of private estate managers and workers, as well as extension officers, in the production of quality coffee.

The type of quality defects found in Indian coffee have changed since liberalisation. Before liberalisation, the major quality problems related to extended storage period of coffee prior to export. This was due to the regulation of the quantity of monthly coffee exports. This led to bleaching, especially of arabica, and the quality of Indian coffee was lower in the off season (between July and December). Since liberalisation, this problem no longer occurs as coffee is quickly exported. The majority of coffee is exported between January and May while it is still fresh.

To add quality and value, Monsooned coffee is produced by storing graded and density separated unwashed arabica coffee in well ventilated but humid conditions that are prevalent on the 'Malabar' sea coast during the monsoon months of July to September. Monsooned coffee in the 'green' unroasted form appears bleached and has unique cup-taste characteristics. There have been complaints from Speciality coffee buyers about the unscrupulous use of the description 'Monsooned', without proper application in its method of preparation.

There are two reasons why traders may compromise on quality, in the absence of controls, in a liberalised market. Firstly, when the CB marketed all the coffee, the grower paid the financing cost of holding the coffee, although he was often not aware that he was bearing that cost. With liberalisation, traders have to pay high interest rates to cover the cost of holding coffee. Therefore there is an incentive for them to turn over coffee as fast as possible in order to minimise the cost of financing. In this case, coffee may be processed quickly without sufficient drying or colour sorting. Some curing factories have installed drying facilities.

Secondly, the entrance of inexperienced exporters into the market since liberalisation initially led to a number of contract defaults and has led to some exporters shipping coffee of inconsistent quality and with a high moisture content. While a decline in quality may be a general trend since liberalisation, trade houses and roasters who manage to find reliable and knowledgeable counterparts with whom they can trade do not have problems with the quality of coffee they receive.

The year 1998 has been an exception since some growers, perhaps not needing cash after bountiful past years, have speculatively hoarded arabica parchment (*pergamino*), erroneously expecting international market prices to rise. The poor storage conditions during the monsoon season would have damaged quality, and the eventual price. On the other hand, exporters oversold the robusta crop which resulted in contracts being washed out.

The culture of cup-tasting is only just beginning to take root and will engender quality discrimination when properly established. Some exporters are starting to employ cup tasters and set up laboratories. This should lead to better realisation of the international roaster buyers' quality requirements. The CB has plans to introduce a

² There are a few large private firms which are beginning to provide direct assistance to small growers basically to further mutual goals. For example Nestlé has conducted a quality awareness survey in Wynaad to eventually improve the quality offered.

logo identifying the coffee as Indian. This idea could be expanded by projecting an image of Indian coffee as being shade grown, environmentally friendly, employing millions of people and sustainably grown.

Production

Liberalisation of the marketing system is too recent to permit identification of any discernible effect on production. Total production in 1995/96 was estimated at 3.7 million bags, 13% higher than the previous bi-annual peak in 1993/94, and is expected to be 3.8 million bags in 1997/98. Production in 1996/97 was 3.5 million bags, up 17% on 1994/95. The CB is aiming to expand production to 5 million bags in five years by increasing smallholder yields. Domestic consumption is expected to rise to 1.5 million bags after five years.

Investment in the Sector

Both large and small growers have been in a good position to invest in the sector over the last 3 to 4 years owing to high international coffee prices and liberalisation which has led to them receiving a higher proportion of the export price. It is difficult, however, to determine how much of the investment is due to higher international prices rather than liberalisation.

Fertiliser usage was reported to have increased by 30% since 1995, and milling facilities have almost doubled in the past three years. Before liberalisation there were 56 curing factories and now there are between 150 and 200. Many larger estates and plantation groups have set up secondary processing curing works in situ, at the plantations. This gives them better control over the quality and therefore marketing. The number of curing factories has increased substantially to allow the front-loading of exports. This has resulted in increased volumes of coffee passing through the mills between January and May. Around 50%-60% of coffee is exported over these five months. This allows exporters to benefit from prompt shipment, of better quality, especially in the case of washed arabicas, and lower financing costs. This all leads to higher prices to growers.

Domestic Prices and Consumption

Liberalisation of export marketing immediately created internal coffee shortages since growers were no longer forced to sell to the local market at an artificially low price. This prompted government threats to ban exports and/or allow imports. Exporters cancelled forward contracts due to the uncertainty about their ability to meet export commitments. Added uncertainty encourages spot sales over forward contracts.

After liberalisation there was an increase in domestic coffee prices as local roasters had to compete with exporters for coffee and could no longer rely on cheaper coffee from the subsidised auction. Domestic retail coffee prices more than doubled between 1993 and 1994. Out of season, the price being paid by domestic roasters for coffee is often higher than that paid by exporters, as roasters have to satisfy local demand with Indian coffee. Until recently, imports of coffee have been banned. In August 1996, internal coffee prices were 25% above world values.

The opening up of the market in 1996 led to a new seasonality of sales; production occurred mainly in the first half of the year while consumption is concentrated in the second half in the colder winter months. So far, this has translated into acute

shortages in the second half of the year and a sharp increase in retail prices. To reduce internal price pressure the government allowed green coffee imports at an import tariff of 10% and threatened to ban coffee exports, although this threat was never carried out.

NEW ISSUES FOLLOWING LIBERALISATION

Coffee Board

One of the main issues is the future of the CB. Following liberalisation, it has become necessary to re-articulate the role of the CB. The functions assigned to the CB by the Coffee Act of 1942 are: promotion of sale and consumption; agricultural and technical research; assistance in development of coffee holdings; securing working conditions, amenities and incentives for workers.

Future roles and activities for the CB could include giving policy formulation advice to the Government and the self-regulated industry. The CB could be a channel for public policy, including consumer protection rules. It could also act as an agency for all developmental work in the industry. The CB should continue being an information medium and definitely enlarge its supportive role for producer, curer/processor and exporter institutions. The CB does intend to expand its role as a producer support organisation by increasing productivity, through development subsidies to small growers and raising the priority on research and extension.

It may be perceived that larger growers have better general facilities, such as post harvest pulp & wash processing to produce enhanced qualities, and drying and storage. These amenities, coupled with larger quantities of even quality on offer, may also attract readier buyers in the domestic or international markets. However, even if this is the case, rather than give subsidies, it is better to educate and make the small growers more aware through enabling existing or new "co-operative" institutions and try to create more even circumstances for the marketing ability of small growers' coffees. The CB does intend to increase programs for training workers and supervisory staff or small growers in management development and improving production, productivity and marketing techniques. Creating small grower platforms could be integrated into these training programs.

In the liberalised era, the CB intends to pay more attention to development of marketing especially by promoting domestic consumption. This would balance the increased production. The CB plans to attract value-added export through quality and image improvement by education of post-harvest measures at the farm level through the existing extension network. In addition, the CB will create roaster buyer confidence in India as a reliable supplier of consistent quality by setting up national arbitration rules to prevent traders resorting to unethical means. CB will also monitor standards at curing factories.

The CB will assist traders and exporters with accurate crop forecasts, which are not so readily available in the current deregulated situation, by computerised analysis of satellite imagery.

The CB will continue its role as a link with the Government of India, and international bodies like the ICO and ACPC.

Risk Management

As discussed above, the use of terminal exchanges abroad are now allowed, and there is a futures exchange trading coffee contracts in Bangalore. These changes have potential for many parties involved in the coffee trade to hedge price risks. However the nature of the hedging instruments such as the futures and options make it rather difficult for small growers to use. One of the reasons small growers have been opposed to liberalisation was the difficulty of coping with fluctuating prices they receive. Some developments are under way in the private sector to establish a system in which the small growers have more stability in receiving prices. This problem, however, is difficult and it is an area where the Government could provide some technical assistance with the help of experts.

Financing to Small Growers

The CB provided financing to the small growers before the liberalisation. This was possible because it was the sole agency that bought coffee and hence it could essentially deduct the loan payment from the price it paid to the growers who had obtained loans from it. A difficulty with financing the small growers is that the transaction cost on loans is high and usually they do not have titles to land and hence lack collateral. The CB could look into this matter in collaboration with the financial institutions.

The Indian authorities have begun reforming the rural financial system. Small farmers currently have little access to credit and when they do, the conditions are often not flexible enough to meet their needs. The plan calls for substantially increased flow of credit to agriculture and agro-industries, through strengthening such financial institutions and creating new ones.

