

## ALLIED SECTORS

### Plantation Crops

#### Tea

7.38 The production of tea started recovering from stagnation from 2002-03 and since then a positive growth in production has been maintained (Table 7.16). The Government has set up a Special Purpose Tea Fund for funding replantation and rejuvenation activities aimed at improving the age profile of tea plantations. The scheme has been approved for implementation till the end of the Eleventh Five Year Plan with an estimated outlay of Rs. 567.1 crore (subsidy of Rs. 476.1 crore and Rs. 91.0 crore towards capital contribution) to be provided by the Government. The estimated area to be taken up for replantation/rejuvenation during the period would be 85,044 ha comprising replantation in 68,154 ha and rejuvenation in

16,890 ha. This is expected to improve not only yield levels but also improve the quality to fetch better returns. Further, a rehabilitation package providing financial relief to the extent of Rs. 38.65 crore for 33 closed tea gardens was announced on June 29, 2007. 10 of these gardens have since opened.

#### Coffee

7.39 The production of coffee has not yet come out of the stagnation phase notwithstanding a marginal increase from 2.7 lakh tonnes in 2005-06 to 2.9 lakh tonnes in 2006-07. Although India contributes only 4 per cent of total world production, Indian coffee has created a niche for itself in the international market, particularly Indian robustas, which are highly preferred for their blending quality. Arabica coffee from India is also well received in the international market (Table 7.17).

**Table 7.16** Tea production, consumption and trade

(Qty: million kg, Value: Rs. crore)

	Production		Exports		Imports		Domestic consumption <sup>b</sup>
	Quantity	Quantity	Value	Quantity	Value	Quantity	
2002-03	845.97	184.4	1665.04	22.49	105.32	693	
2003-04	878.65	183.07	1636.99	11.34	66.23	714	
2004-05	906.84	205.81	1924.71	32.53	145.15	735	
2005-06	948.94	196.67	1793.58	17.41	102.77	757	
2006-07	947.12	218.15	2045.72	20.78	110.88	771	
2007-08 <sup>a</sup>	805.18	100.87	998.68	11.80	76.16	N.A.	
	(Apr-Nov)	(Apr-Nov)	(Apr-Nov)	(Apr-Nov)	(Apr-Nov)		

Source: Ministry of Commerce and Industry.

a Estimated.

b Relates to calendar year.

N.A. Not Available.

**Table 7.17** Production and export of coffee

Year	Production		Exports		Domestic consumption (lakh tonnes)
	(lakh tonnes)	(lakh tonnes)	(Rs. crore)	(US\$ million)	
2000-01	3.01	2.47	1374	243	0.60
2001-02	3.01	2.14	1050	216	0.64
2002-03	2.75	2.07	1051	234	0.68
2003-04	2.71	2.33	1158	262	0.70
2004-05	2.76	2.12	1225	295	0.75
2005-06	2.74	2.02	1510	353	0.80
2006-07	2.88	2.49	1016	453	0.80
2007-08 <sup>a</sup>	2.62	1.2	1062	253	0.85

<sup>a</sup> estimated

**Table 7.18** Production, export and import of natural rubber

Year	Area (ha)	Production (tonnes)	Productivity (Kg/ha)	Export (tonnes)	Import (tonnes)	Consumption (tonnes)
2002-03	569667	649435	1592	55,311	26,217	695425
2003-04	575980	711650	1663	75,905	44,199	719600
2004-05	584090	749665	1705	46,150	72,835	755405
2005-06	597610	802625	1796	73,830	45,285	801110
2006-07 <sup>a</sup>	615200	852895	1879	56,545	89,699	820305
2007-08 <sup>b</sup>	630000	819000	1784			857000

<sup>a</sup> provisional<sup>b</sup> estimated

7.40 To mitigate the problems of coffee growers arising from the low prices of coffee, a series of steps have been taken including restructuring of loans and interest relief to coffee growers (a subsidy of 5 per cent for small growers and 3 per cent for large growers is available on their working capital loans taken from the financial institutions). Import duty on specified machinery for coffee sector has been reduced to enable the industry to improve productivity and quality of coffee. Weather (rainfall) insurance as a risk management support for coffee growers in collaboration with Agriculture Insurance Company of India Ltd is also implemented.

### Natural rubber

7.41 India is the fourth largest producer of natural rubber (NR) with a share of 8.8 per cent in world production in 2006. In 2006-07, the smallholding sector accounted for 89 per cent of the area planted and 92 per cent of the NR production (Table 7.18).

7.42 The area under NR plantation increased by about 8 per cent from 5.7 lakh ha from 2002-03 to 6.2 lakh ha in 2006-07. During this period the production of NR increased by 31 per cent. Productivity reached the highest level of 1,879 kg/ha which was also the highest among major NR producing countries in 2006. During 2006-07, the country exported 56,545 tonnes of NR against an import of 89,699 tonnes. Export of NR is perceived as a strategy to adjust domestic demand-supply balance and to educate the growers on the need to process the produce in conformity with the international standards.

### Price stabilization fund scheme

7.43 The Price Stabilization Fund Scheme (PSFS) for tea, coffee, rubber and tobacco growers

was launched in April 2003 against the backdrop of decline in unit value realization of these commodities, at times falling below their cost of production. The objective of PSF was to safeguard the interests of growers and provide financial relief when prices fall below a specified level without resorting to the practice of procurement operations by the Government agencies. Out of a target of 12.77 lakh growers (up to 4 ha landholding), it was decided to cover 3.42 lakh small growers (up to 2 ha landholding), in the initial phase. As on March 31, 2007, the enrolment under the scheme was 45,268.

7.44 As on November 30, 2007, the PSF Corpus Fund consisted of Rs. 435.1 crore, out of which Rs. 432.9 crore is contributed by Government of India and Rs. 2.3 crore by growers by way of entry fee. A sum of Rs. 103.4 crore as interest is also available to the Price Stabilization Fund Trust (PSFT) as on March 31, 2007. Since the launch of the scheme in April 2003, the PSF Trust has announced Price Spectrum Bands for 2003, 2004, 2005 and 2006 and the cumulative financial assistance committed stood at Rs. 3.71 crore (Table 7.19).

7.45 However, because of growers defaulting in depositing their contribution, assistance of only Rs. 1.16 crore could be released to tea and coffee growers so far. To improve the effectiveness of the

**Table 7.19** Financial assistance committed under PSF

(Rs. crore)					
Commodity	2003	2004	2005	2006	Total
Rubber	0	0	0	0	0
Coffee	0.82	0.58	0	0	1.40
Tea	0.09	0.73	0.74	0.75	2.31
<b>Total</b>	<b>0.91</b>	<b>1.31</b>	<b>0.74</b>	<b>0.75</b>	<b>3.71</b>

scheme and to achieve better results towards providing meaningful assistance to the growers, the Department of Commerce is in the process of restructuring the scheme.

**Production of horticulture crops**

7.46 The horticulture sector in 2005-06 contributed around 28 per cent of GDP in agriculture. Vegetables, fruits, plantation crops and spices contributed to 59.8 per cent, 30.9 per cent, 6.5 per cent and 2.1 per cent of total horticulture production, respectively, in 2006-07. The production of horticultural crops registered an increase of 8.9 per cent in 2005-06. Growth in production decelerated to 2.8 per cent in 2006-07, mainly because of the decline in the production of onions and a stagnation in the production of spices (Table 7.20).

**National Horticulture Mission (NHM)**

7.47 The Department of Agriculture and Cooperation has launched a Centrally-sponsored scheme called National Horticulture Mission (NHM) during 2005-06 for holistic development of this sector ensuring horizontal and vertical linkages with the active participation of all the stakeholders. The Mission’s objectives are: enhance horticulture production through area-based regionally differentiated strategies; improve nutritional security and income support to farm households; establish convergence and synergy among ongoing programmes for horticulture development; and, promote, develop and disseminate technologies. In 2005-06 and 2006-07, against a release of Rs. 1,575.3 crore, an expenditure of Rs. 1,018.4 crore was incurred by the States and national level agencies. An outlay of Rs. 1,150 crore is

earmarked for the implementation of the scheme during 2007-08. Against this, an amount of Rs. 691 crore has been released till the end of January, 2008.

**Technology Mission for Integrated Development of Horticulture in North-Eastern States, Sikkim, Jammu and Kashmir, Himachal Pradesh and Uttarakhand**

7.48 To harness the potential of horticulture in the North-Eastern region and other special category States, a Centrally-sponsored scheme was sanctioned in 2001-02. In the current fiscal year (2007-08), Rs. 323.40 crore has been earmarked for this scheme, of which Rs. 227.40 crore is for the North-Eastern States and Rs. 96 crore for Jammu & Kashmir, Himachal Pradesh and Uttarakhand. An amount of Rs. 210.64 crore has been released till the end of January 2008.

**Microirrigation**

7.49 A Centrally-sponsored scheme of microirrigation was launched in January 2006 to promote water use efficiency by adopting drip and sprinkler irrigation. During 2005-06 and 2006-07, Rs. 280.58 crore and Rs. 460.7 crore, respectively, were released for covering 5.9 lakh ha (3.5 lakh ha under drip and 2.4 lakh ha under sprinkler irrigation system). Up to March 2007 an expenditure of Rs. 366.4 crore was incurred and an area of 3.4 lakh ha under drip and sprinkler irrigation system was covered. Allocation of funds

**Table 7.20 All India area and production of horticulture crops**

Crop	Area ('000 ha)		Production ('000 tonnes)		2006-07 (provisional)	
	Area	Production	Area	Production	Area	Production
<b>Fruits</b>	5049	50867	5339	55397	5506	57727
<b>Vegetables</b>						
Potato	1524	28788	1520	28697	1572	29647
Onion	614	7761	694	9228	656	8509
<b>Total</b>	<b>6744</b>	<b>101246</b>	<b>7131</b>	<b>110106</b>	<b>7211</b>	<b>111770</b>
Flowers loose	118	659	146	686	154	886
Plantation crops	3147	9835	3283	11263	3221	12083
Spices	2532	4068	2422	3923	2422	3923
<b>Total Horticulture Crops</b>	<b>17827</b>	<b>167005</b>	<b>18713</b>	<b>181814</b>	<b>18980</b>	<b>186872</b>

Source: Horticulture Division, Department of Agriculture & Cooperation.

during 2007-08 is Rs. 550 crore for covering 3.6 lakh ha. Rs. 266.7 crore of the allocated amount was released till the end of January 2008.

### National Bamboo Mission

7.50 A Centrally-sponsored scheme called National Bamboo Mission was launched in 2006-07. An area of 20,500 ha was covered, the existing stock in 4,117 ha was improved and 213 bamboo nurseries were established with an outlay of Rs. 80 crore. A sum of Rs. 70 crore has been allocated for implementation of the scheme during 2007-08 and Rs. 33.6 crore has been released so far.

### Terminal Market under NHM

7.51 The Department of Agriculture and Cooperation has taken the initiative to promote modern terminal markets for fruits, vegetables and other perishables in important urban centres of the country to provide the state-of-the-art infrastructure facilities for electronic auction, cold chain and logistics, and operation through conveniently located primary collection centres. The terminal markets are envisaged to operate on a "hub-and-spoke" format wherein the terminal market (the hub) would be linked to a number of collection centres (the spokes), conveniently located in key production centres to allow easy access to farmers for the marketing of their produce. The Terminal Markets are to be built, owned and operated by a corporate/private/cooperative entity. This entity could be a consortium of entrepreneurs from agri-business, cold chain, logistics, warehousing, agri-infrastructure and related background. The Central/State Government lend support to the initiative by providing financial support to the project by way of equity participation up to a maximum of 49 per cent determined through a competitive bidding process. The operational guidelines of the scheme have been circulated to the States, which have amended the APMC Act. Andhra Pradesh, Bihar, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, West Bengal, Nagaland and the Union Territory of Chandigarh have identified land for setting up terminal markets. The Governments of Madhya Pradesh, Punjab and the Union Territory of Chandigarh have issued notices inviting expression of interest.

### Animal husbandry, dairying & fisheries

7.52 The livestock sector contributes over 4 per cent to the total GDP and about a quarter of the GDP from agriculture and allied activities. This sector is a main source of family income in the arid and semi-arid regions. The Eleventh Five Year Plan envisages an overall growth of 6-7 per cent per annum for the sector. In 2006-07, this sector contributed 101 million tonnes of milk, 51 billion eggs, 45 million kg of wool and 2.3 million tonnes of meat. The 17th Livestock Census (2003) has placed the total livestock population at 485 millions and that of poultry birds at 489 millions. The 18th Livestock Census has been conducted throughout the country with reference date of October 15, 2007, results of which are awaited.

7.53 India ranks first in the world in milk production, which increased from 17 million tonnes (MT) in 1950-51 to about 102 MT by 2007-08. The per capita availability of milk has also increased from 112 grams per day in 1968-69 to 246 grams during 2006-07. But it is still low compared to the world average of 265 grams/day. About 80 per cent of milk produced in the country is in the unorganized sector and the remaining 20 per cent is shared equally by cooperative and private dairies. Over 1.2 lakh village-level dairy cooperative societies, spread over 265 districts in the country, collect about 21 million litres of milk per day and market about 18 million litres. The efforts of the department in the dairy sector are concentrated on promotion of dairy activities in non-operation flood area with emphasis on building up cooperative infrastructure, revitalization of sick dairy cooperatives and federations and creation of infrastructure in the States for production of quality milk and milk products (Table 7.21).

**Table 7.21** Production and per capita availability of milk

Year	Per capita grams/day)	Milk production(MT)
1990-91	176	53.9
2000-01	220	80.6
2003-04	231	88.1
2004-05	233	92.5
2005-06	241	97.1
2006-07	246	100.9
2007-08 (provisional)	246	102

**National Project for Cattle and Buffalo Breeding**

7.54 A major programme for genetic improvement, National Project for Cattle and Buffalo Breeding (NPCBB), was launched in October 2000 and will be implemented over a period of 10 years in two phases of five years each with an allocation of Rs. 402 crore and Rs. 775.9 crore for Phase I and II, respectively. NPCCB envisages genetic upgradation and development of indigenous breeds on priority basis. At present, 28 States and one UT are participating in the project. Financial assistance to the tune of Rs. 348.9 crore was released to these States up to 2006-07. During the current financial year, an allocation of Rs. 51 crore has been made under the scheme.

**Livestock Insurance**

7.55 Livestock Insurance scheme was introduced on a pilot basis in 100 selected districts during 2005-06 and 2006-07 to protect farmers against losses due to untimely death of their animals. The Central Government provided subsidy to the tune of 50 per cent of the premium under the scheme to insure cross-bred and high-yielding cattle and buffaloes. About 5.2 lakh animals were insured in two years at an expenditure of about Rs. 23.4 crore. The scheme is being continued in 2007-08 with an outlay of Rs. 35 crore. In September 2007, the Institute of Rural Management, Anand, has carried out an evaluation study to examine the impact of the scheme during its three years of implementation. Based on the suggestions and findings of the study, modification in the scheme will be considered.

**Poultry**

7.56 The poultry sector, undeterred by isolated occurrence of bird flu in 2007, is sustaining the level of production. The per capita availability of the poultry products, however, has an immense scope of improvement with present consumption of only 42 eggs and 1.6 kg of chicken meat per person per year. The exports of poultry products in 2006-07 were to the tune of Rs. 316 crore. The availability and cost of maize are the deterrent factors in scaling up production at a sustainable pace. The industry is gearing up through contract farming of maize, etc., to cope with any shortfall. The Government, through the Technology Mission on Oilseeds, Maize and Pulses, is increasing the quality and yield of maize.

7.57 The present wave of avian influenza (commonly known as bird flu) in poultry started in Hong Kong in 1997. About 60 countries have reported avian influenza. During the year 2007, avian influenza has been reported in 25 countries including India, Bangladesh, Pakistan, China and Myanmar. India remained free from avian influenza till mid-February 2006. Since then there has been location-specific outbreaks which have been successfully contained. A recent outbreak of avian influenza has been reported from West Bengal.

**Fisheries**

7.58 Fish production increased by 4.4 per cent and reached 6.9 million tonnes in 2006-07. Fishing, aquaculture and allied activities are reported to have provided livelihood to over 14 million persons in 2005-06 apart from being a major foreign exchange earner (Table 7.22).

**Table 7.22 Production and export of fish**

Year	Fish production (million tonnes)			Export of marine products	
	Marine	Inland	Total	Qty ('000 tonnes)	Value (Rs. crore)
1990-91	2.3	1.5	3.8	140	893
2000-01	2.8	2.8	5.6	503	6288
2003-04	3.0	3.4	6.4	412	6087
2004-05	2.8	3.5	6.3	482	6460
2005-06	2.8	3.8	6.6	551	7019
2006-07(P)	3.0	3.8	6.9	563	7296

7.59 The National Fisheries Development Board (NFDB) has been set up to realize the untapped potential of the fishery sector with the application of modern tools of research and development including biotechnology. The board was registered in July 2006 under the Andhra Pradesh Societies Registration Act, 2001, and has become operational.

**Farmers' Indebtedness**

7.60 NSSO in its 59th round of surveys (January-December 2003) covered indebtedness of farmers. Some of the major observations of the survey were:

- (i) 48.6 per cent of households were indebted.

- (ii) Of the total number of indebted farmers, 61 per cent had operational holding below 1 ha.
- (iii) Of the total outstanding amount, 41.6 per cent was taken for purposes other than the farm related activities. 30.6 per cent of the total loan was for capital expenditure purposes and 27.8 per cent was for current expenditure in farm-related activities.
- (iv) 57.7 per cent of the outstanding amount was sourced from institutional channels (including government) and the balance 42.3 per cent from moneylenders, traders, relatives and friends.
- (v) The Expert Group estimate that in 2003 non-institutional channels accounted for Rs. 48,000 crore of farmers' debt out of which Rs. 18,000 crore was availed of at an interest rate of 30 per cent per annum or more.

7.61 Indebtedness or overhang of debt has been both due to the exogenous factors such as weather induced crop uncertainties and endogenous reasons such as the consumption needs of the farmers that have taken precedence over the repayment obligations. For many farmers this could be genuine as incomes from agriculture

may not have been sufficient to generate a surplus. The Expert Group on Agricultural Indebtedness which was chaired by Shri R. Radhakrishna submitted its report in July, 2007. The Group, among others, has recommended inclusion of financially excluded, particularly the small borrower households, and adoption of risk mitigating measures for agriculture. It has proposed setting up of the Price Risk Mitigation Fund to compensate farmers in extreme situation of price collapse in case of plantation and other crops not covered by MSP. The Government is considering various options for addressing the issue of agricultural indebtedness.

7.62 International experience of price stabilization fund has generally been disappointing. The basic principle of a stabilization fund is that the prices should converge to the mean. Prolonged slumps in prices make the fund bankrupt and sustained high prices erode the incentives for being associated with the fund, as the transaction costs of operation of fund are considered avoidable. For a publicly-funded price stabilization fund, while it may become obligatory to provide support when prices are low, there may not be enough support to generate surpluses by withholding a part of price increase from being allocated to producers. There may also be a redistribution of risk from producer to the Government.