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Rural Economic Environment

Global and Asian Economies

A. Global Economic Scenario

The global economic and financial conditions have shown signs of recovery in 2002. The Gross Domestic Product (GDP) of advanced countries, in real terms, was estimated to have grown by 1.8 per cent in 2002, which was higher by 0.9 percentage point as compared to 2001. These economies were reported to be gradually recovering from the spill over effects of the downturn in the US economy as a result of the WTC attack and subsequent developments in the USA. The developing countries were expected to record an increase in GDP growth rate, while the countries in transition were expected to show a decline in 2002 (Table 1.1). The recovery, which had gathered momentum in the first quarter of 2002, could not maintain its initial pace as a result of volatile geopolitical conditions like, stand off in Iraq, financial crisis in Argentina and other neighbouring economies, etc. These external disturbances put some strain on the growth rate in India as well. The rate of inflation has also shown a declining trend in all the three country groups.

B. Economic Scenario of Asian Economies

1.2 The GDP in almost all the East Asian economies went up in 2002 compared to 2001. The consumer prices (inflation) declined in 2002 in China, South Korea, Philippines and Thailand, as compared to 2001. The continued uptrend in

Table 1.1 : Overview of the Global Economy						
(Annual per cent change)						
	GDP (Real)			Inflation		
	2000	2001	2002*	2000	2001	2002*
World	4.7	2.3	3.0			
Advanced economies	3.8	0.9	1.8	2.3	2.2	1.5
Developing countries	5.7	3.9	4.6	6.1	5.8	5.4
Countries in transition	6.6	5.1	4.1	20.2	16.3	11.1

* Projected
Source: World Economic Outlook, IMF, September 2002 and April 2003.

GDP and decline in consumer prices in most Asian economies, indicated that the economic and financial situations staged a recovery in 2002 (Table 1.2).

Table 1.2 : Overview of Asian Economies						
(Annual per cent change)						
Country	Real GDP			Inflation		
	2000	2001	2002	2000	2001	2002
China	8.0	7.3	8.0	0.4	0.7	-0.8
South Korea	9.3	3.0	6.1	2.3	4.1	2.8
Indonesia	4.8	3.4	3.7	3.8	11.5	11.9
Malaysia	8.3	0.4	4.2	1.6	1.4	1.8
Pakistan	4.3	3.6	4.6	4.4	3.1	3.1
Philippines	4.4	3.2	4.6	4.3	6.1	3.1
Thailand	4.6	1.9	5.2	1.6	1.7	0.6

Source: World Economic Outlook, IMF, September 2002 & April 2003.

C. Global Agricultural Production Prospects

1.3 The world wheat and rice production was estimated to have come down by 17.6 million tonnes and 21.5 million tonnes, respectively, in 2002, as compared to the production levels in 2001. Consequently, the world cereal production decreased by 3.7 per cent (Table 1.3). However, cereal production in Europe had gone up by 1.4 per cent. Total cereal production in North Central America decreased sharply by about 9.2 per cent. The world production of pulses increased by 4.2 per cent, while that of oilseeds remained almost stagnant, and that of fibre crops declined by 9.5 per cent.

D. Agricultural Productivity: India, South Asian and Developed Countries

1.4 In terms of agriculture productivity, India lagged far behind, not only from major developed economies but also from most of the other developing economies within South Asia (Table 1.4). For instance, it was less than half for rice in India, compared to China and Japan and two-third of Indonesia. The productivity of rice, maize and groundnut

Table 1.3 : World Production of Selected Agricultural Commodities

Region	(Million tonnes)											
	Rice		Wheat		Total Cereals		Total Pulses		Total Oil Seeds		Total Fibre Crops	
	2001	2002*	2001	2002*	2001	2002*	2001	2002*	2001	2002*	2001	2002*
Asia	544.7	523.0	246.4	252.6	1,001.4	985.9	23.2	25.6	54.6	55.4	16.3	15.3
Africa	16.6	17.0	18.1	16.3	116.6	115.8	9.2	9.2	7.3	7.2	2.0	2.0
Europe	3.2	3.2	202.4	213.0	431.0	437.2	7.9	8.3	12.3	12.6	1.0	0.9
N.C. America	12.0	11.9	77.1	63.0	404.8	367.6	6.7	6.6	20.3	18.6	4.7	4.0
S. America	19.7	19.8	21.3	18.2	113.0	104.3	3.4	4.0	16.2	17.7	1.6	1.3
Australia	1.6	1.3	24.9	9.4	39.3	17.7	2.5	1.4	0.9	0.4	0.7	0.3
World	597.8	576.3	590.5	572.9	2,106.9	2,029.4	53.0	55.2	112.2	112.5	26.2	23.7

* Provisional
Source: Agricultural Database, FAO, 2003.

was lower by 23, 63 and 21 per cent, respectively, in India as compared to the world levels. Integrated efforts by the concerned agencies are therefore necessary to bridge the yield gaps by taking various measures on the technology and public policy fronts for improving the efficiency of use of land and water resources (Box 1.1).

Table 1.4 : Crop Productivity in some of the South Asian and Developed Countries

Country/Crop	(kg/ha.)				
	Rice	Wheat	Maize	Sugarcane	Groundnut
India	2,890	2,578	1,613	66,919	1,025
China	6,059	3,667	5,210	71,317	2,584
Indonesia	4,174	-	2,624	67,484	1,521
USA	6,354	2,907	8,439	80,237	2,986
Japan	6,219	-	-	-	2,452
World	3,747	2,624	4,395	64,423	1,301

Source: FAO Production Year Book, 2000

E. Global Poverty Scenario

1.5 Poverty has always been a major challenge to the developing world. The percentage of population living below the poverty line was much higher in Sub-Saharan Africa (48.1%) and South Asia (40%) compared to the average of the developing world (23.4%). In an analysis of two scenarios of low growth and base level growth of certain consumption and other parameters, it was observed that by 2015, reduction in poverty would be faster if base level growth is maintained. While the reduction would be faster in South Asia, it would be at a slower pace in Sub-Saharan Africa (Table 1.5).

Indian Economy

A. Macro Economic Scenario

1.6 The Tenth Five Year Plan (2002-07) envisages to realise an average growth rate of 8 per cent p.a. The projected

Table 1.5 : Poverty and Head Count Index in Developing World

Region	Living below US \$1 per day (in million)				Head Count Index (%)			
	1990	1998	2015*	2015#	1990	1998	2015*	2015#
	South Asia	495.1	521.8	410.7	296.7	44.0	40.0	24.5
East Asia & Pacific	452.4	267.1	100.7	65.1	27.6	14.7	4.8	3.1
Sub-Saharan Africa	242.3	301.6	426.2	360.6	47.7	48.1	46.7	39.5
Latin America & Caribbean	73.8	60.7	58.3	42.8	16.8	12.1	9.4	6.9
Middle East & North Africa	5.7	6.0	6.2	5.1	2.4	2.1	1.6	1.3
Europe & Central Asia	7.1	17.6	9.0	6.3	1.6	3.7	1.9	1.3
Total	1,276.4	1,174.8	1,011.1	776.6	29.0	23.4	16.4	12.6

* Scenario A: base case growth - based on the projections of growth of economy and population
Scenario B: low case growth - based on the projections of the average growth rate in per capita consumption for the household sector.
Source: Global Economic Prospects and the Developing Countries, World Bank, 2001

Box 1.1
Land and Water Resources - Issues for Raising Agricultural Productivity

Nature's two vital resources – land and water, are under tremendous pressure due to the ever growing population and biotic pressure, which ultimately affect agricultural productivity. Over the years, the number of land holdings increased immensely from 70.5 million during 1970-71 to 105.3 million during 1990-91. As against this, area operated had gone up by a mere 2.2 per cent from 162.1 million ha. to 165.6 million ha. during the same period. Consequently, the average size of land holding came down from 2.30 ha. during 1970-71 to 1.57 ha. during 1990-91. The arid and semi-arid tropical regions accounted for 43 per cent of the total geographical area. Dryland agriculture, practised in about 73 per cent of the net sown area, contributes only about 42 per cent of the total foodgrain production. Despite climatic constraints, 91 per cent of the coarse cereals, 90 per cent of pulses, 81 per cent of oilseeds, 65 per cent of cotton, 55 per cent of rice and 25 per cent of wheat are grown in dry land areas. Land degradation and continuing diversion of prime farmlands to non-farm purposes are also among the serious concerns. Wanton use of land resources has rendered vast stretches of wasteland in the form of degraded land, soil salinity/alkalinity, desertification, waterlogging, soil erosion, etc. In India, one-fifth of the national geographic area is under wastelands and a considerable portion of land produces significantly lower than its biological potential. Both nature and man induced factors are at work in pushing more and more areas out of

use for effective farm practices. Above all, indiscriminate use of chemical fertilizers and pesticides severely damages the soil biota and makes the topsoil infertile and unproductive.

As regards water resources, the present utilisation has been estimated at about 68 per cent of the Ultimate Irrigation Potential (UIP) of 139.9 million ha. Although irrigation is the key factor for augmenting farm yields, inadequate maintenance and improper management practices have adversely affected many patches of agricultural land across states by way of increased salinity and alkalinity. Poor governance and ecologically unsustainable farming practices have been the reasons for the inadequacy of irrigation and drinking water in many areas. Over exploitation of ground water has increasingly reduced the underground water table year after year, thereby spreading the extent of 'grey area' and also drying out aquifers.

In view of the emerging need to ensure food security, sustainability of enhanced productivity has assumed importance. Restoration of soil health through soil organic matter management, selection of appropriate crops and crop rotations, rain water harvesting, watershed development and construction of small water reservoirs need greater attention which can improve soil moisture regime and recharge ground water to harvest stabilized crop production to ensure economic and ecological stability/sustainability within agriculture.

growth in the plan requires an average annual investment of 28.4 per cent of GDP involving accelerated investment from the base year (2001-02) to 32.3 per cent of GDP in the terminal year of the Tenth Plan. According to provisional estimates the growth rate of GDP in the Indian economy during 2002-03 has been 3.7 per cent, compared to 5.6 per cent during 2001-02 (Table 1.6). The deceleration was largely attributed to the decline in the growth of the

agriculture sector, which in turn was mainly due to the prevailing drought conditions in the country. The agricultural production was estimated to have declined by 12 per cent during 2002-03, as against an increase of 5.9 per cent in the previous year. The GDP from agriculture and allied sectors was expected to decline by 4.4 per cent during 2002-03, as against an increase of 5.7 per cent during 2001-02 compared to the previous year. However, within agriculture,

Table 1.6 : Selected Economic Indicators

Sr. No.	Indicators	2000-01	2001-02	2002-03P
1.	Growth in			
	(a) Overall real GDP (%)	4.4	5.6	3.7
	(b) GDP from agriculture & allied sectors (%)	-0.4	5.7	-4.4
	(c) Agricultural production (%)	-5.7	5.9	-12.0
	(d) Foodgrain production (%)	-5.2	6.8	-13.2
	(e) Industrial production (%)	5.1	2.6	5.8
2.	Domestic savings (as % of GDP)	23.4	24.0	NA
3.	Inflation as measured by WPI (%)	7.1	3.7	3.4
4.	Fiscal deficit (as % of GDP)	5.6	5.9	5.5
5.	Trade Balance (US\$ billion)	5.9	6.9	7.7
6.	Foreign Exchange Reserves (US\$ billion.)	39.6	51.0	71.9
7.	External Debt (US\$ billion)	99.7	98.2	102.0#
8.	Debt Service Ratio (%)	15.4	13.8	14.2#
9.	Growth in exports (%)	20.1	-0.4	17.8
<i>P-Provisional</i>		<i>NA - Not Available</i>		<i># as at end September 2002.</i>
<i>Sources: 1. Economic Survey, 2002-2003</i>		<i>2. Monthly Review of Indian Economy, CMIE, June 2003.</i>		

the livestock sector has been growing (details in Paragraph 1.26). The growth rate of industrial production has been estimated at 5.8 per cent during 2002-03, compared to 2.6 per cent during 2001-02.

1.7 On the external front, the growth of exports, which declined by 0.4 per cent during 2001-02, was expected to stage a strong recovery with a growth of 17.8 per cent during 2002-03, over the previous year.

1.8 The foreign exchange reserves were comfortably placed at US\$ 71.9 billion as at end March 2003. The trade balance had increased marginally during 2002-03 compared to 2001-02. The external debt went up marginally from US\$ 98.2 billion as at end March 2002, to US\$ 102 billion, as at the end of September 2002, while the debt service ratio had also gone up to 14.2 per cent from 13.8 per cent during the same period.

B. Inflation

1.9 Though the country witnessed one of the worst droughts in nearly one and a half decade during 2002-03, the general economic environment during the year remained stable. The average inflation rate during the year has been provisionally estimated at 3.4 per cent, which would be 0.3 percentage point lower than that recorded during 2001-02.

The inflation rate (on point-to-point basis) remained below 2 per cent till the end of May 2002. It rose thereafter and remained between 3 and 4 per cent. The inflation in respect of primary products remained below 4 per cent during the year. Accelerated release of the public stocks of foodgrains for Public Distribution System (PDS) and other poverty alleviation programmes, besides open market sale of foodgrains by Food Corporation of India (FCI), helped contain price rise in foodgrains despite the severity of the drought. The annual point-to-point inflation as at end March 2003 had touched 5.5 per cent.

C. Agriculture and Rural Sector

i. Rainfall Situation

1.10 During the period of the southwest monsoon (June-September), the country received an average rainfall of only 73.6 cms., which was 19.4 per cent below the Long Period Average (LPA) of 91.3 cms. Across the country, the spatial and temporal distribution of rainfall was far below the normal rainfall during the year, which severely affected about 29 per cent of the Gross Cropped Area (GCA) in the country, with rainfall deficiency exceeding 25 per cent. The month of July, which normally receives 30 per cent of normal rainfall, was the driest month, receiving only half the normal rainfall. The subsequent months too were subdued and did not make up for the deficit. The total seasonal rainfall for the country

as a whole during the south-west monsoon period was excess or normal in only 15 (28 in 2001) meteorological sub-divisions covering 39 per cent (68 in 2001) of the districts and 37 per cent (87 in 2001) of the GCA. The rainfall was severely inadequate in the sub-divisions of east Rajasthan (-60%) and west Rajasthan (-71%). The area under moderate drought covered 10 meteorological sub-divisions, i.e., Chandigarh, Delhi and Haryana (-36%), Punjab (-36%), coastal Andhra Pradesh (-26%), Rayalaseema (-33%), north interior Karnataka (-31%), south interior Karnataka (-44%), coastal Karnataka (-30%), Tamil Nadu (-45%), Kerala (-35%) and Lakshadweep (-45%).

ii. Crop Acreage

1.11 Inadequate spatial and temporal distribution of rainfall across the country and consequent drought conditions resulted in a decline in the area under both kharif and rabi crops during 2002-03. Overall, there was a decline in the area under all the crops (except sugarcane), varying from 5 to 18 per cent during 2002-03, as compared to 2001-02 (Table 1.7). Keeping this in view, certain policy changes were effected in respect of credit supply (Box 1.2).

iii. Input Use in Agriculture

a. Seeds

1.12 According to the estimates made by the Government of India (Ministry of Agriculture), the distribution of certified/quality seeds was of the order of 91 lakh quintals during 2001-02. For 2002-03, the target has been fixed at 93 lakh

quintals. The target for production of breeder seed and foundation seed for 2002-03 has been fixed at 0.49 lakh and 6 lakh quintals, respectively, as against the expected production of 0.43 lakh and 5.5 lakh quintals, respectively, in the previous year. The GoI has initiated several steps such as, introduction of the Seed Bank Scheme in 2000 with the objective of making available seeds for meeting any contingent requirements, announcement of the National Seeds Policy in 2001, passing of the Protection of Plant Varieties and Farmers' Rights Legislation by the Parliament in 2002 to stimulate investment for research for the development of new plant varieties, so as to strengthen the supply of quality seeds to farmers.

b. Irrigation

1.13 Adequate irrigation is one of the prime needs for augmenting the yield levels of crops. Successive five-year plans had given importance to the development of irrigation to meet its massive investment requirements. The Accelerated Irrigation Benefit Programme (AIBP) launched by the Government during 1997-98 gave a boost to the efforts of exploiting the irrigation potential. In order to reduce the gap between the irrigation potential created and utilized and to increase crop productivity, a re-structuring of the Command Area Development Programme (CADP) has been under consideration of the GoI in the Tenth Five Year Plan. About 24 million ha. are still to be brought under irrigation to realize the full potential of irrigation by 2010. The country's ultimate irrigation potential had been assessed at 139.9 million ha.

Table 1.7 : Area under Major Crops during Kharif and Rabi Seasons

Crop	Kharif (a)		Rabi (b)		Total Area (a+b)		
	2001	2002*	2001-02	2002-03*	2001-02	2002-03*	% change
Rice	35.4	29.7	3.7	2.8	39.1	32.5	-16.9
Wheat	–	–	25.9	24.5	25.9	24.5	-5.4
Coarse Cereals	22.2	16.8	8.5	8.3	30.7	25.1	-18.2
Total Pulses	10.6	9.1	12.9	11.7	23.5	20.8	-11.5
Oilseeds	14.1	12.8	9.0	8.2	23.1	21.0	-9.1
Cotton	8.0	6.8	–	–	8.0	6.8	-15.0
Sugarcane	4.1	4.1	–	–	4.1	4.1	–

* Provisional

Source: Monthly Review of Indian Economy, CMIE, October 2002 & April 2003

Box 1.2

Impact of Drought on Agricultural Production, Productivity and Loaning Operations

The year 2002 witnessed a drought situation because of the failure of the south-west monsoon. Of the total 593 districts in the country, 400 districts in 18 states were severely affected as they experienced inadequate rainfall during the monsoon season. The water levels in 70 major reservoirs were also less than half of the previous year. The country recorded nearly 19 per cent deficit in rainfall, resulting in a fall in the foodgrain production by 13.2 per cent, from 212 million tonnes last year to 184.1 million tonnes this year. The production of foodgrains during kharif also declined by 19.7 per cent from 111.5 million tonnes in the previous year to 89.5 million tonnes during 2002-03.

National Bank advised all co-operative banks and RRBs to provide additional crop loans at enhanced scales of

finance to offset the expenditure already incurred by the farmers to enable them to go for fresh sowing operations as and when the weather conditions turned conducive. Banks were also advised to grant medium-term (conversion)/medium-term (rescheduling) of loans to borrowers whose standing crops were affected and provide need based credit for buying fodder and loans for deepening of wells, installation of tube/bore wells and for carrying out current sowing operations. As a result of the timely efforts initiated by the National Bank, ground level disbursements during kharif 2002 by co-operative banks recorded a growth of 11.5 per cent at Rs.13,292 crore (provisional) compared to Rs.11,918 crore during kharif 2001. Similarly, RRBs disbursed crop loans amounting to Rs.3,196 crore during kharif 2002, recording a growth of 22 per cent over kharif 2001.

So far, about 68 per cent of the potential has been harnessed. The slow progress in the creation of irrigation potential at the rate of about 1.8 to 1.9 million ha. p.a. during the Ninth Plan, was due to various reasons, including constraints of resources with the state governments.

c. Fertilisers

1.14 The production of nitrogenous and phosphatic fertilisers increased from 13.4 million tonnes (1998-99) to the estimated level of 14.5 million tonnes (2002-03). The import of total fertilizers (N+P+K) declined from 3.1 million tonnes (1998-99) to 2.4 million tonnes (April-February 2003). The consumption of fertiliser nutrients has been steadily increasing over the years. In terms of nutrients, the fertilizer consumption increased by more than three times from 5.5 million tonnes during 1980-81 to 18.1 million tonnes during 1999-2000. However, during 2000-01 the consumption declined to 16.7 million tonnes due to inadequate rainfall in many parts of the country, but increased significantly to 17.4 million tonnes during 2001-02, thereby increasing the per ha. consumption to 90.1 kg. during 2001-02 from 86.7 kg.

during 2000-01. The current kharif season witnessed declined sales in total fertiliser nutrients, largely due to the drought conditions. Even assuming normal off take in the rabi season, the year is likely to end up with a total consumption of less than 17 million tonnes.

d. Rural Credit and Capital Formation in Agriculture

1.15 The total quantum of agricultural credit provided by co-operative banks, commercial banks, RRBs and other agencies increased from Rs.52,827 crore during 2000-01 to Rs.61,942 crore during 2001-02, registering an increase of 17.3 per cent. The target for credit disbursement to agriculture and allied sectors for 2002-03, as indicated by the Union Finance Minister in the budget speech, was fixed at Rs.75,000 crore. As against this, the estimated Ground Level Credit (GLC) flow was Rs.70,810 crore. The total credit flow to agriculture and allied sectors during the Tenth Five Year Plan (2002-07) is projected at Rs.7,36,570 crore, about three times the credit flow during the Ninth Plan period (Rs. 2,29,853 crore). In order to strengthen the credit

Box 1.3

Highlights - Union Budget 2003-04: Agriculture and Rural Sector

- In order to strengthen credit flow, private banks to be encouraged to open branches in rural areas and franchising of agricultural credit through Post Offices to be thought of.
- A new Central Sector Scheme on Hi-tech Horticulture and Precision Farming with a sum of Rs.50 crore to be introduced.
- Strengthening sugar industry through incentives like conversion of shortfall in margins into medium-term (MT) working capital loans, extending the repayment period of MT loans to 9 years.
- A Price Stabilisation Fund of Rs.500 crore for tea, coffee, natural rubber and tobacco growers.
- Strengthening the SHG-Bank linkage programme in states where the programme has not gathered pace.
- A Task Force to be constituted to suggest measures to expand the coverage of drip and sprinkler irrigation. Another Task Force to suggest modalities for inter-linking rivers.
- An amount of Rs. 100 crore has been provided for Maru Gochar Yojana for the desert districts of Rajasthan over the next three years.
- Antyodaya Anna Yojana to be expanded to cover an additional 50 lakh families during the year 2003-04 with an additional budgetary expenditure of Rs.507 crore.
- Resources for rural roads under Pradhan Mantri Gram Sadak Yojana to be augmented. Apart from the allocation of Rs. 2,325 crore from the existing cess on diesel, additional funds to be made available from the additional cess on diesel of 50 paise.
- Dereservation of 75 items for SSIs relating to laboratory chemicals and reagents, leather and leather products, plastic products, chemicals and paper products.
- Strengthening of Powerloom Sector with, (i) technology up-gradation fund scheme, (ii) powerloom workshed scheme for better working environment and higher productivity, (iii) improvement of infrastructure of powerloom clusters under the revised textile sector infrastructure development scheme and (iv) special insurance scheme to cover powerloom workers against death, accident, disability, etc.
- Necessary legislative support to be extended to the Credit Information Bureau to contain NPAs and to ensure smooth functioning of the credit market.

flow to agriculture and rural sector, the Union Budget 2003-04 announced various measures (Box 1.3).

1.16 The Gross Capital Formation (GCF) in agriculture, at 1993-94 prices, showed fluctuations ranging between Rs.14,895 crore and Rs.18,057 crore during the period 1995-96 to 2001-02 (Chart 1.1). The share of private sector investments in the capital formation in agriculture registered an increasing trend from 69.1 per cent during 1995-96 and reached 76.5 per cent during 2000-01. Public investments, however, had improved significantly from Rs.3,919 crore during 2000-01 to Rs.4,794 crore during 2001-02, breaking the earlier declining trend and improving its share to 26.5 per cent. The declining share of capital investments in

agriculture as a percentage of GDP from 1.6 (1995-96) to 1.3 (2001-02) is an area of concern.*

1.17 The private sector capital formation in agriculture and allied sectors increased from Rs. 14,605 crore during 1995-96 to Rs. 24,257 crore during 2000-01 at current prices. The proportion of such capital formation financed by institutional credit increased from 59.6 to 71.5 per cent during the same period, reflecting the important support provided by credit institutions through medium-term and long-term loans for financing agricultural and allied activities.

* Data on capital formation is based on estimates made by CSO and published in the Economic Survey, 2002-03, Government of India.

e. Farm Mechanisation

1.18 The increasing degree of farm mechanisation has reduced the use of draught animals for agricultural operations. The share of animal power in agricultural operations had come down from 45.3 per cent during 1971-72 to 9.5 per cent during 2001-02. The use of machine/mechanical power in farm sector increased from 0.3 kw/ha. to 1.2 kw/ha. during the same period. Tractors and power tillers have since become the prime source of motive power for tillage, threshing and transport, contributing about 44 per cent of the total farm power requirement, compared to 7.8 per cent during 1971-72.

1.19 The sale of tractors which rose impressively from 1.38 lakh units during 1993-94 to 2.78 lakh units during 1999-2000 declined marginally to 2.55 lakh units during 2000-01 and 2.25 lakh units during 2001-02. According to industry estimates, the sale of tractors is likely to dip further to below 1.9 lakh units during 2002-03. The drop in the sale of tractors is seen to be a reflection of continuous failure of monsoon during the last few years in certain areas. The sale of power tillers also came down by 15.3 per cent from 16,018 during 2000-01 to 13,563 during 2001-02.

iv. Agriculture and Allied Activities

a. Foodgrain and Non-Foodgrain Crops

1.20 The production of foodgrains estimated at 184.1 million tonnes during 2002-03, registered a sharp decline of 13.2 per cent, mainly due to a 19.7 per cent decline in the production of kharif foodgrains over the production (111.5 million tonnes) achieved during 2001-02. The shortfall is attributed to the severe drought conditions prevailing in 18 states in 2002. The rabi foodgrain production during 2002-03 was also estimated to have come down by about 5.9 per cent to 94.6 million tonnes. During 2002-03, rice production was estimated to have come down sharply by 17.4 per cent. There was also a sharp decline in the production of coarse cereals (26%) and pulses (11%), as compared to the previous year (Table 1.8).

1.21 The production of oilseeds was estimated to be lower by about 24 per cent during 2002-03. The production of sugarcane was also estimated to have decreased by 7 per cent during 2002-03, as compared to 2001-02. The sugar production had increased marginally to 19 million tonnes during 2002-03, compared to 18.7 million tonnes during 2001-02. As at end March 2003, stocks of sugar

Table 1.8 : Agricultural Production

(Million tonnes)			
Crop	2000-01	2001-02	2002-03*
Foodgrains (Total)	199.5	212.0	184.1
Rice	87.7	93.1	76.9
Wheat	69.7	71.8	70.3
Coarse Cereals	31.1	33.9	25.1
Pulses	11.1	13.2	11.8
Non-Foodgrains			
Oilseeds	18.4	20.5	15.6
Sugarcane	296.0	300.1	279.3
Cotton**	9.5	10.1	8.6
Plantation Crops			
Tea@	848.4	847.2	@@837.6
Coffee@	301.2	310.0	280.0
Rubber@	630.0	631.0	638.0

* Third Advance Estimates by Ministry of Agriculture, GoI.
** Million bales of 170 kg. each, @ Million Kg, @@ April-February
Source: Agriculture Statistics Division, Directorate of Economics and Statistics, Department of Agriculture and Co-operation, GoI.

held by sugar factories aggregated 18.5 million tonnes. The fall in sugar prices coupled with large carried over stocks of sugar has been hampering the health of the sugar industry.

1.22 The production of cotton was also estimated to have declined by about 15 per cent during 2002-03. The current crisis in cotton cultivation revolves around the issues of increased cost of cultivation, indiscriminate use of pesticides, determination of genetic purity of varieties, inadequate support prices and poor infrastructure for value addition at the farmers' level.

1.23 Onion, another important cash crop in India, accounts for nearly one fifth of the world's area under the crop. India ranks first in the world with over 0.5 million ha. of area under onion. It also occupies the second position after China with a production share of around 14 per cent of the world production. During 2001-02, the production of onion increased to 4.9 million tonnes from 4.7 million tonnes during 2000-01. Increased production alongwith inadequate processing facilities have been exerting pressure on onion prices.

b. Plantation Crops

1.24 India is the largest producer and consumer of tea in the world, accounting for about 28 per cent of the world

production and 14 per cent of the world trade. Tea production was estimated to decline by about 1.1 per cent to a level of 837.6 million kg. during 2002-03, as compared to the previous year, while the production of coffee, estimated at 280 million kg. during 2002-03 was 9.7 per cent less than 2001-02. The production of natural rubber was estimated at 638 million kg., which was higher by 1.1 per cent over the production during 2001-02. During the past few years, farmers growing coffee, tea, rubber and other plantation crops have been facing problems on account of falling prices of these produce. Deeply concerned over this problem, the Union Budget 2003-04 has announced the setting-up of a Price Stabilisation Fund (PSF) for plantation crops with an initial corpus of Rs.500 crore.

c. Horticulture and Floriculture

1.25 Horticulture and floriculture are important sub-sectors that have gained importance due to their potential for diversification and value addition in agriculture. During 2001-02, total production of fruit crops went up to 46.6 million tonnes (provisional), as compared to 45.4 million tonnes during 2000-01. India ranks first in the world in production of mango with a share of about 54 per cent and is also the second largest producer of vegetables, next only to China, accounting for 14.4 per cent of the world production. During 2001-02, the total production of vegetables went up to 96.5 million tonnes, as compared to 93.9 million tonnes during 2000-01. The area under floriculture during 2001-02 was reported to be around



परिवर्तित बंजरभूमि - बहुमूल्य बागवानी - आम
Wasteland converted into valuable plantation - Mango

0.1 million ha. with an estimated production of 0.6 lakh tonnes of loose flowers and 803.5 million cut flowers.

d. **Animal Husbandry and Dairy**

1.26 During 2001-02, the livestock sector accounted for about 28 per cent of the total value of output from agriculture, estimated at Rs.6,48,122 crore (at current prices), as compared to Rs.5,61,717 crore during 2000-01, an increase of 15.4 per cent. The contribution of milk alone was about Rs.1,03,804 crore during 2001-02, compared to Rs.1,01,990 crore during the previous year. It was higher than the value of output of paddy (Rs.73,965 crore), wheat (Rs.43,816 crore) and sugarcane (Rs.28,592 crore). India became the largest producer of milk in the world with the total production at 81.4 million tonnes during 2000-01. It has further increased to 85.4 million tonnes, registering an increase of 4.9 per cent during 2001-02. Consequent upon this, the per capita availability of milk had improved from 176 grams/day during 1990-91 to 226 grams/day during 2001-02 (Table 1.9). The National Vision aims to produce 96 million tonnes of milk by 2010. The growth rate of 4.5 per cent p.a. in milk production in the country against the world average of 1.48 per cent and the static growth in most milk producing countries indicate the potential of India to increase its emergence as a major player in the export of milk products like whole milk powder, skimmed milk powder, butter, cheese, etc., to potential markets in South East Asian countries and the Middle East. In order to improve the health of livestock animals, the Union Budget 2003-04 has proposed a reduction in the basic custom duties on specified veterinary drugs from 15 to 10 per cent.

1.27 India ranked fifth in egg production with a total production of 34 billion eggs during 2001-02. The livestock

sector also contributed 50.7 million kgs. of wool and 4.92 million tonnes of meat during 2001-02.

e. **Fisheries**

1.28 India is the third largest producer of fish in the world after China and Japan and second in inland fish production after China. The fishery sector contributes 1.2 per cent to the total GDP and 4.1 per cent to the GDP from agriculture sector at current prices. Fish production reached a level of 6 million tonnes during 2002-03, registering 7 per cent growth over 2001-02. In order to give a fillip to the marine food industry, the Union Budget 2003-04 has proposed reduction in the custom duty on shrimp larvae feed from 15 to 5 per cent.

D. **Terms of Trade for Agriculture vis-à-vis Industry**

1.29 The new economic environment has created a conducive atmosphere for improving terms of trade for agriculture vis-à-vis industry. In the post-reform period, the policy emphasis shifted to liberalising trade in agriculture. Various Quantitative Restrictions (QRs) were dismantled in April 2001, which provided an opportunity to farmers and agro-based industries to tap the world markets. Consequently, the Wholesale Price Index (WPI) for agricultural products moved much faster, relative to the wholesale prices of manufactured products, i.e., from 103.3 per cent during 1994-95 to 117.5 per cent during 2001-02 and further to 118.4 per cent in 2002 (April-December), resulting in favourable terms of trade for agriculture vis-à-vis industry.



संकर गाय - अधिक दुग्ध उत्पादन
High yielding cross-bred cow

Table 1.9 : Production and Availability of Milk

Year	Milk Production (Million Tonnes)	Per Capita Availability (Grams/Day)
1980-81	31.6	128
1990-91	53.9	176
2000-01	81.4	223
2001-02*	84.6	226

* Provisional Source: Economic Survey, 2002-03

E. Agricultural Trade

i. Exports

1.30 The share of agriculture and allied products in the total exports had declined to 12.4 per cent during 2002-03 (April-February) from 13.5 per cent during the same period of 2001-02. However, the export of agriculture and allied products in absolute terms showed a rise of 8.8 per cent, i.e., US\$ 5,822 million, from a level of US\$ 5,351 million during the same period. Important items of export were marine products, rice, cashew, tea, oil meals, etc., accounting for more than 50 per cent of total exports. The export earnings from marine products increased to US\$ 1,283 million during 2002-03 (April-February), from US\$ 1,148 million during the same period in the previous year, registering an increase of 11.8 per cent. The high growth rate in the volume and value of marine products in general and frozen fish and shrimp in particular during recent years, are indicative of the export potential of marine products from India. The export of tea increased from 154.4 million kg. during 2001-02 (April-February) to 162.7 million kg. during the same period of 2002-03. A major development is that meat and meat products, fruits, vegetables and processed fruits and vegetables reported strong growth during 2002-03, as compared to the previous year, on account of several policy initiatives of the GoI to accelerate agri-exports. Export restrictions were removed on groundnut oil, agricultural seeds, wheat and wheat products, rice, pulses and butter from April 2002. In order to give added focus to agricultural diversification, value addition and exports, the Union Government has sanctioned and notified 41 Agri-Export Zones (AEZs), covering 17 states and 17 products. Setting-up of these zones are under various stages of implementation.

ii. Imports

1.31 Agricultural imports relating to food and other items constituted 4.3 per cent of the total imports during 2002-03 (April-February), as against 4.6 per cent during the corresponding period of 2001-02. The volume of agricultural imports aggregated US\$ 2,359 million during 2002-03 (April-February), as against US\$ 2,164 million during

the same period of 2001-02, recording an increase of 9 per cent. Of the total agricultural imports during 2002-03 (April-February), edible oils, pulses, fruits and nuts accounted for 67.5, 20.6 and 4.9 per cent, respectively, covering 93 per cent of the imports of agricultural products. This highlights the need for effective policy interventions and high priority for increasing production, especially of oilseeds and pulses.

iii. World Trade Organisation & Agricultural Trade-Latest Developments

1.32 The Agreement on Agriculture (AoA) under the WTO regime continued to impact Indian agricultural production, marketing and international trade. WTO members continued their negotiations in the Doha Ministerial Conference held on 14 November 2001. The objectives set out in the Doha Ministerial Declaration were, "substantial improvements in market access; reductions of, with a view to phasing out, all forms of export subsidies; and reducing the trade-distorting domestic support". The member-countries were to firm up the modalities to operationalise the commitments in this regard by 31 March 2003. The agricultural talks and negotiations are scheduled to end by 01 January 2005. Indian agricultural system may have to closely follow-up the outcome of these international negotiations.

iv. Agricultural Marketing

1.33 The GoI, (MoA) had set up an Inter-Ministerial Task Force to strengthen and develop agricultural marketing. The report, outlining several reform measures, was submitted in June 2002. Some of the reform measures suggested by the Task Force include, amendment of State Agriculture Produce and Marketing Committee (APMC) Act for promotion of direct marketing and contract farming, development of agricultural markets in private and co-operative sectors, stepping up of pledge financing, expansion of futures trading to cover all agricultural commodities, introduction of negotiable warehousing receipt system and use of Information Technology (IT) to provide market-led extension services to farmers. At a National Conference on Agriculture Marketing Reforms organised by the GoI in September 2002, all the state

Box 1.4
Agricultural Reform Initiatives among Different States

In order to encourage state governments to introduce reforms in the agriculture and rural sector, the Union Budget 2002-03 made provisions for reform-linked assistance for states under various development schemes in power, irrigation and rural infrastructure sectors.

Concerned with the problems of marketing of agriculture produce, Andhra Pradesh has taken steps for private participation in the setting-up and management of agricultural markets by simplifying licensing procedures, introducing the concept of contract farming for oil palm, cotton and prawn culture and linking 90 important markets with computer networks. Maharashtra has initiated the expansion of marketing options and bringing benefits of competition to the farmers, permitting fresh entrants (both co-operatives and non-co-operatives) to set-up market yards in designated areas, provision for direct marketing by producers to consumers by establishing Shetkari Bazars and enabling processing and export of agricultural produce without payment of market cess. In Kerala, the Government is exploring participation of private and co-operative sectors

to establish and operate agricultural marketing infrastructure and support services.

For reforms in the irrigation sector, Andhra Pradesh has enacted the Andhra Pradesh Land, Water and Trees Act, 2002 in June 2002. The state government has since notified 10,292 Water Users' Associations (WUAs) and set up 174 Distributory Committees. For effective participation of people in water management, the Pani Panchayat Bill has been passed by the Orissa Legislature under which 879 Pani Panchayats have been registered, of which, 737 have taken over operation and maintenance of canal and lift irrigation projects. Karnataka has amended the Karnataka Irrigation Act in 2000 enabling the formation of 1,712 WUAs and authorizing them to raise resources for maintenance of the structures. In Kerala, a bill on the lines of WUA has been pending in the legislature for enactment. In West Bengal, the system of collecting user charges has been introduced by involving Panchayats and local youths for better maintenance of medium and large irrigation projects.

government and union territory administrators were advised to implement the reform measures by bringing out suitable amendments in the existing policies and acts (Box 1.4).

v. Procurement Prices

1.34 Based on the recommendations of the Commission for Agricultural Costs and Prices (CACPC), the GoI announces a Minimum Support Price (MSP) every year for 24 major crops in order to safeguard the interests of farmers. The MSP acts as the major yardstick, based on which farmers are free to sell their produce in the open market or to the Government at the MSP. On account of the widespread drought of kharif 2002, the GoI announced a one time

special drought relief of Rs.20 per quintal for the purpose of procurement in the case of paddy over and above the existing MSP.

vi. Procurement and Stock of Foodgrains

1.35 The procurement of foodgrains was estimated at 33.7 million tonnes (19 million tonnes of wheat and 14.7 million tonnes of rice) during 2002-03, as against 41.9 million tonnes during 2001-02. The wheat procurement during 2002-03 was lower by over 1.6 million tonnes, as compared to 2001-02. The total stock of foodgrains at the end of March 2003 was estimated at 32.8 million tonnes as against 51 million tonnes at the end of March 2002.

F. Small Scale Industries

1.36 In order to encourage production and employment in the Small Scale Industries (SSI) sector, the GoI had come out with several policy changes during 2002-03, such as, income-tax exemption to the Credit Guarantee Trust Fund for Small Industries for 5 years, creation of a Bio-technology Cell in the Ministry of SSI to facilitate development and promotion of bio-technology-based industries, institution of National Awards for commercial banks for best performance in terms of lending, etc.

1.37 Despite the global and domestic recession, SSI sector registered higher growth rates than the overall industrial sector in terms of number of units, production, employment and exports. In terms of total output, the SSI sector recorded a growth rate of 7.5 per cent during 2002-03, higher than the industrial sector as a whole (5.3 per cent). During 2002-03, 35.7 lakh SSI units provided employment to 20 million persons and produced goods worth Rs.7,420.2 billion, as against 34.4 lakh SSI units providing employment to 19.2 million persons and producing goods worth Rs.6,903.2 billion during 2001-02. During 2002-03, SSI units registered an increase of 3.8 per cent and employment grew by 3.9 per cent, as compared to 3.9 per cent increase in SSI units and 3.6 per cent growth in employment during the previous year.

G. Agro-processing Industries

1.38 Agro-processing industries are being strengthened through various initiatives in order to ensure agricultural diversification, higher value addition and increased exports. The Ministry of Food Processing pursued the task of setting up of food parks in different parts of the country in order to foster such units in the areas of cold storage, rural godowns, warehousing, quality control laboratories, etc. As at the end of 2001-02, thirty-six food parks were sanctioned in different parts of the country. An integrated scheme for infrastructure development, including cold chains, has been introduced. The capital investment subsidy scheme for construction/modernisation/expansion of cold storages and storages for horticultural produce started during 1999-2000 was extended till March 2003.

H. Textiles

1.39 With low cost of labour, the textile industry offers immense potential for employment generation. The production of fabrics registered a growth of 4.5 per cent during 2001-02 over the previous year. The share of the mill sector in fabric production remained at 3.7 per cent during 2001-02, while that of powerlooms and handlooms remained at 76.8 and 18 per cent, respectively. During 2002-03, production of fabrics increased by one per cent, as compared to the previous year. The Government announced several initiatives in the Union Budget 2003-04 to strengthen the textile sector including powerlooms (Box 1.3).
