

COMMISSION FOR AGRICULTURAL COSTS AND PRICES

REPORT ON PRICE POLICY FOR KHARIF CROPS OF 2006-2007 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 2006-2007 Season. The Commission recommends that the minimum support prices for the kharif crops of 2006-2007 season be fixed at the following levels:

Commodity	Variety	Quality	Minimum Support Price (Rs per quintal)
Paddy	Common	FAQ	570 *
	Grade-A	"	600 *
Jowar Hybrid	-	"	540
Maldandi	-	"	555
Bajra	-	"	540
Maize	-	"	540
Ragi	-	"	540
Tur (Arhar)	-	"	1410
Moong	-	"	1520
Urad	-	"	1520
Groundnut-in-shell	-	"	1520
Soyabean	Yellow	"	1020
	Black	"	900
Sunflowerseed	-	"	1500
Sesamum	-	"	1560
Nigerseed	-	"	1220
Cotton (Kapas) Medium Staple Length		"	1770
Long Staple Length		"	1990
VFC Tobacco			
Black soil	F ₂ grade	"	3400
Light soil	L ₂ grade	"	3600

(Para 4.14)

*** Additional Rs. 10.00 per quintal for paddy may be given to farmers in Punjab and Haryana if these States enforce a mechanism to prevent sowing / transplanting of paddy before June, 10. In that event, farmers in other States should also receive this additional price.**

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 Medium Staple Length relates to F-414/H-777/J-34 variety of kapas with technical parameters of Basic Staple Length (2.5% span) of 24.5 mm and Micronaire Value 3.8 – 4.8;**

- iii) ***the MSP recommended for Long Staple Length relates to H-4/H-6 variety of kapas with technical parameters of Basic Staple Length (2.5% span) of 28.0 mm and Micronaire Value 3.6 – 4.5 ;***
- iv) ***the prices of varieties grown in different states, other than those mentioned in (ii) and (iii) above, in the groups of Short, Medium, Long and Extra Long Cotton (Kapas) be fixed keeping in view the normal market price differentials between Medium Staple Length (F-414/ H-777/ J-34 with technical parameters of Basic Staple Length of 24.5 mm and Micronaire Value 3.8 – 4.8); Long Staple Length (H - 4 / H - 6 with technical parameters of Basic Staple Length of 28.0 mm and Micronaire Value 3.6 – 4.5) and other varieties and technical parameters;***
- v) ***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;***
- vi) ***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;***
- vii) ***the strategies of food procurement and distribution by FCI and its designated agencies should be reshaped keeping in view the emerging market scenario and the need to expand operations in non-traditional areas and to induce coarse cereals as an adjunct to its operations for enhancing food security;*** (Para 1.4)
- viii) ***Government should frame a specific roadmap for domestic cotton economy, aligning it with global trade opportunities and the growth prospects of textile sector in the country. This would necessitate strengthening infrastructure, revamping institutions for delivery of appropriate technology, inputs and credit and streamlining the market linkages;*** (Para 1.6)
- ix) ***Government should formulate an appropriate, albeit integrated policy for surplus management and trade of agricultural produce and putting in place flexible options for insulating domestic prices from international volatility, besides appropriate instruments for promoting trade of domestic surpluses;*** (Para 1.8)
- x) ***The existing flexibility of safeguarding Indian agriculture on Market Access provisions should not be conceded at any cost and the basket of sensitive products/Special Products should encompass the diversified commodity profile of agrarian space comprehensively, especially because the outcome of current negotiations will have far reaching consequences on development priorities of Indian agriculture and the food and livelihood security of majority of the country's population. The government should also have a clear road map for Indian agriculture to survive in the trade environment that will emerge on conclusion of current negotiations;*** (Para 1.15)
- xi) ***whenever relaxations in quality norms are allowed to states, the same conditions should be applied to all states on grounds of fairness and equity;*** (Para 2.4)
- xii) ***State governments should reduce statutory charges on purchase of cereals to a combined maximum of 4 per cent, including all taxes and cesses, mandi charges and payments to commission agents. The Commission also recommends that state governments should refrain from taxing primary products brought in or taken out of the states by agencies designated to undertake minimum support price operations;*** (Para 2.9)

- xiii) *the Department of Food and Public Distribution should make a state-wise evaluation of the working of decentralized procurement for removal of operational hitches to smooth operations of procurement;*
(Para 2.14)
- xiv) *the system of levy price for rice should be gradually done away with, as the benefits of procurement through this route do not generally accrue to farmers and emphasis should be given on procurement of paddy directly from farmers;*
(Para 2.15)
- xv) *the Government may consider announcing separate MSP for basmati paddy with proper geographical indications in addition to MSPs for common variety and Grade 'A' Paddy and accordingly put in place a system to defend the same in the market;*
(Para 2.16)
- xvi) *pulses should be given due priority in the regionally differentiated growth strategy of agricultural development and vast pool of genetic resources may be used for ushering meaningful break through in production technology of pulses;*
(Para 2.57)
- xvii) *the Government should review the existing procurement/price support operations of oilseeds and make proper marketing arrangements to ensure that the oilseeds crop of the farmers is duly protected against price uncertainty;*
(Para 2.71)
- xviii) *the State Governments may be persuaded to refrain in public interest, from levying various types of taxes, cess, marketing fees etc. on stocks procured under price support operations and from imposing inter-state taxes on movement of such stocks from one state to another;*
(Para 2.72)
- xix) *the Government may formulate an appropriate strategy to exploit the available potential of vegetable oils from secondary sources to augment net availability of edible oils in the country;*
(Para 2.88)
- xx) *the Technology Mission on Oilseeds & Pulses may examine the suggestion of the oil industry to declare cultivation of oil palm as plantation and allow the public and private enterprises to enter in this field; and*
(Para 2.90)
- xxi) *the Directorate of Economics and Statistics in consultation with the Textile Commissioner should reconcile the production estimates and a single series of the same be arrived at, with effect from the next kharif season 2006-07.*
(Para 2.102)

I. An Overview

During the year 2005-06, the agricultural sector in the country remained susceptible to fluctuating behaviour of monsoon. Even though the overall rainfall was normal during the South-West monsoon 2005 (June-September), bringing 99 per cent precipitation of Long Period Average (LPA) due to late onset of monsoon and its slow advancement, the rainfall during June was deficient. After a spell of normal precipitation in July, monsoon currents remained weak in August, rendering the month with high rainfall deficiency of 28 per cent. Such abnormal behaviour of monsoon had consequently impacted the crops cultivated in rain-fed conditions. The month of September witnessed further spurt in rainfall activity in Central and Western India and cyclonic disturbances in Andhra Pradesh, causing widespread floods that damaged crops at their advance growth stage. Also the weather anomalies, such as prolonged dry spell during the winters and frost conditions in January in the North and North-West India, had adversely affected rabi crops. Nevertheless, the water storage in 76 major reservoirs of the country was 48 per cent higher than previous year and 25 per cent higher than the average for the last 10 years (as on 6.2.2006).

1.2 According to the Second Advance Estimates of Crop Production released by the Directorate of Economics and Statistics (DES) of Department of Agriculture and Cooperation (DAC), the total foodgrains production during 2005-06 is likely to be 209.32 million tonnes, registering a gain of over 5.5 per cent compared with the production of 198.36 million tonnes (Final Estimates) in the previous year. The estimated foodgrain production for 2005-06, however, fell short of the target of 215 million tonnes for the year by about 2.6 per cent and it is about 1.8 per cent less than the record production of 213.19 million tonnes achieved in 2003-04. The augmentation of about 11.0 million tonnes of foodgrain production during 2005-06 over 2004-05 needs to be viewed against the background of about 15 million tonnes fall in the production in 2004-05 from 2003-04. Rice production in 2005-06, is expected to be 87.86 million tonnes, i.e. higher by 4.73 million tonnes over the previous year, while the production of wheat may improve by 4.4 million tonnes to

about 73 million tonnes. Pulses production is expected to be 14.40 million tonnes, up from 13.13 million tonnes in the previous year. The production of coarse cereals, however, is expected to remain nearly stagnant at 34.0 million tonnes. The only silver lining in the foodgrains production scenario is the likely record production of maize estimated at 14.99 million tonnes. Compared to foodgrains, the performance of oilseeds during 2005-06 is expected to be impressive. Oilseeds production may surpass the record achievement of 25.19 million tonnes in 2003-04 to 26.37 million tonnes during 2005-06. This upbeat in oilseeds production is mainly due to bright prospect of kharif oilseeds, the production of which is expected to be 16 million tonnes close to the earlier record of 16.5 million tonnes achieved in 2003-04. Soyabean production is expected to be an all time high of 7.9 million tonnes, while the groundnut production is expected to be 7.2 million tonnes. The sunflower seed production is also likely to reach a record level of 1.4 million tonnes during the year. Amongst the other major commercial crops, cotton is poised to sustain its robust production. Despite the reported adverse impact of climate on the crops in parts of Maharashtra and Andhra Pradesh, cotton production as per the official estimates is likely to be 16.5 million bales (170 kg each) during 2005-06, marginally higher than the record production of 16.4 million bales harvested in the previous year. According to trade estimates, released by Cotton Advisory Board (CAB), the production of cotton in the country during 2005-06 is likely to be 24.2 million bales, almost of the same order (24.3 million bales) picked in the previous year. The sugarcane crop is also returning back to normal from a depressed phase in recent years with 267 million tonnes of estimated production in 2005-06.

1.3 The rice procurement for Central Pool during Marketing Year (MY) 2004-05 (October-September) was a record 24.68 million tonnes. Major portion of rice procurement had been through levy route, accounting for about 52 per cent of total procurement. The levy procurement is the secondary transaction and there have been apprehensions about farmers not receiving MSP in several of corresponding primary transactions. Against this background, there is a perceptible change witnessed in the rice procurement pattern during MY 2005-06. As on 8.03.2006, 20.46 million tonnes of rice has been procured with levy component accounting for less than 31 percent. The procurement is upbeat with 10.8 per cent increase over the procurement in

the corresponding period of previous year. Another positive development of the year 2005-06 is the emergence of Chattisgarh in the contours of macro food security, where about 3.5 million tonnes of rice is expected to be procured during the year, next only to Punjab. Endeavour of the State to strengthen the decentralized market intervention in the wake of their bumper crop and procuring almost 90 per cent of the produce in paddy form is praiseworthy. In contrast to the buoyant paddy procurement, the procurement of wheat had been subdued. During 2004-05 (April to March), the wheat procurement by FCI and other designated State agencies was 16.80 million tonnes, which was about 19 per cent lower than the 20.63 million tonnes procured in 2001-02. During 2005-06, the wheat procurement plummeted to 14.79 million tonnes. The low procurement of wheat could be attributed to (a) possible shrinkage in crop size and (b) price buoyancy due to interplay of trade in open market in Uttar Pradesh, where only 0.56 million tonnes of wheat was procured i.e. less than the normal level of procurement.

1.4 Following the low procurement trends, especially of wheat, total foodgrain stock as on 1st January, 2006 was 19.26 million tonnes, as against the buffer stock norm of 20.0 million tonnes and the stock of 21.7 million tonnes at the onset of 2005. The wheat stock was significantly lower at 6.2 million tonnes than the buffer stock norm of 8.2 million tonnes. The depletion in stock, viewed in the context of lower offtake than the allocation, raised concern about the food security of the country. The anxiety on this count led the Government to consider import of wheat to stem the rise in market prices of wheat in January, especially when the wholesale market breached the psychological barrier of Rs 10,000 per tonne. There also appears to be lack of judgment on the part of procurement mechanism by confining their operation to traditional procurement areas and not spreading their reach to non-traditional areas. This indeed could have brought additional wheat to the stocks, besides extending the price benefit to wheat farmers. Further, the scope of procurement and distribution of coarse cereals under PDS and other welfare schemes as options for maintaining the food security remains unexplored. The Commission, therefore, recommends that ***the strategies of food procurement and distribution by FCI and its designated agencies should be reshaped keeping in view the emerging market scenario and the need to expand operations in non-traditional areas and to induce***

coarse cereals as an adjunct to its operations for enhancing food security.

1.5 In relation to the crop size, procurement, offtake and stocks, there had been decline in the supply potential of both wheat and rice during 2005-06. This had visible impact on prices. In recent years, the agricultural commodities particularly food articles, had relatively subdued price behaviour in the market as compared to non-agricultural commodities, as well as overall price rise. The Wholesale Price Index (WPI base 1993-94) for agricultural commodities and food articles was 187.0 and 186.3 respectively for the year 2004-05, inflating modestly by 2.1 per cent and 2.6 per cent respectively over the previous year. As compared to this, overall inflation was 6.5 per cent. During 2004-05, change in monthly WPI over the corresponding monthly WPI of 2003-04 ranged from (-)0.5 per cent to 5.6 per cent for agricultural commodities and from 0.9 per cent to 5.0 per cent for food items, as against the monthly change ranging from 4.5 per cent to 8.5 per cent for all commodities. During 2005-06, moderate inflationary trend had set in case of food articles, which in fact may help in stimulating growth and stemming the adversity of terms of trade. The WPI for January, 2006 at 196.4, which was 7.1 per cent higher than the WPI for the corresponding month in 2005 may also be a seasonal trend witnessed after a long spell of subdued price scenario. The increase of this magnitude has occurred after 68 months, last such upward instance being recorded for May 2000-01. The WPI for rice in January, 2006 was higher by only 2.3 per cent, as compared to the increase of 4.3 per cent for all commodities, but in the case of wheat, the change in WPI in January 2006 over the WPI of January 2005 was 8.8 per cent. Amongst the cereals, a healthy price environment had set in for maize, coexisting with consecutive record production in 2004-05 and 2005-06. This augers well for the development of maize crop, which in the recent past has been maintaining most impressive growth amongst foodgrains. Within foodgrains, exceptional inflationary trend has erupted in case of pulses. The WPI of pulses rose to 205.3 in January, 2006, about 18.1 per cent higher than the corresponding WPI in January 2005. Such price buoyancy appears to be extreme, compared to the deflationary trend that persisted consecutively during the past three years. But it may also be interesting to note that WPI for pulses in January 2006 was only 4 per cent higher than the earlier peak in

WPI scaled in 2001-02, the year that witnessed spurt in imports of pulses. In contrast to the inflationary trend in cereals and pulses, oilseeds and edible oil sector witnessed significant deflationary pressures. The WPI of oilseeds for January 2006 at 155.8 was 11.8 per cent lower than the WPI for January 2005. The price decline of this magnitude was the sharpest in the past six years. The annual decline in prices of edible oils during 2004-05 was 0.9 per cent. The unabated imports of edible oils, inadequate tariff protection particularly that of vanaspati, and implications of FTA are affecting the market for oilseeds against the interest of domestic producers.

1.6 Amongst the non-food crops, cotton holds the promise for growth and development, taking advantage of emerging global environment and trade opportunities available to textile sector. There has been visible change in cultivation practices and performance in some of the regions with the induction of BT cotton. The state like Gujarat seized the opportunity by improving the production and quality. Likewise, some states also derived benefits from the components of Technology Mission on Cotton. In the wake of bumper production in 2004-05 and unfavourable global market, the domestic cotton market tended to be unstable. However, in the year 2005-06, market appeared to absorb augmented supply from domestic production. It may also be noted that improved cotton production in the past two years has been triggered by enthusiastic adoption of new seeds by farmers, routed through private channels, though it had not been free from hiccups like high input costs due to reported royalty payments for seeds and non-performance of seeds supplied privately in some parts of the country. Despite the promises held by cotton sector in general, the acute agrarian distress in certain parts of the country, especially Vidarbha region of Maharashtra, has been associated with cotton farming, presumably due to non-suitability of the region for growing existing varieties of Bt Cotton. Therefore, the Commission recommends that ***Government should frame a specific roadmap for domestic cotton economy, aligning it with global trade opportunities and the growth prospects of textile sector in the country. This would necessitate strengthening infrastructure, revamping institutions for delivery of appropriate technology, inputs and credit and streamlining the market linkages.***

1.7 The overall global agricultural scenario also remained dynamic with some noticeable changes in production, stocks and trade. The world cereal production (FAO Food Outlook- December, 2005) during 2004-05 at 2055 million tonnes was 8.8 per cent higher than previous year. Out of this, wheat and coarse cereals with 627 million tonnes and 1023 million tonnes notched 12 per cent and 9 per cent gains respectively over the previous year, while the rice (milled) production at 406 million tonnes moved up by 3.6 per cent. The forecast for 2005-06 indicates marginal decline of 2.4 per cent in output of cereals to 2005 million tonnes. The production of wheat and coarse cereals may slide to 619 million tonnes and 971 million tonnes, but the prospects for rice production are upbeat at 416 million tonnes, about 2.6 per cent higher than in 2004-05. With near stagnant supply and marginal increase in utilization, the trade and stocks of cereals are likely to be thinner by 2.1 per cent and 4.5 per cent respectively during 2005-06. Resultantly, there was marginal firming up of price of wheat and rice in 2005. The prices of US HR wheat at 167 USD/tonne and Thai white rice at 283 USD/tonne in November, 2005 were up by 2 per cent and 6 per cent respectively over the corresponding period of 2004. As compared to cereals, the scenario of world oilseeds sector is somewhat worrisome from the point of view of the country's oilseeds economy. Due to the prospect of record oilseeds production and large carry over stocks, there is a softening of oilseeds prices witnessed by the year end in the global market. This situation is likely to increase pressure on imports of oilseeds products in the country. During 2005-06, the presence of avian flu in several countries resulted in the demand-supply imbalances of poultry and associated seed crops. Lately, the strains of this virus have also encroached certain segments of domestic poultry sector. This phenomenon disturbs the market sentiments and domestic agriculture as well.

1.8 There had been some positive developments in the performance of agricultural trade during 2004-05 as compared to 2003-04. Total agricultural exports during 2004-05 valued at Rs. 398.6 billion was 7.0 per cent higher than that in 2003-04, while total agricultural imports of Rs. 220.6 billion was only 0.4 per cent higher than the imports in 2003-04. As a result, the trade surplus in agricultural commodities improved by 16.4 per cent from Rs. 152.94 billion to Rs. 178.06 billion. However, in inter-sectoral comparison, the growth of agricultural exports was much lower than the 23.5 per cent growth in non-

agricultural exports. Resultantly, the share of agriculture in overall exports declined from 12.7 per cent in 2003-04 to 11.20 per cent in 2004-05. Behind these promising indicators of India's agricultural trade, there remain certain areas of concern. Firstly, the improvement in export performance was propelled by primary commodities mainly rice. Secondly, the export of marine products, the flagship in India's agricultural trade decelerated. Thirdly, the thrust given to horticultural products, their value addition and corresponding promotion of agri-export zones had not shown much response on exports front. Rather, the imports of such commodities in value terms were relatively more buoyant. Fourthly, country's dependence on imported edible oil and pulses remained unabated. These two commodity groups accounted for more than half of total agricultural imports in value terms. Though, the total imports of 4.54 million tonnes of edible oil during 2004-05 was marginally lower than the import of 5.29 million tonnes during 2003-04, these unabated imports put supply pressure on domestic oilseed economy that witnessed a bumper harvest. Despite the sustained improvement in the domestic production of oilseeds in 2005-06, the imports of edible oil remained upbeat. During April-September 2005-06, it was 2.27 million tonnes as compared to 2.20 million tonnes in the corresponding period of 2005-06. The edible oil import policy appears to be not in harmony with the policy of domestic supply management. This had adverse impact on domestic oilseeds prices and farm returns of oilseeds growers in the country. In the absence of adequate tariff protection, a well performing oilseeds sector did not get the required policy support and resultant market incentive. The recent budget proposal for the year 2006-07, though rectified the anomaly of tariff for vanaspati oil by raising it from 30 percent to 80 per cent, this step may be too late and too little. The Commission in its report on price policy for kharif crops had laid emphasis on instituting proper mechanism of supply management for agricultural commodities and would reiterate its recommendation that ***Government should formulate an appropriate, albeit integrated policy for surplus management and trade of agricultural produce and putting in place flexible options for insulating domestic prices from international volatility, besides appropriate instruments for promoting trade of domestic surpluses.***

1.9 Against this background of opportunities and threats, Indian agriculture seems to have fallen in the syndrome of stagnation and inconsistency. The scenario at the penultimate year of Tenth Five Year Plan is that of stepping down from the slackness of growth in the decade of nineties. Consequences of agricultural sector, apparently running out of steam for sustaining the growth, are reflecting on more than one front. Firstly, the food security and food self sufficiency that had been the corner stone of agricultural development agenda of the country, are showing signs of vulnerability. The annual growth in foodgrain production during 1995-96 to 2004-05 had been less than one per cent. This nominal growth too has lately defused. The foodgrains production in three out of four years of Tenth Plan (2002-03 to 2005-06) is lower than the 212 million tonnes achieved at the onset of the Plan. Moreover, there is a departure from the incremental trend in the level of foodgrains production, after adjusting for annual fluctuations. Five yearly moving average of foodgrains production had been incremental since the onset of green revolution. Even after excluding the sharp slump in production during 2002-03 due to severe drought, the moving average foodgrain production has dipped for the first time for the five year ending 2004-05 (Chart). Resultant to such subdued production performance, there has been decline in the procurement and stock of foodgrains, particularly of wheat.

1.10 Besides, the growth of production of pulses is failing to pickup despite Technology Mission. The per capita availability of pulses has gone down to less than 30 gm per day, bringing the issue of nutritional security to the forefront. Though the oilseeds sector has improved a bit with two consecutive years of record production in 2004-05 and 2005-06, it has been far short of meeting the requirements of the country, which has become heavily import dependent with nearly 40 per cent of requirements for edible oils.

1.11 However, the slackness of Indian agriculture is in sharp contrast to the growth of non-agricultural sectors. While the overall economy has grown at 7 per cent, the average growth of agriculture and allied sector (including forestry and fishing) during the Tenth Plan period has been only 1.5 per cent per annum. Due to the differential growth trajectories of agricultural and non-agricultural sectors, a gradual structural transformation is evident in the economy. While, the share of non-agricultural sector, particularly that of

services sector in GDP is expanding, the share of agriculture in the overall GDP, on the other, is projected to fall below 20 per cent during 2005-06, with the near stagnant agricultural sector being enslaved in its demographic rigidity of dependent population. Resultantly, there is a widening income gap between the population engaged in agriculture and those in non-agricultural activities.

1.12 Also the structural change in the agrarian economy is taking place on unfavourable terms. The demographic pressure is reflecting on declining land holding size. The rising proportion of small and marginal holdings is increasingly becoming non-viable to sustain the livelihood of such farming households. Rural indebtedness has assumed critical dimensions. It is no surprise that the Situation Assessment Survey of NSS (59th Round) revealed that as many as 49 per cent of farmers are indebted to the extent of Rs.12,585 per farmer on an average. The occupational dynamics of such adverse setting of farm economy is reflected in the rising number of landless rural labourers.

1.13 The viability of farm economy rests on net farm returns, a function of production efficiency and price realization. The adversities faced by the farmers on price front are largely on account of their weak integration with the market. Despite the best endeavours in the past through the mechanism of regulated markets, the farmers continue to remain price takers. The Government, therefore, had earnestly moved to bring reforms in the Agricultural Produce Market Committee's Act (APMC Act) for enabling freedom to farmers to sell their produce and in turn realize better prices. However, the response of some of the State Governments had been lukewarm. In the contemporary economic environment, production system needs to be aligned with the market and its subsequent flow to consumption. Accordingly, the marketing efficiency becomes as much an important element as the production efficiency for harnessing overall competitiveness of agriculture. The inertia on the part of state governments to bring reforms in agricultural marketing is choking the farmer's interests. The post harvest management needs investment both from public as well as private sectors. The marketing environment should be a catalyst for this purpose. It is important for the central government to remove all the apprehensions of

some of the state governments against marketing reforms. Further, the promotion of private investment in marketing infrastructure may not be drawing uniform attention to all the crops and some of the crops may turn out to be out of radar. One such commodity basket is that of pulses, being grown sparsely on marginal lands and its marketing is dominated by conventional practices. The share of farmers in the price paid by consumers of pulses is experienced to be low. Meanwhile, a different scenario had also emerged during 2005-06, wherein the post harvest marketing margins of the commodities like pulses and jute had unprecedented increase. This market phenomenon coincided with the hyper active future trading of these commodities. The futures of urad for the month of May, 2006 have been booked at Rs. 2730 in the end of February, 2006, which is 28 per cent higher than the booking for the same period done in the first week of December, 2005. It is doubtful that such buoyancy in the pulses market induced by the future trading would have improved price realization by the farmers, but consumer is expected to pay higher price for these commodities.

1.14 The Government has responded positively to credit needs of the farmers. The Finance Minister in his budget proposals for the year 2006-07 had announced that the farm credit during 2005-06 might exceed the target of Rs. 1415 billion and the target for 2006-07 has been set at Rs. 1750 billion. The proposal also envisages to bring another 5 million farmers in the ambit of institutional credit. While welcoming these proclamations of the government, it is important to take note of credit related distress surfacing in the farm economy. According to the results of the "Situation Assessment Survey of Farmers" (NSS 59th Round) 48.6 per cent farmers are indebted. Incidentally, high prevalence of indebtedness as reported by the survey existed in the states of Andhra Pradesh, Tamil Nadu, Punjab, Kerala, Karnataka and Maharashtra and most of these states have also reported the distress of farmers leading to extreme consequences like suicides. During the interaction of the Commission with farmers, it was observed that the fragile farm economy often was not able to sustain the servicing of credit. As a result, the problem of outstanding loans is mounted. There is a need to be sensitive to the very nature of farm economy being that of fluctuated returns. The regions devoid of assured irrigation have strong dependence on the courtesy of weather God for improved farm returns. The continued

droughts in the recent past, in the absence of adequate provision of farm risk management, had crippled the farmers economic conditions. The “Situation Assessment Survey” also revealed that only 4 per cent of farmers have opted for crop insurance. It is important to explore the reasons for disorientation of farmers to crop insurance since the credit, the means to service the credit and risk management in agriculture are strongly interrelated issues and need to be addressed comprehensively. The insurance linked credit adds the premium as invisible cost to institutional crop loans. This inflates the actual cost of credit. Secondly, the persisting drought reduces the threshold yield, in turn reducing the risk cover. Moreover, the farmers are less convinced with the area approach adopted for crop loss assessment. Lowered threshold limit in conjunction with low indemnity levels further restricts the scope of insurance cover. Some of these aspects are looked into by the Joint Group on Crop Insurance set up by the Government. Government should examine the recommendations of the Joint Group and revamp the crop insurance urgently.

1.15 The Commission has been expressing its concerns in the past on perpetuation of distortions in agricultural trade due to inequitous provisions contained in the Agreement on Agriculture (AoA) under the World Trade Organization (WTO). These provisions, since the inception of AoA, had not been able to bring meaningful discipline on subsidies and protection given to their respective agriculture by the developed economies, thus constraining the world agricultural trade reforms process. This reform process has been furthered in the on going Doha round of Negotiations, termed as Development Round, the framework of the same was unveiled in the declaration of the Fifth Ministerial Conference of WTO at Hong Kong on 18th December, 2005. The framework, that has been worked upon by the negotiators to assign numeric order for commitments in essence is not in full harmony with the spirit of AoA as enshrined in its preamble stating that “the long-term objective is to provide for substantial progressive reductions in agricultural support and protection sustained over an agreed period of time, resulting in correcting and preventing restrictions and distortions in world agricultural markets”. These negotiations are carried out in accordance with the provisions of Article 20 of AoA, that stipulates to take into account the experiences of implementation of AoA since 1995. The Hong Kong declaration falls short of expectations on this count as well. Though the framework, earnestly, set the progressive phasing of export

subsidies, laying down commitments on certain other export subsidizations and empathically considered for reforming trade distorting impact on cotton farmers, it is oblivious on disciplining those provisions of domestic support where larger chunk of subsidies have been parked by the developed countries, which continue to distort trade and breach livelihood security of millions of farmers in developing countries. The framework also is oblivious on possible shuffling of subsidies in the boxes of Domestic Support to circumvent the commitments, a phenomenon witnessed after 1995. The developed countries continued to protect their agriculture through tariff peaks and will continue to do so in the coming years, enjoying the provision of sensitive products. In this emerging scenario, Indian agriculture as a major stakeholder by virtue of being a mega centre of bio-diversity having livelihood dependence of large segment of its population in a highly diversified farming domain, has to be meticulous in safeguarding its interests, primarily on the commitments on Market Access. Perpetuation of iniquitous provisions of AoA with dilution of tariff protection will have adverse impact on Indian farmers. The Commission recommends that ***the existing flexibility of safeguarding Indian agriculture on Market Access provisions should not be conceded at any cost and the basket of sensitive products/Special Products should encompass the diversified commodity profile of agrarian space comprehensively, especially because the outcome of current negotiations will have far reaching consequences on development priorities of Indian agriculture and the food and livelihood security of majority of the country's population. The government should also have a clear road map for Indian agriculture to survive in the trade environment that will emerge on conclusion of current negotiations.***

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Bajra	-	"	540
Maize	-	"	540
Ragi	-	"	540
Tur (Arhar)	-	"	1410
Moong	-	"	1520
Urad	-	"	1520
Groundnut-in-shell	-	"	1520
Soyabean	Yellow	"	1020
	Black	"	900
Sunflowerseed	-	"	1500
Sesamum	-	"	1560
Nigerseed	-	"	1220
Cotton (Kapas) Medium Staple Length		"	1770
Long Staple Length		"	1990
VFC Tobacco			
Black soil	F ₂ grade	"	3400
Light soil	L ₂ grade	"	3600

(Para 4.14)

*** Additional Rs. 10.00 per quintal for paddy may be given to farmers in Punjab and Haryana if these States enforce a mechanism to prevent sowing / transplanting of paddy before June, 10. In that event, farmers in other States should also receive this additional price.**

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 Medium Staple Length relates to F-414/H-777/J-34 variety of kapas with technical parameters of Basic Staple Length (2.5% span) of 24.5 mm and Micronaire Value 3.8 – 4.8;**

- iii) ***the MSP recommended for Long Staple Length relates to H-4/H-6 variety of kapas with technical parameters of Basic Staple Length (2.5% span) of 28.0 mm and Micronaire Value 3.6 – 4.5 ;***
- iv) ***the prices of varieties grown in different states, other than those mentioned in (ii) and (iii) above, in the groups of Short, Medium, Long and Extra Long Cotton (Kapas) be fixed keeping in view the normal market price differentials between Medium Staple Length (F-414/ H-777/ J-34 with technical parameters of Basic Staple Length of 24.5 mm and Micronaire Value 3.8 – 4.8); Long Staple Length (H - 4 / H - 6 with technical parameters of Basic Staple Length of 28.0 mm and Micronaire Value 3.6 – 4.5) and other varieties and technical parameters;***
- v) ***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;***
- vi) ***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;***
- vii) ***the strategies of food procurement and distribution by FCI and its designated agencies should be reshaped keeping in view the emerging market scenario and the need to expand operations in non-traditional areas and to induce coarse cereals as an adjunct to its operations for enhancing food security;***
(Para 1.4)
- viii) ***Government should frame a specific roadmap for domestic cotton economy, aligning it with global trade opportunities and the growth prospects of textile sector in the country. This would necessitate strengthening infrastructure, revamping institutions for delivery of appropriate technology, inputs and credit and streamlining the market linkages;***
(Para 1.6)
- ix) ***Government should formulate an appropriate, albeit integrated policy for surplus management and trade of agricultural produce and putting in place flexible options for insulating domestic prices from international volatility, besides appropriate instruments for promoting trade of domestic surpluses;***
(Para 1.8)
- x) ***The existing flexibility of safeguarding Indian agriculture on Market Access provisions should not be conceded at any cost and the basket of sensitive products/Special Products should encompass the diversified commodity profile of agrarian space comprehensively, especially because the outcome of current negotiations will have far reaching consequences on development priorities of Indian agriculture and the food and livelihood security of majority of the country's population. The government should also have a clear road map for Indian agriculture to survive in the trade environment that will emerge on conclusion of current negotiations;***
(Para 1.15)
- xi) ***whenever relaxations in quality norms are allowed to states, the same conditions should be applied to all states on grounds of fairness and equity;***
(Para 2.4)
- xii) ***State governments should reduce statutory charges on purchase of cereals to a combined maximum of 4 per cent, including all taxes and cesses, mandi charges and payments to commission agents. The Commission also recommends that state governments should refrain from taxing primary products brought in or taken out of the states by agencies designated to undertake minimum support price operations;***
(Para 2.9)

- xiii) ***the Department of Food and Public Distribution should make a state-wise evaluation of the working of decentralized procurement for removal of operational hitches to smooth operations of procurement;***
(Para 2.14)
- xiv) ***the system of levy price for rice should be gradually done away with, as the benefits of procurement through this route do not generally accrue to farmers and emphasis should be given on procurement of paddy directly from farmers;***
(Para 2.15)
- xv) ***the Government may consider announcing separate MSP for basmati paddy with proper geographical indications in addition to MSPs for common variety and Grade 'A' Paddy and accordingly put in place a system to defend the same in the market;***
(Para 2.16)
- xvi) ***pulses should be given due priority in the regionally differentiated growth strategy of agricultural development and vast pool of genetic resources may be used for ushering meaningful break through in production technology of pulses;***
(Para 2.57)
- xvii) ***the Government should review the existing procurement/price support operations of oilseeds and make proper marketing arrangements to ensure that the oilseeds crop of the farmers is duly protected against price uncertainty;***
(Para 2.71)
- xviii) ***the State Governments may be persuaded to refrain in public interest, from levying various types of taxes, cess, marketing fees etc. on stocks procured under price support operations and from imposing inter-state taxes on movement of such stocks from one state to another;***
(Para 2.72)
- xix) ***the Government may formulate an appropriate strategy to exploit the available potential of vegetable oils from secondary sources to augment net availability of edible oils in the country;***
(Para 2.88)
- xx) ***the Technology Mission on Oilseeds & Pulses may examine the suggestion of the oil industry to declare cultivation of oil palm as plantation and allow the public and private enterprises to enter in this field; and***
(Para 2.90)
- xxi) ***the Directorate of Economics and Statistics in consultation with the Textile Commissioner should reconcile the production estimates and a single series of the same be arrived at, with effect from the next kharif season 2006-07.***
(Para 2.102)

III. BEHAVIOUR OF INPUT PRICES, COST OF PRODUCTION, TERMS OF TRADE AND INTER CROP PRICE PARITY

Cost of Production is one of the important factors which are taken into account by CACP in formulating the Minimum Support Price Policy. For this reason, the Commission reviews comprehensively the levels of cost of production of each of the mandated crops in the major producing states of the country. The data source for this vital information is the statistically designed Comprehensive Scheme (CS) operated by the Directorate of Economics and Statistics, Ministry of Agriculture. Under the CS, estimates of cost of cultivation/production are generated state-wise for each crop. Apart from paid out operational costs which include 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, rental value of owned land, interest on fixed capital etc. are also considered. The Commission in its interaction with the state governments obtains detailed feed back from them, which provide data on state specific input prices as also estimates of cost of cultivation generated by state governments. Besides, the updated price indices in respect of some agricultural inputs are obtained from the office of the Economic Adviser, Ministry of Commerce & Industry whereas the month-wise average wage rates for agricultural labour are obtained from Labour Bureau. It may be pertinent to note that the Commission also interacts with the farmers and other stake holders for their views on the price support policy.

3.2 Since the submission of the Commission's last report on Price Policy for Kharif Crops for 2005-06 season, there has been a sizeable increase in the prices of High Speed Diesel (HSD), one of the important farm inputs. The prices of diesel as measured by WPI have registered a sharp increase of 16 per cent during February 2005 and January 2006. A similar increase of about 17 per cent is observed for Light Diesel Oil (LDO) also. The prices of pesticides and tractors, as measured by WPI are observed to have increased by 12.24 per cent and 7.40 per cent respectively whereas marginal increases in the prices of non-electrical machinery, lubricants, fertilizers at 3.42 percent,

1.24 percent and a little less than one per cent respectively have been registered during the same period.

3.3 The statutory minimum wages for agricultural labourers have been revised upward in the states of Gujarat, Haryana, Karnataka, Madhya Pradesh, Orissa, Tamil Nadu, Uttar Pradesh and West Bengal. As per data obtained from Labour Bureau, the actual average agricultural wage rates, between the Kharif seasons (April- September) of 2004 and 2005 are observed to have increased by 1 to 4 per cent in Andhra Pradesh, Bihar, Gujarat, Haryana, Kerala, Madhya Pradesh, Punjab and Uttar Pradesh . However in the states of Orissa and West Bengal the increase in the wages is higher at 6 per cent during the same period.

(Tables 3.1 & 3.2)

Estimates of Cost of Cultivation and Projected Costs for 2005-06 Season

After the submission of the Commission's last Report on Price Policy for Kharif crops for 2005-06 season, the Directorate of Economics & Statistics (DES) provided the estimates of cost of cultivation/production for the year 2003-04 for different crops. Some estimates which were not available for 2002-03 last year have also been received this year.

Paddy

3.4 The DES has provided the estimates of cost of cultivation/production of paddy for the year 2003-04 in respect of Andhra Pradesh, Assam, Bihar, Chhattisgarh, Haryana, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Orissa, Punjab, Tamil Nadu, Uttar Pradesh, Uttaranchal and West Bengal. The details of the latest available cost estimates of paddy and also those pertaining to the preceding year are presented in Table 3(A). It is observed that between 2002-03 and 2003-04 the estimated C_2 cost of cultivation per hectare has increased in all the major growing states except Andhra Pradesh,

Punjab, Tamil Nadu and Jharkhand where it has declined marginally. However the C_2 cost of production per quintal has decreased in the states of Andhra Pradesh, Bihar, Chhattisgarh, Madhya Pradesh, Orissa, Punjab, Tamil Nadu, Uttar Pradesh and West Bengal due to substantial increase in the yield levels in most of the states. It may be noted that the C_2 cost of production has increased in the case of Assam, Haryana, Jharkhand, Karnataka, Kerala and Uttaranchal. 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 The Commission has arrived at the likely levels of cost of production of paddy in different growing states for the ensuing season of 2006-07 based on the cost of production/cultivation for the latest available year 2003-04. In order to make the projections consistent and realistic, each of the latest three years data provided by the DES wherever available are being projected and their averages taken. For projections, a state-specific Variable Input Price Index for each crop has been constructed to capture the movements of input prices between the base year and the year of projection (2006-07). Cost projections in respect of the states of Chhattisgarh, Jharkhand and Uttaranchal have been undertaken for the first time. (Table 3.5)

3.6 As per the above methodology, the projected per quintal paid-out cost of production of paddy plus imputed cost of family labour (i.e. cost A_2+FL) for 2006-07 works out to an average of Rs. 397 for Andhra Pradesh, Rs. 440 for Assam, Rs.359 for Bihar, Rs.382 for Chhattisgarh, Rs.499 for Haryana, Rs. 454 for Jharkhand, Rs.481 for Karnataka, Rs. 641 for Kerala, Rs.509 for Madhya Pradesh, Rs.409 for Orissa, Rs.344 for Punjab, Rs. 509 for Tamil Nadu, Rs.385 for Uttar Pradesh, Rs. 465 for Uttaranchal and Rs. 465 for West Bengal. As against this, the projected C_2 cost of production of paddy for these states average at Rs. 580, Rs.573, Rs.511, Rs. 617, Rs.712, Rs.604, Rs.657, Rs.775, Rs.673, Rs.539, Rs. 497, Rs. 630, Rs. 527, Rs. 593 and Rs. 602 per quintal respectively for 2006-07. The weighted average cost of production of

paddy for all these states works out to Rs. 426 on cost A_2+FL basis and Rs. 575 on C_2 cost basis.

[Table 3(G)]

3.7 It is observed from the above that the average C_2 cost of production of paddy is lowest in Punjab followed by Bihar. Projected C_2 cost of production for the year 2006-7 for both these states command a margin of about 15 and 12 percent over the MSP fixed for paddy(common) for 2005-6 at Rs. 570 per quintal. Also, the projected costs of production of paddy are much higher as compared to MSP in Kerala, Haryana, and Madhya Pradesh. While Madhya Pradesh suffers from extremely low productivity, Kerala's high cost is explained mainly by the higher human labour cost. In the case of Haryana, the total cost of cultivation of paddy per hectare at Rs. 29957 is very close to that of its neighbour, Punjab. However, Haryana produces finer quality of paddy of basmati variety in a large area which results in lower yield levels averaging around 41 quintals per hectare as against 61 quintals obtained in Punjab for common variety.

3.8 The Commission also receives cost of cultivation estimates from various state governments. These are examined in detail in the Commission and compared with the corresponding CS data and also with the projected costs of production of various crops for the ensuing kharif season. Although these estimates are not strictly comparable with the CS estimates because of certain conceptual and methodological differences, the comparison exercise serves useful purpose of cross-validation of the cost data. In some cases these state estimates pertain to more recent years and information therein is used for the purpose of projections.

3.9 From Table 3(H) it is observed that the cost of production of paddy estimated by Bihar, Madhya Pradesh and Uttar Pradesh at Rs. 750, Rs 659 and Rs. 604 per quintal for 2003-04 are higher than those given under CS at

Rs. 468, Rs.533 and Rs.441 per quintal respectively, mainly due to the consideration of higher human labour cost by the state of Bihar and lower yield levels by the states of Madhya Pradesh and Uttar Pradesh. In the case of West Bengal, however, the unit cost estimated by the state at Rs.501 per quintal is much lower than the CS estimate. The estimates provided by the states of Andhra Pradesh, Gujarat and Madhya Pradesh for the year 2004-05 are Rs.770, Rs.546 and Rs.681 per quintal respectively. The estimate of Andhra Pradesh includes managerial cost. Maharashtra has estimated the cost of production of paddy for the years 2003-04 and 2004-05 at Rs. 530 and Rs. 587 per quintal. However, no comparison is possible due to non-availability of CS data for these years.

3.10 The projected cost of production of paddy for the year 2006-07 has been received from the states of Andhra Pradesh, Bihar, Haryana, Karnataka, Maharashtra, Punjab and West Bengal. It is observed that the cost of production of paddy projected by the state of Punjab at Rs. 816 per quintal is inclusive of the weather risk, management charges etc. After excluding these, the projection works out to Rs.642 for 2006-07, which is higher than the Commission's projection at Rs.497 per quintal. This difference is mainly attributed to the much higher rental value of land considered by the state. This has been mentioned in the Commission's earlier reports and also discussed during the meetings of the Commission with the state government officials. Andhra Pradesh, Bihar, Haryana, Karnataka, Maharashtra, and West Bengal have provided the projected C₂ cost of production at Rs.615, Rs. 780, Rs.756, Rs.692, Rs. 937 and Rs.590 per quintal respectively. These are inclusive of managerial cost, profit margin to the farmers and also transport and marketing charges. After making necessary adjustments to the projected costs to make them comparable with the Commission's concepts and methodologies, it is observed that the projected costs work out to Rs.615 per quintal for Andhra Pradesh, Rs. 709 per quintal for Bihar, Rs.640 per quintal for Haryana, Rs. 685 per quintal for Maharashtra, Rs. 692 per quintal for Karnataka and Rs.

590 per quintal for West Bengal respectively. The adjusted projected cost for Andhra Pradesh, Bihar, Karnataka is higher than the Commission's projection at Rs.580, Rs.511 and Rs.657 per quintal respectively whereas in the case of West Bengal the cost projected by the state is lower than the Commission's projections for 2006-07. In the state of Andhra Pradesh, a lower yield has been considered by the state whereas no comparison is possible in Karnataka and Maharashtra due to non-availability of corresponding data.

[Table 3(I)]

Coarse Cereals

3.11 Jowar, bajra, maize and ragi are the major kharif coarse cereals for which cost estimates are available under CS. For jowar, estimates of cost of cultivation/production are available for 2003-04 in respect of Andhra Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Tamil Nadu. It may be observed from Table 3(C) that between 2002-03 and 2003-04, the C₂ cost of cultivation for jowar per hectare is estimated to have increased in Andhra Pradesh, Madhya Pradesh, Maharashtra and Rajasthan whereas it has declined in Karnataka and Tamil Nadu. The yield level has increased by 20.27 and 15.06 per cent in the states of Madhya Pradesh and Tamil Nadu respectively. However it has declined in the remaining states. The cost estimates for bajra have been received from the states of Gujarat, Haryana, Maharashtra, Rajasthan and Uttar Pradesh. For bajra, the C₂ cost of cultivation is estimated to have declined substantially in all the states except in Uttar Pradesh where it has registered a marginal increase. It may be noted that the yield levels in all the states except Maharashtra have increased. In case of maize, cost estimates have become available for Andhra Pradesh, Bihar, Chhattisgarh, Himachal Pradesh, Jharkhand, Karnataka, Madhya Pradesh, Rajasthan, Uttar Pradesh and Uttranchal. For the first time, estimates are available for Chhattisgarh. The yield levels have gone up in all the above mentioned states except Uttranchal. The cost estimates with respect to Andhra Pradesh, Karnataka and Tamil Nadu for the year 2003-04 are

available for Ragi. It is observed that C_2 cost of cultivation has declined by 16 per cent and 8 per cent respectively in the states of Andhra Pradesh and Tamil Nadu while it has increased by 22 per cent in Karnataka. There is a substantial rise in the yield levels from 8.77 to 15.85 quintal per hectare in Tamil Nadu and from 9.42 to 11 quintal per hectare in Karnataka.

3.12 The projected cost of production (A_2+FL) for jowar for 2006-07 in respect of Andhra Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Tamil Nadu are Rs.607, Rs.587, Rs.578, Rs.486, Rs.426 and Rs.457 per quintal respectively while the projected cost of production per quintal on C_2 basis for these states are Rs.965, Rs.746, Rs.745, Rs.643, Rs.606 and Rs. 680 respectively. The weighted average A_2+FL and C_2 cost of production for jowar work out to Rs. 521 and Rs.702 per quintal respectively. The projected cost of production for bajra for the year 2006-07 for the states of Gujarat, Haryana, Maharashtra and Uttar Pradesh on A_2+FL basis works out to Rs.473, Rs.490, Rs.580 and Rs.409 per quintal, while the C_2 cost of production per quintal for these states are Rs. 568, Rs.659, Rs.701 and Rs.581 respectively. The weighted average A_2+FL and C_2 costs of production for the year 2006-07 works out to Rs.485 and Rs. 620 per quintal respectively. The A_2+FL projected cost of production of maize for the states of Andhra Pradesh, Bihar, Himachal Pradesh, Jharkhand, Karnataka, Madhya Pradesh, Rajasthan and Uttar Pradesh are Rs.417, Rs 350, Rs.442, Rs. 515, Rs.375, Rs.445, Rs.554 and Rs.586 per quintal respectively, while the projected C_2 cost of production for these states works out to Rs.581, Rs.440, Rs.607, Rs.719, Rs.494, Rs.579, Rs.686 and Rs.749 per quintal respectively. The weighted average A_2+FL and C_2 costs of production of maize on the basis of these costs works out to Rs.452 and Rs.590 per quintal respectively. The projected A_2+FL cost of production for ragi for the year 2006-07 for the states of Andhra Pradesh, Karnataka and Tamil Nadu works out to Rs.790, Rs.643 and Rs. 647 respectively while the C_2 cost of production for these states are Rs.964 Rs. 752 and Rs. 895 per quintal. The weighted average cost of production of ragi works out to Rs. 669 on cost A_2+FL basis and Rs.808 on cost C_2 basis respectively.

[Table 3(G)]

3.13 The cost estimates for jowar have been made available by the states of Gujarat for the years 2004-05 and 2005-06 while Madhya Pradesh has provided the same for the years 2003-04, 2004-05 and 2005-06. The states of Maharashtra and Uttar Pradesh have provided cost estimates for the years 2003-04 and 2004-05. The estimates provided by Maharashtra and Madhya Pradesh for 2003-04 at Rs.461 and Rs. 575 respectively are lower than the corresponding CS estimate. The states of Andhra Pradesh, Karnataka and Maharashtra have provided cost projections for jowar for the year 2006-07. After calibrating as per the concepts used in CACP, these estimates work out to be lower than the CS estimates in the states of Andhra Pradesh and Maharashtra. As regards bajra, the states of Gujarat, Maharashtra and Uttar Pradesh have provided cost estimates for the year 2003-04, 2004-05, whereas the states of Andhra Pradesh and Haryana have provided estimates only for the year 2004-05. The cost per quintal as per the state and CS estimates in the case of Gujarat is equal whereas the state estimate is lower than the CS estimate in case of Maharashtra. The states of Andhra Pradesh, Haryana, Karnataka and Maharashtra have provided projected cost for bajra for the year 2006-07. CACP's projections wherever undertaken for the crop are higher than the state government's projections. For maize, cost estimates have been provided for the year 2004-05 by the states of Andhra Pradesh, Haryana and Maharashtra, for 2003-04, 2004-05 and 2005-06 by Bihar and Gujarat and for 2003-04, 2004-05 by Madhya Pradesh and Uttar Pradesh. The estimates of cost provided by Uttar Pradesh and Madhya Pradesh at Rs. 592 and Rs.576 per quintal respectively for the year 2003-04 are lower than the corresponding CS estimates. The cost projections for maize for the year 2006-7 have been received from the states of Andhra Pradesh, Bihar, Haryana, Karnataka and Maharashtra. CACP's projection for Andhra Pradesh is higher than projected cost obtained from the state. However, the Commission received the projected cost for ragi from the states of Andhra Pradesh and Karnataka only. These have been adjusted using the Commission's concepts and methodologies. The Andhra Pradesh estimate after adjustment works out to Rs. 645 per quintal which is much lower than the Commission's projection for the year 2006-07.

[Tables 3(H) & 3(I)]

Pulses

3.14 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 for tur is estimated to

have increased in 2003-04 in respect of Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Orissa and Uttar Pradesh over the preceding year, whereas it has declined in the case of Andhra Pradesh. The yield has increased in the states of Gujarat, Madhya Pradesh, Orissa and Uttar Pradesh while it has declined substantially in the case of Andhra Pradesh. The projected per quintal cost of production (A_2+FL) of tur for the year 2006-07 averaged at Rs.1000 for Andhra Pradesh, Rs.1113 for Gujarat, Rs.1514 for Karnataka, Rs.930 for Madhya Pradesh, Rs.892 for Maharashtra, Rs.1110 for Orissa and Rs.664 for Uttar Pradesh. The corresponding C_2 costs work out to Rs. 1609, Rs.1531, Rs.2025, Rs.1379, Rs.1295, Rs.1628 and Rs.1275 per quintal respectively. The weighted average projected cost for tur for 2006-07 works out to Rs.953 and Rs.1436 per quintal on A_2+FL and C_2 basis respectively. As regards moong cost A_2+FL is projected at Rs.1308, Rs.1456, Rs.1669 and Rs.1467 per quintal for the states of Andhra Pradesh, Maharashtra, Orissa and Rajasthan respectively and the corresponding cost C_2 at Rs.1896, Rs. 1828, Rs.2253 and Rs.1983 per quintal respectively. The weighted average cost for moong for the year 2006-07 works out to Rs. 1438 and Rs.1914 per quintal respectively on cost A_2+FL and C_2 basis. The A_2+FL cost for urad for the states of Andhra Pradesh, Madhya Pradesh, Chhattisgarh, Maharashtra, Orissa, Rajasthan, Tamil Nadu and Uttar Pradesh have been projected at Rs.848, Rs. 1664, Rs. 652, Rs.1499, Rs.1262, Rs. 1591, Rs.1429 and Rs.846 per quintal respectively. The corresponding C_2 cost of production for these states works out to Rs.1317, Rs.2149, Rs.895, Rs.1896, Rs.1742, Rs. 2063, Rs.2224 and Rs.1282 per quintal respectively with weighted average A_2+FL and C_2 cost for urad for the year 2006-07 being placed at Rs.1235 and Rs. 1701 per quintal respectively.

[Table 3(G)]

3.15 For all the kharif pulses, the estimates of costs have been provided by the states of Andhra Pradesh, Gujarat, Maharashtra and Uttar Pradesh. The state cost estimates in case of pulses are invariably higher than the CS estimates except in the case of tur and urad in Uttar Pradesh and moong and urad in Maharashtra where they are lower in comparison to the CS estimates for the year 2003-04. The projections for kharif pulses have been received

from the states of Andhra Pradesh, Karnataka and Maharashtra. The projections as provided by the states for kharif pulses are higher than the corresponding projections made by the Commission for the crop except urad in Andhra Pradesh and tur in Maharashtra . In the case of Andhra Pradesh a lower yield has been considered by the state as compared to the yield projected by the Commission on the basis of CS data whereas in Maharashtra, almost all paid out costs are higher than the corresponding CS costs. [Tables

3(H) & (I)]

Oilseeds

3.16 The latest estimates of cost of cultivation/production for groundnut for the year 2003-04 have become available in respect of Andhra Pradesh, Gujarat, Karnataka, Maharashtra and Tamil Nadu. (Table-3(E)). The C_2 cost of cultivation per hectare for 2003-04 is estimated to be higher than that for the previous year in the states of Andhra Pradesh, Gujarat and Maharashtra whereas there has been a decline in the states of Karnataka and Tamil Nadu. However, C_2 cost of production has registered a decline in all the states except Karnataka. In the case of soyabean, cost estimates have become available for Chhattisgarh, Madhya Pradesh, Maharashtra and Rajasthan for the year 2003-4. The yield levels have increased over the preceding year in all these states and the increase has been as high as 94 and 90 percent in the states of Madhya Pradesh and Rajasthan respectively. Cost estimates for sunflower are available for Andhra Pradesh and Karnataka. It is observed that the yield has declined in both the states as compared to the previous year. The cost estimates for nigerseed are available for Orissa and for the first time for Chhattisgrah.

3.17 The estimated costs of kharif oilseeds for the latest three years ending 2003-04 have been projected for the ensuing crop season of 2006-07 and their weighted averages taken. Accordingly, the projected A_2+FL cost of

production for groundnut averages at Rs.1377 per quintal for Andhra Pradesh, Rs.779 for Gujarat, Rs.1422 for Karnataka, Rs.1615 for Maharashtra and Rs.1321 per quintal for Tamil Nadu. The C_2 cost of production for these states work out to Rs.1881, Rs.1045, Rs.1845, Rs.1990 and Rs.1725 per quintal respectively. The weighted average cost for groundnut works out to Rs. 1105 per quintal on A_2+FL basis and Rs. 1460 on cost C_2 basis. For soyabean, the projected A_2+FL cost works out to Rs. 1033, Rs.678 , Rs.797 and Rs.799 per quintal respectively for the states of Chhattisgarh, Madhya Pradesh, Maharashtra and Rajasthan while the C_2 cost works out to Rs.1275, Rs.979, Rs.1043 and Rs.1017 per quintal respectively. The weighted average cost for soyabean works out to Rs.726 and Rs.1003 per quintal respectively on cost A_2+FL and C_2 basis. The costs for sunflower for 2006-07 for the states of Andhra Pradesh, Karnataka and Maharashtra are projected at Rs.2021, Rs.1851 and Rs 1814 per quintal respectively on C_2 basis. The weighted average cost on A_2+FL and C_2 basis work out to Rs.1434 and Rs.1906 per quintal respectively. For sesamum, the average projected A_2+FL costs are Rs.1508, Rs.1194, Rs.2020, Rs.1373, Rs.1645 and Rs.1582 per quintal and the corresponding C_2 costs work out to Rs.1969, Rs.1699, Rs.2865, Rs.2249, Rs.2603 and Rs.2477 per quintal for the states for Gujarat, Madhya Pradesh, Orissa, Rajasthan, Tamil Nadu and Uttar Pradesh respectively with the weighted average A_2+FL and C_2 cost at Rs.1482 and Rs.2132 per quintal respectively. The C_2 cost of production of nigerseed in respect of Orissa has been projected to an average of Rs.1547 per quintal.

[Table 3(G)]

3.18 The cost estimates for groundnut have been provided by the states of Andhra Pradesh, Gujarat, Madhya Pradesh, Maharashtra and Uttar Pradesh. The state estimate in respect of Gujarat is higher than the corresponding CS estimate whereas, it is lower in case of Maharashtra in comparison to the CS estimate for the year 2003-04. In the case of soyabean, the cost estimates have been received from Madhya Pradesh, Maharashtra and Uttar Pradesh.

The estimate reported by the state of Maharashtra and Madhya Pradesh are higher for 2003-04 than the corresponding CS estimate. In the case of sesamum, the estimate provided by Gujarat and Madhya Pradesh are lower as compared to the corresponding CS estimates for 2003-04. Cost projections for the year 2006-07 in respect of oilseeds have been received from the states of Andhra Pradesh, Maharashtra and Karnataka. These are invariably lower than CACP's projections for oilseeds except soyabean in Maharashtra due to consideration of a lower yield by the state for the crop.

[Tables 3(H) & 3(I)]

Cotton (Kapas)

3.19 For cotton, the estimates of cost of cultivation/production for 2003-04 have become available in respect of Andhra Pradesh, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Punjab, Rajasthan and Tamil Nadu. The data presented in Table 3(B) show that the C_2 cost of cultivation per hectare is estimated to have increased over the preceding year in the states of Andhra Pradesh, Gujarat, Haryana, Punjab, Rajasthan, Maharashtra and Tamil Nadu while in Karnataka and Madhya Pradesh, it has declined. There is a significant increase of 51 percent in the cost of cultivation in the case of Gujarat which can be attributed to a nearly 100 per cent increase in the yield from 7.78 to 14.75 quintals per hectare. The unit C_2 cost of production of cotton has gone up in the states of Andhra Pradesh and Haryana, while it has declined in other states. It may be noted that yield levels of cotton have increased in all the cotton growing states in 2003-04 over the previous year except Karnataka where it has declined by almost 17 per cent.

(Tables 3.6 & 3.7)

3.20 Following the same methodology, the cost A_2+FL of cotton is projected for 2006-07 to an average of Rs.1143 for Andhra Pradesh, Rs.1398 for Gujarat, Rs.1288 for Haryana, Rs. 1506 for Karnataka, Rs.1893 for

Madhya Pradesh, Rs.1818 for Maharashtra, Rs.1787 for Punjab, Rs. 1359 for Rajasthan and Rs. 1909 per quintal for Tamil Nadu. The corresponding cost C_2 per quintal is projected at Rs.1826, Rs.1830, Rs.1948, Rs.2149, Rs.2921, Rs.2373, Rs.2358, Rs. 1895 and Rs.2665 per quintal respectively in these states. The weighted average cost of production of cotton for 2006-07 works out to Rs. 1594 per quintal and Rs.2196 per quintal on cost A_2+FL and C_2 basis respectively.

[Table 3(G)]

3.21 In addition, the estimates of cost of production of cotton for the year 2003-04 have been provided by the states of Gujarat and Maharashtra at Rs. 1429 and Rs. 2283 per quintal respectively. The estimated cost of production is lower in Gujarat whereas it is on the higher side in Maharashtra as compared to corresponding CS estimates due to consideration of a lower yield in the state as compared to CS estimate. The states of Andhra Pradesh, Haryana, Karnataka, Maharashtra and Punjab have given the projected costs of cotton for the year 2006-07. After making necessary adjustments, the projections in the states of Haryana, Maharashtra and Punjab are lower than the commission's projection for the crop. In the states of Andhra Pradesh and Karnataka, the projected costs are on the higher side than the Commission's projection. However the reasons for the same cannot be specified in the absence of disaggregated data on inputs and land rent in the case of Karnataka. [Tables 3(H) & 3(I)]

VFC Tobacco

3.22 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 2003-04. Karnataka, the only other important VFC tobacco producing state, is not covered under the CS. The data presented in Table 3(F) show

that between 2002-03 and 2003-04 the C₂ cost of cultivation has increased. The cost of production of tobacco in respect of Andhra Pradesh has been projected to an average of Rs.3113 and Rs. 3913 per quintal on cost A₂+FL and C₂ basis, respectively. [Table 3(G)]

Terms of Trade

3.23 The index of agriculture terms of trade has shown a deteriorating trend, almost since 1995-96, with slight improvement in the year 1997-98. Based on the triennium ending 1990-91=100, the index of Terms of Trade (ITT), deteriorated from 105.6 in 1997-98 to 100.7 in 2004-05. This is especially due to substantial increase in the index of prices paid for intermediate consumption as well as capital formation. The index of prices paid for capital formation has increased from 196.7 in 1997-98 to 305.6 in 2004-05.

Input Output Price Parity

3.24 As already mentioned the ITT showed deteriorating trend since 1997-98 except 2001-02 and 2002-03 where it marginally increased. During the same period index of input output price parity was also unfavourable to the farm sector, the worst being in 2004-05 at 107.00 since 1988-89.

Inter-Crop Price Parity

3.25 Amongst the several methods to track the movement of relative prices, one is to calculate the percentage change in MSP over 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 and resultant returns accruing to the farmers. The Commission has tried to look at price parity from different angles as mentioned above. The broad findings are as below.

3.26 The MSPs of paddy, wheat, coarse cereals and cotton (F414/H777) have increased by 178, 198, 191 and 184 percent respectively between 1990-91 and 2005-06. For pulses, the increase ranged from 192 to 239 percent and that for oilseeds from 150 percent (sunflower seeds) to 196 percent (rapeseed/mustard) in the corresponding period. In case of superior cotton (H4), the increase had been 164 percent. 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 disfavouring cotton (H4) and certain oilseeds such as groundnut, soyabean and sunflower still persists.

3.27 Between 1990-91 and 2005-06, real MSPs of paddy, wheat, coarse cereals, pulses, oilseeds and cotton have on average increased by about 11, 18, 19, 26, 10 and 10 percent respectively. Thus, barring oilseeds and cotton, all other crops have witnessed significant increases in their real MSPs. As against this the corresponding increases during the decade of nineties (1990-91 to 1999-2000) were 26, 34, 21, 18, 1 and 27 percent respectively for the above mentioned crops. 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. The percentage change in the real MSP of some of the oilseeds such as rapeseed/mustard and safflower were negative for the period 1990-91 to 1999-2000 which have become positive for the period 1990-91 to 2005-06. However, it needs to be noted that due to persistent large yield

differentials, absolute levels of gross revenues continue to be 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-a-vis paddy and wheat.

Table 3(C): Cost Estimates for Coarse Cereals

Jowar

States	Year	Rupees							
		A2+FL /Hect	C2 /Hect	A2+FL /Qtl.	C2 /Qtl.	C3 /Qtl.	Yield (Qtl.)/Hect..	Implicit Price(Qtl.)	MSP /Qtl.
Andhra Pradesh	2003-04	7994.48	11641.38	709.58	997.23	1096.95	9.86	842.08	505.00
	2002-03	7026.12	10339.07	575.99	844.70	930.04	10.40	663.03	485.00
Karnataka	2003-04	4530.39	5718.71	951.94	1212.74	1462.19	3.87	743.43	505.00
	2002-03	4917.68	6512.92	638.14	845.34	987.89	6.46	636.57	485.00
Madhya Pradesh	2003-04	7239.36	9315.36	559.45	729.52	802.47	9.79	487.31	505.00
	2002-03	5634.60	7801.23	519.05	718.68	790.55	8.14	583.73	485.00
Maharashtra	2003-04	9119.68	12530.39	419.21	579.54	637.49	12.80	570.11	505.00
	2002-03	8142.56	11700.79	361.58	528.57	582.24	14.43	571.43	485.00
Rajasthan	2003-04	5007.21	8525.26	413.94	600.69	661.96	6.30	605.28	505.00

	2002-03	5967.43	8510.80	322.69	437.23	480.95	7.13	538.47	485.00
Tamil Nadu	2003-04	7972.94	12105.23	473.47	700.41	770.45	11.84	653.99	505.00
	2002-03	9100.89	14054.35	520.40	797.58	877.34	10.29	659.21	485.00

Bajra

Gujarat	2003-04	9137.31	11201.55	419.26	509.00	559.90	15.67	508.29	505.00
	2002-03	10542.12	12954.39	484.71	590.06	649.07	15.67	568.54	485.00
Haryana	2003-04	5667.13	8190.98	393.64	569.76	626.74	11.22	484.14	505.00
	2002-03	8409.46	11659.89	566.85	777.78	855.56	10.48	599.52	485.00
Maharashtra	2003-04	9940.08	12186.62	606.58	739.03	812.93	9.71	549.00	505.00
	2002-03	11599.85	14577.21	490.67	616.57	678.23	18.32	538.48	485.00
Rajasthan	2003-04	4735.07	6597.15	237.30	328.30	328.30	12.11	377.64	505.00
	2002-03	5000.43	7912.94	346.41	539.77	620.18	6.49	692.95	485.00
Uttar Pradesh	2003-04	6839.42	10733.74	292.15	453.72	499.09	17.73	400.13	505.00
	2002-03	7018.02	10708.95	439.73	662.35	728.59	12.09	518.91	485.00

Maize

Andhra Pradesh	2003-04	14457.54	20026.54	376.71	521.82	574.00	35.17	502.42	505.00
	2002-03	11456.96	17228.33	394.29	591.97	651.17	26.77	495.88	485.00
Bihar	2003-04	10318.12	15843.62	264.89	406.18	447.57	34.94	437.20	505.00
	2002-03	9475.06	12649.98	268.72	354.92	407.41	31.91	484.96	485.00
Chattisgarh	2003-04	4878.28	6842.12	413.13	579.55	696.26	10.57	627.85	505.00
Himachal Pradesh	2003-04	7725.99	11425.26	330.31	487.97	536.77	16.17	508.02	505.00
	2002-03	7373.77	10912.31	373.95	551.00	609.25	14.03	535.90	485.00
Jharkhand	2003-04	7698.27	11256.52	440.97	640.52	709.33	15.72	528.68	505.00
	2002-03	7806.20	11225.34	469.98	674.95	742.45	15.40	561.44	485.00
Karnataka	2003-04	9909.98	13406.61	470.50	633.79	727.32	18.09	586.03	505.00
	2002-03	8004.43	11267.81	405.19	573.70	667.21	17.57	562.61	485.00
Madhya Pradesh	2003-04	6910.96	9297.54	469.58	641.88	713.83	12.08	507.15	505.00
	2002-03	5425.52	7357.29	598.97	818.63	916.42	7.49	588.38	485.00
Rajasthan	2003-04	11042.60	13972.44	436.17	555.46	611.01	19.11	473.11	505.00
	2002-03	9766.16	13795.56	468.65	673.04	743.34	11.19	585.89	485.00
Uttar Pradesh	2003-04	10289.92	13379.10	606.83	823.76	906.14	14.54	495.98	505.00
	2002-03	8276.05	11108.97	870.06	1170.29	1287.32	8.19	684.30	485.00

Uttanchal	2003-04	16850.29	13244.93	1159.69	889.70	978.67	13.07	525.46	505.00
	2002-03	10361.44	13714.44	665.42	868.85	955.74	13.39	451.68	485.00

Ragi

Andhra Pradesh	2003-04	8031.13	12866.70	702.11	1113.56	1250.60	11.27	1308.10	505.00
	2002-03	10373.11	15344.30	503.88	745.24	819.76	19.32	611.21	485.00
Karnataka	2003-04	8936.16	11480.27	565.59	731.93	831.55	11.00	524.96	505.00
	2002-03	7035.33	9417.69	513.02	703.08	778.15	9.42	530.85	485.00
Tamil Nadu	2003-04	9805.62	14659.72	587.33	878.09	965.90	15.85	701.53	505.00
	2002-03	11301.24	16018.15	1203.02	1687.91	1856.70	8.77	893.77	485.00

Table-3(H)

Comparative Statement of Cost Estimates provided under Comprehensive Scheme (C.S.) and those

Crop/State	Year		
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	1	2	
	2		
	3		
	4		
	5	2004-05	
Bihar		2003-04	
		2004-05	
Gujarat		2003-04	
		2004-05	
		2005-06	
Haryana		2004-05	
Madhya Pradesh		2003-04	
		2004-05	
		2005-06	
Maharashtra		2003-04	
		2004-05	
Uttar Pradesh		2003-04	

2004-05

West Bengal

2003-04

2004-05

Cotton

Andhra Pradesh

2004-05

Gujarat

2003-04

2004-05

2005-06

Haryana

2004-05

Maharashtra

2003-04

2004-05

Madhya Pradesh

2003-04

2004-05

2005-06

Jowar

Andhra Pradesh

2004-05

2005-06

Gujarat

2003-04

2004-05

2005-06

Madhya Pradesh

2003-04

2004-05

2005-06

Maharashtra

2003-04

2004-05

Uttar Pradesh

2003-04

2004-05

Comparative

Crop/State

Year

1	2
---	---

Bajra

Andhra Pradesh 2004-05

Gujarat 2003-04

2004-05

2005-06

Haryana 2004-05

Maharashtra 2003-04

2004-05

Uttar Pradesh 2003-04

2004-05

Maize

Andhra Pradesh 2004-05

Bihar 2003-04

2004-05

2005-06

Gujarat

2003-04

2004-05

2005-06

Haryana

2004-05

Madhya Pradesh

2003-04

2004-05

Maharashtra

2004-05

Uttar Pradesh

2003-04

2004-05

Ragi

Andhra Pradesh

2004-05

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Andhra Pradesh

2004-05

2005-06

Gujarat

2003-04

2004-05

2005-06

Madhya Pradesh

2003-04

2004-05

2005-06

Maharashtra

2003-04

2004-05

Uttar Pradesh

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Andhra Pradesh

2004-05

Gujarat

2003-04

2004-05

2005-06

Maharashtra

2003-04

2004-05

Uttar Pradesh

2003-04

2004-05

Comparative

Crop/State

Year

1

2

Urad

Andhra Pradesh

2004-05

Gujarat

2003-04

2004-05

2005-06

Maharashtra

2003-04

2004-05

Uttar Pradesh

2003-04

2004-05

Groundnut

Andhra Pradesh

2004-05

Gujarat

2003-04

2004-05

2005-06

Madhya Pradesh

2003-04

2004-05

2005-06

Maharashtra

2003-04

2004-05

Uttar Pradesh

2003-04

2004-05

Sunflower

Andhra Pradesh

2004-05

Maharashtra

2003-04

2004-05

Soyabean

Madhya Pradesh

2003-04

2004-05

2005-06

Maharashtra

2003-04

2004-05

Uttar Pradesh

2003-04

2004-05

Sesamum

Gujarat

2003-04

2004-05

2005-06

Madhya Pradesh

2003-04

2004-05

2005-06

Nigerseed

Madhya Pradesh

2003-04

2004-05

2005-06



C.S. : Comprehensive Scheme for Studying the Cost of Cultiv

*State estimates have not been adjusted as per methodologie

