

**COMMISSION FOR AGRICULTURAL COSTS AND PRICES
REPORT ON PRICE POLICY FOR KHARIF CROPS
OF 2004-2005 SEASON
SUMMARY OF RECOMMENDATIONS**

In this report, the Commission for Agricultural Costs and Prices presents its views on the Price Policy for Kharif Crops of 2004-2005 Season. The Commission recommends that the minimum support prices for the kharif crops of 2004-2005 season be fixed at the following levels:

Commodity	Variety	Quality	Minimum Support Price (Rs per quintal)	
Paddy		Common	FAQ	560
		Grade-A	"	590
Jowar	-	-	"	515
Bajra	-		"	515
Maize	-		"	525
Ragi	-		"	515
Tur (Arhar)	-		"	1390
Moong	-	-	"	1410
Urad	-		"	1410
Groundnut-in-shell	-		"	1500
Soyabean	Yellow		"	1000
	Black		"	900
Sunflowerseed	-		"	1340
Sesamum	-		"	1500
Nigerseed	-		"	1180
Cotton (Kapas)	F-414/H-777/J-34		"	1760
	H-4		"	1960
VFC Tobacco				
Black soil	F₂ grade		"	3400
Light soil	L₂ grade		"	3600

(Para

4.7)

The Commission further recommends that:

- i) the prices for different varietal groups of rice be derived from the minimum support prices of paddy on the basis of hulling/milling ratios as well as the processing and incidental charges obtaining in different states;
- ii) the MSP recommended for F-414/H-777/J-34 variety of kapas be made applicable only for Rajasthan;

- iii) the prices of F-414/H-777/J-34 grown in Haryana and Punjab be fixed keeping in view the respective quality differentials vis-a-vis Rajasthan obtaining in these states;
- iv) the prices of varieties other than those in the group of long and superior long cotton be fixed keeping in view the normal market price differentials between F-414/H-777/J-34 and other varieties;
- v) the prices of varieties other than H-4 in the group of long and superior long cotton be fixed keeping in view the normal market price differentials between H-4 and other varieties;
- vi) the prices of grades other than F₂ VFC tobacco grown on black soils be fixed keeping in view the normal market price differentials between F₂ and other grades;
- vii) the prices of grades other than L₂ VFC tobacco grown on light soils be fixed keeping in view the normal market price differentials between L₂ and other grades;
- viii) the Directorate of Economics and Statistics, Ministry of Agriculture, Government of India call a meeting of state governments and state agricultural universities for resolving the issue of mismatch of data, collected by different agencies and also that of access to latest cost data by state governments. Also, efforts should be made to improve the quality, reliability and acceptability of data; (Para 1.9)
- ix) FCI and state agencies should defend the minimum support prices of all commodities adequately to improve and stabilize market prices in all parts of the country, especially in eastern region where there is a lot of untapped productivity potential and which could become the epicentre of next phase of green revolution in the country, with proper price, marketing and technology support; (Para 1.10)
- x) government should adopt a bottom up, albeit participatory approach including consultation with the farmers in the planning and implementation of various agricultural development schemes, so that grassroot realities are brought to bear on the design and implementational details of programmes for bringing about the desired impact on farmers' welfare; (Para 1.11)
- xi) the central government, in consultation with state governments develop a strategic, albeit region specific plan for agricultural diversification along with appropriate technological, infrastructural and policy support. If necessary, a pilot scheme on agricultural diversification should be launched in selected districts with an integrated support system which will have its demonstration and spread effects, in other areas; (Para 1.13)
- xii) the whole question of research-extension linkage and delivery of improved agricultural technology to farmers to bridge the gap between the potential and actual yield should be examined in a holistic manner so that problems and constraints could be identified and corrective measures taken; (Para 1.15)
- xiii) the government should review and refine the Farm Income Insurance Scheme (FIIS) after concurrent evaluation of the working of the scheme in pilot districts and more

intensive dialogue with all stakeholders, including farmers and make it more farmer friendly as well as market friendly; (Para 1.19)

- xiv) the Government should, as far as possible, announce relaxations, if any, to FAQ norms promptly based on reports of the quality of crops, so as to enable the farmers to actually derive benefit from such relaxations; (Para 2.4)
- xv) the central government should take necessary steps to remove all apprehensions on the part of state governments regarding the benefits of various marketing reforms, as proposed in Model Agriculture Produce Marketing Act and also provide institutional support for ensuring that farmers are not unduly exploited in the process of implementation of any such reforms; (Para 2.6)
- xvi) the import duty on pulses should be levied at such rates that imports remain regulated and that the landed prices of imported pulses remain above the MSP fixed by the Government; (Para 2.45)
- xvii) the Directorate of Vanaspati, Vegetable oils and Fats of the Department of Food and Public Distribution should prepare a realistic 'Oil Budget' every year at the commencement of the season so that the estimates regarding domestic production, consumption, imports/exports of edible oils are available well in advance; (Para 2.56)
- xviii) the import duty on edible oils should be kept at such a level that imports remain regulated and do not affect the domestic prices with resultant impact on domestic oilseeds production; (Para 2.56)
- xix) a Standing Committee consisting of the officers of the Ministries of Consumer Affairs, Food & Public Distribution, Agriculture, Finance, and Planning Commission may be constituted to monitor import of edible oils on a continuing basis keeping in view, inter alia, the requirement of the country and international prices and suggest changes in the import duty rates as and when required; (Para 2.56)
- xx) necessary details and arrangement for effective implementation of the Oil Palm Development Programme should be finalized at the earliest so that it could be implemented from the ensuing kharif season; and (Para 2.58)
- xxi) a Technical Committee, with the representation from the Trade, Industry, Government and R & D agencies be set up to finalise the appropriate varieties in respect of which the Commission should recommend MSP for cotton. The Committee should submit its report to the Government within two months time and thereafter the Government should take a decision to adopt new parameters for MSP within one month, subsequent to the submission of report by the committee and communicate the same to the Commission so as to make it possible for the Commission to recommend MSP on the new cotton varieties for the next kharif season 2005-06. (Para 2.75)

I. AN OVERVIEW

During the year 2003-04, there was a noticeable improvement in the production performance of Indian agriculture. According to 2nd Advance Estimate by the Directorate of Economics & Statistics of the Department of Agriculture and Co-operation, Government of India, the production of foodgrains scaled the new height of about 212.2 million tonnes, comprising about 111 million tonnes of kharif and 101.2 million tonnes of rabi foodgrains. However, the production of rice (about 87.94 million tonnes) dropped by about 5.40 million tonnes in 2003-04, as compared to the previous peak level of 93.34 million tonnes achieved in 2001-02. But wheat production estimated at about 76.12 million tonnes was set to break all previous records, although in view of the reported high temperature in the month of March, 2004, the figure may have to be revised downward. As compared to the year 2002-03, which was marked by severe drought in various parts of the country, the production of total foodgrains was higher by about 38.2 million tonnes. While the production of total pulses was estimated at 14.42 million tonnes, i.e. up by about 3.36 million tonnes, over the previous year, the production of nine major oilseeds reached a new peak of about 25 million tonnes, which was higher by about 10 million tonnes as compared to the previous year. In fact, the production of groundnut, rapeseed & mustard, sunflower and soyabean increased substantially in 2003-04. The production of soyabean was up by about 3.05 million tonnes and that of rapeseed & mustard by 2.06 million tonnes from last year. Also, the production of cotton increased to 123.9 lakh bales in 2003-04, as compared to 100.0 lakh bales in 2001-02 and 87.40 lakh bales in 2002-03.

1.2 The improvement in agricultural production performance in 2003-04 could largely be attributed to favourable weather conditions. However, in the case of oilseeds, favourable price regime, both market and minimum support prices (MSP) would have also played a positive role. The average actual rainfall during June, 2003 to February, 2004 (covering monsoon, post monsoon and winter seasons) in the country was estimated at 109.4 cm, which was higher by about 2.7 cm than the normal rainfall of 106.7 cm for the same period. However, the regional distribution was quite uneven. In several regions of Karnataka and Kerala, the actual monsoon rainfall itself was substantially lower than normal, while the post monsoon and winter rainfall also was deficient in several regions. It seems that agricultural production performance in 2003-04 would have been even better, had the distribution of rainfall been normal. Besides, due to persistent drought in several parts of the country in the past few years, it has been estimated (as of March 26, 2004) that water levels in as many as 51 of the 71 major reservoirs in the country are ruling below their corresponding average storage for the last 10 years. The worst affected states are Andhra Pradesh, Karnataka, Tamil Nadu and Maharashtra. This does not augur well for sustainability of agriculture in many regions. However, the India Meteorological Department has predicted a normal rainfall during the coming monsoon season (June-September, 2004). Assuming the IMD weather prediction to hold true, the water reservoir situation as well as the agricultural production performance in 2004-05 would, in all probability be improved.

1.3 The Government announced the Price Policy for Kharif crops 2003-04 season on July 30, 2003 and for VFC tobacco on August 8, 2003. The minimum support prices as recommended by the Commission were fixed. It may be noted that the minimum support price of paddy was not hiked in 2003-04, excepting that a special drought relief of Rs.20 per quintal, as announced for the year 2002-03 was absorbed in MSP in view of continued drought in some paddy growing regions. The minimum support prices of pulses and oilseeds were given a reasonable hike in order to maintain inter-crop price parity and encourage the farmers to shift area from paddy-wheat crop rotation to pulses and oilseeds. Also, the minimum support prices of coarse cereals were marginally hiked, especially to encourage farmers to grow maize as a substitute of paddy crop wherever feasible, because maize is not only a less water consuming crop, but also it has large yield potential and diverse use. The market prices of oilseeds generally ruled higher in 2003-04, but in the case of some pulses, it fell below the MSPs. In the case of urad, the market prices remained below the MSP in several markets of Gujarat (Patan, Junagarh), Maharashtra (Chatisgaon), Uttar Pradesh (Agra) and West Bengal (24-Parganas). In the case of moong, the market prices dropped below the MSP during October-November, 2003 in Andhra Pradesh, Karnataka and Rajasthan. As a result, NAFED had to procure about 1.49 lakh tonnes of urad and 2.5 thousand tonnes of moong. The market prices of paddy, maize, jowar and bajra were also reported to be lower than MSPs in several places. The very fact that several areas in Assam, Bihar, Orissa and West Bengal are emerging as surplus in paddy production, adequate and effective procurement at the minimum support price by FCI and other government agencies alone would have helped in an upward movement in the market prices of paddy in these regions. Unfortunately, however, the paddy procurement, as usual remained largely confined to the states of Punjab, Andhra Pradesh, Uttar Pradesh, Chattisgarh and Haryana. In the predominantly rice growing states of Eastern India, FCI made only notional intervention and consequently the market prices of paddy ruled much below the MSPs fixed. In the case of maize, bajra, jowar and barley, the FCI has always failed to procure adequate quantities on some pretext or the other, thereby defeating the very purpose of fixing minimum support prices of these commodities. However, considering the country as a whole, the total procurement of rice increased from 16.4 million tonnes in 2002-03 to 18.8 million tonnes in 2003-04. Similarly, the procurement of wheat during April-March, 2003-04 stood at 15.8 million tonnes. Also, about 6.5 lakh tonnes of coarse cereals were procured. As on March 1, 2004, the total stock of rice and wheat held by FCI and other public agencies was estimated at about 22.2 million tonnes, comprising 13.6 million tonnes of rice and 8.6 million tonnes of wheat. Even though the total stock of grains as on April 01, 2004 has been estimated to be higher by about 3.08 million tonnes than the stipulated buffer stock norm of 15.8 million tonnes, the likely stock as on April 1, 2005 would be less by about 1.92 million tonnes. The stock of rice alone is likely to be less by about 1.74 million tonnes, than the buffer norm of 11.8 million tonnes.

1.4 The total off-take of foodgrains during April-February, 2003-04 was reported to be about 44 million tonnes, comprising 21.7 million tonnes of rice and 22.3 million tonnes of wheat. During the corresponding period of 2002-03, the total off-take was estimated at about 44.6 million tonnes. During 2003-04, about 18.2 million tonnes of rice and 14.6 million tonnes of wheat were distributed through TPDS and various welfare schemes. Also, about 3.1 million tonnes of rice and 6.8 million tonnes of wheat were exported at a price

substantially lower than economic cost. However, over the past one year, the economic cost of grains increased from about Rs.1223.17 per quintal to Rs.1247.66 per quintal for rice and from Rs.891.73 per quintal to Rs.920.84 per quintal for wheat. It is indeed doubtful whether exports of grains at such high economic costs would be economically viable and sustainable. Of course, during the later part of the year, the export of grains by FCI was suspended due to an apprehension that stock position might go below the required level.

1.5 The Wholesale Price Index (WPI) of all agricultural commodities (base 1993-94=100) was higher by about 4 per cent in 2003-04, as compared to that of 2002-03. The WPI of rice increased from 166.0 in 2002-03 to 169.2 in April, 2003 to February, 2004 and that of wheat improved from 175.7 in 2002-03 to 180.7 in April, 2003 to February, 2004. Nevertheless, the WPI of several commodities, namely jowar, bajra, maize and barley fell sharply. The WPI of pulses, except tur and masur also declined. However, the market prices of oilseeds had shown an upward trend. As compared to 2002-03, the WPIs of sunflower seed, soyabean, rapeseed & mustard, sesamum and nigerseed remained much higher in 2003-04, although it marginally dropped in the case of groundnut. So was the case with corresponding edible oil prices.

1.6 The international prices of agricultural commodities remained quite buoyant during 2003. The international reference price of rice (Thai, 5% broken fob Bangkok) increased from US \$ 191.9 in January-December, 2002 to US \$ 197.6 during January-December, 2003. The price of Thai rice (35% broken) rose from \$ 170.5 in 2002 to \$ 178.1 in 2003. However, the price of wheat (US, HRW) decreased from \$ 148.1 in 2002 to \$ 146.1 in 2003 and that of maize rose from \$ 99.3 in 2002 to \$ 105.4 in 2003. The international prices of edible oils and cotton also improved significantly. According to data sourced from International Monetary Fund assuming 1995-96 as the base, the international price index of cotton as measured in US dollar increased from 47.1 in 2002 to 64.5 in 2003. The price index of palm oil improved from 45.6 in 2001 to 62.1 in 2002 and 70.4 in 2003. The price index of soyabean oil increased from 56.6 in 2001 to 72.8 in 2002 and 88.9 in 2003. The international price index of groundnut rose from 82.8 in 2002 to 107.2 in 2003 and that of coconut oil improved from 62.9 in 2002 to 69.8 in 2003. However, the international price index of sunflower oil which rose from 69.9 in 2001 to 86.0 in 2002, marginally dropped to 85.5 in 2003. Since international prices of agricultural commodities fluctuate widely from year to year and do not often give right type of price signals to Indian producers and traders, one does not really know whether the present upward trend in international prices would be sustained in the future to stimulate domestic price buoyancy and help improve India's exports of agricultural commodities. The doubt arises especially because the world production of several agricultural commodities has shown an upward trend. According to FAO's Food Outlook, (April, 2004), the cereal output globally increased from 1835.2 million tonnes in 2002-03 to 1884.3 million tonnes in 2003-04. This is expected to further go up by 2 per cent in 2004-05. The bulk of the increase is expected in wheat. The forecast for a rebound in world wheat production in 2004, coupled with generally weaker import demand prospects, would in all likelihood restrain price increase. However, international rice prices may increase, unless India or Myanmar lift their restrictions on rice exports. Nevertheless, growing appreciation of Indian currency vis-a-vis dollar may continue to create uncertainty and disincentive to exporters.

1.7 Despite record level of production of edible oilseeds in 2003-04, the imports of edible oils remained unabated. This happened even though the international prices of edible oils were comparatively high. The oil industry's dependence on imports seems to have increased because of the enormous refining capacities built up over the last few years in ports like Kandla and Kakinada. Infact, refiners should augment their capacity utilization by sourcing raw materials within the country. Also, import duties on both crude and refined palm oil should be enhanced to discourage imports.

1.8 Till 1994-95, India was exporting mainly basmati rice. But since 1995-96, it has also been exporting substantial quantities of non-basmati rice. During 2002-03, about 5.06 million tonnes of rice were exported, of which non-basmati rice accounted for nearly 4.35 million tonnes. About 4.17 million tonnes of wheat were also exported. However, during April-September, 2003, only about 1.99 million tonnes of rice (including 1.30 million tonnes of non-basmati rice) and 1.93 million tonnes of wheat were exported. Since August, the export of both rice and wheat were suspended in view of depleting stocks of foodgrains. No substantial amount of rice and wheat are imported to the country. However, the country imported nearly 2 million tonnes of pulses in 2002-03 and about 0.89 million tonnes during April-September, 2003. Since 1999-00, the country has been importing edible oils on a substantial scale, ranging between 4.2 and 5.0 million tonnes per year.

1.9 Although cost of production has been one of the main considerations in determining the levels of minimum support prices of various crops, in recent years, the Commission often faces criticism for not being realistic in this regard. The problem arises largely because of two reasons. First, the costs of production vary widely from region to region, while the CACP recommends MSP for the country as a whole, based on All India weighted average cost. The issue that minimum support prices, as recommended by the Commission, do not cover the costs of production of crops in several regions, cannot be resolved, unless differential MSPs are fixed for different regions. However, in the present context, when the regional economies are getting integrated with national and international economies and efficiency and competitiveness of agricultural production do matter, any attempt to fix region specific MSPs based on cost differentials, may be counter-productive. Second, there is often lack of co-ordination and non-sharing of information on cost between the state governments and the state agricultural universities (SAUs). As a result, most state governments tend to make a point that cost data are unrealistic and underestimated. The cost data, as used by the Commission, are supplied by the Directorate of Economics and Statistics, which in turn get these collected through various state agricultural universities and agro-economic research centres of some general universities under their Comprehensive Scheme for Studying Cost of Cultivation of Principal Crops. In some cases, some state governments also collect data on their own, which often do not match with those supplied by the state agricultural universities. The methodology used in calculating the cost, its components and the rates applied have also been questioned by the farmers. The Commission recommends that the Directorate of Economics and Statistics, Ministry of Agriculture, Government of India call a meeting of state governments and state agricultural universities for resolving the issue of mismatch of data, collected by different agencies and also that of access to latest cost data by state governments. Also, efforts should be made to improve the quality, reliability and

acceptability of data. The Alagh Committee, looking into the methodological issues in the determination of MSP should submit its report early after wide ranging consultation with all stakeholders, including farmers and field visits to verify the ground realities.

1.10 The Commission however, is more concerned about the fact that the implementation of minimum support prices is poor in all regions excepting Punjab, Haryana, Andhra Pradesh and to some extent Uttar Pradesh and Madhya Pradesh and consequently market prices are generally much lower than the MSPs. Also, the benefit of MSPs remains confined to mainly paddy and wheat, even though MSPs are fixed for as many as 25 agricultural commodities. The Commission recommends that FCI and state agencies should defend the minimum support prices of all commodities adequately to improve and stabilize market prices in all parts of the country, especially in eastern region where there is a lot of untapped productivity potential and which could become the epicentre of next phase of green revolution in the country, with proper price, marketing and technology support.

1.11 During the past few years, Indian farmers have faced several hardships. Due to rising input prices and falling output prices, coupled with frequent crop failure because of unfavourable weather, real income of farmers have shown a declining trend. The index of agricultural terms of trade has been deteriorating since 1995-96, notwithstanding some improvement in the year 2002-03, as per provisional estimate of the Directorate of Economics & Statistics, Government of India. As a result of several years of unfavourable situation, majority of the farmers, especially those who have tiny holdings seem to be badly trapped in poverty and indebtedness. The situation is worse also because of poor participation of farmers in high value crop and non-crop enterprises, as there is no adequate institutional credit, technology and marketing support to enable them to undertake such enterprises. The Commission notes with appreciation that the Government have undertaken a number of measures and launched programmes in recent years to alleviate the hardships and difficulties of the farmers. However, as observed by the Commission during field visits and interaction with the farmers, the implementation of these measures at the ground level has been far from satisfactory, due to a number of factors – faulty design of the programmes, lack of sensitivity among the functionaries entrusted with the implementation, procedural delays and resultant hassle and above all farmers' ignorance about various programmes and concessions and their procedures. The Commission recommends that government should adopt a bottom up, albeit participatory approach including consultation with the farmers in the planning and implementation of various agricultural development schemes, so that grassroot realities are brought to bear on the design and implementational details of programmes for bringing about the desired impact on farmers' welfare.

1.12 At the time of signing the WTO Agreement on Agriculture (AOA), it was hoped that Indian farmers would immensely benefit from it due to increased international market access. However, in the wake of WTO, the volatility of international prices has affected agricultural producers adversely in the country. While the exports of agricultural commodities have shown a declining trend (excluding the export of rice and wheat in 2002-03 at subsidized prices), there have been substantial increase in the import of edible oils and

pulses. The import bill of edible oils alone in the year 2002-03 was as high as Rs.8745 crore. Due to low tariffs, imports of edible oils, particularly palm oil and soyabean oil surged, which have depressed the domestic prices of edible oils and oilseeds in recent years, thereby discouraging the farmers to devote more area under oilseeds. Fortunately, the price situation (both national and international) marginally improved in the past two years which has impacted positively on the domestic production of edible oilseeds. Besides, the problem arises also because the subsidies given by developed countries have not reduced, as it was expected, thereby creating no level playing field and no scope for increased trade competitiveness of Indian products. Moreover, it is apprehended that the WTO regime would pose a risk of livelihood insecurity for millions of agricultural workers in the country, unless necessary safeguards are provided in the next rounds of negotiation.

1.13 Several state governments as well as the central government have recently made efforts to promote agricultural diversification. Some state governments have even worked out plans for agricultural diversification, involving shift in area from paddy-wheat cropping system to pulses, oilseeds, fruits, vegetable etc. In this context, it is however, necessary to ensure that any such diversification plan becomes economically viable and sustainable. Farmers would change their cropping patterns only when they expect an economic gain from such a change. A close examination of relative net returns from various possible alternative crop rotations especially in Indo-Gangetic plain region does indicate that at the current levels of yield, price and costs, no cropping systems really provide an economically rewarding alternative to paddy-wheat rotation. In the case of pulses, there has been virtually no technological breakthrough to improve the yield levels and therefore, despite favourable market prices, both area and production of pulses have been stagnating over time. Oilseeds crops however, merit special attention for strategic diversification, as the country is importing huge quantities of edible oils at present and also the supply response to price change in oilseed crops is quite significant. Nevertheless, unless there is a well co-ordinated policy package involving availability of high yielding seeds, adoption of farming practices, effective price support cum marketing arrangement and reasonable level of tariff on import on edible oils, the much desired oilseed based agricultural diversification may not be forthcoming. The Commission therefore recommends that the central government, in consultation with state governments develop a strategic, albeit region specific plan for agricultural diversification along with appropriate technological, infrastructural and policy support. If necessary, a pilot scheme on agricultural diversification should be launched in selected districts with an integrated support system which will have its demonstration and spread effects, in other areas.

1.14 In the past few months, the Department of Agriculture and Co-operation, Government of India, have held several rounds of discussion with various state governments for initiating some agricultural marketing and land policy reforms which could accelerate the pace of diversified agricultural growth, value addition and poverty reduction in rural areas. These include (i) amendment in APMC Acts to allow direct marketing, (ii) rationalisation of market fees, (iii) promotion of contract farming, (iv) legalisation of land leasing in agriculture and (v) provision of homestead cum garden plots for marginal farmers and landless labourers. While most of the states welcomed the idea of formalising and promoting contract farming and also adopting a scheme of housing and garden plot for

marginal farmers and landless labourers wherever feasible, they are yet to firm up their views on other reform proposals. The central government needs to persuade the state governments to take an early action in this matter.

1.15 On the technology front, the availability of quality seeds and planting materials poses a major challenge. The ICAR and SAU system would have to be fully geared to reorient their research priorities and help achieve technological breakthrough especially in the crops which qualify for diversification, namely pulses, oilseeds, fruits and vegetables, so that the increased yields and consequent reduction in per unit costs could motivate the farmers to diversify. Also, the agricultural extension system of various state governments seems to have become moribund. The knowledge as well as motivation of existing extension workers, particularly in matter of agricultural diversification appear to be extremely poor. Also, there is often lack of proper co-ordination between research and extension agencies. The much talked about private-public partnership on research and extension has not yet made much headway. Moreover, the newly introduced extension institutions and initiatives such as Krishi Vigyan Kendras, Agri Clinics, Kisan Call Centres and Agricultural Technology Management Agency (ATMA) have not yet made their impact felt in large part of the country. Therefore, the entire agricultural research and extension system may have to be reorganized and re-energised to help achieve diversified agricultural growth. The Commission recommends that the whole question of research-extension linkage and delivery of improved agricultural technology to farmers to bridge the gap between the potential and actual yield should be examined in a holistic manner so that problems and constraints could be identified and corrective measures taken.

1.16 It has been reported that intensive cultivation of paddy in Punjab-Haryana belt has resulted in degradation of soil health and fertility and also depletion of ground water. According to an estimate, the water table is declining annually by 30 to 45 cm. in the districts of Ludhiana, Patiala and Sangrur which together contribute nearly 39 per cent of paddy-wheat production in Punjab. Even though paddy is a high water consuming crop, farmers in Punjab are attracted to it because of its relatively higher yields and returns. Therefore, if farmers have to reduce their area under paddy, there must be an alternative cropping system in place or in waiting. In the case of Punjab, maize, cotton, soyabean and groundnut could possibly be considered as substitutes of paddy, but the existing relative yields and returns of paddy continue to be comparatively much higher, thereby discouraging the farmers to change to other crops. This clearly underlines the need for adequate availability of good quality seeds/planting materials for alternative crops which could improve the yield levels and reduce costs of production. Also, the current low yields and low quality of cotton do not make India's cotton industry competitive in international market. Bt Cotton seems to hold a lot of promise, consistent with necessary safeguards. But this has not yet been officially released in Punjab-Haryana region. Besides, even in Maharashtra-Gujarat region, so far only three strains of Mahyco, namely Mech 162, Mech 12 and Mech 184 have been cleared for sale in limited areas, while RCH-2, a variant of Bt is likely to enter the scene in kharif 2004. It has been estimated that the yield potential of RCH-2 is as good as 15 quintals per acre under irrigated condition and about 8 quintals per acre in rainfed condition. There is a need for speedy field trial of other Bt cotton varieties such as RCH-20,

RCH-144 and RCH-164 that are claimed to have been evolved recently in a time bound manner and pave the way for their early adoption by farmers in all suitable areas.

1.17 On the price front also, the existing framework of price policy of the government is not fully tuned to the need for agricultural diversification. Although the inter-crop price parity seems to have been made more favourable to oilseeds in the past two years, NAFED which is the nodal agency for procurement, is not yet fully geared to make market interventions on adequate scale. During 2003-04, the market prices of edible oilseeds in general remained higher and therefore, there was no need for large scale procurement operation by NAFED. As such the favourable market price in conjunction with favourable climatic condition, encouraged the farmers to achieve record level of oilseeds production. However, the market price is subject to fluctuations, depending, inter alia, on the global demand-supply situation and therefore, adequate preparedness on the part of NAFED to intervene whenever the need arises, would be essential. Besides, at the current low levels of yields, the oilseeds crops may require further hike in prices in order to achieve further breakthrough in its production and productivity.

1.18 Non-availability of adequate credit at affordable rates of interest is another area of concern. In view of declining public investment in agriculture, increase in private investment through institutional borrowing appears to be the only hope for modernization of agriculture. Unfortunately, the present rates of interest on crop loans continue to be high from the perspective of a small farmer. Also, farmers have to face lot of inconveniences to access institutional credit. It is indeed unthinkable as to how an accelerated and diversified agricultural growth would take place in the absence of adequate and easy loanable funds for facilitating the increased use of modern technical inputs by small and marginal farmers. During 2003-04, the Government reduced the interest rate on crop loans upto Rs.50,000. However, due to lack of information, farmers in most places could not avail of this benefit of interest cut. Also, the amount of loan required for high value crops would be much higher. Therefore, the ceiling of Rs.50,000 should go. Besides, in order to avoid the hassle and harassment, farmers in many parts of the country continue to obtain loan from private money lenders at exorbitant rates of interest. Therefore, the entire credit delivery system should be made easier and farmer friendly.

1.19 Government of India launched a new crop insurance scheme in 2003-04, called the Farm Income Insurance Scheme (FIIS) on pilot basis in 19 districts of 13 states. The FIIS envisages to cover all the crops, even though the initial focus is on paddy and wheat only. During Kharif 2004, the scheme is expected to be implemented in 100 districts. This is intended to provide income protection to the farmers by covering their both production and market risks. It is also intended to reduce the financial burden of the government, as the volume of total procurement of grains by FCI and consequent carrying costs are likely to decline as there would be no procurement of grains in the districts where the FIIS is implemented. However, the scheme has already run into trouble. First, the states like Punjab, Haryana and Andhra Pradesh where major procurement operations by FCI take place, have not opted for the scheme. Second, although the scheme is intended for both loanee and non-loanee farmers, the available reports indicate that a vast majority of non-loanee farmers in the pilot districts have not participated in it. Third, the scheme was

launched in haste without creating much public awareness and participation of farmers. The operational details with delineated responsibilities of all the concerned agencies had not been worked out in advance. Moreover, the shortcoming of the existing National Agricultural Insurance Scheme (NAIS) in terms of procedural delays in the estimation of crop loss at the local level and consequently in the payment to be made to affected farmers is likely to continue in the case of FIIS too. Besides, it is doubtful whether any MSP linked insurance policy would be viable and maintainable in the long run from the point of view of an insurance business. It is, therefore, recommended that the government should review and refine the Farm Income Insurance Scheme (FIIS) after concurrent evaluation of the working of the scheme in pilot districts and more intensive dialogue with all stakeholders, including farmers and make it more farmer friendly as well as market friendly.

II. PRICE SUPPORT OPERATIONS, CROP SITUATION, MARKET BEHAVIOUR, PROCUREMENT, DISTRIBUTION AND STOCKS

Minimum Support Price

The Commission submitted its Report on Price Policy for Kharif Crops of 2003-04 on May 3, 2003, recommending inter alia that the Minimum Support Prices (MSP) for fair average quality (FAQ) of various crops be fixed at the following levels.

(Rs.per quintal)				
Crop	Variety	MSP fixed by Government for 2002-03 Season*	MSP recommended by CACP for 2003-04 Season	MSP fixed by Government for 2003-04 Season
1	2	3	4	5
Paddy	Common	530 (20)	550	550
Paddy	Grade A	560 (20)	580	580
Jowar		485 (5)	505	505
Bajra		485 (10)	505	505
Maize		485 (5)	505	505

Ragi		485 (5)	505	505
Tur(Arhar)		1320 (5)	1360	1360
Moong		1330 (5)	1370	1370
Urad		1330 (5)	1370	1370
Groundnut-in-shell		1355 (20)	1400	1400
Soyabean	Black	795 (10)	840	840
Soyabean	Yellow	885 (10)	930	930
Sunflower-seed		1195 (15)	1250	1250
Sesamum-seed		1450 (5)	1485	1485
Nigerseed		1120	1155	1155
Raw Cotton				
(Kapas)	F-414/ H-777/J-34	1675 (20)	1725	1725
Raw Cotton				
(Kapas)	H-4	1875 (20)	1925	1925
VFC Tobacco Black soil				
	F2 Grade	2800	3100	3100
VFC Tobacco Light soil				
	L2 Grade	3000	3300	3300

* : Figures in parenthesis indicate additional drought relief.

2.2 The Government announced the price policy for cereals, pulses, oilseeds and raw cotton on July 30, 2003 and for VFC tobacco on August 22, 2003 fixing the MSPs at levels recommended by the Commission. Subsequently, the Textile Commissioner fixed the MSPs for different varieties of raw cotton on September 02, 2003 keeping in view the normal market price differentials and other relevant factors, namely staple length and micronaire value.

Price Support Arrangements

2.3 The Government notified the uniform specifications of paddy, rice and coarse grains for the kharif marketing season 2003-04 on August 25, 2003. There was no change in paddy specifications from what were notified in 2002-03. The moisture content limit was fixed at 17 per cent for 2003-04. The maximum moisture limit for jowar, bajra and maize was each fixed at 14 per cent and ragi at 12 per cent. Thereafter, the central government announced the levy prices of rice, common as well as grade A varieties, for both raw and par-boiled form. However, following the requests from state governments, the central government allowed relaxation in respect of quality of paddy procurement with certain value cut in the case of Madhya Pradesh, Orissa and Bihar on the condition that the concerned states themselves would utilise the resultant milled rice for Targeted Public Distribution Scheme (TPDS) and other welfare schemes. In Andhra Pradesh, relaxation in the standards with value cut was allowed for levy rice obtained from paddy purchased in the seven cyclone affected districts viz. Vizianagaram, Srikakulam, West Godavari, Krishna, Guntur, Khammam and East Godavari. Relaxation in percentage limits of broken rice and dehusked grains for rice was also allowed to Andaman & Nicobar islands. With regard to coarse cereals, relaxation in respect of quality norms of maize was allowed to Andhra Pradesh, Madhya Pradesh and Rajasthan, and jowar to Madhya Pradesh. Quality norms were relaxed for bajra in respect of Madhya Pradesh and Rajasthan.

2.4 The central government relaxed the quality norms for coarse grain where excessive rains damaged the crops in 2003-04 and tried to help the farmers get a fair price. However, the Commission was informed that as the relaxations for coarse grains were in some cases granted long after the harvest, the farmers could not derive much benefit from it. The farmers had already sold their produce to local traders. The traders, in turn, reportedly offloaded their purchases at MSP in purchase centres. The Commission feels that timely announcement of the FAQ relaxation in these cases could have averted the distress sale by the farmers. The Commission, therefore, recommends that the Government should, as far as possible, announce relaxations, if any, to FAQ norms promptly based on reports of the quality of crops, so as to enable the farmers to actually derive benefit from such relaxations.

2.5 Previous experiences have shown that grains purchased under relaxed condition generally deteriorates faster than FAQ grain. These very states from where the grain has been procured later show reluctance to pick it up for public distribution. Since the purchase of paddy in many states has been made conditional on their subsequently using the grain under TPDS, the

uncertainty of disposal of such foodgrain was reduced to a great extent. However, for coarse cereals, the problem of disposal remains serious. These grains are generally disposed of through tenders. Meanwhile, when the quality deteriorates beyond normal standards, they have to be auctioned. The procedure followed in moving out stocks of coarse cereals is time consuming. For these cereals too, it should be possible to ask the state governments to procure such grains for distribution through PDS in their respective states.

2.6 After promulgation of the central government order dated 15th February, 2002 titled 'Removal of Licensing requirements, Stock limits and Movement Restrictions on Special Foodstuff Order, 2002', dealers are now free to buy stock, sell, transport, distribute, dispose, acquire, use or consume any quantity of paddy/ rice, wheat, coarse grains, sugar, edible oilseeds and edible oils without requiring any permit or license. The easing of restrictions has facilitated free movement of agricultural commodities although this has not directly helped farmers, since marketing bye-laws in many states still require them to channelise grains, fruits and vegetables through designated mandis. The central government has prepared a Model Agriculture Produce Marketing Act to free the growers from many of these obligations. The state governments are being encouraged to adopt the Act in their respective states. However, some state governments apprehend that the Model Act contains radical reforms which could belittle the importance of mandies and lead to large retail stores/chains and companies exploiting farmers after getting them to enter into loaded contracts. Some states also feel that an important source of revenue for them such as purchase tax and market fees will be reduced. The Commission recommends that the central government should take necessary steps to remove all apprehensions on the part of state governments regarding the benefits of various marketing reforms, as proposed in Model Agriculture Produce Marketing Act and also provide institutional support for ensuring that farmers are not unduly exploited in the process of implementation of any such reforms.

Rice*

2.7 According to the Second Advance Estimate (17.02.2004) by the Directorate of Economics and Statistics, the production of rice during 2003-04 season is estimated to be 87.94 million tonnes as compared to only 71.73 million tonnes in 2002-03. While this may appear to be remarkable, it needs to be recognized that the output for 2003-04 is 5 million tonnes lower than the peak production of 93.34 million tonnes achieved in 2001-02. Between triennium ending (TE) 1993-94 and TE 2002-03, production of rice increased by as much as 8.31 million tonnes. The states of Bihar, West Bengal and Uttar Pradesh contributed 33.7 per cent, 26.3 per cent and 20.2 per cent respectively to the total

increase in production. Even in 2003-2004, the rice production in Bihar scaled to a new height of 5.6 million tonnes and in Chattisgarh to 6.1 million tonnes. The tempo of production growth in rice in Eastern India needs to be sustained through appropriate policy support by the government especially in view of the yields of rice in Punjab and Haryana having reached a plateau. In the states of Punjab and Haryana, which were at one stage in the forefront of green revolution, the growth rates of yield have been almost stagnant at 0.42 per cent and – 0.61 percent per annum respectively during the nineties.

* This section is focused on rice. However, for a comprehensive view of the foodgrains situation, wheat situation is also discussed later in the section.

2.8 Nevertheless, due to assured price and market intervention, area under paddy in Punjab and Haryana has grown at the rate of 2.2 per cent and 4.3 per cent per annum respectively during the 1990's. In fact, increase in the area under paddy in Punjab and Haryana is a cause for concern because paddy-wheat crop rotation has led to deterioration in soil health and depletion of ground-water, thereby posing a serious risk of sustainability of agriculture in these states. The Commission is concerned with the emerging environmental problem in Punjab and Haryana. The states which made the green revolution a success and contributed significantly to the achievement of food security in the country are likely to face an imminent possibility of water scarcity and land degradation in near future leading to unsustainability of agriculture. The Commission feels that the time has come to diversify agriculture in Punjab and Haryana from existing paddy cultivation, which is a high water consuming crop, to alternative remunerative crops through appropriate policy support. At the same time, it would be absolutely necessary to improve productivity and production of rice in other regions so that the country continues to remain self-reliant in rice. (Tables 2.1 & 2.2)

Market Behaviour, Procurement, Distribution, Stocks, Demand & Supply Balance, Trade.

2.9 The market prices of rice remained more or less stable during the past one year. The index of average wholesale prices of rice in 2003-04 was close to 169.2 registering only 1.1 per cent increase over the previous year. With the arrival of the new crop, the index fell from 172.7 in October 2003 to 169.3 in November 2003 and further to 163.2 in December 2003. It subsequently recovered to 165.5 (P) in February 2004. During the post harvest months, wholesale prices of paddy ruled at less than MSP in many states. As against MSP of Rs.550 for common variety paddy it was sold at Rs.400 to

Rs.500 at Kolhapur (Maharashtra), Rs.480 to Rs.540 at Mainpuri (Uttar Pradesh) and Rs.460 to Rs.525 at Sainthia (West Bengal) per quintal during October, 2003-March,2004.

(Table 2.14 & Annexure – I)

Procurement

2.10 Procurement of rice during 2003-04, as on April 05, 2004, stood at 18.8 million tonnes compared with 16.4 million tonnes in 2002-03. Maximum procurement of 8.6 million tonnes was made in Punjab, followed by 2.35 million tonnes in Andhra Pradesh, 2.12 million tonnes in Uttar Pradesh, 2.08 million tonnes in Chattisgarh and 1.32 million tonnes in Haryana. Besides, following relaxations granted in respect of quality norms, MSP purchases of paddy/rice were made in non-traditional states like Bihar, Assam, Chattisgarh, Madhya Pradesh and union territory of Andaman & Nicobar islands. (Table 2.8)

Offtake

2.11 Total offtake of foodgrains in 2003-04 (upto February, 2004) rose to a level of 44 million tonnes. Cumulatively from April 2003 to February 2004, the offtake was of the order of 21.7 million tonnes of rice and 22.3 million tonnes of wheat, more or less on par with the level of 2002-03. Out of the total offtake of rice amounting to 21.7 million tonnes, the offtake of rice under TPDS has been to the order of 11.0 million tonnes and under other schemes at 10.8 million tonnes. Three million tonnes of rice was exported during the year. The offtake from stocks helped in countering the drought in 2002-03 and ensuring sufficient food supplies to consumers. Various measures were taken by the government which led to the increased offtake. These include :-

- (a) Increase in the scale of issue under the PDS to 35 kg per family per month w.e.f. April 2002;
- (b) Freezing of Central Issue Prices (CIP) of foodgrains for BPL and APL families at the levels of July 2000 and July 2002 respectively;
- (c) Implementation of the foodgrains based Sampoorna Gramin Rojgar Yojana (SGRY);

- (d) Allocation of foodgrains under the Food for Work and the special component of the SGRY programme;
- (e) Expansion of scope of Antyodaya Anna Yojana to cover an additional 50 lakh BPL families; and
- (f) Continuance of open market sale of stock of wheat and rice.

(Table 2.11)

2.12 The Government of India had permitted the Food Corporation of India (FCI) in November and December 2000 to offer wheat and rice respectively for export in view of large stocks in the Central Pool. In December 2001, the government also permitted the FCI to sell wheat for export of wheat products. This was intended to reduce the stock levels to match domestic requirements and also to encourage export of wheat and rice from the country. The scheme for sale of wheat and rice for export has worked reasonably well since then. Exporters, both in private and public sector, have lifted 310.19 lakh tonnes of wheat and rice for export within a short span of less than three years (upto October, 2003) and exported wheat to 30 countries and rice to 54 countries. The government has decided to continue export of rice, wheat and wheat products without quantitative restrictions, subject to the condition that the stocks in the Central Pool will not be lower than the buffer stock of 243 lakh tonnes (100 lakh tonnes of rice and 143 lakh tonnes of wheat) at any point of time. As a matter of fact, since August, 2003, exports of rice and wheat have been suspended in view of depleting stocks of grains. (Table 2.12)

Stocks

2.13 With the release of grain much higher than accretion, there was a depletion of stocks. The stocks of rice and wheat, which had at one stage reached a record high of 64.7 million tonnes (23.4 million tonnes of rice and 41.3 million tonnes of wheat) on June 1, 2002, came down to 22.2 million tonnes on March 1, 2004. Stocks consisted of 13.6 million tonnes of rice and 8.6 million tonnes of wheat compared to 17.6 million tonnes of rice and 18.6 million tonnes of wheat as on March 1, 2003. In fact, the likely stock of rice as on April 1, 2005 has been estimated to be less by about 1.74 million tonnes than the stipulated buffer norm of 11.8 million tonnes. In the case of wheat also the official stock is estimated at 3.82 million tonnes as against the buffer norm of 4.0 million tonnes as on April 1, 2005, as can be seen from the table below.

Projected Stocks in the Central Pool
(Million Tonnes)

	Rice	Wheat
Official Stock as on 01.03.04 (Rounded off)	13.58	8.57
Likely Procurement during March 2004	1.78	Neg.
Likely Offtake during March 2004	2.30	2.75
Likely Stock as on 01.04.04	13.06	5.82
Likely Procurement 2004-05	19.00	20.00
Likely Offtake 2004-05	22.00	22.00
Likely stock as on 01.04.05	10.06	3.82
Buffer Norm requirement for 1 st April	11.80	4.00

Demand and Supply

2.14 Based on data on average consumption of rice and wheat as revealed in the 57th Round of NSS (July 2001-June 2002) and using Population Census (2001) data for extrapolating growth of population with annual growth rate of 1.9 per cent, consumption demand for rice and wheat has been broadly worked out and is given in the table below.

Annual consumption

(Million Tonnes)

		2000-01	2001-02	2002-03	2003-04	2004-05
Per Person Per Month						
Consumption (Kg.)*						
Rural	Urban					

Population	-	-	1027	1047	1066	1086	1106
(million persons)							
Rice	6.77	4.72	76.40	77.89	79.31	80.79	82.28
Wheat	4.12	4.51	52.13	53.14	54.11	55.12	56.14

* :Weighted average of rural and urban consumption with respective population size as weights.

Source : NSS –57th Round (July 2001-June 2002)

2.15 The above calculations somewhat inflate consumption data since the actual growth in demand for cereals would be much lower than population increase. At the same time, it needs to be mentioned that NSS consumption data do not account for non household consumption. The calculations bring out reasonable estimates of demand for rice to 82.28 million tonnes and wheat to 56.14 million tonnes in 2004-05.

2.16 The NSSO data further reveal that as we move from a lower monthly per capita consumer expenditure class (MPCE) to higher monthly per capita consumption of food (MPCF), the per capita cereal consumption reaches a peak around 10.3 kg per month after which it tapers off in urban areas. Such saturation levels has so far not been clearly observed in rural areas.

2.17 Based on the projections earlier made and data on gross production, the situation that emerges in respect of overall supply of rice and wheat during the fiscal year 2004-05 is presented below alongwith corresponding data for the preceding three years:

Domestic Rice Situation

(Million Tonnes)

Crop Year (July-June)	2000-01	2001-02	2002-03	2003-04
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Fiscal Year (April-March)	2001-02	2002-03	2003-04	2004-05
1. Gross Production	87.69	93.34	71.73	87.94
2. Net Production	76.73	81.67	62.76	76.95
(87.5% of Gross Production)				
3. Procurement	21.28	22.13	16.41	18.76
4. Offtake –FY of which	15.32	24.64	24.00	22.00
(a) Export Sale	1.54	4.35	3.27	1.00
(b) Open Sale	0.40	0.39	0.40	0.40
5. Addition to Stock (3-4)	5.96	-2.51	-7.59	-3.24
6. Supply (Gross)				
[2-3+4-4(a)]or[2-5-4(a)]	69.23	79.83	67.08	79.19
7. Basmati Export	0.67	0.70	0.28	0.70
8. Supply (Net) [6-7]	68.56	79.13	66.80	78.49
9. Average Stock in excess of	14.08	11.33	2.10	1.80
Buffer Norm*				
10. Supply Potential (8+9)	82.64	90.46	68.90	80.29
11. WPI (1993-94=100)	167.00	166.00	169.20	

* : This is defined as an average of actual stock minus average of buffer norms at four points of time, namely, 1st April, 1st July, 1st October and 1st January. This is perceived by the market not as a dead stock but as

a source of potential supply, which tends to weigh down speculative expectations about rising prices.

Domestic Wheat Situation

(Million Tonnes)

Crop Year (July-June)	2000-01	2001-02	2002-03	2003-04
Fiscal Year (April-March)	2001-02	2002-03	2003-04	2004-05
1. Gross Production	69.68	72.77	65.13	76.12
2. Net Production (87.5% of Gross Production)	60.97	63.67	56.99	66.61
3. Procurement	20.63	19.06	15.80	20.00
4. Offtake - FY of which	15.99	24.99	22.27	22.00
(a) Export Sale	2.97	4.17	5.78	1.00
(b) Open Sale	5.20	5.27	0.83	0.83
5. Addition to Stock (3-4)	4.64	-5.93	-6.47	-2.00
6. Supply (Gross) [2-3+4-4(a)]or[2-5-4(a)]	53.36	65.44	57.68	67.61
7. Average Stock in excess of Buffer Norm*	22.84	23.32	8.16	12.00
8. Supply Potential (6+7)	76.20	88.76	65.84	79.61
9. WPI (1993-94=100)	175.30	175.70	180.70	

* : This is defined as an average of actual stock minus average of buffer norms at four points of time, namely, 1st April, 1st July, 1st October and

1st January. This is perceived by the market not as a dead stock but as a source of potential supply, which tends to weigh down speculative expectations about rising prices.

Source : Food Bulletin-March, 2004, DGCIS and FCI.

2.18 In estimating supply of rice and wheat, it has been assumed for convenience that the entire net production of a crop year is available in the following fiscal year. This is no doubt entirely true in the case of wheat but only partially true in the case of rice. Nevertheless, this procedure is useful since the purpose is not to calculate the exact quantum of supply but only to compare supplies as obtained on the same assumption over time. On this basis, the supply of rice is likely to marginally increase in 2004-05 but will still be lower than demand. As such, there could be some pressure on rice prices to rise. The scenario with respect to wheat is entirely different. Net availability of wheat even during the drought of 2003-04 was in excess of household consumption demand and is likely to remain so in 2004-05.

Trade Prospects

2.19 Based on FAO data base (Food Outlook, April 2004), the world rice production in 2003-04 is estimated to be 394.2 million tonnes which is about 12 million tonnes higher than in 2002-03. However, world trade is likely to contract by 9 percent to about 25.5 million tonnes due to good crop prospects in Asia. Imports to Asian countries are likely to be lower reflecting smaller deliveries to major importers such as Bangladesh, Philippines and Indonesia. While imports by Asian and African countries are estimated to fall, they are expected to surge in Latin American and Caribbean countries. The major exporters are likely to be Thailand, USA, Egypt and Vietnam. Shrinkage of stocks might constrain export availabilities from India.

2.20 The global rice trade is strongly influenced by a few major exporting countries, namely, United States, Thailand, China, Pakistan and Vietnam; lately joined by India. Rice supplies controlled by the major exporting countries, decreased significantly during the crop year 2003-04. Exports marginally declined from 19.9 million tonnes in 2002-03 to 19.0 million tonnes in 2003-04. As a result, closing stocks with the major exporting countries are likely to decline sharply.

World (Milled Situation)

(Million tonnes)

2001-02 2002-03 2003-04 forecast

1. Production @	400.2	381.8	394.2
2. Exports*	28.1	28.0	25.5
3. Utilisation	410.8	411.6	414.4
4. Carryover Stocks**	150.4	120.1	101.7

Main Exporters \$

1. Opening Stock	114.1	101.5	86.3
2. Production	172.5	171.8	166.8
3. Imports	0.8	0.9	1.8
4. Supply(1+2+3)	287.4	274.2	254.9
5. Domestic Use	168.6	168.1	166.6
6. Exports	17.2	19.9	19.0
7. Closing Stocks	101.5	86.3	69.2

@ : Data refer to the calendar year of the first year shown.

* : Trade in rice refers to the calendar year of the second year shown 2002, 2003(estimated) &2004(forecast)

** : Crop year ending in the year 2002,2003(estimated) & 2004 (forecast)

\$: Includes US, Thailand, China, Pakistan and Vietnam.

Source : FAO, Food Outlook, April, 2004.

2.21 Lower global supplies, particularly with the major exporting countries were responsible for a modest turn around in global prices of rice. Based on World Bank's data base, world reference price of rice (Thai 35 per cent broken) stood at \$178.7 per tonne in October-December 2003 compared to \$171.5 per tonne in the corresponding quarter of 2002. It may be recalled that the world reference price of rice has been continuously declining during the later half of the nineties till the calendar 2001. Thereafter, it has shown signs of recovery and in January 2004, the reference price stood at \$194.5 per tonne. With lower carry over stocks, prices are likely to harden in 2004.

Coarse Cereals

2.22 According to the Second Advance Estimates (as on 17/2/04) production of coarse cereals during 2003-04 is estimated at 33.72 million tonnes compared to 25.29 million tonnes in 2002-03. With less than 8 percent of area under irrigation, coarse cereals like jowar, bajra and ragi are completely dependent on the vagaries of the weather. The higher production of coarse cereals in 2003-04 was the result of a bumper production of bajra which was due to good rains in the states of Rajasthan and Gujarat. Production of bajra during 2003-04 was an all time record at 8.98 million tonnes, 94 per cent higher than last year. The response of bajra production in a favourable monsoon year of 2003-04 is note worthy, given the near stagnation in production in the decade of nineties. The production of maize estimated at 12.94 million tonnes also responded well in 2003-04 and registered an increase of 26 per cent over the last year. Production of 2.37 million tonnes of ragi, a smaller constituent of coarse cereals, too registered an increase of 63 per cent over last year, inspite of drought conditions prevailing in its major producing state of Karnataka. However, jowar production at 7.36 million tonnes was only 4 per cent higher than last year. (Tables 2.1 & 2.2)

2.23 Among coarse cereals only maize exhibited a positive trend in growth with the acreage under irrigation also showing an increase. On the demand side, coarse cereals, as a group suffer from chronic demand deficiency vis-à-vis supplies. For most coarse cereals, the demand is also localized with jowar confined to Karnataka and Maharashtra and bajra being restricted to Gujarat, Maharashtra and Rajasthan. Successive NSS surveys have shown that people are eating less and less of coarse cereals. Even poor people have changed their food habits in favour of rice and wheat. Increased accessibility to wheat and rice through PDS and other well framed schemes is also considered to be a reason for the change in dietary habits of people, particularly of those in the target groups. There is no evidence of rising demand for coarse cereals as animal feed. Further, there is also no export demand due to their lack of price competitiveness. The future sustainability of coarse grains production lies in expanding the consumption both direct and indirect consumption in the form of fodder, processed foods and beverages as well as increased industrial consumption. The position with regard to individual coarse cereals is examined below :

Jowar

2.24 Production of jowar in 2003-04 is estimated at 7.36 million tonnes, marginally higher than the production of 7.03 million tonnes achieved in 2002-03, but about 2.0 million tonnes lower than the peak production of 9.38 million tonnes achieved in 1992-93. During the nineties, 1991-92 to 2002-03, production of jowar decelerated sharply by 3.46 percent per annum from a slower decline of 0.87 per cent per annum witnessed during the eighties. The production decline was due to acreage shifts

which were significant in the states of Andhra Pradesh, Gujarat, Rajasthan, Tamil Nadu, Madhya Pradesh and Orissa, while in the two largest states of Maharashtra and Karnataka, the decline was marginal. This could be because jowar forms a part of the staple diet of certain segments of consumers in Maharashtra and Karnataka. (Tables 2.1 & 2.2)

2.25 The yield of jowar has remained stagnant at less than one tonne per hectare in the last twenty years. Madhya Pradesh and Andhra Pradesh registered a growth rate of 0.03 per cent and 2.24 per cent per annum respectively in the yield of jowar in the nineties. The yields stood at 944 and 926 kgs per hectare respectively in the two states in 2002-03. The yields were lower at 808 kg in Maharashtra and 735 kg per hectare in Karnataka.

2.26 Following the decline in production consequent upon drought in 2002-03, the WPI of jowar (base 1993-94=100) stood at 218.7, recording the steepest increase amongst all the cereals by as much as 23.8 per cent. However, with improved crop prospects, prices softened and the WPI for jowar declined by 2.3 per cent in 2003-04. It stood at 222.0 in February 2004. (Table 2.14)

2.27 In spite of the overall favourable price scenario, there were many instances of prices being quoted at less than MSP in the post harvest months. The month end wholesale prices during the 2003-04 marketing season dropped to less than MSP of Rs.505 per quintal and was quoted during October, 03 to March, 04 at Rs.427 to Rs.452 per quintal at Nagpur in Maharashtra and Rs.450 to Rs.500 per quintal at Khargaon in Madhya Pradesh and Rs.360 to Rs.425 at Bahraich in Uttar Pradesh respectively. (Annexure- I)

Bajra

2.28 Bajra is grown under rainfed conditions and consequently, its production fluctuates widely from year to year. At an all-India level, bajra production stood at 4.62 million tonnes in 2002-03. Good rains in 2003-04 led to a bumper production to a level of 8.98 million tonnes which was slightly higher than the previous peak output of 8.88 million tonnes attained in 1992-93. In Rajasthan alone, production is estimated to be 2.99 million tonnes in 2003-04, from a low level of 0.72 million tonnes in the previous year. The other important states for bajra are Uttar Pradesh, Gujarat, Haryana and Maharashtra. (Table 2.1)

2.29 At the all India level, acreage under bajra declined by 1.58 per cent per annum during the period 1991-92 to 2002-03. Most of the states have witnessed decline in acreage. The area declined by 2.69 per cent per annum in Gujarat, 0.11 per cent in Haryana, 1.78 per cent in Maharashtra, 1.58 per cent in Rajasthan, 5.91 per cent in Tamil Nadu and 0.06 per cent in Uttar

Pradesh. However, the yield of bajra increased at the rate of 1.99 per cent per annum in the 1990's. (Table 2.2)

2.30 Bajra has localised demand and also it has a short shelf life which makes its storage difficult, especially under the present methods followed in harvesting and storage. It has been reported that farmers using traditional methods of storage were previously keeping the grain for 2 to 3 years at a time to meet household demand during lean period. The Commission feels that traditional methods of storage should be studied. This will ensure that correct post harvest procedures are followed so that the shelf life of the coarse grains can be lengthened.

2.31 The index number of wholesale prices of bajra (base 1993-94=100) which had touched 205.2 in April 2003, declined in subsequent months to 189.4 in August 2003 and further dropped to 160.6 in November 2003. Subsequently the index recovered to 164.8 in February 2004. The bumper production of bajra in 2003-04 resulted in prices plummeting below MSP of Rs.505 per quintal. Month end wholesale prices of bajra for the months of October 03 - March 04 were quoted between Rs.375 to Rs.400 per quintal at Jaipur and Rs.470 to Rs.500 per quintal at Pali and Bikaner respectively. (Table 2.14 and Annexure I)

2.32 During 2003-04, the purchases of bajra on a large scale was made to the tune of 2.4 lakh tonnes i.e. 2.7 per cent of production. Maximum procurement of 1.99 lakh tonnes took place in Haryana. Timely arrangements made by the state government of Haryana apparently attracted farmers from neighbouring states to Haryana. Also about 44 thousand tonnes of bajra was procured in Rajasthan and small quantities were purchased in Andhra Pradesh, Gujarat, Madhya Pradesh and Maharashtra. (Table 2.9b)

Maize

2.33 There has been a significant increase in the area, production and yield of maize in the country. Area under maize increased from 5.9 million hectares in 1990-91 (TE) to 6.6 million hectares in 2002-03 (TE). During the same period, production of maize increased from 8.9 million tonnes to 12.12 million tonnes and is estimated to be 12.94 million tonnes in 2003-04. During the period 1993-94 to 2002-03, maize recorded a production growth rate of 3.09 per cent per annum which was higher than the growth achieved by rice in this period. The annual growth rate of production was as high as 7.98 per cent in Andhra Pradesh, 4.78 per cent in Gujarat, 6.60 per cent in Karnataka, 8.36 per cent in Maharashtra, and 10.33 per cent in Tamil Nadu. At the all India level, the growth rate of yield was 2.15 per cent per annum, while area grew at 1.17 per cent per annum. Following mission mode, the

Accelerated Maize Development Programme has been implemented from 1995 by Technology Mission on Oilseeds and Pulses and Maize in 26 states covering all the potential districts. The thrust on maize research has resulted in the evolution of several hybrid and high yielding varieties. Thirteen single cross hybrids of early maturity and full season groups have been released for various agro-climatic zones of the country. Shaktiman -1 and Shaktiman - 2 were released and notified for Uttar Pradesh and Bihar. Sheetal and Buland hybrids have been released for Punjab, Haryana, Western and Central Uttar Pradesh.

(Table 2.2)

2.34 Although, maize is reported to have diverse uses, as food, feed and also industrial raw materials in the manufacturing of starch, glucose etc., the demand for maize has not been growing as fast as the supply, and as a result, its prices have remained subdued. In fact, in four out of the last five years, the index number of annual average wholesale prices for maize has witnessed decline. The year 2002-03, when the WPI of maize rose by 16.6 per cent over 2001-02, was exceptional because of the severe drought. It may be recalled that production in 2002-03 had declined by 22.6 per cent over the previous year. During 2003-04 when production recovered by 26 per cent, the WPI of maize declined by about 9.4 per cent.

(Table 2.14)

2.35 During the post harvest months of 2003-04, the MSP for maize at Rs.505 per quintal was breached across the country. Month end wholesale prices of maize in October 2003 were quoted at Rs.435 in Bhagalpur (Bihar), Rs.460 at Dhansura (Gujarat), Rs.432 at Mandi (Himachal Pradesh), Rs.475 Mandla (Madhya Pradesh), Rs.400 at Bagraich (Uttar Pradesh) and in November 2003 at Rs.430 in Kekri (Rajasthan) and Rs.482 per quintal at Gokak (Karnataka). The crop coming after a year of serious drought could not bring any cheer to farmers because of the low prices they received.

(Annexure-1)

2.36 During kharif 2003-04, maize had to be purchased under MSP operations and 3.55 lakh tonnes of maize was purchased. Maximum purchase of 2.70 lakh tonnes was made in Andhra Pradesh. Procurement was also made in the states of Rajasthan, Maharashtra, Madhya Pradesh, Karnataka, Chattisgarh and Gujarat.

(Table 2.9b)

Ragi

2.37 Ragi production has been hovering around 2.5 million tonnes for the last twenty years. During kharif of 2002-03, the production dropped to an all time low of 1.44 million tonnes due to drought

conditions. In 2003-04, the production scenario improved but it remained lower than the long term average and is estimated at 2.37 million tonnes. This was because of the recurrence of drought, *albeit* with less severity than in the previous year in the southern states. Karnataka alone accounts for about 64 per cent of total ragi production. The other major ragi producing states are Tamil Nadu, Uttaranchal and Maharashtra.

2.38 In most of the states, ragi is grown by small and marginal farmers under dryland conditions. There has been a significant decline in the area under ragi in recent years. The annual compound growth rates of area under ragi declined from 1.52 per cent in the 1980s to 2.34 per cent during 1991-92 to 2002-03. In Karnataka, the area remained constant in the eighties and the decline set in later in the nineties at a rate of 1.62 percent per annum. (Table 2.2)

2.39 One of the advantages of ragi crop is that it can adapt to seasonal changes and be grown in varying soil and temperature conditions. The average yields of ragi are less than 1.0 tonne per hectare in most of the states. But in Tamil Nadu, the yields are relatively higher at about 2.0 tonnes per hectare.

2.40 During 2003-04, the fall in production has led to a steep rise in the prices of ragi. The annual average index number of wholesale prices of ragi rose by 13.5 per cent in the year 2002-03 and continued to rise by another 15.3 per cent in the following year also. During the post harvest months, the month end wholesale prices ruled above MSP of Rs.505 per quintal. It was at the maximum of Rs.700 per quintal at Bangalore (Karnataka) and Rs.669 per quintal at Salem (Tamil Nadu) in the months of October, 03 to March, 04. These high prices seen to be the result of the short fall in supplies.

2.41 Apart from expansion of domestic demand, there is urgent need to expand export demand for coarse cereals. Except for small quantities of maize, hardly any export of coarse cereals takes place. According to data sourced from FAO, global production of coarse cereals in 2003-04 is about 931 million tonnes of which nearly half is accounted by a few exporting countries namely, USA, Canada, Argentina and Australia. Annual global exports is of the order of 105 million tonnes.

Pulses

2.42 India is the largest producer as well as of pulses in the world. As per the official estimates, the production of pulses in the country was estimated at 14.42 million tonnes in 2003-04, the share of kharif and rabi crop being 5.44 and 8.98 million tonnes respectively. The production of pulses dipped from 13.19 million tonnes in 2001-02 to 11.14 million tonnes in 2002-03 mainly because of failure of monsoon. Although production of pulses increased to 14.42 million tonnes in

2003-04, it was yet to achieve the earlier record production of 14.9 million tonnes of 1998-99. The kharif and rabi pulses production increased by about 32 and 28 per cent respectively in 2003-04 over previous year. Detailed break up of kharif pulses production is not yet available for 2003-04. However, the production of tur (arhar – pigeon pea), the major crop in kharif pulses, was estimated at 2.55 million tonnes in 2003-04, which was still lower by 7 per cent as compared to all time record tur production of 2.75 million tonnes achieved in 1989-90. The production of other kharif pulses, mainly comprising kharif moong and urad was estimated at 2.9 million tonnes in 2003-04, an increase of 51 per cent over previous year. (Table 2.1)

2.43 Although production of pulses increased in 2003-04, there was a declining trend in pulses production in the nineties. The pulses production declined at the rate of (-) 0.54 percent per annum during 1991-92 to 2002-03 (TE). This declining trend was largely because of the decline in the area under pulses, at the rate of 0.79 per cent per annum. The productivity during this period was almost stagnant, registering a marginal growth of 0.25 per cent only presumably due to lack of technological breakthrough. Given the importance of pulses in the consumption basket of poor strata of the society as the prime source of protein, this declining trend in production of pulses is indeed a matter of serious concern. Though the kharif pulses production in major states like Maharashtra, Andhra Pradesh and Karnataka continued to grow at 2.7 per cent, 1.16 per cent and 0.5 per cent per annum respectively in this period, in some other states like Madhya Pradesh, Gujarat, Tamil Nadu, Uttar Pradesh, Orissa and Rajasthan, the rate of decline had been as high as (-) 4.5 per cent, (-) 4.4 per cent, (-) 8.2 per cent, (-) 1.9 per cent (-) 8.2 per cent and (-) 4.62 per cent respectively. The cultivation of pulses seems to be losing favour of farmers as reflected in the declining rate of area. In the states of Punjab and Haryana, the decline in the area under kharif pulses at the rate of 7.05 per cent per annum and 4.45 per cent per annum since 1991-92 resulted in a sharp decline in the production by 9.63 per cent and 10.13 per cent per annum respectively. The declining trend in pulses production in the country was witnessed for all the three major kharif pulses viz. tur (- 0.08 per cent), moong (- 2.55 per cent) and urad (- 0.17 per cent). As a result, the gap between the demand and supply of pulses widened over years, leading to growing dependence on imports of pulses. (Table 2.2)

2.44 However, the relatively good performance of pulses during 2003-04 eased pressure on the market as reflected in the trend of wholesale price index. While the overall inflation during the year was more than 5 per cent as compared to 3.4 per cent last year and the prices of agricultural commodities increased by 3.4 per cent in 2002-03 and 4.4 per cent in 2003-04, the wholesale price index for pulses declined by 1.83 per cent during 2003-04 over last year. Interestingly, during the drought year 2002-03 when the pulses production plummeted to one of its lowest levels since 1988-89, the WPI of pulses dipped by 4.6 per cent. Amongst the major pulses, barring tur, the WPI for

which increased by 9.7 per cent during 2003-04, the sharp decline in the WPI of moong (-5.6%), urad (-8.3%) and gram (-4.4%) was registered. (Tables 2.13 & 2.15)

2.45 During 2003-04, the prices of tur generally ruled above MSP in the major trading centres, but moong and urad prices fell below MSP at a number of places, necessitating the intervention in the market for their procurement under Price Support Scheme (PSS) by the NAFED, the Central Nodal Agency, in association with state level apex cooperative federations and Mandi/Taluka level primary cooperative societies. As against the MSP of Rs.1370 per quintal of urad, the prices during November 2003 and March, 2004 were as low as Rs.1125 per quintal in some of the major markets in the country. The moong prices were also being quoted below MSP after January 2004. NAFED intervened in the market and procured urad under PSS of the order of 1.49 lakh tonnes, valued at Rs.229.9 crores. The procurement was substantially large in the states of Karnataka (18.6 thousand tonnes), Maharashtra (34.3 thousand tonnes), Rajasthan (34 thousand tonnes), Gujarat (19.9 thousand tonnes) and Uttar Pradesh (20 thousand tonnes). The procurement of moong under PSS by NAFED, however, was relatively of smaller magnitude, about two and half thousand tonnes only and largely confined to Andhra Pradesh. During the year 2002-03, the PSS operations by NAFED resulted into the procurement of 17.8 thousand tonnes of urad valued at Rs.26.97 crores and its disposal in the same year at Rs.17.12 crores thereby incurring losses. The prices of urad in the international market also were reported to be much lower than the MSP. As the commodity is under OGL and applied tariff protection is only nominal (10 percent), the rising import had also dampening effect on domestic prices. Import of kharif pulses since 1999-2000, is shown in the following table:

Imports of Pulses

('000 tonnes)

Fiscal year/ Term	1999-2000	2000-01	2001-02	2002-03	2003-04 (April-Sept)
All Pulses	252.82	350.57	2232.29	1995.33	890.74
Tur	6.08	43.46	354.18	320.55	143.97
Moong	13.83	18.52	159.08	262.57	0.00
Urad	2.90	11.56	19.30	35.36	0.00

Source: DGCI&S, Kolkata, Ministry of Commerce.

The large imports has made the task of protecting the MSP and, in turn, safeguarding the interests of farmers growing pulses more difficult. As such, there is a need to rationalize the import duty so as to protect the domestic pulses economy from the depressed international prices. The Commission, therefore, recommends that *the import duty on pulses should be levied at such rates that imports remain regulated and that the landed prices of imported pulses remain above the MSP fixed by the Government.* The Commission in the past has also drawn attention to increasing imports of pulses at subdued international prices and lower tariffs affecting adversely the price sentiments in the domestic market. (Table 2.3 & Annexure I)

2.46 It may be noted that the import of pulses suddenly increased from 253 thousand tonnes in 1999-2000 to 2.23 million tonnes in 2001-02, that is, by about 2.0 million tonnes. During the year 2003-04 (April-September), 891 thousand tonnes of pulses had already been imported. The following Table depicts the supply position:

Supply Situation of Pulses

(lakh tonnes)

Crop year (July-June)	1999-2000	2000-01	2001-02	2002-03	2003-04
Fiscal Year (April-March)	2000-2001	2001-02	2002-03	2003-04	2004-05
<u>Gross Production</u>					
Tur	26.90	22.50	23.00	22.10	25.50
Other Kharif Pulses	21.20	22.00	25.70	19.10	28.90
Gram	51.20	38.50	52.70	41.30	57.50
Other Rabi Pulses	34.80	27.70	30.50	28.90	32.30
All Pulses	134.10	110.70	131.90	111.40	144.20
Net Production - All Pulses (87.5 % of gross production)	117.3	96.9	115.4	97.5	126.2
Procurement All Pulses (NAFED)	Negligible	Procurement disposal in the same season.			

Export (FY) All Pulses	2.44	1.62	1.51	1.77 #	1.77*
Import (FY) All Pulses	3.51	22.32	19.95	16.85#	16.85*
Supply (FY)	118.37	117.60	133.84	112.58	141.28

* : Assumed on the level of 2003-04 (FY)

: Projected on the basis of data for April-September 2003.

For calculating the supply, it has been assumed that the entire production including Rabi pulses in the crop year (July-June) is available for consumption in the following fiscal year (April-March). On this basis, supply of pulses increased sharply from 11.76 million tonnes in 2001-02 to 13.38 million tonnes in 2002-03 (financial year) . It may be observed that although gross production of pulses decreased sharply from 13.19 million tonnes in Financial Year 2002-03 to 11.14 million tonnes in financial year 2003-04, due to severe drought conditions in 2002-03, the supply position remained comfortable. As regards demand for pulses, the NSS 55th (1999-2000) Round has estimated the direct household consumption of pulses and pulses product in the country at 11 million tonnes. Assuming no positive income elasticity and the growth of demand being at the same pace as population growth, which is currently a little less than 2 per cent per annum, the demand for pulses for the current year work out to 12.23 million tonnes.. It may be noted that NSS estimates did not take into account the non-household consumption which could be large in volume. Hence, the actual consumption might be higher than what was being assessed by the Commission. In fact, the Ministry of Agriculture should prepare the 'Pulses Budget' every year taking into account the likely production, consumption, export & import of pulses.

2.47 In view of good production of pulses and liberal imports in 2003-04, the buoyancy in the prices of pulses could not be seen, although the demand still exceeded the domestic production. In fact, with no perceptible improvement in the yields of pulses, the domestic production would always tend to fall short of demand, while the consequent higher prices may encourage imports, especially in a low import duty regime. Therefore, technological breakthrough for yield improvement, adequate price support and a rationalized import duty is the need of the hour. (Table 2.28)

Oilseeds

2.48 The year 2002-03 was the worst for oilseeds production due to failure of monsoon, as production of all nine major oilseeds declined from 20.66 million tonnes in 2001-02 to 14.96 million tonnes in 2002-03, that is, by about 5.70 million tonnes. This was the lowest production in the past thirty years. The effect of drought was more severe on kharif oilseeds. The production of kharif oilseeds declined from 13.22 million tonnes in 2001-02 to 9.04 million tonnes in 2002-03, a fall of 31.6 per cent whereas the production of rabi oilseeds declined from 7.44 million tonnes to 5.92 million tonnes, a fall of 20.4 percent. The only exception was the sunflower seed whose production increased marginally in kharif as well as rabi seasons from 0.68 million tonnes to 0.90 million tonnes. After the depressive phase of three years, oilseeds production bounced back to a record level in 2003-04. The Second advance estimates (as on 17.02.04) put production of all major oilseeds at 24.98 million tonnes in 2003-04, that is, an increase of 10.02 million tonnes over the previous year's production. In percentage terms, increase in production of oilseeds in 2003-04 worked out to 67 per cent. The increase in kharif oilseeds production was higher than that of the rabi oilseeds production. The kharif oilseeds production increased from 9.04 million tonnes to 16.69 million tonnes (84.6 per cent), whereas the rabi oilseeds production increased from 5.92 million tonnes to 8.29 million tonnes (40.0 per cent). It may be noted that the production of oilseeds in 1998-99 was 24.75 million tonnes, the share of kharif and rabi oilseeds crops being 15.80 million tonnes and 8.95 million tonnes respectively. In 2003-04, the share of these two oilseeds crops was 16.69 million tonnes and 8.29 million tonnes respectively. Thus, the kharif oilseeds production in 2003-04 was significantly higher by 0.89 million tonnes, whereas the rabi oilseeds production was yet to achieve the 1998-99 level of production. Undoubtedly, the increase in production of kharif oilseeds was due to good monsoon in 2003. In nutshell, the production of oilseeds in 2003-04 was marginally higher than earlier record production achieved in 1998-99. Given the present state of technology and other relevant factors, it appears that the oilseeds production in a good monsoon year would hover around 25 million tonnes, until and unless some technological breakthrough is achieved. (Table 2.1)

2.49 The prices of all kharif oilseeds remained above MSP throughout the 2003-04 year as informed by the NAFED. As such, procurement under price support system was not required. The NAFED was also not required to intervene in the market in 2002-03, as the prices of oilseeds ruled above the MSP. It may be recalled that in 2001-02 season, the NAFED had to intervene in the market and procured large quantities of soyabean and groundnut seeds amounting to 3273 tonnes and 163619 tonnes valued at 2.90 crores and 241.34 crores respectively under price support system. Although NAFED was not required to procure oilseeds under price support system in 2003-04, it made commercial purchases of soyabean, groundnut and sesamum seed amounting to 37355 tonnes, 4614 tonnes and 83 tonnes valued at Rs.50.73 crores, Rs.8.47 crores and Rs 0.27 crores respectively. (Table 2.5)

2.50 In order to induce the farmers to change their cropping pattern in favour of oilseeds and pulses, the Commission had recommended a sizeable increase in the MSP of all kharif oilseeds viz. groundnut in shell, soyabean, sunflower seed, sesamum and nigerseed ranging from Rs.30 per quintal to Rs.55 per quintal in 2003-04. The Government accepted the recommendation of the Commission and fixed the prices at the recommended level. Although the increase in oilseeds prices was substantial, nevertheless the market prices ruled above the MSP. This positive market scenario, enabling farmers to receive better price, in spite of bumper production, augers well for the strategy of diversification. However, it may be noted that healthy price regime in domestic oilseeds market could be largely attributed to the prevailing buoyancy in international market.

2.51 The average wholesale prices index (WPI) of oilseeds in the months of November 2003 to January 2004 (which are peak months for procurement of kharif oilseeds) were higher by about 7.4 percent than the last year's prices. However, the WPI of groundnut in the said peak months were slightly lower than the last year's levels, mainly due to increased production of this oilseed in 2003-04. In respect of sunflower seeds, the prices became bullish in the month of December 2003/January 2004. As a whole, the price of all kharif oil seeds in 2003-04 remained quite buoyant. (Table 2.16)

2.52 The self sufficiency in edible oil has been one of the key objectives of agricultural development strategies. Till 1994-95, the dependence on import was less than 10 per cent of domestic production. The import of edible oil crossed one million tonnes mark in 1995-96. However, from 1998-99, there was sudden spurt in edible oil imports. It accounted for more than 30 per cent of domestic production. Liberalisation of trade, removal of quantitative restrictions, sharp decline in international prices during late nineties and sluggish production performance in recent years together accounted for this phenomenon. The effect of large imports of edible oil on the prices of oilseeds is inevitable. The DGCIS data on import of edible oils for the fiscal year 2003-04 (April - September 2003-04) reveals that 31.96 lakh tonnes of edible oils valued at Rs 6778.63 crores was imported as compared the import of 22.12 lakh tonnes valued at Rs. 4017.21 crores during the same period in the last fiscal year. The imports of edible oils from 1997-98 to 2003-04 (Upto September,2003) is indicated below:-

Sl.No.	Year	Quantity	Value	Unit value
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		(in lakh tonnes) (In crores)		(Rs./kg.)
1.	1997-1998	12.66	2764.67	21.84
2.	1998-1999	26.22	7588.99	28.94
3.	1999-2000	41.96	7983.87	19.93
4.	2000-2001	41.77	5976.53	14.30
5.	2001-2002	43.22	6464.97	14.96
6.	2002-2003	42.66	8744.88	20.50
7.	2003-2004	31.96	6778.63	21.21

(upto September 2003)

Source: DGCIS Kolkata

2.53 The above table revealed two important things. Firstly, there was a sudden jump in the import of edible oils in the year 1997-98 from 12.66 lakh tonnes to 26.22 lakh tones in 1998-1999 and further to 41.96 lakh tones in 1999-2000 The import sustained at that level subsequently. Secondly, the unit value of imported edible oils, which indicate the landed price of imported edible oil, was as high as Rs.28.94 per kg. in 1998-99 but sharply decreased to Rs.19.93 per kg. in 1999-2000 and further to Rs.14.30 per kg. in 2000-01. However, from 2001-02, the unit value increased to Rs.14.96 per kg in 2001-02 and further moved up sharply to Rs.20.50 per kg. in 2002-03. In 2003-04, the unit value further firmed up to Rs.21.21 per kg. In a way, the movement in the unit value of imported edible oils reflected buoyancy in the international prices of edible oils. According to the World Bank's data on international commodity prices (wholesale), the average price of palm oil (Malaysian, c.i.f.N.W.Europe), which was as high as US\$ 671.1 per tonne in 1998 (calendar year), decreased to US\$ 285.7 per tonne in 2001 but increased to US\$ 390.3 per tonne in 2002 and further to US\$ 443.3 per tonne in 2003. It is interesting to note that price erosion in palm oil was more than 50% from its peak value in the span of three years. Similarly, the price of soyabean oil (Dutch, crude, f.o.b. ex-mill), which is having second highest weight in Indian imported oil basket, was as high as US\$ 625.9 per tonne in 1998 but decreased to US\$ 354.00 per tonne in 2001. This price erosion is more than maximum available tariff protection (45%) for Soyabean. However, Soyabean oil prices increased to US\$ 454.3 per tonne in 2002 and further to US\$ 553.9 per tonne in 2003. Thus, the international price of soyabean oil has increased by US\$ 200 per tonne during these two years, though it was still

lower than its peak in 1998, presumably under the dynamics of demand and supply. One reason perhaps could be the dwindling world stock. According to the data sourced from the Foreign Agricultural Services (FAS), United States Department of Agriculture (USDA), the end stocks decreased from 8.83 million tonnes in 2000-01 to 6.16 million tonnes in 2002-03 as indicated below:-

(Tables 2.20 & 2.32)

*Major Vegetable Oils: World Supply and Distribution (in million tones)

Sl.No.	Items	1999-2000	2000-01	2001-02	2002-03	2003-04 (Mar 2004 estimated)
1	Production	86.08	89.66	92.49	94.47	100.88
2.	Exports	29.26	31.43	34.03	36.66	37.72
3	Imports	27.60	30.93	32.97	35.94	37.16
4	Consumption	83.70	88.55	92.12	95.72	100.28
5	End Stock	8.23	8.83	8.13	6.16	6.20

* Includes Soyabean, Palm, Sunflower seed, Rapeseed, Cottonseed, Groundnut, Coconut, Olive and Palm Kernel.

Source: USDA, FAS, March 2004

2.54 It could be observed from the above table that the world production of edible oils increased from 86.08 million tonnes in 1999-2000 to 100.88 million tonnes (estimated) in 2003-04, that is, by 14.0 million tonnes. During the same period, the consumption of edible oils increased from 83.70 million tonnes to 100.28 million tonnes, that is, by 16.58 million tonnes. Thus, the consumption of edible oils far exceeded the production. Further, the world consumption of edible oils increased at a compound rate of 4.49 per cent, whereas production increased at slower rate of 3.76 percent during 1999-2000 to 2003-04, resulting in the dwindling world end stocks. This is likely to put pressure on global prices leading to increase in the unit value of imports of edible oils.

2.55 As regards availability of edible oils from domestic resources, this would be significantly higher in view of the record production of kharif oilseeds in 2003-04. The Commission carried out an exercise to estimate the domestic production of edible oils based on certain assumptions. As per the Commission's estimates, production of edible oils from domestic resources would be 65.99 lakh tonnes as indicated below:

Estimated Domestic Production of Edible oils (lakh tonnes)

Item	Assumption		Crop-Year (July-June)							
	(a)	(b)	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004
1.Groundnut	17.8	28.0	19.30	16.00	20.45	11.49	14.23	16.17	9.86	19.51
2.Rapeseed/ Mustard	7.3	33.0	20.36	14.38	17.32	17.70	12.81	5.41	11.98	18.00
3.Sesamum	22.2	40.0	1.63	1.31	1.29	1.11	0.88	1.32	0.92	2.42
4.Safflower	15.0	40.0	1.54	0.40	0.81	0.86	0.68	0.76	0.49	0.42
5.Nigerseed	25.0	28.0	0.29	0.26	0.24	0.27	0.15	0.22	0.15	0.23

6.Soyabean	12.0	18.0	8.51	10.22	11.31	11.21	8.22	9.28	7.22	12.05
7.Sunflower	10.0	40.0	4.50	3.17	3.39	2.49	2.32	2.61	3.27	3.80
8.Cottonseed*	-	-	4.60	4.15	4.35	4.11	3.66	4.13	3.53	5.01
9.Copra**	-	-	4.50	4.50	4.50	4.38	4.49	4.55	4.55	4.55
Total			65.23	54.38	63.67	53.62	47.44	54.44	41.96	65.99

Note:- Col.(a): Human consumption, Seed, Feed, Wastage as percentage of total Production.

Col.(b): Percentage of oil recovery

* : Actual Production reported by all India Cottonseed Crushers' Association.

** : Production estimates sources from, Coconut Development Board upto 2001-02. For 2002-03 and 2003-04 production assumed at the level of 2001-02.

2.56 The above estimates were based on the assumption that edible oils derived from oilseeds produced in crop year (July-June) would be available for consumption in the following fiscal year (April-March). According to Solvent Extractors Association (SEA), also about 11.5 lakh tonnes would be available from secondary sources (rice bran 6.5 lakh tonnes, rapeseed and mustard cake 1.5 lakh tonnes, groundnut cake 1.2 lakh tonnes, cottonseed and other cakes 0.5 lakh tonnes, tree borne oilseeds 0.8 lakh tonnes and domestic palm oil 0.5 lakh tonnes) Thus, the total availability of edible oils from domestic resources is likely to be 77.5 lakh tonnes in 2004-05. This would be 42 per cent higher than the previous year. Accordingly, the augmentation of domestic supply of edible oil by about 25 lakh tonnes in fiscal 2004-05 should ease the demand from imports. It may be mentioned here that

the responsibility for yearly estimation of production, consumption, imports/exports of edible oils is that of Directorate of Vanaspati, Vegetable Oils and Fats (VVOF) of the Department of Food & Public Distribution. The Commission, therefore, recommends that *the Directorate of Vanaspati, Vegetable oils and Fats of the Department of Food and Public Distribution should prepare a realistic 'Oil Budget' every year at the commencement of the season so that the estimates regarding domestic production, consumption, imports/ exports of edible oils are available well in advance.* The Commission also recommends that *the import duty on edible oils should be kept at such a level that imports remain regulated and do not affect the domestic prices with resultant impact on domestic oilseeds production.* The Commission further recommends that *a Standing Committee consisting of the officers of the Ministries of Consumer Affairs, Food & Public Distribution, Agriculture, Finance, and Planning Commission may be constituted to monitor import of edible oils on a continuing basis keeping in view, inter alia, the requirement of the country and international prices and suggest changes in the import duty rates as and when required.*

2.57 The dependence on edible oil will have to be reduced in coming years in view of dwindling end stock of edible oils and rising landed cost, lest major part of foreign exchange earning is spent on meeting imported edible oil bill. The Commission, therefore, feels that there is a need to increase production of oilseeds in the country, through both area expansion and yield improvement, for which government would have to ensure adequate price, marketing and technology support. The stagnating or even declining production and productivity of oilseeds, and rising imports raise a question mark on the policies which the government has been following so far. Overemphasis on paddy and wheat in terms of policies, technology, investments and incentives pushed both pulses and oilseeds to the margin. Self-sufficiency remained an avowed objective but was not backed by determined and concrete action. Despite technology mission having been there for nearly a decade, the farmers continued to grow oilseeds generally on marginal and unirrigated lands. Development of high yielding varieties and their adoption by the farmers have been far from satisfactory. The Commission, therefore, feels that the issues of self-sufficiency in oilseeds (and pulses) cannot be dealt with in a piecemeal manner and suggests that the government follow a well concerned and well coordinated policies for stepping up the production and productivity of oilseeds in the country.

2.58 With a view to exploiting new sources of supply of edible oil, oil palm cultivation was included under the Technology Mission on Oilseeds & Pulses in 1991-92 and Oil Palm Development Programme (OPDP) was launched during the Eighth Plan. With good planting material, irrigation and proper management, palm trees are reported to have a potential of giving 20-25 MT Fresh Fruit Bunches (FFB) per hectare after attaining the age of 5 years which, in turn, is capable of yielding 4-5 MT of palm oil and 0.4 and 0.5 MT Palm Kernel Oil (PKO). In comparative terms, yield of palm oil is 10-15 times the yield of edible oil obtainable from traditional oilseeds. It is in this context, the OPDP

assumes significance. However, the programme has not met with the desired success. The area under the programme increased steadily upto 1995-96 but declined thereafter. Now, a scheme under the title 'Integrated Scheme of Oilseeds, Pulses, Oil Palm & Maize (ISOPOM) has been formulated for implementation with effect from 2004-05. Under the said scheme, OPDP is proposed to be continued on the lines similar to those during the Ninth Five Year Plan but with suitable modification in the light of the experiences gained and impediments observed during implementation of the scheme. The Commission recommends that *necessary details and arrangement for effective implementation of the Oil Palm Development Programme should be finalized at the earliest so that it could be implemented from the ensuing kharif season.*

Groundnut

2.59 Groundnut is the leading oilseeds crop of the country. However area under groundnut showed a declining trend in the decade of 1990's. In 1991-92, the area under groundnut cultivation was 86.68 lakh hectares, which declined to 62.38 lakh hectares in 2001-02. In the drought year of 2002-03, the groundnut area had shrunk to 59.54 lakh hectares. Like soyabean, this crop is also being grown in the rainfed areas and its production is dependent upon monsoon. In 2001-02, groundnut production was 70.28 lakh tonnes (kharif 56.2 lakh tonnes and rabi 14.05 lakh tonnes) which declined to 43.63 lakh tonnes (kharif 32.4 lakh tonnes and rabi 11.2 lakh tonnes) in 2002-03. The decline was about 38 percent. However, the favourable monsoon in 2003 helped increase the groundnut production to 84.8 lakh tonnes (kharif 71.3 lakh tonnes and rabi 13.5 lakh tonnes), that is, an increase of about 94 percent from last year. Apart from the dependence on rains, the crop is facing low and stagnant yield. Though India is second largest producer of groundnut in the world, in terms of productivity its level is less than half of that in several countries. There has been virtually no breakthrough in seed technology which is a major challenge before the ICAR-SAU system and also to TMOP. Further, the crop often gets affected by aflatoxin which adversely impacts its export prospects. However, during 2003-04, sizeable export of groundnut took place. The exports became possible because of lower than expected production of groundnut in Senegal and Argentina. The re-emergence of India in export market is a healthy development, in spite of the fact that quality issues had acted as trade barriers in the past. In any case, the aflatoxin issue needs to be addressed by educating farmers, processors and exporters. Research on aflatoxin related issues need to be encouraged. The niche has been made in the export market which needs to be sustained.

(Table 2.1)

Soyabean

2.60 The soyabean crop is grown mainly in the states of Madhya Pradesh, Maharashtra and Rajasthan. About 70 per cent of the cropped area under this crop falls in the state of Madhya Pradesh. However, the yield of soyabean crop in Madhya Pradesh 2001-02 was as low as 838 kg per hectare whereas it was 1254 kg and 1091 kg per hectare in Maharashtra and Rajasthan respectively. The soyabean acreage and production in the country was steadily increasing till late nineties and lost its momentum in the past few years. The area under the crop steadily increased from 31.85 lakh hectares in 1991-92 to 64.93 lakh hectares in 1998-99 but thereafter there was no growth in terms of area coverage. In 1998-99, the production of soyabean seeds was 71.4 lakh tonnes which decreased to 59.6 lakh tonnes in 2001-02 and further to 45.6 lakh tonnes in 2002-03. It is only in 2003-04 that production recovered with record of 76.1 lakh tonnes of soyabean seeds. Similarly, the yield per hectare declined from 1138 kg per hectare in 1999-2000 to 941 kg per hectare in 2001-02. It was also learnt by the Commission that good seeds and better practices could deliver yield of the order of the 3 tonnes per hectare. Thus, there is ample scope of increasing the production. The representative of the state government and industry pointed out that non-availability of short duration high yielding, *albeit* quality seed on adequate scale, were the major constraint in achieving the higher productivity and production. Only limited seed varieties were available and production of quality seed was also limited. Further, low and unbalanced use of chemical fertilizers was another major factor for poor yield of soyabean crop. The results of frontline demonstrations, conducted by Soyabean Processors Association (SOPA) showed that with improved technology, the yield was 35-40 per cent higher as compared to the yield obtained at farmers' field. Although, the average cost of cultivation with improved technology was higher by Rs.1550 per hectare, there was substantial gain in terms of yield. The incremental benefit-cost ratio in this process worked out to 2.8. The Commission is also of the view that the Technology Mission on Oilseeds/ICAR and State Agriculture Universities should make concerted efforts to solve the problem of non-availability of quality seed of soyabean on priority basis and also undertake the responsibility of educating the farmers about correct doses of fertilizer as well as proper farm management.

(Table 2.1)

Sunflower seed

2.61 The sunflower seed crop is grown in kharif as well as in rabi season. The area under this crop, which was 21.14 lakh hectares in 1991-92, increased to 26.68 lakh hectares in 1993-94, but decreased to 10.74 lakh hectares in 2000-01. However, the area again increased to 11.77 and 16.38 lakh hectares in 2001-02 and 2002-03 respectively. Accordingly, the production of sunflower seeds increased or decreased with the change in area coverage. The production of kharif sunflower seeds increased from 1.6 lakh tonnes in 2001-02 to 2.8 lakh tonnes in 2002-03. Although 2002-03

was a drought year, the production has increased mainly due to increase in area coverage. In 2003-04, the kharif production was estimated at 3.00 lakh tonnes, that is, an increase of 7 per cent over the previous year's level. The average yield of sunflower seed in the country was as low as 550 kg per hectare in 2002-03. In the major sunflower seed growing states like Andhra Pradesh, Karnataka and Maharashtra, which occupied about 96 per cent of the total area covered, the yield was only 663, 463 and 494 kg per hectare respectively. In the states of Punjab and Uttar Pradesh, area coverage under sunflower seed was low, but the yields were as high as 1560 kg and 1667 kg per hectare respectively. While possibility of extending the area under sunflower seed in Punjab and Uttar Pradesh should be explored with an integrated support system (including development of processing units, price support as well as marketing arrangements), the states having low yield should strive to achieve the productivity level of Punjab and Uttar Pradesh. (Table 2.1)

Sesamum

2.62 Sesamum is another crop whose area and production declined at the compound rate of (-) 4.12 per cent and (-) 2.29 per cent during 1993-94 to 2003-04. In 1991-92, the area covered and production was 26.27 lakh hectares and 7.06 lakh tonnes respectively, which declined to 13.85 lakh hectares and 4.31 lakh tonnes respectively in 2002-03. In some states viz., Rajasthan, Orissa, Maharashtra, Karnataka and Tamil Nadu, the area covered has declined sharply by about 72 percent, 87 percent, 59 percent, 55 percent and 59 percent respectively. Although the all-India average yield was 311 kg. per hectare in 2002-03, it was as good as 807 kg per hectare in West Bengal and as poor as 60 kg in Rajasthan. However, in 2003-04, production of sesamum was estimated at record level of 7.8 lakh tonnes. (Tables 2.1 & 2.2)

2.63 Like nigerseed, there is a good demand for sesamum seeds in the international market. The following quantities of sesamum seeds were exported in 2002-03 and 2003-04:-

Sl.No.	Year	Quantities (In tonnes)	Value (In crores)	Unit value (In Rs/kg)
1.	2002-03	118376	373	31.51
2.	2003-04 (upto August 2003)	48241	181	37.59

Source: DGCIS, Kolkata

It may be observed that the unit value of export of sesamum seed was fairly above the minimum support price of Rs 14.85 per kg for 2003-04. Further, the unit value in 2003-04 (upto August 2003) was higher by about 20 per cent over the unit value in 2003-04. Therefore, there is a need to increase production of this crop, through both area expansion and productivity growth.

Nigerseed

2.64 The nigerseed crop is grown mainly in the states of Orissa, Madhya Pradesh, Chattisgarh and Maharashtra. This is an important crop, especially from the point of view of tribal farmers. The total area covered under this crop was 4.25 lakh hectares in 2002-03 and these four states accounted for about 85 percent of the total area covered. The other states, where this crop was grown in small areas, included Karnataka, Andhra Pradesh and Jharkhand. The area, production and yield of nigerseed registered a significant decline in the nineties. The area under this crop in 1990-91 was 6.11 lakh hectares which declined to 4.25 lakh hectares in 2002-03. The production and yield also declined from 1.86 lakh tonnes to 1.1 lakh tonnes and from 305 kg. per hectare to 250 kg. per hectare respectively during these years. In 2003-04, production of nigerseed was almost at the previous year's level of 1.1 lakh tonnes, although production of all Kharif oilseed increased. The all-India yield level was 250 kg. per hectare in 2002-03. However, the yield was as low as 160 and 173 kg. per hectare in the states of Chattisgarh and Madhya Pradesh respectively whereas it was as high as 400 kg. per hectare in the state of Andhra Pradesh in 2002-03.

(Table 2.1)

2.65 Presently, export of nigerseed is being canalized through TRIFED and Associate Shippers i.e. NAFED, NDDDB, and the State Agencies of the Karnataka, Madhya Pradesh, Andhra Pradesh and Bihar. As per the present policy, the TRIFED and all Associate Shippers collectively decide the Minimum Export Price (MEP) for nigerseed and these agencies also issue 'No Objection Certificate' for export of nigerseed. According to TRIFED, the objective behind fixation of MEP is to ensure that the export for nigerseed is in tune with the international market and its price does not go below the minimum support price. During 2002-03 and 2003-04, the following quantities of nigerseed were exported:-

Sl.No.	Year	Quantity (In Tonnes)	Value (In crores)	Unit Value (In Rs.Per Kg.)
1.	2002-03	18450.10	39.86	21.60
2.	2003-04 (Up to Dec. 2003)	937.50	2.19	23.41

Source : TRIFED

It could be seen from the table that the unit value of export of nigerseed was fairly above the minimum support price of Rs 11.55 per kg fixed by the Government, for 2003.04 .Since the crop has good export potential, all out efforts should be made to increase its acreage, production and productivity.

Cotton

2.66 Based upon available reports received from various cotton growing states, the production of cotton in the country during the 2003-04 season had shown noticeable improvement after three years of subdued performance. The production in previous year however had declined to its lowest level since 1989-90 due to reduced acreage under cotton in almost all the cotton growing states due to drought conditions. As per official estimates, the crop size for year 2003-04 was estimated at 123.9 lakh bales (1 bale = 170 Kg.) as compared to 87 lakh bales in the previous season 2002-03, i.e. an increase of about 42 per cent. The production performance of 2003-04, however, was 13 per cent lower than all time record production of 1996-97. The Cotton Advisory Board (CAB) estimated (trade estimates) cotton production at its meeting held on 10th March, 2004 at 167.50 lakh bales in 2003-04 season as against 136 lakh bales in 2002-03, i.e. an increase of about 23.2 per cent. Sufficient rains and favourable weather condition coupled with increase in area under cotton cultivation in most of the cotton growing states resulted in good crop in 2003-04. As nearly 65 per cent of the cotton area in India is un-irrigated, the average yield per hectare remained at low level, ranging between 186 kg per hectare and 265 kg per hectare. The average yield from irrigated cotton seemed to be comparatively higher at about 400 kg per hectare. Yet, it was much lower than the world average yield of 627 kg per hectare.

(Table 2.1)

2.67 The domestic balance sheet of cotton for 2003-04, as prepared by the Textile Commissioner, Ministry of Textile, Mumbai, indicates that the total imports of cotton is likely to come down to about 9 lakh bales during 2003-04 as compared to 17.67 lakh bales in the previous year. Adding to the opening stock of 24 lakh bales and production of 167.50 lakh bales, the total supply of cotton in the country may be about 200.50 lakh bales. As against this, the total demand including both mill and non mill consumption is likely to be about 167 lakh bales. In view of attractive international prices, the export of cotton may be slightly higher at 9 lakh bales in 2003-04 from the preceding two year level of 0.8 lakh bales. Thus the total demand for cotton is projected at 176 lakh bales as against the supply of 200.5 lakh bales, leaving a closing stock of 24.50 lakh bales.

2.68 The opening months of the current cotton season 2003-04 witnessed a mixed trend in prices with the average prices of some varieties in October being higher than that in September and lower in some other. However, the average prices in October 2003 for all varieties remained significantly higher than that in the corresponding month of 2002. Subsequently, the average price in November also ruled much higher. In December 2003, the prices of some varieties further firmed up, while of some varieties, it remained depressed compared to that in November, 2003. The tendency of firming up of prices of major varieties of cotton continued in January 2004. By and large, the first quarter average prices of major cotton varieties in 2003-04 were higher by 7 per cent to 30 per cent over the corresponding quarter of 2002-03. Average quotation of prices of important varieties of kapas and lint prevailing during the current season 2003-04 vis-à-vis the previous season 2002-03 are given below.

Average Prices of Kapas

(Rs./Q)

tl)

Month/Variety	J-34		LRA		H-4		S-6	
	2002-03	2003-04	2002-03	2003-04	2002-03	2003-04	2002-03	2003-04
MSP	1675	1780	1750	1800	1875	1925	1860	1910
October	1963	2488	-	2487	2106	2628	2105	2676
November		1750	2529	1888	2466	1868	2513	2585

December	1750	2580	1875	2428	1912	2463		2559
January	2196	2711	2054	2505	2176	2536	2308	2701

Average Prices of Lint

(Rs./Candy)

October	14973	20243	15391	21322	17227	22287	17864	22757
November		15693	20765	15918	21670	17155	22265	17745 23078
December	16504	20348	16404	20600	17896	21274	18588	22570
January	16400	21740	16100	21690	17800	22500	19000	23700

Source : Cotton Corporation of India Candy = 355.62 kg

2.69 The buoyancy in cotton prices in domestic markets in 2003-04 remained in harmony with the price behaviour in the international markets. The international prices of Cotlook A Index for the past three years are given below:

International Reference Price of Cotton

Cotlook A index * in US cents/lbs.

Month	International Cotton year (Aug-July)			
	2000-2001	2001-02	2002-03	2003-04 (Provisional)
August	60.86	43.48	49.62	60.49
September	61.66	41.26	49.02	64.08
October	60.89	37.12	49.58	72.56
November	63.88	37.67	52.30	76.77

December	65.87	40.49	55.24	73.62
January	64.05	43.42	56.71	76.15
February	50.42	42.77	58.61	73.94
March	54.54	42.02	61.04	
April	51.18	41.43	60.78	
May	47.60	39.91	57.80	
June	47.45	43.16	58.50	
July	45.62	46.57	60.21	

Average	57.00	41.61	55.78	

* : The Cotlook 'A' index is the average of the five lowest quotes of the Descriptions of 1³/₃₂=28 mm

The Cotlook 'A' Index in 2000-01 increased marginally by US cents 4 per pound as compared to the previous season 1999-2000. This was attributed mainly to the higher consumption by China. In 2001-02 the Cotlook 'A' Index dropped to the average US cents 41.61 per pound. Due to low price regime throughout the world the aggregate value of world cotton production dropped to an estimated level of US \$ 19.7 billion in 2001-02, down by about US\$ 5 billion from the previous season. This was the lowest since 1985-86 causing serious damage to production and export dependent countries. The international cotton prices however, started firming up in 2002-03 but remained considerably below the 30 years average of US cents 70 per pound. The average Cotlook index 'A' at 55.78 per pound in 2002-03 was however, 34 per cent higher from the historical low average in 2001-02. The increase in the import by mainland China from 25 thousand tonnes to 5 lakh tonnes during the year pushed the international price upward by about 10 cents. During the current season 2003-04, the Cotlook 'A' index continued to rise. Some forecasts indicate that the index may remain at an average of US cents 70 per pound for the year. In the month of February, 2004, the index ruled at 73.94 US cents per pound.

2.70 The domestic price of cotton during 2003-04 was aligned to the international price. As a result of high market prices, there was no need for CCI to undertake price support operation in the season. However, CCI reportedly made commercial purchases of the order of over 8.8 lakh lint bales (as on 31.3.04) as compared to about 6 lakh lint bales in the previous full season. It needs to be recalled that

CCI had made heavy purchases of kapas equivalent to 9.67 lakh lint bales under price support operation in 2001-02 season. However, the buoyancy in the domestic market set in the year 2002-03 was associated incidentally with the liberalisation of procurement system. The Monopoly Procurement Scheme of Cotton (MPSC) in Maharashtra was partially liberalized in 2002-03 season and this process continued in the year 2003-04 as well. Accordingly, cooperative spinning mills, private mills and ginning & pressing units in Maharashtra were permitted to make direct purchase of cotton from farmers. CCI was also allowed for cotton procurement in Maharashtra, which procured kapas equivalent of 2.66 lakh bales from the state till 31.1.2004. Maharashtra State Cooperative Cotton Growers Marketing Federation (MSCCGMF) procured only 600 lint bales in Maharashtra upto 31.1.2004, as compared to more than 4.67 lakh lint bales procured in the corresponding period of the previous season. The Commission acknowledges that partial liberalization of MPSC has already proved to be a source of relief to MSCCGMF as well as the Government of Maharashtra in terms of substantially lower procurement and resultant phasing out of state subsidy. Quite often, there had been opinions expressed by the policy makers for a complete liberalisation of monopoly procurement by the Government of Maharashtra. It is matter of appreciation that with the partial liberalisation, the monopolistic feature of procurement system has lost its relevance. It has already provided wider opportunities to various market players with a possibility of better price regime benefiting the farmers. This experience supports the stand taken by the Commission in the past that MPSC should be abolished, since its existence poses a threat to orderly functioning of the national cotton market.

2.71 The International Cotton Advisory Council (ICAC), in its latest estimate for 2004-05 has placed world cotton production at 22.22 million tonnes – i.e. up by about 2 million tonnes and 10 per cent increase over the level of 20.22 million tonnes in 2003-04. However, the world consumption is expected to remain nearly stagnant at 21.18 million tonnes as compared to 21.01 million tonnes in 2003-04. The year-end stock is thus estimated at 8.86 million tonnes in 2004-05, that is, an increase of 1.04 million tonnes over the level of 7.82 million tonnes in 2003-04. The increased production coupled with stagnation in consumption and rise in opening stock of cotton may possibly depress the world prices next year. The ICAC expects the average Cotlook 'A' Index to move down to 53 US cents per pound in 2004-05 from the previous year's average of 70 US cents per pound of cotton. The estimates by ICAC were based upon the presumption of a sizable increase in production in China in 2004-05 and consequently China's low import dependency on international market. Generally, the gap between Chinese demand and its domestic supply significantly affects the price line in the international market. The international cotton year begins in August, whereas India's cotton year is from October. Therefore, the world cotton prices may begin to show a depressed trend from September-October 2004 during peak arrival in world market. By the time, Indian cotton comes to the market in November-December 2004 (peak harvest and market arrival), the domestic prices may face a depressed market due to increased cotton availability, unless the domestic mills improve their

consumption substantially. However, the CCI expects that in spite of higher production in China, the import of China would continue to be of high order as in the past due to accelerated growth of textile industry which will hold the price in the international market like the previous year and it may not affect adversely the domestic prices in 2004-05. In any case, the CCI should gear itself to procure cotton at the MSP rates if the prices happen to fall below MSP in the coming procurement season.

2.72 The cotton economy in India is beset with a plethora of problems. Although, cotton consumption in the country is rising quite rapidly, the domestic production is fluctuating from year to year. The yield per hectare is one of the lowest in the world due to short supply of quality seeds and vulnerability of crop to pests and diseases. Also, farmers in traditional cotton growing areas switch over from cotton to other competing crops. The production of cotton in the decade of eighties registered an annual growth of 4.1 per cent. During 1991-92 to 2002-03, this momentum was lost and production growth rate decelerated to 1.4 per cent per annum. The Tenth Plan target of cotton production is set at 216 lakh bales by 2006-07. Keeping in view the recent trend of production growth and the problems associated in cotton economy, this target appears to be non attainable. (Table 2.2)

2.73 In order to address various constraints to cotton development in the country, a Technology Mission on Cotton (TMC) was launched in February 2000, with four Mini Missions (MM I – IV). The Commission in its report for 2003-04 season had extensively deliberated on various issues related to the TMC. The Commission expects that the recommendations/ observations made on the related issues were looked into by the concerned agencies of the Government. This year, the Commission would like to emphasise upon the core issue relating to availability of quality seed which is central to improve cotton production in the country. Poor quality of cotton seed is one of the factors responsible for low productivity in India, which more or less remained stagnant around 300 kg per hectare. The per hectare yields of cotton in countries like USA (727 kg), Brazil (1096 kg), mainland China (1125 kg), Australia (1569 kg), Pakistan (610 kg) were much higher. According to Textile Commissioner, the total demand for certified seeds in the country was of the order of 7-8 lakh quintals against which, the supply of seeds was only about 3 – 4 lakh quintals. Thus, there is an urgent need to ensure availability of sufficient quantity of improved seeds to the farmers to enhance productivity and consequently India's competitiveness in the world market. The Commission, therefore, feels that the Government should come out with a plan of action to provide quality certified seeds adequately to break the serious bottleneck of seed availability in cotton economy. The Central Sub Committee on Crop Standard, Notification and Release of Varieties should meet frequently and assess the availability of quality seeds to ensure adequate supply before each sowing season.

2.74 Some studies have reported that genetically modified cotton hybrids in India improve yields by 29 per cent over the traditional seeds. Some of the cotton growing countries have made substantial improvement with adoption of Bt cotton, But the area covered under transgenic cotton in India is reported to be less than one per cent, while in USA it is more than 70 per cent, in Australia about 50 per cent and in China about 45 per cent. Bt cotton brings double benefits to the farmers – it increases production substantially thus reducing the cost of production per hectare and at the same time, its better quality fetches higher price which increases the farm income. Government of India has already permitted the Maharashtra Hybrid Seed Company (MAHYCO) to commercially cultivate Bt cotton in Gujarat, Maharashtra, Madhya Pradesh, Andhra Pradesh, Karnataka and Tamil Nadu. Some agricultural universities have also taken initiative on similar lines. However, there is still a wide mismatch between the demand and supply of Bt cotton. The states during their meetings with the Commission have highlighted the urgent need to take steps to make available adequate Bt cotton seeds to the farmers. The Commission would therefore urge that the Government should gear up its efforts through adequate and time bound policy initiatives to encourage Bt cotton to bring perceptible change in cotton production profile in the country, so that our farmers get the benefits of the new technology and become competitive in the world market.

2.75 The Commission recommends MSP for two basic varieties of raw cotton viz. F-414/H-777/J-34 (Medium staple) and other variety viz. H-4 (long staple). The prices of other varieties of cotton are then fixed by the Office of the Textile Commissioner, Mumbai on the basis of market differentials. The Office of Textile Commissioner has recently made a point to the Commission that the MSP should be related to fibre quality, productivity and trend in international cotton prices. While discussing the problem with the Industry, Trade and Textile Commissioner this year, the Commission noted that the cotton varieties for which the MSP is recommended by the Commission are not in vogue in the market, as new varieties of seeds have replaced the traditional ones in cotton cultivation. Keeping in view the fact that the price policy must be rational to boost production, productivity and international competitive-ness in cotton economy, the Commission recommends that *a Technical Committee, with the representation from the Trade, Industry, Government and R & D agencies be set up to finalise the appropriate varieties in respect of which the Commission should recommend MSP for cotton. The Committee should submit its report to the Government within two months time and thereafter the Government should take a decision to adopt new parameters for MSP within one month, subsequent to the submission of report by the committee and communicate the same to the Commission so as to make it possible for the Commission to recommend MSP on the new cotton varieties for the next kharif season 2005-06.*

VFC Tobacco

2.76 Virginia Flue Cured (VFC) tobacco is grown in the States of Andhra Pradesh, Maharashtra, Orissa and Karnataka. This crop is grown both in light soils and black soils. The tobacco produced in the northern and central black soils of Andhra Pradesh used to be exported to erstwhile USSR (till 1992-93) and other countries viz. Bulgaria, Czechoslovakia, Egypt and Iraq etc. Some of the good quality tobacco grown in this region was also exported to Japan upto 1980. The disintegration of USSR had a profound impact on the cultivation of tobacco crop. The area under cultivation has drastically come down over the years, particularly since 2001 due to crop holiday and the growers have switched over to alternate crops. For example, the area planted on tobacco in northern and central black soils of Andhra Pradesh has come down from 33050 hectare in 1985-86 to 5564 hectare in 2002-03, a drop of over 80 per cent in terms of area coverage. However, the average yield witnessed a sharp increase from 1085 kg per hectare in 1985-86 to 1456 kg per hectare in 2002-03 and, even in some pockets of central black soil, the yield registered 2000 to 2500 kg per hectare. Despite higher yield, there has been a shift in area from cultivation of tobacco in this region to alternative crop due to declining demand.

2.77 As compared to northern and central black soil, the southern black soil of Andhra Pradesh is most suitable for production of better quality tobacco. The average yield in this region witnessed a marked improvement during the past one decade or so, particularly from 1990-91 onwards, because the manufactures like Indian Tobacco Company Ltd. (ITC) developed this area to meet export demand for VFC tobacco. Generally, the tobacco produced in this tract was purchased by domestic cigarette companies for export to Egypt, Iraq, and some European countries like United Kingdom etc.

2.78 The southern light soils of Andhra Pradesh produce tobacco having a good filling value. This tobacco is used in domestic market and part of it goes to export market. The yield in this area is comparatively poor. The northern light soils of Andhra Pradesh produces quality tobacco in India comparable to Zimbabwean and Brazilian tobacco. About 20 per cent of the tobacco is utilised in premium brands manufactured in India. The yields have gone up in recent years due to introduction of K-326 – an exotic variety. The average yield in this region, which was placed at 1390 kg per hectare in 1985-86, had gone up to 2075 kg per hectare in 2002-03.

2.79 The tobacco production in Karnataka has been growing very fast. Karnataka light soil tobacco is considered to be neutral filler in the international market. The tobacco is mainly exported to West Europe and Asia. The area under tobacco, which was 17855 hectare in 1985-86 increased to 56364 hectare in 2002-03. The average yield per hectare increased from 984 kg per hectare in 1985-86 to 1122 kg per hectare in 2002-03.

2.80 VFC tobacco is also grown, though in small quantity, in some tracks of Orissa and Maharashtra. However, in terms of the size of crop, the magnitude of production is comparatively low, as compared to Andhra Pradesh and Karnataka, which are the market leaders in the field.

2.81 Detailed analysis of data showed that the total production of tobacco from black soils marginally decreased from 45.63 thousand tonnes in 2001-02 to 43.98 thousand tonnes in 2002-03, on account of decline in area under the crop from 32.65 thousand hectares in 2001-02 to 30.84 thousand hectares in 2002-03. In contrast to tobacco production from black soil, the production of tobacco from light soils had shown marked improvement in 2002-03 over 2001-02. The area covered under the crop increased to 118.74 thousand hectares in 2002-03 from 102.77 hectares in 2001-02 and the total production rose from 122.34 thousand tonnes in 2001-02 to 135.0 thousand tonnes in 2002-03. Interestingly, while the productivity in black soil was up by 28 kg per hectare during the two years under reference, the productivity in light soils was down by 53 kg per hectare. According to Tobacco Board, the total production of VFC tobacco in 2003-04 was estimated to be 216.35 thousand tonnes as compared to 190.93 thousand tonnes in 2002-03. Although the overall production increased substantially, per hectare productivity was likely to decline marginally from 1277 kg per hectare in 2002-03 to 1213 kg per hectare in 2003-04.

2.82 Domestic consumption of VFC tobacco remained stagnant over the past one decade or so, in the range of 60 – 65 thousand tonnes per annum. The consumption of tobacco has been estimated at 62 thousand tonnes during 2003-04 by the Tobacco Board.

2.83 VFC tobacco is one of the major agricultural exportable items earning foreign exchange. Export of VFC tobacco in volume term, however, fluctuated from year to year, the lowest at 52 thousand tonnes in 1998-99 to the highest being at 102.34 thousand tonnes in 1997-98. For 2002-03 export of VFC tobacco was placed at 74.17 thousand tonnes. Tobacco Board has estimated the export of about 85 thousand tonnes for 2003-04.

2.84 The balance sheet of VFC tobacco shows that the year 2002-03 ended with a closing stock of 82.86 thousand tonnes. Adding to the mega production of 216.35 thousand tonnes estimated during 2003-04, the total availability would work out at about 299.21 thousand tonnes. Allowing a processing wastage of 27 thousand tonnes, domestic consumption of 62 thousand tonnes and export of 85 thousand tonnes, the year 2003-04 is likely to end with a closing stock of about 126 thousand tonnes, that is an all time high during the past two decades. The excess stock is likely to pose a serious problem of demand supply imbalance and is likely to affect the price realisation from tobacco. The Tobacco Board should strictly enforce production planning through its regulatory powers vested with it by the Tobacco Board Act by which the large scale unauthorised growers do not pose serious problems to the authorised growers in realising remunerative price. Maintaining optimum crop size would be a safest option to protect the farmers' income from tobacco cultivation.

2.85 The Commission recommends MSP for F₂ grade black soil and L₂ grade of light soil VFC tobacco. For 2002-03, the Commission had recommended Rs.28 per kg for F₂ grade and Rs.30 per kg for L₂ grade VFC tobacco. The Tobacco Board fixed the prices for other varieties of tobacco based upon grade differential and taking MSP recommended for basic grade of F₂ and L₂ VFC tobacco. For 2003-04 season, the Commission recommended MSP at Rs.31.00 per kg for F₂ grade and Rs.33 per kg for L₂ grade VFC tobacco, which were accepted and announced by the central government. The past experience of the tobacco price indicated that the Minimum Guaranteed Price (MGP) and the actual average price realised by the growers had been much higher than the MSP announced by the government. For example, for 2002-03 season, the MGP worked out to Rs.37 per kg and the actual price realised at Rs.40.83 per kg from northern light soils whereas the MSP was Rs.25.25 per kg. Similarly, for southern light soils, the MGP was at Rs.32.50 per kg and actual average price realised was Rs.33.81 per kg as against the MSP at Rs.22.25 per kg. However, the Commission feels that it is a matter of perception as to how one looks at MSP as an instrument for protection of farm income. It is a fact that for some agricultural products, when market price rules above MSP, it becomes non-effective. But reverse is also true. MSP certainly plays its effective role in protecting farm income, as the level of MGP is generally guided by the level of MSP.

2.86 Tobacco, as an agricultural product, has uncertain future in view of growing awareness on its health hazard world over. On this consideration, the demand for tobacco, both at domestic and international level may not rise in future. However, India needs to utilize fully the existing export potential of VFC tobacco through proper crop planning.

Inter-crop price parity

2.87 Inter-crop price parity is basically a measure of relative prices of competing crops. Recently it has been the endeavour of the price policy formulated by the Commission to analyse inter-crop price parity and give appropriate price signal for accelerated and diversified agricultural growth. Prices provide incentive to farmers to make investments, adopt newer technology and take farming decisions. This aspect assumes greater significance in the context of recent policy initiative for diversification of agriculture, which will necessitate reallocation of resources from one crop to another with appropriate policy measures, including price policy.

2.88 Amongst the several methods to track the movement of relative prices, one is to calculate the percentage change in MSP over two points of time and compare such changes across different crops. An alternative way is to compare real MSPs (MSP deflated by All Commodities WPI) over time and across crops. Since MSPs are not what the farmers usually receive, it is also desirable to look at the movement of real prices of crops as determined in the market (WPI of a commodity deflated by All Commodities WPI). This comparison is made more meaningful by examining the MSPs in conjunction with productivity of each crop. A simple product of MSP and yield gives gross return compared over time and across different crops facilitates further synthesis of the inter crop parity of prices. The Commission has tried to look at price parity from different angles as mentioned above. The broad findings are as below.

(Annexures II, III & IV)

2.89 The MSPs of paddy, wheat, coarse cereals, and cotton have increased by 169, 188, 180, and 167 percent respectively between 1990-91 and 2003-04. For pulses, the increase ranged from 183 to 190 percent and that for oilseeds from 108 percent (sunflower seeds) to 141 percent (groundnut) in the corresponding period. As compared to the position obtained in the period covering the decade of nineties (1990-91 to 1999-2000), inter-crop price parity based on MSP is now much more balanced. The imbalance against coarse cereals and pulses has been reversed although the imbalance favouring wheat and disfavoured oilseeds still persists.

2.90 Between 1990-91 and 2003-04, real MSPs of paddy, wheat, coarse cereals, pulses, oilseeds and cotton have on average increased by about 19, 28, 25, 27, 7 and 19 percent respectively. Thus, barring oilseeds, all other crops have witnessed significant increases in their real MSPs. It is noteworthy to compare this increase of real MSP with the increase in the decade of nineties (1990-91 to 1999-2000), the corresponding escalations were 26, 34, 21, 18, 1 and 27 percent. It is evident that price policy in the recent years has resulted into more harmonious increase in real prices. Even in case of oilseeds, there has been significant improvement in the rate of increase in the real prices. Greater parity in price increase of competing crops provides higher compatibility of the price policy with the policy initiative for

diversification of agriculture. It needs to be noted, however, that due to persistent large yield differentials, absolute levels of gross revenues continue to be much higher in the case of paddy and wheat as compared to several oilseeds and pulses. This underlines the fact that, in the absence of any breakthrough in yield raising technologies, there is a limit beyond which MSP cannot be of much help in raising the attractiveness of pulses, oilseeds and coarse cereals vis-à-vis paddy/wheat rotation.

III. BEHAVIOR OF INPUT PRICES, COST OF PRODUCTION AND TERMS OF TRADE

Among the many factors that help in the formulation of price support policy, the cost of production is perhaps the most significant. Apart from paid out operational costs including the items of input costs that are actually incurred by the farmers for each of the crops grown by them, the imputed value of family labour, owned value of inputs, rental value of owned land, interest on fixed capital etc. are also carefully considered. For most of the data requirements, the Commission depends on the Directorate of Economics & Statistics, Ministry of Agriculture who generate statewise estimates of cost of cultivation of various crops under the Comprehensive Scheme (CS). The Commission also obtains extensive feed back from state governments and other organisations which provide valuable information on state specific input prices as also estimates of cost of cultivation generated by state governments . Besides, price indices in respect of some agricultural inputs are obtained from the office of the Economic Adviser, Ministry of Industry.

3.2 The cost on account of human labour constitutes a major part in the total cost of cultivation. After the submission of the Commission's last report on price policy for kharif crops for 2003-04 season, the statutory minimum wages for agricultural labourers have been revised upward in the states of Assam, Haryana, Karnataka, Madhya Pradesh, Punjab and West Bengal. The actual wage rates of agricultural labourers are reported to have increased in most of the states growing kharif crops. According to the data obtained from the Labour Bureau, the average agricultural wage rates, between the kharif seasons of 2002 and 2003 (April to September) are observed to have increased by 1 to 3 per cent in the states of Gujarat, Karnataka, Madhya Pradesh, Tamil Nadu and Uttar Pradesh, whereas average wage rates for agricultural labour have reportedly increased between 4 to 9 percent in the states of West Bengal, Punjab, Orissa, Maharashtra, Bihar and Assam during the same period.

3.3 The electricity tariffs for irrigation purposes have not been reported to have increased in the major kharif producing states. However, in case of canal irrigation charges, only West Bengal is reported to have increased the same with effect from July, 2003. The prices of other farm inputs as measured by WPI are observed to have increased by 2.71 per cent for electricity for irrigation, 8.26 per cent for lubricants, 2.40 per cent for non-electrical machinery and 6.49 per cent for cattle-feed between January, 2003 and February, 2004. The prices of fodder have however, decreased sharply by 14 per cent during the same period. The prices of HSD as measured by the WPI reached the level of 325.9 in February, 2004 from 282.5 prevailing in January, 2003, registering a sharp increase of 15.36 per cent. (Tables 3.1 & 3.2)

Estimates of Cost of Cultivation and Projected Costs for 2004-05 Season

Paddy

3.4 After the submission of the Commission's last report for kharif crops for 2003-04 season, the Directorate of Economics & Statistics (DE&S) has provided the estimates of cost of cultivation/ production of paddy for the latest year of 2001-02 in respect of almost all the major kharif growing states, viz. Andhra Pradesh, Assam, Bihar, Haryana, Karnataka, Kerala, Madhya Pradesh, Orissa, Punjab, Tamil Nadu, Uttar Pradesh and West Bengal. The details of the latest available estimated costs of paddy and also those pertaining to the preceding year are presented in Table 3(A) below. The C₂ cost of production per quintal is estimated to have increased by 0.5 to 11.4 percent in the states of Andhra Pradesh, Assam, Haryana, Punjab, Tamil Nadu, Uttar Pradesh and West Bengal. However, there is a substantial increase of 23 percent in Karnataka due to 12 per cent decline in yield. The cost of production is estimated to have declined by 2.9 to 15.8 percent in the states of Bihar, Kerala and Orissa while for the state of Madhya Pradesh, it has come down by 15.8 percent due to increase in yield. It is observed that between 2000-01 and 2001-02, the C₂ cost of cultivation of paddy per hectare is estimated to have increased by 3.3 to 7.3 per cent in the states of Andhra Pradesh, Assam, Haryana, Punjab and Uttar Pradesh. The increase is observed to be more than 10 per cent in the states of Karnataka, Madhya Pradesh, Orissa and West Bengal which is in the range of 10.2 to 16 percent, while the cost of cultivation is estimated marginally higher in Bihar, Kerala and Tamil Nadu in the range of 0.27 to 2.80 per cent during the same period. Further details of cost of cultivation/production of paddy pertaining to the latest period and for the preceding year are given in Tables 3.3 and 3.4.

3.5 In order to derive the likely cost of production of paddy for the ensuing crop season (2004-05), the Commission, has, as usual, used the base level CS data pertaining to different states for the latest three year ending 2001-02. In other words, each of the estimated cost

for 1999-00, 2000-01 and 2001-02 has been projected to 2004-05 and their average taken. For making the projection, a state-specific variable Input Price Index has been constructed to capture the actual movements of input prices between the base year and the year of projection (2004-05).(Table 3.5)

3.6 According to the projections, the per quintal paid-out cost of production of paddy plus imputed cost of family labour (i.e. cost A_2+FL) for 2004-05 comes to an average of Rs. 378 for Andhra Pradesh, Rs. 416 for Assam, Rs. 362 for Bihar, Rs. 430 for Haryana, Rs. 412 for Karnataka, Rs. 438 for Madhya Pradesh, Rs. 413 for Orissa, Rs. 287 for Punjab, Rs. 442 for Tamil Nadu, Rs. 328 for Uttar Pradesh, Rs. 425 for West Bengal and Rs. 633 for Kerala. As against this, the projected C_2 cost of production of paddy for these states averages at Rs. 557, Rs. 542, Rs. 505, Rs. 631, Rs. 551, Rs. 627, Rs. 544, Rs. 442, Rs. 589, Rs. 462, Rs. 556 and Rs. 764 per quintal respectively for 2004-05. The weighted average cost of production of paddy for all these states works out to Rs. 384 on cost A_2+FL basis, Rs. 531 on cost C_2 basis and Rs. 584 per quintal on cost C_3 basis. [Table 3(G)]

3.7 From the above, it may be noticed that the average costs of production of paddy are the lowest in Punjab and Uttar Pradesh. Based on the MSP fixed for paddy (Common) for 2003-04 at Rs. 550 per quintal, both these states command a margin of about 19-24 per cent over C_2 costs of production currently being projected. On the other hand, the costs of production of paddy are much on the higher side in Haryana, Madhya Pradesh and Kerala. While Madhya Pradesh suffers from extremely low productivity, Kerala's high cost is explained mainly by human labour cost which is the highest in the country. The case of Haryana is strikingly different. Although Haryana's total cost of cultivation of paddy per hectare at Rs. 24401 is very close to that of its neighbour, Punjab, it is well known that Haryana produces finer quality of paddy like basmati in a large area which results in much lower yield averaging around 38 quintals per hectare as against 57 quintals obtained in Punjab.

3.8 Although not found strictly comparable because of certain conceptual and methodological differences, the Commission regularly examines the cost data received from some of the state governments and compares them with those made available by the DES for the latest year and also with the projected costs of production of various crops for the ensuing kharif season that are made in the Commission. This exercise is found useful for the purpose of cross-checking of the cost data.

3.9 It may be observed from Table 3(H) that the cost of production of paddy estimated by the state of West Bengal at Rs. 436 per quintal for 2001-02 is lower than that given under CS

at Rs. 500 per quintal. In case of Uttar Pradesh, however, the unit cost estimated by the state is much higher partly because of lower average yield considered in the state estimate and also high cost on account of human labour as compared to CS. The estimated cost of production of paddy provided by Gujarat and Maharashtra are much on the higher side. But no comparison is possible because these states are not covered for paddy under the CS.

3.10 Punjab has provided cost projections for the year 2004-05 based on their own assessment. After adjusting the projected costs to some extent with a view to making them comparable with the Commission concepts and methodologies, it is observed that the adjusted projection for Punjab at Rs. 572 is higher than the Commission projection of Rs. 442 per quintal. As mentioned in the Commission's earlier reports, this difference is mainly attributed to much higher rental value of land considered by the state. The cost projected for paddy by the state of Orissa at Rs. 546 per quintal is almost the same as that projected by the Commission ACP at Rs. 544 per quintal. [Table 3(I)]

Cotton (Kapas)

3.11 For cotton, the estimates of cost of cultivation/production for 2001-02 have become available in respect of all the growing states. The data presented in Table 3(B) show that the cost of cultivation per hectare is estimated to have increased in 2001-02 as compared to the preceding year in the states of Andhra Pradesh, Gujarat, Madhya Pradesh, Maharashtra, Punjab and Tamil Nadu. This hike being very steep in Gujarat and Madhya Pradesh. The unit cost of production of cotton has gone up in the states of Andhra Pradesh, Haryana, Punjab and Rajasthan. In Madhya Pradesh it has declined marginally. (Tables 3.6 & 3.7)

3.12 Following the same methodology as used in the case of paddy, the cost A_2+FL of cotton is projected for 2004-05 to an average of Rs. 1185 for Andhra Pradesh, Rs. 1332 for Gujarat, Rs. 1715 for Karnataka, Rs. 1747 for Madhya Pradesh, Rs. 1765 for Maharashtra, Rs. 1773 for Punjab, Rs. 1019 for Rajasthan and Rs. 1617 per quintal for Tamil Nadu. The corresponding cost C_2 per quintal is projected at Rs. 1776, Rs. 1643, Rs. 2229, Rs. 2463, Rs. 2216, Rs. 2316, Rs. 1455 and Rs. 2438 per quintal respectively. The weighted average cost of production of cotton for 2004-05 is placed at Rs. 2021 per quintal on cost C_2 basis and Rs. 2223 on cost C_3 basis. [Table 3(G)]

3.13 As against the above cost estimates under CS survey, the estimates of cost of production of cotton for 2001-02 have been provided by the states of Gujarat and Maharashtra. The cost estimate of Gujarat at Rs. 1441 per quintal is much lower than the corresponding CS estimates made available for Gujarat. The estimate provided by the state of Maharashtra is almost same as that made available under CS. The states of Maharashtra and

Punjab have given the projected cost of cotton for the year 2004-05. This projected cost provided by Maharashtra is on the higher side as compared to the Commission's projection for the year 2004-05. However, after adjustment as per the Commission's concept and methodology it works out lower than the Commission's projected cost. Similarly, after adjustment, the projected cost provided by Punjab is at Rs. 2436 per quintal against the Commission's projection at Rs. 2316 per quintal. This higher value can be mainly attributed to the higher rental value of land considered by the states. [Tables 3(H) & 3(I)]

Coarse Cereals

3.14 Jowar, bajra, maize and ragi are the major kharif coarse cereals produced in the country. For jowar, estimates of cost of cultivation/production are available for 2001-02 in respect of Andhra Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Tamil Nadu. It may be observed from Table 3(C) that between 2000-01 and 2001-02, the cost of cultivation for jowar per hectare is estimated to have increased in all the states for which data are made available. For bajra the cost of cultivation is estimated to have increased in Maharashtra and Uttar Pradesh, for maize in Andhra Pradesh, Karnataka, Madhya Pradesh and Uttar Pradesh and for ragi in Karnataka and Tamil Nadu.

3.15 Following the methodology adopted in the case of paddy and cotton, the projected cost of cultivation (A_2+FL) for jowar for 2004-05 for the states of Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Tamil Nadu is Rs. 544, Rs. 425, Rs. 497, Rs. 450 and Rs. 477 per quintal respectively. While cost of production per quintal on C_2 basis for these states arrived at Rs. 717, Rs. 605, Rs. 629, Rs. 595 and Rs. 588 respectively. The weighted average A_2+FL and C_2 cost of production for jowar have been projected at Rs. 499 and Rs. 644 per quintal respectively. Projected cost of production for bajra for the year 2004-05 for the states of Gujarat, Haryana, Uttar Pradesh, Maharashtra and Rajasthan on A_2+FL basis is Rs. 507, Rs. 490, Rs. 320, Rs. 520, Rs. 441 per quintal while the C_2 cost of production per quintal for these states is Rs. 621, Rs. 665, Rs. 449, Rs. 640 and Rs. 556 respectively. The weighted average A_2+FL and C_2 costs of production for the year 2004-05 for bajra are at Rs. 450 and Rs. 575 per quintal respectively. The A_2+FL projected cost of production of maize for the states of Andhra Pradesh, Bihar, Himachal Pradesh, Karnataka, Madhya Pradesh, Rajasthan and Uttar Pradesh is Rs. 353, Rs. 422, Rs. 432, Rs. 309, Rs. 310, Rs. 646 and Rs. 537 per quintal respectively, while the projected C_2 cost of production for these states works out to Rs. 489, Rs. 553, Rs. 600, Rs. 422, Rs. 527, Rs. 794 and Rs. 700 per quintal respectively. The weighted average A_2+FL and C_2 costs of production of maize on the basis of these costs are Rs. 416 and 568 per quintal respectively. A_2+FL and C_2 projected cost for ragi for the year 2004-05 for the states of Karnataka and Tamil Nadu work out to Rs. 658 & Rs. 620 and Rs. 798 & Rs. 824 respectively, the weighted average cost of production of ragi

comes to Rs. 652 on cost A_2+FL basis and Rs. 802 on cost C_2 basis respectively. [Table 3(G)]

3.16 The cost estimates for jowar and bajra have been made available by the states of Maharashtra, Gujarat and Uttar Pradesh for the year 2001-02. Maharashtra has provided an estimate of Rs. 443 per quintal which is much lower than the CS estimate at Rs. 629 per quintal. Such comparison can not be made for Uttar Pradesh and Gujarat in the absence of CS data for the crop. Maharashtra has also given the projected cost figures for jowar and bajra for the year 2004-05 at Rs. 800 per quintal and Rs. 929 per quintal respectively. However, when these have been adjusted using the Commission's concepts and methodologies, they worked out to Rs. 579 and Rs. 682 per quintal respectively. The Commission's projections for jowar and bajra for the year are Rs. 629 and Rs. 640 per quintal respectively. [Tables 3(H) & 3(I)]

Pulses

3.17 For pulses, the latest available estimates of cost of cultivation/production for major kharif pulses of tur (arhar), moong and urad are presented in Table 3 (D). It may be observed that the cost of cultivation per hectare is estimated to have been higher in the range of 4 to 28 per cent during 2001-02 over the level prevailed a year before in the case of tur for the states in respect of which data were made available. The projected per quintal cost of production (A_2+FL) of tur for 2004-05 averaged at Rs.1467 for Andhra Pradesh, Rs. 814 for Gujarat, Rs. 1295 for Karnataka, Rs. 770 for Madhya Pradesh, Rs. 676 for Maharashtra, Rs. 944 for Orissa and Rs. 558 for Uttar Pradesh and the corresponding cost C_2 at Rs. 2005, Rs. 1269, Rs. 1767, Rs. 1215, Rs. 1027, Rs. 1381 and Rs. 1086 per quintal respectively with the weighted average cost arrived at Rs. 822 and Rs. 1262 per quintal on A_2+FL and C_2 basis respectively. As regards moong cost A_2+FL per quintal is projected at Rs. 1222, Rs. 1333, Rs. 1383, Rs. 1483 for the states of Andhra Pradesh, Maharashtra, Orissa, Rajasthan respectively and cost C_2 per quintal at Rs.1824, Rs. 1698, Rs. 1912, Rs. 1836 for these states respectively. The weighted average cost for moong for the same year work out to Rs. 1335 and Rs. 1768 per quintal respectively for cost A_2+FL and C_2 . The projected cost A_2+FL for urad for the states of Andhra Pradesh, Maharashtra, Orissa, Rajasthan, Tamil Nadu and Uttar Pradesh have been projected at Rs. 820, Rs. 1382, Rs. 976, Rs. 1544, Rs. 1275, Rs. 775 per quintal respectively. The corresponding C_2 cost of production for these states work out to Rs. 1363, Rs. 1730, Rs. 1498, Rs. 2022, Rs.1799, Rs. 1214 per quintal respectively with weighted average A_2+FL and C_2 cost being placed at Rs. 1060, Rs.1528 per quintal respectively. [Table 3(G)]

3.18 For all the kharif pulses, the estimates of costs have been provided by the states of Maharashtra, Gujarat and Uttar Pradesh for the year 2001-02. For moong, urad in Maharashtra and tur in Uttar Pradesh, these estimates were lower than the CS estimates for

the same year. The projected costs for all the pulses for the year 2004-05 as made available by the state of Orissa are lower than the Commission's projection. However, the costs as projected by Maharashtra for the same are higher than the projections made by the Commission. [Tables 3(H) & (I)]

Oilseeds

3.19 The latest estimates of cost of cultivation/production for kharif oilseeds for 2000-01 have become available in respect of most of the producing states (Table-3 E). For groundnut, the cost of cultivation per hectare for 2001-02 is estimated higher than that for the previous year in the states of Andhra Pradesh, Gujarat and Maharashtra. As regards soyabean and sunflower, the cost of cultivation has gone up in the states of Madhya Pradesh, Maharashtra, Rajasthan, Andhra Pradesh, Karnataka and Maharashtra respectively.

Following the latest methodology, the estimated costs of kharif oilseeds for the latest 3 years ending 2001-02 have been projected for the ensuing crop season of 2004-05. Accordingly, the projected cost A_2+FL cost of production for groundnut is averaged at Rs. 1316 per quintal for Andhra Pradesh, Rs. 930 for Gujarat, Rs. 1239 for Karnataka, Rs. 1382 for Maharashtra and Rs. 1179 per quintal for Tamil Nadu. The cost C_2 cost of production for these states work out to Rs. 1726, Rs. 1177, Rs. 1572, Rs. 1678 and Rs. 1552 per quintal respectively. The weighted average cost for groundnut works out to Rs. 1507 on cost C_2 basis and Rs. 1658 per quintal on cost C_3 basis. For soyabean, the projected cost A_2+FL work out to Rs. 618, Rs. 700, Rs. 682 per quintal respectively for the states for Madhya Pradesh, Maharashtra and Rajasthan while the C_2 cost work out to Rs. 884, Rs. 886 and Rs. 853 per quintal respectively with the weighted average cost at Rs. 646 and Rs. 882 per quintal respectively on cost A_2+FL and C_2 basis. The projected costs for sunflower for 2004-05 for states of Karnataka and Maharashtra are placed at Rs. 1235 and Rs. 1429 per quintal on cost A_2+FL basis and Rs. 1555 and Rs. 1668 per quintal on C_2 basis. The weighted average cost on A_2+FL and C_2 basis work out to Rs. 1300 and Rs. 1593 per quintal respectively. For sesamum, the average projected A_2+FL costs are Rs. 1629, Rs.1404, Rs. 1991, Rs. 1466, Rs. 1065 per quintal and the corresponding C_2 costs work out to Rs. 2106, Rs. 1966, Rs. 2810, Rs. 2199, Rs. 1954 per quintal for the states for Gujarat, Orissa, Rajasthan, Tamil Nadu and Uttar Pradesh respectively with the weighted average A_2+FL and C_2 cost at Rs. 1596 and Rs. 2221 per quintal respectively. The C_2 cost of production of nigerseed in respect of Orissa has been projected to an average of Rs. 1198 per quintal. [Table 3(G)]

3.20 As against the estimated costs provided under CS, the estimates provided by the state governments are observed to be lower in Maharashtra for groundnut. The state estimate of groundnut in Gujarat at Rs. 1295 per quintal is much higher than the corresponding CS estimates mainly due to the much lower yield estimated by the state as compared to the CS

yield. As regards sunflower the estimates given by the state of Maharashtra is much lower than the CS estimates. In the case of sesasum, the state estimates given by Gujarat is lower than the CS estimate. [Tables 3(H) & 3(I)]

VFC Tobacco

3.21 The latest estimates of cost of cultivation/production for VFC tobacco have been made available by the DES which pertains to Andhra Pradesh for the year 2001-02. Karnataka, the only other important VFC tobacco producing state, is not covered under the C.S. The data presented in Table 3(F) show that cost of cultivation is estimated at Rs. 42523 per hectare. The cost of production of tobacco in respect of Andhra Pradesh has been projected to an average of Rs. 3014 and Rs. 3835 per quintal on cost A_2+FL and C_2 basis, respectively. (Table 3(G))

Terms of Trade

3.22 The inter-sectoral terms of trade between agricultural and non-agricultural sectors, defined in ordinary parlance as the ratio of total prices received by the agricultural sector to the total prices paid by it to non-agricultural sectors, is one of the important economic indicators to get a perception as to how agricultural sector as a whole has either gained or lost in the process of economic growth. The Commission has been regularly monitoring the changes in the inter-sectoral terms of trade, (the base 1971-72) since 1980-81 using its own methodology and data base. However, from 2001-02 kharif report, the Commission has been using the new index of terms of trade as compiled by the Directorate of Economics and Statistics following the methodology evolved in 1995 (base year 1988-91= 100) by a Task Force headed by Prof. A.S. Kahlon, former Chairman, CACP.

3.23 The Commission's series of the Index of Terms of Trade showed an unfavourable terms to agriculture during both 1980's and 1990's. But the new series of the Index of Terms of Trade of agriculture sector (ITT) indicates that it remained adverse during the decade of eighties, but was making steady recovery before turning favourable in 1990-91. However, the ITT deteriorated steadily from 105.6 in 1997-98 to 102.8 in 2000-01 and recovering to 104.5 for the year 2001-02. The provisional estimates of ITT for the year 2002-03 is 106.8, reflecting further improvement in the terms of trade in favour of agriculture. However, this improvement needs to be viewed in the context of severe drought faced in the country in 2002 and the resultant crunch in production supply as reflected in relatively higher escalation in the index of prices received by the farmers.

(Appendix - I)

Input-Output Price Parity

3.24 The index of input output price parity (IOP) is derived by the Commission based on the components of new series of ITT. This is done by deriving the index of prices paid for agricultural inputs using the elements of index of prices paid viz. the indices of intermediate consumption and of capital formation, and comparing it with index of prices received, available from ITT.

3.25 Akin to ITT, which remained unfavourable to agriculture during the eighties and then turned favourable to agriculture in the nineties, the price parity also remained unfavourable to agriculture in eighties and subsequently recovered in early 1990's. However, the index of input-output price parity remained lower than hundred since 1994-95. (Appendix - II)

IV. PRICE POLICY FOR RABI CROPS OF 2004-05 SEASON

The Commission, in formulating the Price Policy for rabi crops of 2004-05 season has considered several factors, namely costs of production, trends in domestic and international prices, emerging demand-supply scenario, inter-crop price parity, input-output price parity and the situation of food security in the context of procurement off-take status. Besides, the Commission kept in mind the need for agricultural diversification and sustainable use of land, water and other resources, as emphasized in recent policy resolution of the government.

4.1 Cost of production is one of the prime considerations in the determination of minimum support prices. It has been the view of the Commission that MSP fixed should cover atleast $A_2 + F_2$ in high cost states and C_2 cost in relatively low cost states. The present MSP of wheat not only meets both the criteria, but also covers weighted average cost at All India level. The existing MSP of barley marginally breaches the projected C_2 cost in Rajasthan. The C_2 cost of gram projected for the year 2004-05 is also adequately cushioned by the existing MSP in most of the states except Haryana and Rajasthan. Also the C_2 costs of lentil and rapeseed and mustard are sufficiently lower than existing MSPs. Thus, based on cost considerations, there is no scope for hike in the minimum support prices of any rabi crops under consideration. However, as the input costs have marginally

increased during the past one year, there may be some justification for a marginal hike in MSPs.

4.2 During 2003-04, the domestic market prices of the rabi crops under consideration were generally good, excepting of barley and gram. However, in several places, prices fell below the MSPs. Even though international prices of wheat have been rising for the past few years, there are indications that wheat prices may remain depressed in 2004-05, because of improved supply situation and low demand. Similarly, international prices of barley and lentils are likely to weaken, while that of rapeseed and mustard may remain firm. In view of the price trends therefore, there is no scope for any hike in the MSPs of wheat, barley, gram and lentils, although MSP of rapeseed and mustard may be marginally increased.

4.3 The stock position of rice and wheat looks quite precarious, especially in view of the expected large scale drought in the country in 2004-05. The year 2004-05 commenced with 22.8 million tonnes of foodgrains stock which was marginally lower than buffer norm of 24 million tonnes. In the case of pulses and oilseeds also, the domestic demand far exceeds the supply. There is a gap of about 15 per cent between demand and supply of pulses. In the case of edible oils, the existing gap between domestic production and consumption is above 40 per cent. Although considerations of self-sufficiency may justify hike in the minimum support prices of cereals, pulses and oilseeds to encourage higher production of these commodities, it is doubtful whether hike in the MSP alone would help achieve self-sufficiency in the production of these commodities in the absence of appropriate technological support and increase in import duties on pulses and edible oils. There is a felt need for proper co-ordination between price policy, technology policy and import policy in this regard.

4.4 As regards inter-crop price parity, the situation has improved significantly in recent years, due to relatively higher MSPs fixed for pulses and oilseeds. However, the much needed agricultural diversification has not yet adequately taken off because of inadequate technology and marketing support. Besides, low import duties on pulses and edible oils have encouraged imports and depressed domestic prices of these commodities.

4.5 Thus, considering all the relevant factors, the Commission recommends that

the minimum support prices for the fair average quality of the rabi crops of 2004-2005 season be fixed at the following levels:

Commodity	Rs/Quintal
Wheat	640
Barley	540
Gram	1425
Masur	1525
(Lentil)	
Rapeseed/Mustard	1700
Safflower	1550

The Commission further recommends that:

- i) the prices of other oilseeds belonging to the rapeseed/mustard group be fixed on the basis of their normal market price differentials with rapeseed/mustard;
- ii) FCI should improve its operational efficiency in the procurement and distribution of foodgrains in a cost effective manner, while there should be a gradual policy shift in favour of decentralized procurements by state governments along with necessary infrastructure and financial support. The FCI should procure only to meet the buffer needs; (Para 1.10)
- iii) commercial banks and co-operatives should improve their credit delivery systems so that farmers could access adequate credit from institutional sources at competitive rates and in a hassle free manner; (Para 1.12)
- iv) Government should redesign a simple, easy to operate and clearly understood insurance scheme after a thorough examination of its practicability and in the light of problems which the farmers face both in the coverage and settlement of claims; (Para 1.14)
- v) increased investment in rural infrastructure, coupled with appropriate policy initiatives for agricultural diversification and value addition should form the topmost priority. Besides, agricultural price policy, technology policy and exim policy must be oriented towards diversified rural growth. Moreover, an effective market information system and monitoring of national and international prices and trade cycles would be crucial; (Para 1.16)
- vi) Government should rationalize the import duty on pulses and oilseeds to discourage imports and also nominate NAFED to undertake the task of monitoring the quality of imports of these

commodities; and
RP.2.8)

(Para

- vii) instead of waiting for announcement of new prices, the state governments, based on advance reports of crop production, should ensure that adequate arrangements for purchase are made at least at the MSP of the previous year and that subsequent book adjustments are made with the Central Government so that the farmer is not forced to sell under distress conditions.
(Para S.2.6)

(T. HAQUE)

**(RAMADHAR)
MEHTA)
JULY 28, 2004**

(RAJIV