

COMMISSION FOR AGRICULTURAL COSTS AND PRICES

PRICE POLICY FOR RABI CROPS OF 2008-2009

SUMMARY OF RECOMMENDATIONS

In this report, the Commission for Agricultural Costs and Prices presents its views on the Price Policy for Rabi Crops of 2008-2009 season. The Commission recommends that:

The minimum support prices for the fair average quality (FAQ) of various rabi crops of 2008-2009 season be fixed at the following levels:

<u>Commodity</u>	<u>Rs/Quintal</u>	
Wheat	1080	
Barley	680	
Gram	1730	
Masur (Lentil)	1870	
Rapeseed/Mustard	1830	
Safflower	1650	(Para 4.12)

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;*** (Para 4.12)

- ii) ***the government should announce remunerative MSP for wheat well in advance of the sowing season, so as to deliver the right signals to the farmers to undertake planting decisions. To facilitate effective procurement, the government should enter the market with a realistic procurement price in accord with the market fundamentals so that the designated procurement agencies may not fail to fulfill the laid down targets.*** (Para 1.6)

iii) ***a thorough review of the existing public distribution system of food that would arrive at measures to streamline and strengthen the system and importantly plug the possibilities for leakages and misuse, is required.***

(Para 1.8)

iv) ***all-out efforts are warranted to elevate the agricultural productivity. The present state of stagnancy/decline has to give way to sustained increase in yield, so that the country's agricultural sector would emerge as a significant player in the national economic growth.***

(Para 1.16)

v) ***the Government needs to review the yearly assessment made about fertilizer requirements and also further improve and streamline the distribution network, so that fertilizer shortage may not hamper the growth in agriculture.***

(Para 1.17)

vi) ***it is reiterated that the procurement operations should reach the unreached areas, so that the farmers are not denied the benefits of MSP and the Government is not deprived the potential for greater procurement. If necessary, open market operations have to be undertaken in the non-traditional regions in order to reduce open market prices.***

(Para 1.18)

vii) ***due emphasis needs to be placed for elevating the allocation of resources to the agricultural sector and particularly for enhancing the level of public investment in the sector.***

(Para 1.23)

viii) ***the Government should exploit the easy adaptability of barley and the potentiality of the crop in the value added segments by suitably making the farmers aware of the alternate uses of the crop and the quality requirement of the crop for use in the brewery sector.***

(Para 2.28)

ix) *more concerted efforts are warranted on the part of Governments, research institutions and farmers for increasing the area and productivity of pulses through adoption of better cultivation practices, technological break-through in high yielding seeds suited to regional agro-climatic situation, farm implements like soil and water testing, improved pest management, better extension services and enhanced irrigation availability.*

(Para 2.33)

I. AN OVERVIEW

The South-West monsoon set in on 10th May, 2008 over the Southwest Bay of Bengal, Nicobar Islands and Andaman sea, almost 10 days prior to the normal date. It appeared over the Kerala coast on 31st May. Thereafter, the monsoon further advanced into Tamil Nadu, southern parts of Karnataka, Andhra Pradesh and most parts of North-Eastern States, and covered the entire country by 10th July. In several places the appearance was ahead of the normal date of arrival. Rainfall during the period 1st June to 23rd July, 2008 was 2 percent below the LPA. Out of the 36 meteorological sub-divisions in the country, rainfall was in excess/normal in 21 and deficient/scanty in 15 sub-divisions. The water storage of 81 major reservoirs, as on 17th July, 2008, was 28 per cent of FRL which amounted to 61 percent of the last year level and 110 percent of the last 10 years average level. The deficient rainfall regions include Andhra Pradesh, Gujarat, Karnataka, Kerala, Konkan and Goa, Madhya Maharashtra and Vidarbha and some north-eastern states. This adverse impact of deficient rainfall is resulting in low level of Kharif sowing vis-à-vis that of last year in the states. However, as per the IMD's long range forecast update, rainfall for the country as a whole is likely to be near normal. The monsoon season (June-September) rainfall is likely to be 99 percent of the long period average (LPA) with a model error of +/- 5 percent. Over the four geographical regions of the country, the season's rainfall is likely to be 96 percent of its LPA over North-West India, 101 percent over North-East India, 101 percent over Central India and 98 percent over South Peninsula, all with a model error of +/- 8 percent.

1.2 As per the Fourth Advance Estimates released on 9th July, 2008 by the Directorate of Economics and Statistics (DES), Ministry of Agriculture, the total foodgrains production for the year 2007-08 is estimated at 230.67 million tonnes as against the target of 221.50 million tonnes. This would be 13.4 million tonnes more than the finally estimated production for the year 2006-07, and would also stand out as a record production. The total estimated kharif foodgrains production of 120.96 million tonnes for 2007-08 would be substantially higher than the production during the year 2006-07 of 110.57 million tonnes. As regards rabi foodgrains, the production during the

year 2007-08 of 109.71 million tonnes would be higher than the production of 106.71 million tonnes in 2006-07, albeit not remarkably. The estimated production of total coarse cereals of 40.73 million tonnes in 2007-08 would be considerably higher than the finally estimated production of 33.92 million tonnes for 2006-07. Similarly, the estimated production of total cereals of 215.56 million tonnes in 2007-08 would be making a sharp increase over the production of 203.08 million tonnes achieved in 2006-07. The total pulses production of 15.11 million tonnes for 2007-08 would be higher than the production of 14.20 million tonnes registered in the year 2006-07 and would be a record. However, on a detailed break-up, it is observed that only the kharif pulses production in 2007-08 would be relatively higher than that of 2006-07; for rabi pulses, there is a decline. As regards total nine oilseeds, the position is encouraging. The production estimated for the year 2007-08 is 288.25 lakh tonnes as against 242.89 lakh tonnes achieved in the year 2006-07. However, here also, whereas the kharif production has substantially increased, the rabi production has considerably declined. As regards commercial crops, cotton production would be generating a major increase, 258.06 lakh bales in 2007-08 vis-a-vis 226.32 lakh bales in 2006-07. But jute & mesta production would be taking a drop, 111.76 lakh bales in 2007-08 as compared to 112.73 lakh bales in 2006-07.

1.3 In respect of the individual items, the production of rice and wheat are expected to register increase in 2007-08 relative to the year 2006-07: the output of rice would increase to 96.43 million tonnes from 93.35 million tonnes and that of wheat to 78.40 million tonnes from 75.81 million tonnes. Among the cereals, a distinct increase has been observed in respect of maize, from 15.10 million tonnes (2006-07) to 19.31 million tonnes (2007-08). This encouraging estimate has also to be seen in the backdrop of the increase in area under cultivation. The oilseeds sector is giving a mixed scenario. On the whole, the estimates show a quantum leap in production. But, the major increase is restricted to the following two items, viz., groundnut from 48.64 to 93.63 lakh tonnes and soyabean from 88.51 to 99.86 lakh tonnes. In respect of the following items, there would be a decline: rapeseed & mustard from 74.38 to 58.03

lakh tonnes; nigerseed from 1.21 to 1.19 lakh tonnes; linseed from 1.68 to 1.44 lakh tonnes; and safflower from 2.40 to 2.20 lakh tonnes. However, the sharp increase in the production of groundnut stands out as prominent. The yield improvements could take the credit for this, since the area expansion for the year 2007-08 does not seem to be that commensurate. As regards sugarcane, after having registered the record production of 3555.20 lakh tonnes in 2006-07, it is estimated to decline to 3405.57 lakh tonnes in 2007-08.

1.4 On the whole, the production of foodgrains appears to be encouraging for the year 2007-08. The estimated supply of foodgrains from domestic production is well above the target of 221.50 million tonnes and is also crossing the previous record production of 217.28 million tonnes registered during the year 2006-07. But, in this context, it has to be appreciated that during 1995-96 to 2006-07, the average annual growth rate of foodgrains production was only 0.85 percent, while the population growth rate was estimated at about 1.9 per cent and the growth in demand for foodgrains at 2.2 percent (Tenth Plan) and 2 to 2.5 percent projected during the Eleventh Plan. Further, the growth rate in wheat production which gave the strength and stamina to India's green revolution, is yet to scale any major heights. The wheat crop varieties currently under cultivation are losing their resilience to climatic aberrations, and the yield levels are stagnant. The existing varieties were released several years ago, and new varieties appropriate to withstand the climate-led adversities are yet to evolve out of research and extension. Another disturbing dimension is that, despite an increase estimated for the year 2007-08, the production of pulses remains entrapped in perpetual stagnation. The sector is featured by regular and significant demand-supply gaps. On the whole, in spite of the expected record production in respect of certain items for the year 2007-08, there is hardly any room for complacency. All-out efforts are required to elevate yields in the country's farm sector.

1.5 The relatively better support prices that were given for several items during the past year have really had an impact on the crop sector. It seems the message has

been well taken by the farmers. This is evident from the increase in the output of many items where the market fundamentals were also supportive. However, this good production performance may also transform the scenario for certain items from supply constraints to that of issues related to managing surplus supply. Keeping in view the procurement position of wheat, this has to be anticipated. The procurement system and machinery have to show the required preparedness and flexibilities as per the emerging stock position combined with demand-supply equations.

1.6 The procurement of wheat during 2008-09 (as on July 10, 2008) was 22.53 million tonnes, as against the target of 15 million tonnes. The quantum of procurement remains as a record, and is more than double of the procurement of 11.13 million tonnes achieved during 2007-08. It is widely appreciated that the higher MSPs alongwith a few other relevant factors have played the key role in attaining this substantially higher level of procurement. During last year, the private players were active in the market, by offering a purchase price marginally higher than the government's procurement price. The scope for this marketing strategy has been eliminated by the enhanced MSP that is now in force. Out of the total market arrival of 24.79 million tonnes of wheat (as on 10-7-2008), 22.53 million tonnes have been procured by the Government agencies, and only about 9 percent of the arrivals have gone into the private hands. Evidently, ***the government should announce remunerative MSP for wheat well in advance of the sowing season, so as to deliver the right signals to the farmers to undertake planting decisions. To facilitate effective procurement, the government should enter the market with a realistic procurement price in accord with the market fundamentals so that the designated procurement agencies may not fail to fulfill the laid down targets.*** As regards the procurement of rice/paddy, in terms of rice, the total procurement during 2007-08 has been 26.45 million tonnes, as against 24.33 million tonnes in the corresponding period of 2006-07. The enhancement of procurement price through the announcement of two instalments of bonus of Rs.50/- each, since belated, does not seem to have substantially impacted the arrivals in favour of Government agencies.

However, there should be no two opinions that the procurement position of these two foodgrains, particularly wheat, has made their stock position comfortable, and has obviated the need for import, a welcome contrast to the happenings during the past couple of years.

1.7 The offtake of foodgrains (rice and wheat) from the Central Pool during 2007-08 was marginally higher by about 1.79 percent compared with the offtake during 2006-07. The increase was relatively more in respect of wheat from 11.71 million tonnes (2006-07) to 12.20 million tonnes (2007-08) as against that of rice from 25.06 million tonnes to 25.22 million tonnes. The total stock of foodgrains with the Food Corporation of India (FCI) and other Government agencies as on 1st April, 2008 was 19.64 million tonnes, which was higher than the buffer stock norm of 16.20 million tonnes stipulated for that date. This amounts to a definite improvement as compared to the position that prevailed over the corresponding day of the previous year when the public stock of foodgrains was only 17.87 million tonnes.

1.8 The carry-over stock of wheat which was on the decline in recent years, has begun to look up. It declined from 20.10 million tonnes in 2002-03 to 7.15 million tonnes in 2003-04, 5.46 million tonnes in 2004-05 and 1.68 million tonnes in 2005-06, but increased to 5.31 million tonnes in 2006-07 and 5.43 million tonnes in 2007-08. As regards rice, the trend has been erratic: it declined from 16.48 million tonnes in 2002-03 to 14.95 million tonnes in 2003-04 and 14.55 million tonnes in 2004-05, increased to 15.92 million tonnes in 2005-06, declined to 13.72 million tonnes in 2006-07, and increased to 14.4 million tonnes in 2007-08. The total offtake of foodgrains from the Central Pool during 2007-08 was 37.43 million tonnes as against 36.77 million tonnes in 2006-07. The offtake of wheat increased from 11.71 million tonnes in 2006-07 to 12.20 million tonnes in 2007-08 and that of rice from 25.06 million tonnes in 2006-07 to 25.22 million tonnes in 2007-08. The offtake under Targetted Public Distribution System (TPDS) marginally increased for wheat in 2007-08, whereas for rice there was a greater increase. For other schemes, the

increase/decrease fluctuated between rice and wheat, but mostly the decline pertained to rice. Effective procurement operations for commodities under MSP followed by an efficient system for their offtake, are the imperatives to ensure that the laid-down objectives are meeting with fulfillments, from the interests of the cultivators as well as the consumers. Unfortunately, the PDS still come under criticism pertaining to leakages and recycling of foodgrains in the open market. ***A thorough review of the existing public distribution system of food that would arrive at measures to streamline and strengthen the system and importantly plug the possibilities for leakages and misuse, is required.***

1.9 The Wholesale Price Indices (WPI base 1993-94=100) for all agricultural commodities and food articles were 219.6 and 222.0 respectively for the year 2007-08, increased by 7.4 per cent and 5.5 percent respectively over the previous year, vis-a-vis the overall inflation of 4.7 percent. Since 2006-07, there has been sharp upward trend in the prices of primary articles, both food and non-food articles. The WPI of primary articles for 2007-08 at 224.7 was 7.6 percent higher than the WPI of 2006-07. As regards food articles, the rise was by 5.5 percent and non-food articles was more acute by 12.7 percent. The WPI for rice in June, 2008 was higher by 8.7 percent over that of June, 2007, but in the case of wheat, the change in WPI in June, 2008 over the WPI of June, 2007 was 7.6 per cent. The inflationary trend noticed in the case of pulses since 2004-05, has given way to decline. The WPI of pulses as a whole declined to 243.2 (2007-08) from 254.2 (2006-07), registering a decline of 4.3 percent. Except for Tur (Arhar) and Masur (Lentil), where there have been hefty increases of 13.9 and 25.7 percent, there has been a decline in respect of other pulses. As against the drastic increase of 29.4 percent (June, 2007), the increase in the WPI of oilseeds in June, 2008 has come down to 19.3 percent. The rate of increase has come down in respect of groundnut, sunflowerseed, and nigerseed, whereas it went up in the case of rapeseed/mustard, safflower, soyabean, and sesamum. The decline in the rate of increase has been more pronounced for groundnut and nigerseed. Overall, the movements in the WPI of agricultural commodities as a whole have been for the

increase and in tandem with that of the WPI for all commodities.

1.10 As per FAO's latest forecast (June, 2008), the global cereal production in 2008 is headed for a record output of about 2192 million tonnes (including rice in milled terms). This would be 3.8 percent higher than the output achieved in 2007. However, considering the depleted stock levels and persisting strong demand, particularly for ethanol production, any major abatement in the price levels or improvement in availability are not anticipated. The FAO Cereal Price Index that averaged 284 in April, 2008 remains 20 percent higher than in January and 92 percent higher than that in April, 2007.

1.11 A welcome indication from the FAO forecast is that wheat production is expected to register record output in 2008. As against the total estimated world production of 605.1 million tonnes during 2007-08, the forecasted production during the year 2008-09 is 658.0 million tonnes, an increase of 8.7 percent. The ending stock is expected to be 167.6 million tonnes. The possible enhancement in export supplies has already begun to dent the wheat prices. International wheat prices which began to slide by April, 2008, declined to US\$ 240 by mid-May, about 50 percent below the level in February. In April, the price of US wheat (No.2 Hard Red Winter, f.o.b. Gulf) averaged US\$ 382 per tonne, 25 percent less than the price in March. The declines in the US wheat futures have also been pronounced. By mid-May, wheat futures prices for September delivery on the Chicago Board of Trade (CBOT) were around US\$ 286 per tonne.

1.12 Globally, the year 2007 had registered a record production for coarse grains, and the estimated output for 2008 is expected to look up further, albeit not remarkably. The total world coarse grain production would be 1088.6 million tonnes in 2008-09 as against 1071.6 million tonnes in 2007-08, an increase of 1.6 percent. However, the increasing demand for biofuel usage may curtail the availability and push up prices still higher. Whereas the maize production that gave a sharp increase in 2007, is expected

to stagnate in 2008 at 779.6 million tonnes, barley output is heading for a significant increase of 10 percent in 2008 to about 148 million tonnes. With an increase of 2.4 percent, world sorghum output in 2008 would be about 64 million tonnes. The prices of coarse grains have been on the rise, mainly prompted by the increase in energy prices that have broken all previous records as well as the slide in US Dollar. Maize prices crossed all previous peaks. Whereas feed barley prices increased by about 45 percent, sorghum prices rose by around 60 percent, over the past year. The FAO Price Index was 225 during Jan.-April, 2008, an increase of 37 percent over the corresponding period of 2007-08. These trends have been reflected in the futures market also. During May, the December 2008 contract at the Chicago Board of Trade (CBOT) was around US\$ 244 a tonne, 60 percent higher than the corresponding period in 2007.

1.13 The international rice markets are giving difficult but strange indications. There has been record output in 2007-08 of 435.2 million tonnes and the output expected in 2008-09 is still higher of 445.3 million tonnes, an increase of 2.3 percent. But, prices have climbed unprecedented high levels, from early 2008 because of tight supplies. These unduly high price increases have been caused by the imposition of export curbs in some major rice exporting countries, pursuant to their domestic economic compulsions, such as Cambodia, Egypt, India, Pakistan and Viet Nam. Alongwith this, there were also increasing imports by some countries. As revealed by the FAO's All Rice Price Index (1998-2000=100), against an increase of 12 percent between January and October, 2007, prices went up by 11 percent during October-December and thereafter drastically by 71 percent between January and April, 2008, raising the Price Index to an all-time high of 280. The prices of Thai white rice 100% B, often taken as representative of the world market, has more than doubled since January, from US\$ 385 to US\$ 898 per tonne during May, 2008. In May, the United States' rice price was even higher at US\$ 941 per tonne. Any dip in the price level is unlikely because of rising costs and the need for several countries to rebuild stocks.

1.14 There has been a steady rise in the international prices of oilseeds, oils and meals from 2006 and reached record levels in March, 2008. Reducing supplies alongwith increasing demand have given boost to the price level. The erosion in oilseed output is mainly because of the increased competition from grains as well as the unfavourable weather conditions in key growing regions. As against the total oilseeds production of 416.0 million tonnes during the year 2006-07, the production during 2007-08 is estimated to be only 402.7 million tonnes, making a decline of 3.2 percent. The FAO Price Index that stood at 276 in 2007-08, registered an increase of 89 percent over the corresponding period of the previous year. However, keeping in view the expected recovery in global oilseed production in 2008-09, prices for oilseeds and its derived products could stabilize and possibly look down in future. The futures market is echoing this expectation: in the month of March, soyabean futures prices (CBOT September 2008 contract) began to falter and by May, futures were traded at around US\$ 460 per tonne, nearly US\$ 100 below the peak recorded in March.

1.15 Internationally, sugarcane crop has witnessed generally favourable growing conditions, with an expected record sugar production for 2007-08. In the absence of proportionate growth in consumption demand, build-up of stock and downward pressure on sugar prices are anticipated. The global production of sugar in 2007-08 has been forecast as 168.0 million tonnes, an increase of 1.1 percent over the previous year.

1.16 Since the mid-nineties, stagnancy has come to prevail in the field of Indian agriculture. Against the target of 4 percent laid down for agriculture in the Tenth Plan, the actual achievement has been only about 2.5 percent (at constant 1999-2000 prices). The Eleventh Plan has targeted for an overall agricultural growth of 4 percent. Several initiatives have been taken and schemes launched to accelerate the growth of agriculture, but still the intended results are not in sight. It is not denied that the growth of agricultural GDP during the years 2005-06, 2006-07 and 2007-08 were better at 5.9, 3.8 and 4.5 per cent respectively. However, guided by the past experience, these are not adequate to assure any change of trend in the growth trajectory and to impart the

confidence of attaining the targeted planned growth. Moreover, any increase in the growth rate has to be sustainable. Keeping in view the limited scope for expanding the area under cultivation, the emphasis has to be invariably on increasing the yield or productivity in the sector. But, in respect of several crops the yield level is stagnant and in certain cases it is even declining. Hence, the Commission reiterates that ***all-out efforts are warranted to elevate the agricultural productivity. The present state of stagnancy/decline has to give way to sustained increase in yield, so that the country's agricultural sector would emerge as a significant player in the national economic growth.*** There has to be a synergized and coordinated approach encompassing the umpteen schemes and measures that are already under implementation. Programmes under schemes like National Food Security Mission, National Horticulture Mission, Rashtriya Krishi Vikas Yojana, etc., are registering progress, but an integrated approach cognizant of the region and commodity-specific issues and requirements, could deliver better and more meaningful results.

1.17 As repeatedly brought out by the Commission in its earlier reports, the adequate availability of critical inputs is imperative for enhancing the output from agriculture. In this context, particular mention needs to be made about the provision of credit as well as fertilizers. No doubt, there has been substantial improvement in the disbursement of credit during the years since 2004-05. In fact, the target of doubling the flow of farm credit was fulfilled ahead of schedule. As per the available information, the agri-credit provided during the year 2007-08 was Rs. 2,25,348.17 crore and the indications are that the target of Rs. 2,80,000 crore laid down for the year 2008-09 would also be met. Besides, a scheme of debt waiver and debt relief for farmers is currently under implementation, under which the total value of loan waived and one time settlement (OTS) relief is estimated to be Rs. 71,000 crore. However, as brought out in the Report of the Committee on Financial Inclusion, Government of India, January, 2008, overall, 73 percent of farmer households have no access to formal sources of credit. Being the single major source for farm credit, the private money-lenders continue to play a crucial

role. Their unduly high rates of interest as well as stiff terms and conditions still bedevil the majority of farmers, especially small and marginal. Needless to say, the availability of institutional credit has to be further expanded to meet the genuine credit requirements of farmers. Another critical issue confronting farmers is the shortage in the supply of fertilizers, especially for DAP, MOP, and Complex. Farmers are not in a position to obtain the requisite quantum of fertilizers. In some states (ex.: Karnataka), this has even led to agitation and violence by the farmers. It seems either the assessment regarding availability of fertilizers has not been realistic or its distribution network is riddled with problems so that its ultimate reach to the farmers has failed to match the requirements. ***The Government needs to review the yearly assessment made about fertilizer requirements and also further improve and streamline the distribution network, so that fertilizer shortage may not hamper the growth in agriculture.***

1.18 Among the infrastructural requirements, a crucial aspect pertains to the development of facilitating marketing infrastructure. Considerable efforts have undergone for amending the APMC Act. Still in the case of 12 States/UTs, the reforms have been done only partially or are in the state of initiation, including the major states of Uttar Pradesh, West Bengal, Punjab and Haryana. The need of the hour is to complete the process by enthusing the remaining states to expedite the required actions. Also, the storage and warehousing facilities available in several States are short of the requirements. With the result, farmers are constrained to dispose their produce without waiting for better returns. So, improvement of the marketing system alongwith betterment of the marketing infrastructure should be on priority. It is also observed that procurement operations of the designated Government agencies are still limited to the traditional areas. In a recent study organized by CACP on the implementation of MSP and other related matters in the states such as Haryana, Rajasthan, Madhya Pradesh and Uttar Pradesh, it has been amply brought out that the

procurement centres or their sub-centres are absent in several villages and the farmers are constrained to commute considerable distance to reach the mandis by incurring transportation cost to sell their produce. Further, in several places, the facilities in the mandis are not adequate and the wait time for disposal is discouraging. ***It is reiterated that the procurement operations should reach the unreached areas, so that the farmers are not denied the benefits of MSP and the Government is not deprived the potential for greater procurement. If necessary, open market operations have to be undertaken in the non-traditional regions in order to reduce open market prices.***

1.19 A disturbing development in the recent times has been the unprecedented increase in the price of crude oil. Of late, this has even risen to the record level of US \$ 146. This is already inflating the cost fundamentals across the economy. In the agricultural sector, this is particularly so with respect to the cost of inputs such as diesel and power. Internationally, there would be increased diversion of land from food to fuel generation, with telling implications for the availability of foodgrains. The strategies for growth of foodgrains have to necessarily keep this in view.

1.20 An analysis of the Terms of Trade between agriculture and non-agriculture sectors (with TE 1990-91=100), indicates a declining trend since 1994-95, albeit with occasional upward movements. During the period since 1981-82, there has been more or less a steady upward movement, barred by a few stray declines. However, after 1994-95, the same level has never been attained in any of the subsequent years till 2006-07. This shows a general decline in the financial condition of farmers vis-à-vis that of their counterparts in the non-agriculture sectors. The need for improving the state of cultivators is evident, through appropriate policy support and other requisite measures. (Appendix-I)

1.21 Given the present state of the agricultural sector in India, dependence on

farming alone may not suffice to impart adequate income to the farmers to meet their livelihood requirements and other commitments. Majority of the holdings fall under the small and marginal category that fail to impart the cultivators an adequate income level. With the increasing cost of inputs and under-proportionate increase in the price of farm produce, the problem is getting further aggravated. Hence, non-farm agricultural occupations should become integral to the activities of farmers. In fact, farming alone is no longer viable and should become a part-time occupation. There is a necessitation for agricultural diversification. Farmers should look beyond cropping and take up activities such as processing of agricultural produce, horticulture, pisciculture, poultry, development of non-farm rural enterprises, etc. Farming has to be essentially supplemented with viable off-farm and non-farm activities. Agricultural diversification is no longer an option, but an imperative for generating sustained source of income. Adequate policy support and programme initiatives from the Government should enthuse and expedite such diversification.

1.22 Research and extension are crucial to any strategy for agricultural development, especially in the Indian context. In fact, it was research and extension that played a lead role in the country's farming strategy during the green revolution. Unfortunately, these two support components now remain as weak links in the chain of agriculture. Several varieties of wheat and paddy that are being cultivated belong to the vintage category. They are not in a position to cope with the requirements for enhancing yield. The country is in urgent need of efficient and high-yielding varieties of crops to contribute adequately to domestic output as well as keep up the country's agriculture sector globally competitive. But the development of any path-breaking technology for raising farm productivity is still awaited from the country's agricultural research centres. As regards the movements from labs to the field, extension services had almost a break-down. Of late, the efforts at its revamp through initiatives like ATMA had an impact, but not anywhere commensurate with the requirements. Enhanced efforts are warranted to tone up both research and extension services.

1.23 Another area of concern is the inadequate investment in agriculture. For several years, the share of agriculture and allied sectors in the total gross capital formation in the country has declined. As against 2.8 percent in 1999-2000 and 2.9 percent in 2001-02, the share of capital for investment in the sector as a percentage of GDP, has been only 2.5 percent during the Tenth Plan. The public investment in the sector has been woefully short of the requirements. It is not denied that the share of public investment has increased during the Tenth Plan, but not in keeping with the requirements. No wonder, the spread of irrigation in the sector has been stagnant. Without substantial increase in the level of investment in the sector, the target of 4 percent growth in agriculture laid down for the Eleventh Plan period, may remain elusive. Devoid of an adequate scale of investment and increased allocation of resources to the sector, improvements in the other support services and facilities also may not come up as expected. So, the Commission recommends that ***due emphasis needs to be placed for elevating the allocation of resources to the agricultural sector and particularly for enhancing the level of public investment in the sector.***

II. PROFILE OF RABI CROPS UNDER PRICE SUPPORT

The Commission submitted its Report on Price policy for Rabi Crops sown in 2007-08 and being marketed in 2008-09 on 25th July, 2007 recommending that the Minimum Support Prices (MSPs) for fair average quality (FAQ) of various crops be fixed at the following levels:

(Rs. per quintal)

Crop	MSP fixed for 2007-08 Marketing season	MSP recommended for 2008-09 Marketing season	MSP fixed for 2008-09 Marketing season
1	2	3	4
Wheat	750 *	1000	1000
Barley	565	650	650
Gram	1445	1600	1600
Lentil (Masur)	1545	1700	1700
Rapeseed/Mustard	1715	1800	1800
Safflower	1565	1650	1650

* An additional incentive bonus of Rs.100/- per quintal payable on procurement during Rabi marketing season 2007-08.

2.2 The Government announced the price policy for cereals, pulses and oilseeds crops grown in Rabi season of 2007-08 and being marketed in 2008-09 on October 9,

2007, fixing MSP at levels recommended by the Commission.

(Table 2.9)

Wheat

2.3 Wheat is the most widely grown foodgrain in the world with the production at 596.7 million tonnes (2006-07), accounting for about 30 percent of the total global foodgrain production. According to an estimate by the International Food Policy Research Institute (IFPRI), wheat demand is expected to rise by 30 percent (from the level of 1997) in 2020 to reach 760 million metric tonnes. India is the second largest producer of wheat and also accounts for the maximum acreage (11.9 percent). The crop faces major challenges in sustaining its production in the coming years from possible diversion of land for bio-fuel feedstocks, climate change, high energy and fertilizer prices, etc. In India, wheat, along with rice forms the major staple food of the population and hence plays a key role in the food security of the country.

2.4 The wheat production in India is concentrated in the northern parts of the country mainly in Uttar Pradesh, Punjab, Haryana, Rajasthan and Madhya Pradesh. The production of wheat in 2007-08 is estimated at 78.40 million tonnes (4th Advance Estimates as on 09.07.2008) against the target of 75.50 million tonnes. It is higher than the output of 75.81 million tonnes achieved in 2006-07 and also higher than the all time record production of 76.37 million tonnes achieved in 1999-2000.

(Table 2.1)

2.5 An analysis of the performance of wheat during the last two decades (1985-1995 and 1996-2007) shows deceleration in the performance in the latter decade in all the three aspects of area, production and productivity, compared to the earlier decade. Compared to the annual rate of growth of production of 3.67 per cent between 1985-86 and 1995-96, the period 1995-96 to 2006-07 witnessed much lower rate of growth at 0.73 per cent, far below the rate of increase in population. The growth rate of yield also sharply decelerated from 2.61 per cent per annum during 1985-86 to

1995-96 to 0.40 per cent during 1995-96 to 2006-07. A smoothening of the time series data on area, production and yield of wheat, based on their three years moving average, shows negligible expansion of area and moderate augmentation of production by 8.70 million tonnes with moderate increase in yield during the period 1995-96 to 2006-07. The absolute increase in average wheat yield from 1995-96 to 2006-07 was only 170 kgs. per hectare, whereas the corresponding increase from 1985-86 to 1995-96 was as high as 556 kgs per hectare. Reasons for this deterioration include woefully low public investment in agriculture (as indicated in the Table 2(A)), tapering in of the effects of green revolution together with the inability of the agricultural research system to develop technologies to carry forward the success of green revolution and intensive cultivation resulting in deterioration of the soil fertility, etc.

(Table 2.2)

**Table – 2(A): Gross Capital Formation in
Agriculture & Allied sectors***

Year	Public Investment as % of total GDP
1999-2000	0.5
2000-01	0.4
2001-02	0.5
2002-03	0.4
2003-04	0.5
2004-05	0.6
2005-06	0.6
2006-07	0.7

*calculated at constant (1999-2000) prices.

Source: Central Statistical Organisation

2.6 Since further expansion of area under wheat is unlikely, future increase in production has to come through improvement in productivity and other technology gains. However, the yield rate of wheat in India has not only been lower than other major producing countries, it has also been declining, as can be seen from the Table 2(B).

Table – 2 (B) : Yield Profile of Wheat

State	Average Yield	Yield Growth Rate(%)		Percentage share in Acreage T.E. 2006-07	Percent Irrigated Area
	T.E. 2006-07 Kg. per hectare	1985-86 to 1995-96	1995-96 to 2006-07		
1. Punjab	4203	2.07	0.32	12.88	97.95
2. Haryana	3995	2.70	0.63	8.66	98.96
3. Uttar Pd.	2588	2.41	0.35	35.30	95.59
4. Madhya Pd.	1711	4.14	-0.06	14.98	79.50
5. Rajasthan	2781	1.49	1.03	8.28	99.01
6. Bihar	1713	3.07	-2.44	7.77	90.59
All India	2644	2.61	0.40	100.00	89.84

2.7 Table-2(B) (Yield profile of wheat) indicates that during 1995-96 to 2006-07, there has been a decline in the rate of growth of wheat yield in the major producing states as compared to 1985-86 to 1995-96. Further, the yield rates among major producing states show wide variation. The average yield in Punjab and Haryana (at 4.2 and 4.0 tonnes per ha respectively) is significantly higher than in MP and Bihar (at 1.7 tonnes per ha) and in UP and Rajasthan (at 2.6 and 2.8 tonnes per ha respectively). Within a state also, there has been a wide variation between actual and potential achievement in yield, as revealed by the Planning Commission Report of the Steering Committee on Agriculture & Allied Sectors for the 11th Plan.

Table – 2 (C): State-wise performance and potential of wheat as revealed by actual yield and yield with improved practice

(yield Kg /ha 2002-03 to 2004-05)

State	Improved practice (I)	Actual (A) 2003-04	Yield gap between I&A (in percentage)
Uttar Pradesh	4206	2794	50.5
Bihar	3651	1783	104.8
Punjab	4463	4207	6.1
Haryana	4751	3966	19.8
Rajasthan	3948	2794	41.3

Gujarat	4034	2681	50.5
Madhya Pradesh	3297	1789	84.3
Maharashtra	3411	1335	155.5
Himachal Pradesh	2616	1380	89.6
Uttaranchal	3388	1877	80.5

Source: Planning Commission-Report of the Steering Committee on Agriculture and Allied Sectors for XIth Plan

2.8 The yield gap as brought out in Table 2-(C) is an indication of deficiencies in extension and training system and in dissemination of technologies. The Commission, in the earlier reports, had highlighted this aspect and again reiterates the need to improve, both quantitatively and qualitatively, the R&D spending on agriculture and dissemination of technologies. The National Food Security Mission (NFSM), launched in 2007-08 is expected to tackle all aspects of production and productivity of foodgrains, including wheat. Commission during their interaction with farmers in Punjab had got positive feedbacks regarding yield improvements due to implementation of NFSM.

2.9 An area which has been relatively neglected, but of immense importance in improving the yield levels, is soil fertility. States like Gujarat have taken up initiatives for regular checking of soil health, which needs to be replicated in other states also. The announcement in the budget 2008-09 to provide one fully- fitted mobile soil testing laboratory each to 250 districts in the country is a welcome step in this direction.

2.10 On the subject of productivity enhancement, it is pertinent to mention the potential role of genetically modified (GM) seeds for foodgrains. GM seeds have so far been approved only in BT cotton and the results have been encouraging. GMOs for other crops including food crops are at various stages of testing. In the present scenario of productivity constraints, this option is worth considering, provided it conforms to health and environment safeguards/norms.

2.11 With the record wheat production of 1999-2000, the country had entered into a

comfortable zone with regard to supply and demand of wheat prompting the Government to become a net exporter of the commodity, and also had the enviable situation of having buffer stocks much in excess of norms. However, 2004-05 witnessed a sudden reduction in the production to 68.64 million tonnes from the level of 72.15 million tonnes achieved in 2003-04. The year 2005-06 showed a marginal increase in the production to 69.35 million tonnes, The Government resorted to imports during 2005-06 and 2006-07, taking account of the depleting stocks and to arrest rising prices. In 2006-07, the wheat crop significantly improved to a level of 75.81 million tonnes and the momentum is expected to continue during 2007-08 with the crop estimated at an all time high of 78.40 million tonnes. The procurement during the current season has so far been 22.53 million tonnes, and this is expected to ease the food prices and relieve the Government of import requirement. The domestic wheat balance sheet is indicated in the following Table. (Table

2.1)

Table - 2(D)- Domestic Wheat Situation

(Million tonnes)

Crop Year (July-June)	2005-06	2006-07	2007-08	Offtake : Figures for 2006-07 and 2007-08 are rounded off actuals as reported by the Departm ent of Food and Public Distribut
Fiscal Year (April-March)	2006-07	2007-08	2008-09	
1. Gross Production	69.35	75.81	78.40	
2. Net Production (87.5 per cent of Gross Production)	60.68	66.33	68.60	
3. Procurement	9.23	11.13	22.53	
4. Offtake (a) Open Sale	11.71 0.00	12.20 0.01	13.70 0.35	
5. Exports	0.05	0.00	0.00	
6. Imports	5.78	1.80	0.00	
7. Addition to Stock (3-4+6)	3.30	0.73	8.83	
8. Supply (Gross) [2-3+4-5+6]	68.89	69.20	59.77	
9. Consumption Demand #	60.31	61.17	62.02	

ion. For 2008-09 offtake has been projected at 13.70 million tonnes. The Commission's projections are based on the offtake trends under different categories and feasibility of doing so in future.

: The consumption demand is derived as a product of average per capita consumption based on 61st Round – Survey on Consumer Expenditure (July 2004-June 2005),NSSO, and projected population.

Sources: Directorate of Economics & Statistics; Food Bulletin, April 2008; and DGCI&S, Kolkata

2.12 The above table indicates supply gap to the extent of 2.25 million tonnes during the current year. However, this may not be of concern since the shortage can be taken care of through periodical open sales, thanks to bumper procurement of wheat during the current season.

2.13 As per the 61st Round (July 2004-June 2005) of NSSO on household consumer expenditure, the per capita monthly consumption of wheat and wheat products stood at 4.65 kgs. in urban areas compared to the per capita consumption of 4.29 kgs of wheat in rural areas. The demand for wheat and wheat products, however, is expected to rise in the coming years in view of increase in the overall economic growth of the country and the resultant increases in income and purchasing power of the people; increases in the demand for wheat for food processing industry; and urbanization resulting in dietary changes in favour of high value poultry products, which in turn is expected to increase the demand for wheat for animal feed.

Table - 2(E): Per Capita Consumption of Wheat in Rural and Urban Areas in 30 days

(in Kg)

	57 th Rnd (July-june) 2001-02	58 th Rnd (July-Dec) 2002-03	59 th Rnd (Jan-Dec) 2003-04	60 th Rnd (Jan-june) 2004-05	61 st Rnd (July-june) 2004-05	62 nd Rnd (July-june) 2005-06
Rural	4.12	4.34	4.22	4.25	4.29	4.35
Urban	4.51	4.59	4.59	4.67	4.65	4.53

Source : NSSO Report : Household Consumer Expenditure and Employment - Unemployment Situation in India

2.14 The wholesale price of wheat during the period 2001-02 (April-March) to 2004-05 was almost stable with modest change in the annual average WPI at about 1.1 percent. The spurt in the prices of wheat started in the later half of 2005-06. WPI of wheat was higher by 9 percent in January, 2006 and more than 10 percent during February and March, 2006 than the corresponding months of the previous year. The

year 2006-07 as a whole witnessed spurt in the wheat prices with the annual average WPI for wheat registering an increase of 13.0 percent over 2005-06, as compared to the rise in the average annual index number for all commodities by 5.4 per cent. However, in case of wheat there has been easing in the price increases during 2007-08, with the annual average increase at a moderate level of 4.3 percent over the previous year, also lower than the rise in the average annual index number for all commodities which increased by 4.7 per cent. During the current year, with a bountiful harvest and high levels of procurement, the price of wheat is expected to ease further, though it has yet to manifest, since the retail price of wheat in 2008 so far has been higher than that in 2007. In April, 2008 retail price of wheat per kilogram was quoted at Rs.12 in Ambala, Karnal and Sonapat (Haryana), Rs. 11 to Rs. 12 in Kanpur, Lucknow and Saharanpur (Uttar Pradesh). In comparison, during April, 2007, the retail prices of wheat quoted was Rs. 10 per Kg at the above three centres in Haryana and Rs. 10 to Rs. 11 per Kg at the above centres in Uttar Pradesh.

(Table 2.23)

2.15 The unprecedented price increases in wheat, which the country faced since 2005-06 could be attributed to supply constraints and demand increases, witnessed both domestically and globally. Globally, wheat crop continued to face supply constraints and unprecedented price increases during 2007. The above crisis like situation is attributed to the unfavourable weather conditions in major producing regions and steady international demand. However, according to FAO estimates (Food Outlook, June, 2008), production of world wheat is forecast at 658 million tonnes in 2008, 8.7 percent higher than last year's output of 605.1 million tonnes. Positive area responses to strong price outlook have reportedly contributed to the supply increases. World total wheat utilization in 2008-09 is forecast to rise by 17 million tonnes, or 2.7 percent, from 2007-08, to reach a level of 634.8 million tonnes, the increase mainly attributed to the increase anticipated in feed utilization. Based on current production and utilization forecasts, total wheat stock held by major exporters could reach roughly 43 million tonnes, up 18 million tonnes, or more than 70 percent, from their low opening

levels. Estimates of enhanced supplies in the new season have driven prices down sharply. International wheat prices began to slide in April and by mid-May, prices stood about 50 percent (USD 240) below their peaks in late February. By April, the price of United States' wheat (No.2 Hard Red Winter, f.o.b. Gulf) averaged USD 382 per tonne, 25 percent down from March 2008. As of mid-May, 2008, wheat futures prices for September, 2008 delivery on the Chicago Board of Trade (CBOT) hovered at around USD 286 per tonne, down 38 percent from the peak witnessed in mid-March 2008; however, still 50 percent more than in the corresponding period of last year. Wheat trade in 2008-09 marketing season (July–June) is forecast at 110.5 million tonnes against 110.0 million tonnes in 2007-08.

Table- 2 (F): World wheat market at a glance

(Million tonnes)

	2006-07	2007-08 Estimated	2008-09 Forecast	% Change 2008-09 over 2007-08
WORLD BALANCE				
Production	596.7	605.1	658.0	8.7
Trade	113.1	110.0	110.5	0.4
Total Utilisation	620.6	618.1	634.8	2.7
Food	442.3	445.5	452.8	1.7
Feed	113.0	109.2	117.8	7.8
Other Uses	65.3	63.4	64.1	1.1
Ending Stocks	159.5	144.5	167.6	16.0

Source: FAO

2.16 Government is a major player in the food grains market, including wheat, in India through its procurement operations, undertaken to meet the buffer stock norms and also to defend the MSP when the market prices fall below the MSP levels. As on 10.07.2008, 24.79 million tonnes of wheat arrived in mandis as compared to 15.36 million tonnes in the corresponding period of 2007-08. Procurement as a percentage of arrivals in 2008-09 (as on 10.07.2008) increased to about 90.9 per cent as against 72.2 percent in 2007-08. Procurement of wheat during 2008-09 marketing season

stood at 22.53 million tonnes (as on 10.07.2008). Procurement in the state of Punjab at 9.94 million tonnes was higher by 47 per cent than in the previous year. However, it was significantly higher in Haryana by 56 per cent at 5.23 million tonnes. The procurement made in the states of Uttar Pradesh, Madhya Pradesh and Rajasthan were of the order of 3.12, 2.34 and 0.94 million tonnes respectively.

Table 2 (G) : Procurement, Offtake and Stocks (Central Pool)

(Lakh tonnes)

Fiscal Year	Wheat			Rice		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
1. Opening Stock	20.09	47.03	58.03	136.75	131.72	138.35
2. Procurement	92.25	111.28	225.32@	251.07	264.53@	264.00
3. Import	57.80	18.00	0.00			0.00
4. Offtake	117.07	122.04	137.00	250.59	252.21	251.21
a.BPL	47.69	47.24	51.52	94.70	104.01	98.50
b.APL	27.91	30.61	31.18	59.47	59.03	55.50
c.Antyodaya	28.30	31.80	29.12	58.32	62.57	56.02
d.Other Welfare Schemes	13.15	12.30	21.64	38.01	26.51	41.06
e.Open Sale	0.03	0.09	3.54	0.09	0.09	0.13
f.Export	0.00	0.00	0.00	0.00	0.00	0.00
5.Carry over stock (1+2+3-4)	53.07	54.27	146.35	137.23	144.04	151.14

@ : Procurement for wheat and rice is as on 10.07.2008.

- : Bold Figures for the year 2008-09 are projected by taking average of last three years.

Source :- Foodgrains Bulletin, April 2008, DGCI&S, Kolkata
Ministry of Consumer Affairs,
Department of Food & Public Distribution

2.17 Total offtake of foodgrains during 2007-08 was 37.43 million tonnes as compared to 36.77 million tonnes in the previous year. Of the total foodgrain offtake of 37.43 million

tonnes in 2007-08, the offtake of wheat was 12.20 million tonnes as compared to 11.71 million tonnes in 2006-07. From this wheat offtake, 10.97 million tonnes were distributed through TPDS and 1.23 million tonnes under various welfare schemes.

(Table 2.12)

2.18 Stocks are maintained by the Government to meet the prescribed minimum buffer stock requirement, for the monthly releases of foodgrains for public distribution system and for welfare schemes ensuring food security. Stocks are also maintained to meet emergency situations such as crop failures, natural disasters and market intervention to keep prices stable in the open market. The total stocks of rice and wheat held by FCI on 1st April, 2008 stood at 19.64 million tonnes, comprising 13.84 million tonnes of rice and 5.80 million tonnes of wheat. Stocks of rice and wheat were comfortably higher than the buffer norm of 12.2 million tonnes and 4 million tonnes for rice and wheat respectively.

(Table 2.11)

2.19 The wheat marketing season commences from April. During the current year, procurement of wheat began during March, 2008 in Madhya Pradesh and Rajasthan and from April, 2008 in other wheat growing states. The Government announced the MSP for wheat of Rs.1000 per quintal on 9.10.2007.

(Table 2.9)

2.20 During April - June, 2008 at Patiala, Bhatinda and Kotkapura (Punjab) wholesale prices of wheat were quoted at Rs.1000 per quintal. In other states, prices were quoted higher than the MSP; Rs.1111 to 1161 at Jalgaon (Maharashtra) and Rs.1005 to 1045 per quintal at Kanpur (Uttar Pradesh) and Rs. 1000 to 1080 in Karnal (Haryana).

(Table 2.14)

2.21 One issue in the wheat procurement operations of FCI relates to its concentration in the states of Punjab and Haryana, while keeping their operations negligible in some of the other major producing States, in the process overlooking the

genuine needs of the farmers in other producing states who may be in dire need of public support for market penetration.

Table : Table 2(H) : Wheat production and procurement status

States	% of wheat production to All- India production (2006-07)	% procurement (2007-08) Marketing Season
Uttar Pradesh	33.02	2.18
Punjab	19.25	46.46
Haryana	13.26	33.32
Madhya Pradesh	9.66	0.78
Rajasthan	9.31	5.43
Bihar	5.16	0.21
Gujarat	3.96	-
Maharashtra	2.15	-

Source: 1. Department of Agri.& Cooperation
2. Ministry of Consumer Affairs, D/o Food & Public Distribution.

Commission is of the view that for MSP to be an effective mechanism for realizing remunerative prices by the farmers for their produce, the coverage under MSP should be enhanced extensively, with special attention to farmers in non-traditional regions.

Barley

2.22 Barley is used as feed, food and as raw material in the brewery industry. In India, the cultivation of the crop is insignificant, occupying about 1.3 percent of the area and contributing about 1.2 percent of the total production of rabi food grains in the country. However, the crop has major potential in the industry segment and also as a breakfast cereal. Barley is grown mainly in Uttar Pradesh and Rajasthan, which together account for around 69.8 per cent of total area and 75.9 per cent of total production in the country. The other producing states include Madhya Pradesh,

Haryana, Punjab, Bihar and Himachal Pradesh.

2.23 The estimated production of the crop during 2007-08 is 1.23 million tonnes as against the target of 2.00 million tonnes (Fourth Advance Estimates of crop production, dated 09.07.2008). Production has been declining steadily from 1.68 million tonnes in 1997-98 to 1.20 million tonnes in 2004-05. Marginal improvements in production witnessed during 2005-06 (1.22 million tonnes) and 2006-07 (1.33 million tonnes) have now been reversed with the estimated production declining to 1.23 million tonnes during 2007-08. Major constraints responsible for stagnation in barley production reportedly are negligible coverage under improved varieties, limited use of inputs like fertilizers and plant protection measures, inadequate seed replacements, second preference to barley sowing compared to wheat, etc.

(Table 2.1)

2.24 Barley cultivation witnessed steep area losses at about 4.7 per cent per annum in the period 1985-86 to 1995-96. This decline had, however, slowed down to 2.70 per cent in the period from 1995-96 to 2006-07. From 1985-86 to 1995-96 there was an impressive growth in yields of barley at 3.2 percent per annum. In the period 1995-96 to 2006-07, the growth was only 0.54 percent per annum. Consequently, the production of barley declined at the rate of 1.7 per cent per annum in the period 1985-86 to 1995-96 and at 2.2 per cent per annum during the period 1995-96 to 2006-07.

(Table 2.2)

2.25 During 2003-04, average annual index number of wholesale price (WPI base 1993-94=100) of barley declined by 7.4 per cent over 2002-03. In subsequent years, prices have risen in consonance with the rise in other cereals. The wholesale prices rose by 5.9 percent, 8.9 per cent and 7.5 per cent in 2004-05, 2005-06 and 2006-07 respectively. On a month to month comparison, the WPI for barley in June, 2008 stood at 241.0 compared to 219.3 in June, 2007, an increase of 9.9 per cent.

(Table 2.23)

2.26 During 2008-09 marketing season, in keeping with the general increase in cereal prices, open market prices of barley in many markets of the country ruled much higher than the MSP of Rs.650 per quintal. During April - June, 2008 the prices of barley ranged between Rs. 950 to 1200 per quintal at Jaipur (Rajasthan), Rs. 950 to 1141 at Hissar (Haryana), Rs 900 to 1090 in Hathras (Uttar Pradesh) and at Rs. 1080 to 1250 at Delhi. (Table 2.15)

2.27 India's presence in the world barley sector has been negligible with less than 2 per cent share in production and acreage. According to FAO (Food Outlook, June, 2008), output of barley is forecast to increase significantly in 2008-09 by 10 per cent over the previous year to about 148 million tonnes. Globally, barley prices have increased by about 45 percent during April–May, 2008 compared to last year's level. However, prospects of good crop during the current season is expected to ease the prices. Global trade in barley is expected to reach 16.5 million tonnes in 2008-09, an increase by 3 millions tonnes, achieved in the previous year.

2.28 About 80 percent of the crop, presently cultivated in the country, is fit to be used as fodder only. However, the crop has huge potential in the brewery industry, a segment which is growing at about 15-18 percent per year. The industry is also attracting multinationals. The crop is also emerging in other value added segments like pharmaceutical, breakfast cereal and baby food sector. It is also reportedly highly adaptable to cultivation in saline land with inadequate water availability. Because of its low water requirement, the crop is also suited for draught prone areas. ***The Government should exploit the easy adaptability of barley and the potentiality of the crop in the value added segments by suitably making the farmers aware of the alternate uses of the crop and the quality requirement of the crop for use in the brewery sector.***

Rabi Pulses

2.29 Pulses are important food crop having rich proteins and amino acids, which are vital for good health. For a long time pulses in India have been considered to be the poor people's main diet. However, due to its poor availability and resultant high prices, pulses have gone out of reach of the poor, which has further affected their nutrition intake adversely causing malnutrition/under-nutrition. Although India is the world's largest producer of pulses, because of its low productivity and production, the country could not become self-sufficient. Hence, its dependence on imports as the largest importer of pulses in the world.

2.30 Prices of pulses are highly fluctuating due to its low production and poor availability. Farmers may realize more income if they concentrate on cultivation of more pulses but still it continues to occupy a secondary status in the farming system of the country mainly because of (a) more dependency on rains which are inadequate, (b) higher risk and low sustainability of production due to low moisture in soil, (c) high losses in storage, and (d) higher market fluctuations. Thus, the cultivation of pulses by farmers has been confined to marginal and sub-marginal lands less important for growing other crops than the pulses. As per available data on irrigation for the year 2005-06 (Source: Directorate of Economics & Statistics, Ministry of Agriculture), only 15 per cent of the area under pulses were irrigated and remaining 85 per cent still depend on rains. Therefore, no significant increase in the yield has been registered.

2.31 The per capita per year availability of pulses in the country, during the period from 1951 to 2005, was reduced to half from 22.1 kgs to 11.5 kgs. During the 1950's and up to 1963, it was in the range of 22-27 kgs and thereafter it was fluctuating in the range of 11-20 kgs and declined further to 10.6 kgs in 2003. However, the availability improved slightly thereafter and it is estimated as 13.3 kgs in 2007-08. Evidently, the production of pulses has failed to keep pace with the increase in population of the country.

2.32 For more than fifty years from 1953-54 to 2006-07, the total area under pulses

cultivation in India remained virtually stagnant (fluctuating between 22 - 24 million hectares). This stagnancy has been reflected on the production front also which fluctuated in the range of 10 to 15 million tonnes, depending upon availability of rainfall. In the drought years of 2000-01 and 2002-03, the area decreased to nearly 20 million hectares and production to around 11 million tonnes. The targets and actual production of pulses from 2002-03 to 2007-08 are given in the table 2(I).

Table 2(I): Targets and Production of Pulses

(Million tonnes)		
Year	Target	Production
2002-03	14.40	11.13
2003-04	14.80	14.91
2004-05	15.30	13.13
2005-06	15.70	13.36
2006-07	15.15	14.20
2007-08	15.50	15.11*

*Based on 4th Advance Estimates (09-07.2008) of the Directorate of Economics & Statistics, Ministry of Agriculture.

2.33 The table 2 (I) shows that the targets fixed for production from 2002-03 to 2007-08 were never achieved, except for the year 2003-04. However, in 2007-08, the production of pulses estimated at 15.11 million tonnes would remain as the highest, showing an increase of around 6.4 percent, albeit a little behind the target of 15.50 million tonnes. Still, the production is short of about 1.5 to 2.0 million tonnes from the level of consumption demand in the country of about 17 million tonnes. ***More concerted efforts are warranted on the part of Governments, research institutions and farmers for increasing the area and productivity of pulses through adoption of better cultivation practices, technological break-through in high yielding seeds suited to regional agro-climatic situation, farm implements like soil and water testing, improved pest management, better extension services and enhanced irrigation availability.***

(Table 2.1)

2.34 The area under pulses out of the gross cropped area in the country which was

13.0 per cent in 1980-81 marginally increased to 13.3 per cent in 1990-91, but declined to 11.9 per cent in 2004-05, the year up to which data is available. As regards the trend in respect of the share of pulses in the total foodgrains production, it was 8.20 per cent in 1980-81, 8.09 per cent in 1990-91, which declined to 6.41 per cent in 2005-06 but increased marginally to 6.53 per cent in 2006-07 and further estimated to increase at 6.55 percent in 2007-08. The yield, however, increased from 473 kgs/ha in 1980-81 to 578 kgs/ha in 1990-91, and attained the peak of 635 kgs/ha in 1996-97, 1999-2000 and 2003-04. The performance during the subsequent years stagnated below 600 kgs/ha but attained 612 kgs/ha in 2006-07. However, the yield of total pulses in 2007-08 is estimated to increase to more than 650kgs/ha which may surpass the earlier peak level of 635 kgs/ha achieved in 2003-04. (Table 2.1)

2.35 Rabi pulses in terms of total production of pulses, accounted for 64 and 66 per cent during 2005-06 and 2006-07 respectively which declined to 57 per cent during 2007-08 (4th Advance estimates). There was a decline in the area under Rabi pulses from 12.68 million hectares in 1985-86(TE) to 11.97 million hectares in 1995-96(TE) and 11.88 million hectares in 2006-07(TE) but the improvement in yield from 619 kgs per hectare to 687 kgs per hectare and 738 kgs per hectare in the corresponding period elevated the production from 7.84 million tonnes to 8.34 and 8.77 million tonnes in the same period. The share of pulses in foodgrains area during Rabi season has fallen over the years from 27.7 per cent in 1980-81 to 23.91 per cent in 2005-06 but increased to 24.52 per cent in 2006-07 and production of Rabi pulses declined from 13.22 per cent to 8.63 per cent but marginally increased to 8.81 per cent in the same period. It is further estimated to decline at 7.90 per cent in 2007-08 due to non-conducive weather in the Rabi season.

(Table 2.2)

2.36 The states of Madhya Pradesh, Maharashtra, Uttar Pradesh and Rajasthan states together contributed 60 percent in area and 63 percent in production of total

pulses in the country during 2006-07. In order to increase the production and productivity of pulses as a whole, special emphasis needs to be focussed on these four states. The Centrally sponsored “Integrated Scheme for Oilseeds, Pulses, Oil Palm and Maize (ISOPOM)” has been under implementation from April, 2004 in 437 districts spread in 14 States on 75:25 funding pattern between Central and State Governments for increasing production and productivity. The production and yield of pulses in the wake of ISOPOM implementation, have shown signs of improvement. A new Scheme titled, National Food Security Mission (NFSM) for pulses was launched as a Centrally Sponsored Scheme from 2007-08 in order to increase production of pulses through area expansion and productivity enhancement in a sustainable manner in the identified 168 pulse growing districts in 14 states of the country. The Programme envisages to increase the production of pulses by 2 million tonnes by the end of the Eleventh Plan (2011-12) and also to restore soil fertility and productivity at the individual farm level. Once the NFSM-Pulses become operational in the identified districts, the pulse programme under ISOPOM will cease to operate in those districts. There is a need to adopt concerted efforts under the relevant schemes for boosting the production and productivity of pulses, so as to ensure food security and keeping pace with the growth of population. The strategy should be to adopt proven technologies that raise sustainable productivity devoid of fluctuations, leading the country to the goal of self-sufficiency in pulses. There should be close monitoring of the ISOPOM and NFSM Schemes, supported by quick elimination of any bottlenecks that may emerge.

Table 2 (J): Demand – Supply Gap in Pulses

(Million tonnes)

@ Proje ction made in the 10 th Plan	Year	Production	Demand	Gap	Import
	2005-06	13.36	17.38@	4.02	1.70
	2006-07	14.20	17.71@	3.51	2.27
	2007-08(Fourth Advance Estimate)	15.11	16.77*	1.66	1.11**

* Projection made in the 11th Plan .

** April 2007 to September 2007.

2.37 The table 2(J) reveals that the gap between production and demand of pulses has been at 4.02 million tonnes in 2005-06 and 3.51 million tonnes in 2006-07 and estimated at 1.66 million tonnes for the year 2007-08 lower than the earlier two years because of change in the demand projections made in the 11th five year plan. Owing to increase in production of pulses in the latest two years and lowering the demand projection, the shortfall between the production and demand has narrowed from 4.02 million tonnes to 1.66 million tonnes. In order to fill the gap, there have been imports of 1.70 million tonnes, 2.27 million tonnes and 1.11 million tonnes respectively during these years. Import of pulses is under Open General Licence (OGL). No import/export of Urad and Moong took place from 2003-04 to 2007-08 (up to September, 2007). Tur import was at 246.53 thousand tonnes in 2006-07, compared to 228.8 thousand tonnes in 2005-06 and during the 1st half of 2007-08, it was lower at 131.1 thousand tonnes as against 135.94 thousand tonnes in the same period last year. Tur, Moong and Urad, integral to the food habits of Indian population, are dearer and of limited availability in the international market.

2.38 The wholesale prices of pulses have been fluctuating widely in recent years. The Wholesale Price Index (WPI) of pulses (base 1993-94=100) increased from 179.6 in 2000-01 to 189.2 in 2001-02 (5.3 per cent), but dropped to 180.6 (-4.6 per cent) in

2002-03, 176.6 (-2.2 per cent) in 2003-04 and 174.4(-1.3 per cent) in 2004-05. Further, it increased to 194.9 (11.8 per cent) in 2005-06 and 254.2 (30.4 per cent) in 2006-07 but again decreased to 243.2 (-4.3 per cent) in 2007-08 and further increased to 244.4 in June, 2008 but remained lower (-1.1 percent) than the corresponding period of last year. (Table 2.24)

Gram

2.39 Gram has been playing a dominant role in Rabi pulses, and accounted for 32.3 per cent of the total area under pulses cultivation and 44.6 per cent of the total pulses production in 2006-07 in the country. However, its share in the total pulses production in 2007-08 has been reduced to 39 per cent because of factors such as less moisture in the soil, adverse weather and improved production of the Kharif pulses (tur, urad and moong). The area under gram which had increased from 7 million ha to 10.33 million ha from 1952-53 to 1959-60 further dipped down to its original level in 1974-75 and since then it fluctuated between 6-8 million ha except in 2000-01 when it touched the rock bottom of 5.19 million ha. Various schemes including TMOP introduced from time to time by the Government could not bring in any significant contribution in increasing the area under pulses cultivation including Gram. However, the healthy improvement in yield from 712 kgs/ha in 1990-91 to 845 kgs/ha in 2006-07 led to increase in production from 5.36 million tonnes to 6.33 million tonnes in the same period. The increase in yield from 690 kgs/ha in 1985-86 (TE) and 780 kgs/ha in 1995-96 (TE) to 823 kgs/ha in 2006-07 (TE), almost neutralized the adverse effect of decrease in area from 7.29 million hectares in 1985-86 (TE) and 7.01 million hectares in 1995-96 (TE) and 7.04 million hectares in 2006-07 (TE), on production. (Tables 2.1 & 2.2)

**Table 2(K): Performance of major States in production
of Gram in 2006-07**

State	Area (000' hectares)	%age to All-India	Production (000' tonnes)	%age to All-India	Yield (Kgs/ha)
M.P.	2463	32.86	2413	38.10	980
Maharashtra	1308	17.45	924	14.59	706
Rajasthan	1011	13.49	873	13.78	863
U. P.	675	9.01	501	7.91	742
A.P.	602	8.03	653	10.31	1085
Karnataka	651	8.69	308	4.86	473
Total	6710	89.53	5672	89.55	859
All India	7494	100.00	6334	100.00	845

Source: Directorate of Economic & Statistics, M/o Agriculture.

2.40 It may be observed from the table 2(K) that Madhya Pradesh leads both in area and production of gram in the country with the yield at 980 kgs/ha (16 per cent above the All India average of 845 kgs/ha), followed by Maharashtra, Rajasthan, Uttar Pradesh and Karnataka. In terms of productivity, Andhra Pradesh enjoys the top rank in the country reporting yield of 1085 kgs/ha (28 per cent above the All India average), followed by Madhya Pradesh (980 kgs) and Rajasthan (863kgs). The States of U.P., Maharashtra and Karnataka were significantly trailing below the All India level.

(Table 2.5)

2.41 The wholesale prices of gram have been fluctuating widely in recent years. The Wholesale Price Index (WPI) of gram (base 1993-94=100) increased from 139.2 in

2000-01 to 170.3 in 2001-02 (22.3 per cent), but dropped to 149.7 (-12 per cent) in 2002-03, 142.5 (-5 per cent) in 2003-04 and 137.1(-4 per cent) in 2004-05. Further, it increased to 157.0 (14.5 per cent) in 2005-06 and 208.7 (33 per cent) in 2006-07 but again decreased to 200.0 (-4.2 per cent) in 2007-08 and further increased to 212.5 in April, 2008 (6.6 percent) and again decreased to 207.9 in June, 2008 (6.0 per cent).

(Table 2.24)

2.42 Imports of Gram (chickpeas) which were in the range of 2-3 lakh tonnes from 2002-03 to 2005-06 declined to 1.27 lakh tonnes in 2006-07 and 0.17 lakh tonnes in 2007-08 (April- Sept., 2007). Exports were increased from 3 thousand tonnes in 2002-03 to 61 thousand tonnes in 2006-07 and further increased up to 1 lakh tonnes in the 1st half of 2007-08.

2.43 The global prices of gram have shown a rising trend in recent years. It increased from \$300 to \$425 in 2005-06, \$440 to \$700 in 2006-07, \$ 570 to \$700 in 2007-08 and \$ 650-675 (U S \$) per metric tonne in 2008-09 up to April, 2008 (C & F Indian Port).

Lentil (Masur)

2.44 Lentil (Masur) is the second major pulse crop grown after Gram in Rabi season in the country. The average area under lentil increased about 23 per cent during the current decade ending 2006-07 at about 1.43 million ha against at about 1.16 million ha from the previous decade ending 1996-97. During 2004-05 to 2006-07, it had averaged at 1.48 million hectares. The states of Uttar Pradesh, Madhya Pradesh and Bihar are leading in lentil cultivation, contributing 42 per cent, 36 per cent and 11 percent of the total area in the country in 2006-07. The growth rate in lentil area during 1985-86 to 2006-07 was 1.81 per cent in comparison to -0.03 per cent and -0.25 per cent growth rate achieved in the case of Gram and total pulses respectively in the same period. (Table 2.2)

2.45 The production of lentil increased from about 6.60 lakh tonnes in 1985-86 to 10.80 lakh tonnes in 1999-2000 and remained as 10.4 lakh tonnes in 2003-04, 9.94 lakh tonnes in 2004-05, 9.46 lakh tonnes in 2005-06 and 9.13 lakh tonnes in 2006-07 with a growth rate of 1.99 per cent over the period from 1985-86 to 2006-07. The yield level, however, fluctuated in the range of 607 kgs/ha to 743 kgs/ha and registered a low growth rate of 0.17 per cent during the period from 1985-86 to 2006-07, thus correlating the increase in production mainly to the expansion of area. The growth rate in yield of lentil during the current decade ending 2006-07 has increased to 0.23 percent from 0.07 per cent in the previous decade ending 1995-96. The yield which was highest at 743 kgs/ha in 2003-04, continuously declined thereafter reaching 621 kgs/ha in 2006-07. This declining trend of yield is a cause for concern. (Table 2.2 & 2.6)

2.46 As regards the leading states, there are widespread variations in the yield level. The States of Bihar including Jharkhand and Uttar Pradesh were reaping satisfactory yield at 704 kgs/ha, while the yield in M.P. including Chhattisgarh was at about 490 kgs/ha, 21 percent lower than the All India average of 621 kgs and 31 percent lower than the yield of Bihar and U.P. Therefore, there is a need for more concerted efforts from all concerned including the Government in increasing the productivity of lentil through optimum use of inputs based on soil grading and efficient extension services particularly in the states of Madhya Pradesh and Chhattisgarh. (Table 2.6)

2.47 The wholesale price index of lentil has shown a steady upward trend since 2001-02. It increased from 203.9 in 2001-02 to 254.0 in 2006-07 and 319.3 in 2007-08 and further increased to 364.6 in June, 2008. The WPI increase was modest (0.6 per cent to 4.6 per cent) in the years from 2004-05 to 2006-07 but increased sharply by 25.7 per cent and 19.8 per cent in 2007-08 and in June, 2008 respectively. Since the prices have been ruling much above the MSP in 2006-07 and 2007-08, there was no need for market intervention by NAFED. However, NAFED has been engaged in commercial purchases of pulses including lentil as per their requirement.

(Table 2.24)

2.48 Lentil exports from the country increased from 83 thousand tonnes in 2003-04, 137 thousand tonnes in 2004-05, 281 thousand tonnes in 2005-06 but decreased to 121 thousand tonnes in 2006-07 and negligible in the 1st half of 2007-08. The global prices of lentil were in the range of \$ 400 to 470 in 2005-06, \$ 435 to 580 in 2006-07 and \$ 580 to \$650 (US \$) per metric tonne (C & F Indian Port) in 2007-08 up to December, 2007.

2.49 Pulses play an important role in the nutritional security of a large number of people in the country. However, the situation is not encouraging in respect of pulses production as well as productivity, resulting in considerable shortage of pulses in India. Production of pulses with fluctuations over the years has been a story of stagnancy. Taking resort to import is also becoming difficult, in view of the inadequate availability coupled with buoyancy of prices internationally. In such a constrained situation, there is no alternative but to explore every possibility to enhance productivity. The productivity of pulses may be enhanced through elimination of region and crop-specific constraints, obtaining technological breakthrough in crop cultivation systems/practices along with easy availability of essential inputs translated through region-specific initiatives and soil analysis to find out the micro-nutrient with recommended use of fertilizers fitting with soil requirements. The improvements imparted by ISOPOM have not been substantial. The Scheme has to be further toned up as discussed above.

Rabi Oilseeds

2.50 India is one of the major producers of oil seeds in the world. The area and output of the produce are concentrated in the central and southern parts of the country. Mainly nine major oil seeds are cultivated in India. Among them, Rapeseed & Mustard, Groundnut and Soyabean together constitute 87.25 percent of the country's oil seed production. Total oil seed produced in India was barely 5.2 million tonnes in 1950, which increased to 21.8 million tonnes in 1990. The Integrated Policy on Oil seeds for self-sufficiency under Technology Mission on Oil seeds and Pulses launched in 1986

had helped the country to enhance its production from 11 million tonnes in 1986-87 to 24.4 million tonnes in 1996-97. Total oil seeds produced during 2005-06 was the highest in the last decade amounting to 27.98 million tonnes prior to 2007-08. After 1998-99, the production of oil seeds registered a declining growth except for the year 2001-02 and reached the lowest level of production of 14.8 million tonnes in 2002-03. Next year it increased to 25.2 million tonnes but again diminished marginally to 24.35 million tonnes in 2004-05. The production over the years has been featured by considerable fluctuations. In spite of increased production of oil seeds in the country, there exists a persistent gap in demand over the domestic supply. As a result, import of edible oil has been resorted to for several years.

(Tables 2.1)

2.51 As per the Fourth Advance Estimate (09.07.2008), oil seeds production in 2007-08 is estimated at 288.25 lakh tonnes, around 45.36 lakh tonnes (18.68 percent) higher than that of the year 2006-07. Production of Rabi oil seeds decreased from 102.77 lakh tonnes in 2006-07 to 89.83 lakh tonnes in 2007-08. A steady growth of productivity of oil seeds has not been maintained in the current decade ending 2006-07. In the given situation, the farmers may get induced to opt in favour of other crops where price prospects are better in comparison to that of oil seeds. It has been estimated that the rabi oil seeds constitute 31.16 percent of the total oil seeds production compared to that of 68.84 per cent of kharif oilseeds, during 2007-08.

(Tables 2.1)

Table 2 (L): Production of major oil seeds

(Lakh tonnes)

	Season	2003-0 4	2004-0 5	2005-06	2006-07	2007-08 4th Advance Estimates
1	2	4	5	6	7	8
Groundnut	Kharif	68.6	52.62	62.98	32.94	74.83
	Rabi	12.67	15.12	16.95	15.69	18.80
	<i>Total</i>	<i>81.27</i>	<i>67.74</i>	<i>79.93</i>	<i>48.64</i>	<i>93.63</i>

Castorseed	Kharif	7.97	7.93	9.91	7.62	10.11
Sesamum	Kharif	7.82	6.74	6.41	6.18	7.85
Nigerseed	Kharif	1.09	1.12	1.08	1.21	1.19
Rapeseed & Mustard	Rabi	62.91	75.93	81.31	74.38	58.03
Linseed	Rabi	1.97	1.7	1.73	1.68	1.44
Safflower	Rabi	1.35	1.74	2.29	2.40	2.20
Sunflower	Kharif	3.06	4.31	4.56	3.66	4.58
	Rabi	6.24	7.56	9.83	8.62	9.37
	<i>Total</i>	9.3	11.87	14.39	12.28	13.95
Soyabean	Kharif	78.18	68.77	82.74	88.51	99.86
Total Nine Oilseeds	Kharif	166.72	141.49	167.68	140.12	198.42
	Rabi	85.14	102.05	112.11	102.77	89.83
	Total	251.86	243.54	279.79	242.89	288.25

Source: Directorate of Economics & Statistics, Deptt. of Agri. & Co-operation, M/o Agriculture

2.52 As against national production target for oilseeds at 300 lakh tonnes for the year 2007-08, the estimated production was 288.25 lakh tonnes. The production of oilseeds during 2006-07 was 242.89 lakh tonnes comprising of 102.77 lakh tonnes of Rabi oilseeds and the rest for kharif. The rapeseed/mustard seed production is estimated to drop to 58.03 lakh tonnes in 2007-08, a dip of 22 per cent over the level in 2006-07. Against the target of 2.6 lakh tonnes, production of safflower was estimated to be 2.20 lakh tonnes in the year 2007-08 which is also lower from previous year. The imbalance between demand and supply has been the main cause of price fluctuations. While substantial increase in MSP last year has not induced the farmers to produce more of oilseeds, factors like lack of irrigation facilities and uneven rainfall have prevented improvement in productivity.

2.53 The oil seed produced during rabi season in the year 2003-04 was 85.14 lakh tonnes, which increased to 102.05 lakh tonnes in 2004-05 and further to 112.11 lakh tonnes in 2005-06. Thereafter it diminished to 102.77 lakh tonnes in 2006-07, which is estimated to further decline to 89.83 lakh tonnes in 2007-08. Production estimates of rabi oil seeds during 2007-08 have declined by 12.94 lakh tonnes, i.e 12.59 percent,

compared to 2006-07. Thus, rabi oil seeds production which was increasing from 2003-04 to 2005-06 has diminished in subsequent years.

2.54 Area sown under nine major oilseeds recorded a decline of about 13.5 lakh hectares (about 4.84 percent) to 265.13 lakh hectares in 2006-07 from 278.63 lakh hectares in 2005-06. The kharif oilseeds area coverage declined by 5.98 lakh hectares (about 3.44 percent) and the rabi oilseeds area coverage by about 9.74 lakh hectares, 7.16 percent short compared to last year's level. Farmers had planted lower area under rabi oilseeds, especially rapeseed-mustard (4.87 lakh hectares) and rabi sunflower seeds (1.15 lakh hectares), as shown in the table 2(M).

Table 2(M): Area Sown under Nine Major Oilseeds

(In Lakh Hectares)

Crops / Season	2003-04	2004-05	2005-06	2006-07	Change in 2006-07
1.Rapeseed/Mustard	54.28	73.16	72.77	67.90	(-)4.87
2.Sunflower	20.04	21.61	23.40	21.65	(-)1.75
Kharif	6.11	8.73	9.20	8.60	(-)0.60
Rabi	13.93	12.88	14.20	13.05	(-)1.15
3.Safflower	3.64	3.69	3.65	3.77	0.12
4.Linseed	4.77	4.49	4.37	4.37	0.00

5.Groundnut	59.87	66.40	67.36	56.15	(-)11.21
Kharif	51.96	57.86	57.40	47.80	(-)9.60
Rabi	7.91	8.54	9.96	8.35	(-)1.61
6.Sesamum	17.00	18.44	17.23	17.03	(-)0.20
7.Soyabean	65.55	75.71	77.08	83.29	6.21
8.Nigerseed	4.32	4.30	4.14	4.69	0.55
9. Castorseed	7.17	7.43	8.64	6.28	(-)2.36
<u>Total Oilseeds (1..9)</u>	236.63	275.23	278.63	265.13	(-)13.50
<u>Total Kharif</u>	152.11	172.48	173.68	167.70	(-)5.98
<u>Total Rabi</u>	84.52	102.76	104.95	97.43	(-)7.52

Source: DES , Ministry of Agriculture.

2.55 The sharp decline in oilseeds production in 2006-07 reflects large shifts in acreage from oilseed crops. On account of relatively lower prices that prevailed during November, 2004 to mid-2006, acreage under oilseeds cultivation has declined in 2006-07. With a view to providing reasonable incentives to the farmers to go in for diversification, the Commission, in its rabi / kharif reports on price policy for the last year, had recommended significant increases in the MSP for oilseeds.

2.56 Since June, 2006, prices started looking up due to large shift in area to other crops and the not so favourable weather conditions. By June, 2007, prices went up by about 29.42 percent with the wholesale price index of total oilseeds rising from 162.8 in June, 2006 to 210.7 in June, 2007. It further went up by 19.27 percent with the wholesale price index of total oilseeds rising from 210.7 in June, 2007 to 251.3 in June, 2008.

(Tables 2.25)

2.57 Despite adequate supplies, the price of edible oil has started surging in domestic market due to global influences. Since May 9, 2008 prices have moved up by around 15 percent in the retail market because of high indicative future prices on the Chicago Board of Trade (CBoT); Prices of palm and soyabean oil imported from Argentina have increased due to recent imposition of price based variable export tax

on edible oil by Argentina, than the 35 percent levied earlier. Under the new arrangement, with the rise in edible oil prices, the duty could rise beyond 40 percent. Edible oil, with a weightage of 2.76 percent in wholesale Price Index (WPI), affects the consumers dearly.

Table 2(N) : Percentage Change in Index of Wholesale Prices of Oilseeds

	April 06 to March 07 (%)	April 07 to March 08 (%)	June 08 (%)
Total Oilseeds	5.2	24.1	19.3
Rapeseed/Mustard	4.4	18.8	29.3
Safflower	-1.9	15.9	21.4
Groundnut	10.5	26.0	8.0
Soyabean	-8.0	29.6	30.3
Sunflower	4.8	28.3	14.5
Sesamum	10.6	9.8	40.3
Nigerseed	19.2	80.6	74.0

Source: Office of Economic Adviser, M/o Commerce & Industry.

2.58 The prices of Mustard and Safflower seed generally ruled above MSP since 2007. The prices of Mustard seed have been firming up on account of decline in area under its cultivation, besides firming up tendency in the international market for oilseeds and edible oils. As a result, the prices of Mustard seed, which were ruling in the range of Rs.1775 – 1950 per quintal up to April-June of 2007, have further firmed up to Rs 2310/- and Rs.3000 in April-June of 2008 in Gujarat. The rates of safflower seed ruled above MSP during current Rabi season in most of the producing areas. The market price of Safflower which was at Rs.1575 per quintal in some mandies of Maharashtra during the month of May, 2007, has moved up to Rs. 2500/- in May, 2008. It has been experienced that sometimes in the major mandies, prices of particular

commodity rule over and above the support price level, whereas in vulnerable pockets the prices often tend to prevail lower than the support price levels. MSP operations have to pay special attention to the vulnerable pockets for ensuring proper market support to the small and marginal farmers. (Tables 2.18 & 2.20)

2.59 As the prices of Mustard and Safflower seeds generally ruled above MSP, NAFED could procure only a small quantity of about 22,091 tonnes of Mustard seed and 121 tonnes of Safflower under the PSS during 2007-08 procurement season, as compared to the procurement of Mustard seed of 22.04 lakh tonnes in 2006-07. Similarly, procurement of Safflower seeds was of the order of 50,779 tonnes in 2006-07. During 2008-09, no procurement has been commenced by NAFED under Price Support Scheme. In addition, commercial purchases of Mustard seed during 2008-09 as on 20-4-2008 amounted to 11601 tonnes as against 49331 tonnes in 2007-08. (Table 2.10)

International Scenario

2.60 The FAO price index for oilseeds and oils/fats rose 94 per cent compared with 2007 and 140 percent from 2006. The rising prices since the beginning of 2007-08 has been prompted by a tighter global supply and demand outlook for oilseeds. As per FAO estimates, in 2008-09, even though the total oil and meal output would be sufficient to meet demand, the low level of carry-in stock may impact the markets during 2008-09. However, based on current market prospects for 2008-09, FAO has forecast prices for oilseeds and derived products could stabilize and possibly weaken during the remaining period of the season and in early 2008-09.

2.61 FAO has estimated that after many years of steady expansion, in 2007-08, global oilseed production is forecast to decline. Global output is anticipated to fall 3 percent from earlier season's record level, mainly on account of soyabeans. The two

main factors behind the anticipated drop in total output are increased competition from grains, which has interrupted the steady expansion in world oilseed area, and the unfavorable weather conditions which have affected oilseed production in several significant growing areas.

Table 2 (O). World production of major oilseeds

(million tonnes)

crops	2005-06	2006-07 <i>estimated</i>	2007-08 <i>forecast</i>
Soyabeans	220.9	235.3	220.8
Cottonseed	42.5	44.6	44.4
Rapeseed	49.1	47.4	48.0
Groundnuts (unshelled)	35.7	34.0	35.5
Sunflower	30.1	29.4	27.8
Palm kernels	9.7	9.9	10.8
Copra	5.0	4.9	5.3
Total	393.0	405.5	392.6

Source: FAO

2.62 Overall, FAO forecasts suggest that the current tightness in global markets for oilseeds and derived products could ease as the new marketing season begins. In 2008-09, output of oils should be sufficient to meet consumption. However, low levels of carry-in stocks may influence the market during 2008-09. Factoring in projected demand, global stock-to-use ratios are anticipated to improve. Based on current market prospects for 2008-09, a stabilization of international prices for oilseeds and oils around current levels, or somewhat below the actual level in the case of oils, is envisaged for the remainder of the current season and in early 2008-09.

2.63 The unit value of imports of edible oils after declining from Rs. 28.94 per kg. in 1998-99 to Rs.14.31 per kg in 2000-01, increased sharply to Rs.20.11 per kg. in 2002-03, and further to Rs.23.31 per kg. in 2004-05. The unit value of imports declined significantly to about Rs.20.90 per kg. during 2005-06. The price slightly declined further to Rs. 21.59 per kg. during April-Sept., 2007-08 as against Rs.22.24 per kg. during the corresponding period of 2006-07. The movements in quantity and value of

the imports have risen sharply to 26.29 lakh tonnes, at Rs. 5677 crore during 2007-08 (April-Sept., 07) as against 21.58 lakh tonnes at Rs. 4798 crore during 2006-07 (April-Sept 06). (Table 2.31)

2.64 The total oilseeds import during 2007-08 (April-Sept, 2007) is 26,250 tonnes of oilseeds as against 16,210 tonnes for the corresponding period of 2006-07 indicating a sharp increase of about 62 percent.

2.65 The country's exports of total oil seeds during 2007-08 (April-Sept., 07) declined sharply to 2,600 tonnes as against 4,120 tonnes during 2006-07 (April-Sept., 06). Though the export in quantity terms has gone down sharply, in value terms only a marginal decline of Rs.0.85 crore has been noticed during 2007-08 (April-Sept.,07) compared to the corresponding period of 2006-07.

Rapeseed & Mustard

2.66 Rapeseed & Mustard has been a traditionally important oilseed crop in India. Around 50 percent of the produce comes from the state of Rajasthan. Other major states include Uttar Pradesh Madhya Pradesh and Haryana. Area under rapeseed-mustard crop gained substantially, enabled by the expansion of irrigation. During the decade 1985-86 to 1995-96, total area under rapeseed-mustard had expanded at an annual average (compound) growth of 4.78 percent from 39.80 lakh hectares in 1985-86 to 65.46 lakh hectares in 1995-96, supported by expansion in Gujarat, Haryana, Madhya Pradesh and Rajasthan. It rose further to a peak of 73.16 lakh hectares in 2004-05, but declined to 72.77 lakh hectares in 2005-06. The area covered under rapeseed and mustard during 2006-07 was 67.90 lakh hectares less by 4.87 lakh hectares than in the previous year. Rapeseed-mustard production is, however, estimated to drop to 58.03 lakh tonnes in 2007-08, a dip of 22 per cent over the level in 2006-07. Compound growth rate of area, production and yield of the crop that were 4.78 per cent, 7.41 per cent and 2.5 percent during 1985-86 to 1995-96

declined to 2.85 per cent, 4.97 per cent and 2.06 per cent respectively during 1985-86 to 2006-07, (Tables 2.2)

Safflower

2.67 Safflower, a rabi crop, has been losing ground, in terms of all the three parameters, viz, area sown, production and yield. The area under safflower seed cultivation has shrunk to an average of 3.7 lakh hectares during the TE 2006-07 from an average of 8.87 lakh hectares during the TE 1985-86. Reflecting largely the shrinkage in area sown, production sharply declined to 2.14 lakh tonnes from 4.55 lakh tonnes during the same period. In the Fourth Advance estimate for the year 2007-08, its production has declined to 2.20 lakh tonnes as against 2.40 lakh tonnes in 2006-07.

(Tables 2.2)

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

The cost of production is among the most important factors that go into the formulation of price policy support by the Commission for Agricultural Costs and Prices (CACP). It is, therefore, considered necessary that before CACP formulates its price policy support, it reviews comprehensively the cost of production of various rabi crops grown in different parts of the country. In order to assess the extent to which the cost of production has experienced change in terms of either increase or decrease and to have a first-hand view of movement of input prices that have a bearing on cost of production, the Commission held wide-ranging discussions with the State Governments, Farmers' Associations, Agricultural Universities, and other stake-holders in the meeting held on 25th June, 2008. What emerged essentially in the said meeting was the fact that CACP did not take account of elements of weather risk, marketing and transportation as part of the cost of production. Other concerns that were expressed related to the scarcity of labour in the farming sector in the sense that the wage rate in the non-farming sector is higher than that in the farming sector. And this was the reason why the labourers who were earlier engaged in the farming activity found it lucrative to find alternative avenues of employment elsewhere. In particular, the agricultural labourers shift for employment provided under National Rural Employment Guarantee Act (NREGA), which offers relatively better payment for their labour. And this has led to the crises of their availability for the farming operations. It was pointed out by the farmer's representatives that the net returns to the farmers averaged less than the costs incurred on crop production. Other issues that cropped up in the meeting were those of timely supply of electricity, fertilizers, seeds, etc. The criticism that was levelled against CACP was that its estimated costs of production of various crops were considerably on the lower side, compared to those some farmers' representatives brought out on their own account based on their own field experience.

3.2 Against this backdrop, it may be noted that CACP bases its cost estimates for the ensuing crop season on the cost of cultivation/cost of production data generated under the Comprehensive Scheme of the Directorate of E&S, Ministry of Agriculture. The debate around the cost of production estimates, as far as one picks up essential threads of it, involves the question of what should be taken into account in estimation of cost of production. The current methodology which CACP uses as per the mandate given to it, discounts the elements summarized above from its estimates, since these elements are not part of cost of production. These can be taken up separately for policy intervention by the Government and not to be tagged with cost of production as such. In this perspective, we would elucidate the broad scenario of the movement of input price that has surfaced since the submission of the last report on price policy for rabi crops on 25th July, 2007. This is essential to give us insight into how much and to what extent the level of input prices has gone up since then both at the item level and at the aggregate level. In order to grapple with the change in the prices of various inputs going into crop production, the Commission set about analyzing the broad spectrum of data related to item-wise wholesale input price indices, wage rates etc., from the Office of Economic Advisor, Ministry of Commerce and Industry, Labour Bureau, Ministry of Labour and Employment, Fertilizer Association of India, feedbacks from State Governments, etc.

3.3 The information as available from the State Governments shows that the statutory minimum wage rates have recorded upward revision in the states of Bihar, Chhattisgarh, Gujarat, Jharkhand and Haryana. The price of High Speed Diesel (HSD), as measured by wholesale price index (WPI) has increased by about 13.7 percent in the month of June, 2008, compared to the corresponding month of the previous year. The WPI of one of the petro based inputs, lubricants rose by 15.3 percent, with diesel oil recording increase by 43.14 percent during the same period. The WPI of other inputs are reported to have increased by 6.74 percent for fertilizers, 6.40 percent for non-electrical machinery and electricity together for agricultural purposes. Similarly, the price of cattle feed in terms of WPI has shown phenomenal increase by 15.78

percent, fodder increasing by 2.43 percent. The WPI for tractor has increased by 2.17 percent, pesticides showing a marginal increase by 3.71 percent.

Estimates of cost of cultivation and projections for 2008-09 crop season

Wheat

3.4 The Commission has received actual estimates of cost of cultivation/production of wheat for 2006-07 for the states of Bihar, Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Jharkhand, Madhya Pradesh, Punjab, Rajasthan, Uttar Pradesh and Uttarakhand from the Directorate of Economics and Statistics, Ministry of Agriculture. The details of latest cost estimates of wheat and those for the preceding year of 2005-06 are given in table 3(A). As is evident from table 3 (A), the C₂ cost of cultivation per hectare has increased in all the states for the year 2006-07 compared to 2005-06 given the fact that the yield per hectare on an average has considerably increased in almost all states excepting Gujarat and Jharkhand. In these two states the yield level has gone down from 33.37 quintal/hectare in 2005-06 to 31.65 quintal per hectare in 2006-07 in the case of Gujarat and from 12.62 quintal/hectare to 11.93 quintal per hectare in the same period in the case of Jharkhand. (The increased C₂ cost of cultivation per hectare for wheat in almost all the states is due to increase in fixed cost, especially the rental value of land.) In addition to this, the cost on account of human labour has also recorded increase to a great extent. The C₂ cost of production per quintal has increased in almost all the states except Bihar, Chhattisgarh and Uttar Pradesh during the same period. It appears that at the present juncture of agriculture driven by technology and modern inputs, Punjab and Haryana illustrate the case that they have more or less reached the plateau in productivity level and that the yield rate can be enhanced at a progressively lower rate with increasing cost of cultivation at a higher rate. In the case of Punjab, with the yield remaining stable at 42 quintals per hectare for the years 2005-06 and 2006-07, the C₂ cost per quintal has recorded increase by about 11 percent. In regard to Haryana, the yield rate for wheat increased from 38.65 quintals per hectare in 2005-06 to 39.76 in 2006-07

and this increase in yield did not as expected reflect itself in proportionate decrease in cost of production per quintal. These two states offer the examples of technology fatigue and prove the fact that there is a limit beyond which the productivity can be enhanced at a decreasing rate with proportionately increasing cost. No matter what the case, the priority focus has to be shifted to other states where yield rates are comparatively lower and there is potential for increased productivity and production. The MSP fixed for wheat for the year 2006-07 at Rs.850 per quintal has sufficiently covered C2 cost of production for all the major states growing wheat except Chhattisgarh, Himachal Pradesh, Jharkhand and West Bengal. It is, however, not out of place to mention that the major wheat growing states for which C2 cost of production is covered by MSP for the year 2006-07 contribute two-thirds of production. The tables 3.3 and 3.4 outline the details of break-up of cost of cultivation/production of wheat for the years 2005-06 and 2006-07.

3.5 In order to arrive at the likely cost of production of wheat in different wheat growing states for the ensuing season 2008-09, the Commission has as usual adopted the base level cost data generated under Comprehensive Scheme for the latest 3 years ending 2006-07. The per hectare variable input costs are projected using the methodology of projecting input prices for the ensuing season based on the current series of data on wage rates, fertilizer prices, seed prices, irrigation charges, etc. The grasp of possible movement of input prices being crucial to estimating cost of production per quintal for the year 2008-09, the Commission as far as possible takes account of the updated data on prices of different inputs, wage rates, etc. and computes for each state and crop weighted composite input price index, weights being the share of each input in the total operational cost net of interest. The weighted composite input price index estimated for the year 2008-09 provides on an average a clue to how much input price in general is expected to go up for the year under consideration compared to each of the latest 3 years' actual input prices. The all India paid out cost including family labour (A2+FL) per quintal and overall (C2) cost per quintal are arrived by taking weighted average of respective state specific estimated

costs, weights being shares of production of each state in absolute quantity in total production.

Table 3 (A): Cost Estimates for Wheat

(In Rupees)

States	Years	A ₂ +FL/hec	C ₂ /hec	A ₂ +FL /qtl	C ₂ /qtl	C ₃ /qtl	Yield qtl /hec.	Implicit Price (per qtl)	MSP (qtl)
Bihar	2005-06	10577	15011	487.57	691.20	792.38	18.78	782.82	700
	2006-07	11097	15694	473.50	668.98	755.17	20.50	909.11	850
Chhattisgarh	2005-06	8416	12480	610.01	914.95	1016.86	10.78	886.84	700
	2006-07	9687	15057	565.98	879.11	968.07	14.38	1034.70	850
Gujarat	2005-06	12874	18277	370.18	524.80	577.28	33.37	796.73	700
	2006-07	14127	19900	428.26	602.91	663.20	31.65	894.46	850
Haryana	2005-06	16598	27318	350.89	577.41	650.53	38.65	695.39	700
	2006-07	16534	28424	342.47	588.68	657.69	39.76	856.15	850
Himachal Pradesh	2005-06	9526	16363	419.54	720.55	797.80	15.80	768.78	700
	2006-07	11868	20965	440.74	778.94	885.19	19.56	900.97	850
Jharkhand	2005-06	12249	14609	802.99	947.19	1041.91	12.62	793.90	700
	2006-07	12849	14999	954.30	1111.55	1222.71	11.93	921.53	850
Madhya Pradesh	2005-06	10074	16978	427.82	720.77	799.83	20.30	903.34	700
	2006-07	11151	19373	420.88	730.32	803.89	22.91	1012.34	850
Punjab	2005-06	14558	26700	303.26	556.27	619.47	42.05	700.18	700
	2006-07	16254	29947	335.38	617.11	687.52	42.10	850.36	850
Rajasthan	2005-06	14771	22416	348.59	528.70	587.70	33.76	816.86	700
	2006-07	15867	24660	365.23	568.12	626.00	36.46	930.87	850
Uttar Pradesh	2005-06	14960	22822	427.77	654.22	728.49	28.59	724.14	700
	2006-07	16581	24689	425.48	635.89	711.62	31.92	868.01	850
Uttarakhand	2005-06	13804	20108	446.68	647.54	712.47	23.41	680.83	700
	2006-07	15669	24552	487.30	756.86	847.66	25.20	804.02	850
West Bengal	2005-06	16341	21981	731.65	987.41	1096.41	19.90	769.32	700
	2006-07	16973	23242	727.06	996.32	1100.45	21.40	890.90	850

3.6 According to the above mentioned projection methodology, and on the basis of the actual input price movements observed so far, the per quintal average paid out cost including imputed cost of family labour (i.e. A_2+FL) for wheat for 2008-09 is projected to Rs.503.09, Rs.712.21, Rs.436.52, Rs.384.86, Rs.490.45, Rs.930.44, Rs.457.79, Rs.348.23, Rs.386.96, Rs.456.10 and Rs.495.02 per quintal in Bihar, Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Jharkhand, Madhya Pradesh, Punjab, Rajasthan, Uttar Pradesh and Uttarakhand respectively. The average projected unit costs of production (cost C_2) of wheat in these states worked out to Rs. 700.99, Rs.1005.02, Rs.596.33, Rs.606.69, Rs.791.57, Rs.1125.19, Rs.751.00, Rs.590.00, Rs.567.39, Rs.680.89 and Rs.717.03 respectively. The weighted average projected cost of production of wheat for 2008-09 for all these states worked out to Rs.421 on A_2+FL basis and Rs.649 on C_2 cost basis.

((Table 3 (G))

Barley

3.7 The cost estimates of barley for 2006-07 became available for the states of Rajasthan and Uttar Pradesh. As is observed from table 3 (B), the C_2 cost of cultivation per hectare recorded an increase in these two states during the period 2005-06 to 2006-07. The state of Rajasthan witnessed a growth in yield by 14.32 percent that resulted in decline in cost of production per quintal by (-) 3.47 percent. In contrast, Uttar Pradesh observed a decline in yield rate by (-) 9.72 percent that led to increase in cost of production by 10.28 percent during the same period. The comparative cost structure of barley for the consecutive years of 2005-06 to 2006-07 is given in Tables 3.6 and 3.7.

Table 3 (B): Cost Estimates for Barley

(In Rupees)

State	Years	A ₂ +FL/ hec	C ₂ /hec	A ₂ +FL /qtl	C ₂ /qtl	C ₃ /qtl	Yield Qtl/ hec.	Implicit Price (per qtl)	MSP (qtl)
Rajasthan	2005-06	12979	19770	313.49	481.89	530.08	30.93	688.25	550
	2006-07	13886	21410	298.95	465.16	522.14	35.36	693.88	565
Uttar Pradesh	2005-06	14554	22450	397.31	614.10	687.44	30.03	596.43	550
	2006-07	15534	22592	461.63	677.24	769.32	27.11	733.45	565

3.8 The average A₂+FL cost of barley for 2008-09 is projected at Rs.321.85 per quintal for Rajasthan and Rs.447.24 per quintal for Uttar Pradesh following the same methodology as used in the case of wheat. The average C₂ cost of production of barley for these states is projected at Rs.485.88 and Rs.662.79 per quintal respectively. The weighted average cost of production of barley for 2008-09 works out to Rs.377.82 on A₂ +FL basis and Rs.564.85 per quintal on C₂ cost basis.

(Tables 3.6, 3.7 & 3 (G))

Gram

3.9 The gram like wheat shows remarkable yield differentials among states, with Jharkhand reporting the minimum average yield of 4.72 quintals per hectare ending 2006-07 and Andhra Pradesh, the maximum average yield of 12.59 quintals per hectare in the same period. The latest estimates of cost of cultivation/production of gram for the year 2006-07 became available in respect of Bihar, Chhattisgarh, Haryana, Jharkhand, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh. It may be noted that the state of Andhra Pradesh, for the first time has been selected under CS for generating cost estimates for gram. It can be observed from Table 3(C) that the MSP fixed at Rs.1445 per quintal for 2006-07 covered C₂ cost for all the states except Bihar, Jharkhand, Madhya Pradesh, Maharashtra, Uttar Pradesh for which estimates have been made available.

(Tables 3.9 & 3.10)

Table 3 (C): Cost Estimates for Gram

(In Rupees)

States	Years	A ₂ +FL /hec	C ₂ /hec	A ₂ +FL /qtl	C ₂ /qtl	C ₃ /qtl	Yield qtl /hec.	Implicit Price (per qtl)	MSP (qtl)
Andhra Pradesh	2005-06	7706	13387	729.79	1267.54	1418.41	10.39	1681.08	1425
	2006-07	9532	17887	756.50	1420.03	1588.69	12.59	2127.31	1445
Bihar	2005-06	6905	11575	737.21	1235.83	1392.65	8.75	2069.79	1425
	2006-07	7630	12375	933.04	1513.49	1688.69	7.75	2659.39	1445
Chhattisgarh	2005-06	6679	14154	446.54	946.38	1072.73	14.28	1786.47	1425
	2006-07	6579	11964	625.10	1136.17	1269.13	9.79	1952.86	1445
Haryana	2006-07	5300	10539	800.92	1597.15	1756.87	6.14	2131.69	1445
Jharkhand	2005-06	4768	6657	818.28	1137.93	1316.06	5.59	2219.38	1425
	2006-07	5479	7267	1107.84	1470.73	1617.80	4.72	2488.98	1445
Karnataka	2006-07	7202	10712	1066.95	1583.46	1805.00	6.62	2213.52	1445
Madhya Pradesh	2005-06	7921	13978	794.02	1401.57	1555.03	9.52	1861.87	1425
	2006-07	8633	15323	874.16	1551.00	1706.10	9.42	2233.98	1445
Maharashtra	2005-06	8611	12581	1061.55	1552.46	1707.71	7.92	1876.89	1425
	2006-07	11348	15444	1391.16	1894.80	2084.28	8.03	2135.49	1445
Uttar Pradesh	2005-06	8206	15093	588.54	1083.09	1191.40	13.36	1759.86	1425
	2006-07	9785	15724	1092.42	1751.12	1926.23	8.56	2325.36	1445
Rajasthan	2005-06	7077	11878	886.88	1488.30	1637.16	7.18	2250.13	1425
	2006-07	7976	14371	691.06	1247.65	1378.73	10.50	2217.25	1445

3.10 The average A₂+FL costs of gram are projected for 2008-09 at Rs.797.52, Rs.771.40, Rs.971.00, Rs.975.68, Rs.862.58, Rs.1489.95 Rs.891.77 and Rs.845.45 per quintal for Bihar, Chhattisgarh, Haryana, Jharkhand, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh respectively. The corresponding C₂ costs are projected at Rs.1296.04, Rs.1246.77, Rs.1646.87, Rs.1381.03, Rs.1430.70, Rs.1979.37, Rs.1390.02 and Rs.1385.43 per quintal respectively. The weighted average cost of production of gram works out to Rs.938.18 per quintal on A₂ + FL basis and Rs.1494.90 per quintal on C₂ cost basis for the year 2008-09.

(Table 3 (G))

Lentil (Masur)

3.11 The estimates of cost of cultivation of lentil became available for 2006-07 in respect of Bihar, Jharkhand, Madhya Pradesh and Uttar Pradesh. From Table 3(D) it is observed that the MSP fixed at Rs.1545 per quintal for 2006-07 covered C₂ cost for all the states except UP where the actual C₂ cost of production per quintal for the year 2006-07 stood at Rs.1735.04 per quintal. However, paid out cost including family labour amounting to Rs.1047.02 per quintal was covered by the level of MSP at Rs.1545 per quintal for the year 2006-07. In regard to Uttar Pradesh, it is paradoxical to state that it has its actual cost of production increased by 33.23 percent in the year 2006-07 vis-à-vis 2005-06 and at the same time it has suffered a decline in yield by (-)25.46 percent. So also is the case with Madhya Pradesh which has its cost of production on C₂ basis increased by 27.17 percent with decrease in yield by (-)15.42 percent. The similar situation prevails also in Jharkhand. The only exception is noticed in Bihar where the decline in cost of production at (-)2.12 percent is accompanied by increase in yield by 4.57 percent during the same period.

(Tables 3.12 & 3.13)

Table 3(D): Cost Estimates for Lentil (Masur)

(In Rupees)

States	Years	A ₂ +FL/ hec	C ₂ /hec	A ₂ +FL /qtl	C ₂ /qtl	C ₃ /qtl	Yield Qtl/hec	Implicit Price (qtl)	MSP (qtl)
Bihar	2005-06	6076	10868	633.62	1134.62	1288.43	8.98	1720.99	1535
	2006-07	5738	11064	576.48	1110.52	1262.80	9.39	1984.85	1545
Jharkhand	2005-06	4296	6536	751.02	1140.72	1385.89	5.48	2073.76	1535
	2006-07	4397	6415	801.18	1165.73	1282.30	5.26	2281.87	1545
Madhya Pradesh	2005-06	5842	10998	599.48	1127.68	1247.04	9.34	1678.63	1535
	2006-07	6427	11863	776.98	1434.10	1577.51	7.90	2184.95	1545
Uttar Pradesh	2005-06	7731	14013	719.36	1302.26	1434.33	10.33	1720.33	1535
	2006-07	8527	14105	1047.02	1735.04	1922.14	7.70	2179.25	1545

3.12 The A₂ +FL cost per quintal of lentil is projected for 2008-09 at Rs.638.12, Rs.881.02, Rs.680.50, and Rs.1060.20 for Bihar, Jharkhand, Madhya Pradesh and Uttar Pradesh, respectively. The C₂ costs for these states have been projected at Rs.1131.84, Rs.1272.82, Rs.1209.52 and Rs.1700.75 respectively. The weighted average cost of production of lentil works out to Rs.880.58 per quintal on A₂+ FL basis and Rs.1461.94 per quintal on C₂ cost basis for the year 2008-09. (Table 3(G))

Rapeseed/Mustard and Safflower

3.13 The estimates of Rapeseed/Mustard have become available for the states of Assam, Gujarat, Haryana, Madhya Pradesh, Rajasthan, Uttar Pradesh and West Bengal for the year 2006-07. The MSP for the year 2006-07 fixed at Rs.1715 per quintal covered the actual C₂ cost of production per quintal for the states of Gujarat, Haryana, Madhya Pradesh, Rajasthan, Uttar Pradesh excepting the states of Assam and West Bengal.

Table 3 (E): Cost Estimates for Rapeseed/Mustard

(In Rupees)

States	Years	A ₂ +FL/ hec	C ₂ /hec	A ₂ +FL /qtl	C ₂ /qtl	C ₃ /qtl	Yield qtl / hec.	Implicit Price (per qtl)	MSP (qtl)
Assam	2005-06	8581	10973	1347.10	1721.62	1909.87	6.37	1311.02	1715
	2006-07	9239	11606	1502.40	1885.97	2074.57	6.15	1321.63	1715
Gujarat	2005-06	10944	15812	645.53	932.63	1025.89	16.79	1410.66	1715
	2006-07	10111	14938	677.30	1000.91	1101.00	14.70	1662.30	1715
Haryana	2005-06	11607	19810	729.86	1245.58	1385.30	14.89	1568.14	1715
	2006-07	13722	21349	915.47	1423.89	1566.28	13.86	1768.10	1715
Madhya Pradesh	2005-06	7614	13629	635.29	1138.56	1259.83	11.37	1575.87	1715
	2006-07	7969	14244	678.92	1213.53	1334.88	11.12	1764.16	1715
Rajasthan	2005-06	8213	13506	613.42	1009.70	1110.67	12.93	1608.79	1715
	2006-07	8893	15059	591.87	1002.61	1102.87	14.54	1720.06	1715
Uttar Pradesh	2005-06	9349	16604	673.94	1199.40	1319.34	13.13	1508.33	1715
	2006-07	9735	17681	655.07	1196.67	1316.34	13.95	1759.19	1715
West Bengal	2005-06	12848	18185	1205.47	1704.21	1888.58	10.16	1674.63	1715
	2006-07	13396	18551	1351.65	1873.23	2060.55	9.44	1676.89	1715

3.14 The estimated costs of production of Rapeseed/Mustard for states for which latest estimates are available have been projected for 2008-09. As gleaned from the table 3(G), the estimated $A_2 + FL$ cost varies within a wide range between Rs.648.40 per quintal for Rajasthan and Rs.1631.75 per quintal for Assam. The projected C_2 cost varies between Rs.1043.71 per quintal for Rajasthan and Rs.1994.37 per quintal for Assam. Next to Assam having the highest cost of production is West Bengal which has Rs.1832.73 as its projected C_2 cost of production. These two being the high cost states, MSP could not cover their costs of production for the year 2006-07.

(Tables 3.15 & 3.16)

3.15 According to the CS estimates of rapeseed and mustard for the year 2006-07, the states of Assam, Gujarat, Haryana, Madhya Pradesh and West Bengal have reported increased C_2 cost of production accompanied by their yield rates declining in the year 2006-07, compared to the year 2005-06. The estimated cost of production for rapeseed and mustard has been projected for the year 2008-09 to Rs.1631.75 per quintal for Assam, Rs.737.44 per quintal for Gujarat, Rs.842.84 per quintal for Haryana, Rs.678.31 per quintal for Madhya Pradesh, Rs.648.40 per quintal for Rajasthan, Rs.828.22 per quintal for Uttar Pradesh and Rs.1338.34 per quintal for West Bengal on $A_2 + FL$ basis. The overall projected C_2 cost for the year 2008-09 is put at Rs.1994.37 per quintal, Rs.1044.06 per quintal, Rs.1365.99 per quintal, Rs.1185.77 per quintal, Rs.1043.71 per quintal, Rs.1351.79 per quintal, Rs.1832.73 per quintal for the aforesaid states respectively. The All India weighted cost is projected at Rs.749.53 per quintal on $A_2 + FL$ basis and Rs.1183.94 per quintal on C_2 basis.

(Table 3(G))

3.16 The latest cost estimate for Safflower pertaining to 2006-07 is available for Maharashtra.

Table 3 (F): Cost Estimates for Safflower

(In Rupees)

States	Years	A ₂ +FL /hec	C ₂ /hec	A ₂ +FL /qtl	C ₂ /qtl	C ₃ /qtl	Yield qtl/hec	Implicit Price (per qtl)	MSP (qtl)
Maharashtra	2005-06	5715	7823	1172.90	1605.91	1766.50	4.87	1478.48	1565
	2006-07	7246	9754	964.90	1298.23	1428.05	7.51	1508.61	1565

3.17 The estimated cost of production for Safflower has been projected for 2008-09 to an average of Rs.1068.26 and Rs.1455.93 per quintal on A₂ + FL and C₂ cost basis respectively. The MSP for the year 2006-07 fixed at Rs.1565 covered the cost of production of safflower at Rs.1298.23 per quintal. (Tables 3.18 & 3.19)

Comparison of Cost Estimates generated under Comprehensive Scheme (CS) and those provided by the State Governments.

3.18 In addition to the data obtained from CS, the Commission received data on cost of cultivation and input usage from various state governments based on their own surveys. These two sets of data are not strictly comparable due to some conceptual and methodological differences. Nevertheless, the cost estimates provided by the different state governments have proved very useful as many of them pertain to the more recent years and sometimes the data for the states not covered under CS are also made available. These have been tabulated and presented in Table 3 (H) for comparison.

3.19 The states of Chhattisgarh, Gujarat and Madhya Pradesh have provided cost of production estimates for wheat for the years 2006-07 and 2007-08, whereas the states of Uttar Pradesh, Uttarakhand and Maharashtra have provided cost estimates for the year 2006-07 only. The estimates made available by these states for the year 2006-07 have been compared with the corresponding cost estimates for the corresponding states, wherever available. It is observed that estimates provided by the states of Chhattisgarh, Gujarat and Madhya Pradesh are pegged higher than the

corresponding CS estimates due to the lower yield reported by these states. However, in the case of Gujarat where yield rate is more or less of the same order of magnitude, the cost of production as given by these states is put at Rs.704 per quintal compared to actual CS estimates of Rs.603 per quintal. This difference that shows state reply estimates being higher is due to conceptual and methodological differences in the derivation of cost of production estimates. For the state of Uttarakhand, the CS cost estimate furnished is on the higher side, compared to the estimate given in the state replies.

3.20 For Barley, the comparable estimates are available for Uttar Pradesh and the cost of production as furnished in the state reply stands at Rs.686 per quintal in the year 2006-07, compared to Rs.677 per quintal given in the CS estimates. This increased cost shown for Barley in the state reply owes to the low yield rate reported in the state reply and higher yield rate furnished in the CS estimates.

3.21 The states of Chhattisgarh, Gujarat and Madhya Pradesh have provided the cost estimates for gram for two consecutive years of 2006-07 and 2007-08. Uttar Pradesh and Maharashtra have provided the estimates for 2006-07. Wherever comparable estimates are available, it is observed that in the states of Haryana and Uttar Pradesh, the CS cost estimates are higher than those in their corresponding state replies. Similarly, Chhattisgarh has reported cost of production at Rs.1382 per quintal compared to Rs.1136 per quintal furnished by CS estimates. This is due to the difference in the yield level reported by different sources and CS estimates provided higher yield of 9.79 quintal per hectare compared to 8.35 quintals per hectare given in state replies.

3.22 The comparable estimates for lentil are available for Uttar Pradesh for the year 2006-07, wherein CS cost estimates of Rs.1735 per quintal is up from Rs.1513 per quintal given in the state reply. The difference in cost of production for lentil in respect of Uttar Pradesh for the year 2006-07 results from higher reporting of the yield by the

state than that of CS estimates.

3.23 The states of Chhattisgarh, Gujarat, Madhya Pradesh and Haryana have provided cost estimates of rapeseed and mustard for two consecutive years of 2006-07 and 2007-08. The states of Uttar Pradesh, Uttarakhand have provided the estimates for 2006-07 only. The comparative picture that emerges is that invariably the cost of production provided in the state replies are higher than those in the CS estimates for all the states. In regard to safflower, there is more or less correspondence between two different estimates for the year 2006-07 for the state of Maharashtra, with state replies showing Rs.1310 per quintal compared to Rs.1298 per quintal in the CS estimates.

Comparison of Projections made by CACP and those made available by the State Governments.

3.24 The Commission has received the cost projections for rabi crops from Bihar, Haryana, Punjab and Maharashtra for the year 2008-09. In order to make a meaningful comparison between the projections made by CACP and those provided by the states, certain additional items of cost considered by the states such as managerial cost, transportation cost, weather, marketing charges and other incidental cost have been excluded as these are not part of C₂ cost of production. Therefore, the cost projections received from the states were adjusted accordingly to make them comparable with the projections carried out by the Commission (Table 3 (I)). It is observed that after the adjustment the projected C₂ costs of production of wheat in respect of Bihar, Haryana, and Punjab are higher than corresponding projections of the Commission. Similarly, for gram, Maharashtra's cost projection is lower than that of projection made by the Commission for the year 2008-09, whereas the comparable projections for Bihar and Haryana by the states are more than that of the CS estimates. Other details of comparison of projections for the crops of rapeseed/mustard, lentil and safflower can be read off the Table No. 3 (I).

Terms of Trade

3.25 The Commission in its earlier reports made a reference to the deteriorating terms of trade between agriculture and non-agriculture sectors in recent years. The Index of Terms of Trade (ITT) with base triennium ending 1991 = 100 stood at 105.7 in the year 1991-92 and deteriorated further until the year 1994-95 when it rose to 106.6. Since then it has dipped to around 101-103 excepting the years 1997-98 and 1998-99 – the years in which ITT recovered showing on an average 105. According to the figure released by the Directorate of Economics & Statistics, the index of terms of trade is provisionally fixed at 102.0 for the year 2006-07, up from 101.9 for the year 2005-06.

(Appendix –I)

Inter- Crop Price Parity

3.26 Minimum Support Price Policy is one of the instruments to maintain inter-crop price parities in so far as it helps in judicious allocation of area among different crops by farmers for the balanced development of agriculture in the country. The Commission takes care in its price policy formulations to preserve the inter-crop price parities and every effort is made to see that difference in MSPs across different crops are more or less in accord with their respective costs/returns. Having regard to rabi crops, for which price support policy is to be formulated, it is pointed out that during the past decade, the agricultural prices of these commodities have registered movement at different rates. The Wholesale Price Index (WPI) with base 1993-94 = 100 for wheat increased by 7.6 percent to 233.7 during the month of June, 2008-09 from 217.1 of the corresponding month of previous year, i.e., 2007-08. The WPI of Barley also registered an increase of 9.9 percent during the month of June, 2008-09 compared to the corresponding month of the previous year. It is remarkable to mention that the increase in prices measured in terms of WPI for Lentil (Masur) was as high as 19.7 percent during the month of June, 2008-09 in comparison to the corresponding month of the previous year. As far as oilseeds are concerned, the WPI recorded an increase

by about 19.3 percent during the month of June, 2008-09 vis-à-vis the corresponding month of the previous year. It is not out of place to mention here that rapeseed/mustard and safflower seeds have also had their prices increased by 29.3 and 21.4 percent respectively in tandem with the WPI of oilseeds. Of all the rabi crops considered for price policy formulations, gram recorded lowest increase in WPI at 6.0 percent during the same period.

3.27 MSPs for gram, lentil, rapeseed/mustard and safflower have been considerably enhanced for the marketing season 2008-09 to encourage farmers to allocate more acreage under these crops. The indications of the levels of production of oilseeds and pulses as per the 4th advance estimates of 2007-08 released by Directorate of Economics & Statistics, Ministry of Agriculture, are that the level of production for gram is estimated at 5.91 million tonnes for the year 2007-08, down from 6.33 million tonnes during the year 2006-07. The total pulses production for the year 2007-08 is put at 8.66 million tonnes as against 9.40 million tonnes during the year 2006-07. Rapeseed/mustard and safflower have also recorded a decline in the levels of production for the year 2007-08. Therefore, given the fixed size of net area sown in the country that amounts to about 140 million hectares, it is thus required that concerted efforts by way of research and extension be initiated for increasing productivity of these crops, especially in regions where yield rate is low and there is potential for their increased production and productivity.

Cost of Production and Minimum Support Prices

3.28 Since one of the major considerations in setting Minimum Support Prices (MSP) is the cost of production, the Commission is concerned about the views sometimes expressed that the MSPs for various crops, whether recommended by the Commission or fixed by the Government, do not adequately cover the C₂ cost of production of the crops in many states. While using the cost of production data for setting the MSP, generally three considerations are kept in mind. First, the MSP

should not normally be below the paid out costs (Cost A_2 + the cost of family labour). Second, farmers should normally have a price realization that gives them a reasonable margin over their full cost of production including the imputed rental value of owned land and capital (i.e. cost C_2). To ensure this, the MSP is usually set to offer a reasonable margin above the C_2 cost of production in states, which are efficient in terms of their cost of production. Third, in doing so it is kept in mind that MSP should normally be at a level above the paid-out costs (A_2 + the cost of family labour) in every state and thus provides a floor, which protects farmers against actual loss.

Table – 3(G)
Projected Cost of Production of Rabi Crops (Rs./Qtl)

Crops/ States	Base Year	Composite Variable Input Price Indices			Projections for 2008-09 (Revised Method – Using three years averages)		
		2006-07	2007-08	2008-09	Yield (qtl/hect)	A2+FL	C2
1	2	3	4	5	6	7	8
WHEAT							
Bihar	01-02	132.80	134.84	140.49	19.66	503.09	700.99
Chhattisgarh	02-03	128.77	133.71	138.87	11.92	712.21	1005.02
Gujarat	01-02	120.63	123.62	126.41	32.47	436.52	596.33
Haryana	01-02	124.90	129.10	132.87	39.30	384.86	606.69
Himachal	01-02	128.64	132.64	138.36	16.77	490.45	791.57
Jharkhand	02-03	137.93	141.26	144.42	12.72	930.44	1125.19
Madhya	01-02	141.78	145.80	149.60	21.67	457.79	751.00
Punjab	01-02	129.36	130.96	134.47	42.36	348.23	590.00
Rajasthan	01-02	127.94	131.55	135.85	34.39	386.96	567.39
Uttar Pradesh	01-02	132.54	135.79	138.55	29.93	456.10	680.89
Uttarakhand	02-03	117.71	119.87	122.47	24.90	495.02	717.03
Wtd. Avg.						420.80	648.63
BARLEY							
Rajasthan	01-02	132.25	136.06	140.59	33.40	321.85	485.88
Uttar Pradesh	01-02	127.87	130.62	132.36	27.17	447.24	662.79
Wtd. Avg.						377.82	564.85
GRAM							
Bihar	01-02	133.94	134.57	135.20	8.40	797.52	1296.04
Chhattisgarh	02-03	138.74	140.99	143.69	10.10	771.40	1246.77
Haryana	01-02	132.95	135.19	140.43	6.13	971.00	1646.87
Jharkhand	02-03	111.47	112.37	113.61	5.79	975.68	1381.03
Madhya	01-02	162.64	163.65	165.27	9.66	862.58	1430.70
Maharashtra	02-03	154.39	157.12	160.40	7.42	1489.95	1979.37
Rajasthan	01-02	132.42	135.74	140.75	7.41	891.77	1390.02
Uttar Pradesh	01-02	132.14	133.77	136.20	10.77	845.45	1385.43
Wtd. Avg.						938.18	1494.90
LENTIL (MASUR)							
Bihar	01-02	131.89	136.42	141.14	9.60	638.12	1131.84
Jharkhand	02-03	129.79	133.85	138.07	4.63	881.02	1272.82
Madhya	01-02	134.63	135.64	136.66	9.38	680.50	1209.52
Uttar Pradesh	01-02	128.66	131.47	132.96	8.05	1060.20	1700.75
Wtd. Avg.						880.58	1461.94
RAPESEED & MUSTARD							

Assam	01-02	137.55	141.85	146.31	6.14	1631.75	1994.37
Gujarat	01-02	128.74	131.29	133.87	15.34	737.44	1044.06
Haryana	01-02	124.62	125.82	126.99	13.42	842.84	1365.99
Madhya	01-02	129.56	132.52	136.25	11.28	678.31	1185.77
Rajasthan	01-02	132.62	135.66	139.22	13.68	648.40	1043.71
Uttar Pradesh	01-02	126.70	130.17	135.28	11.58	828.22	1351.79
West Bengal	01-02	126.94	132.83	139.07	10.43	1338.34	1832.73
Wtd. Avg.						749.53	1183.94
SAFFLOWER							
Maharashtra	01-02	133.64	140.56	146.97	4.79	1068.26	1455.93
Wtd. Avg.						1068.26	1455.93

Table – 3(H)

Comparative Statement of Cost Estimates of Rabi Crops provided under Comprehensive Scheme (CS) and those provided by the State Government

Crop/State	Year	Cost of Cultivation (Rs./Hect)		Yield (Qtl/Hect.)		Cost of production (Rs/Qtl)	
		C. S. Survey	State Reply	C. S. Survey	State Reply	C. S. Survey	State Reply
1	2	3	4	5	6	7	8
WHEAT							
Chhattisgarh	2006-2007	15057	13776	14.38	12.40	879	1111
	2007-2008	NA	14327	NA	12.40	NA	1155
Gujarat	2006-2007	19900	22413	31.65	31.83	603	704
	2007-2008	NA	25596	NA	25.95	NA	986
Haryana	2006-2007	28424	NA	39.76	NA	589	795
	2007-2008	NA	NA	NA	NA	NA	807
Madhya Pradesh	2006-2007	19373	17108	22.91	19.15	730	893
	2007-2008	NA	21596	NA	20.00	NA	1080
Uttar Pradesh	2006-2007	24689	24918	31.92	27.20	636	776
Uttarakhand	2006-2007	24552	21908	25.20	39.01	757	519
Maharashtra	2006-2007	NA	19389	NA	18.71	NA	1003
BARLEY							
Uttar Pradesh	2006-2007	22592	19123	27.11	22.70	677	686
GRAM							
Chhattisgarh	2006-2007	11964	11536	9.79	8.35	1136	1382
	2007-2008	NA	11997	NA	8.35	NA	1437
Gujarat	2006-2007	NA	12651	NA	8.66	NA	1390
	2007-2008	NA	17214	NA	9.49	NA	1731
Haryana	2006-2007	10539	NA	6.14	NA	1597	1497
	2007-2008	NA	NA	NA	NA	NA	1610
Madhya Pradesh	2006-2007	15323	16313	9.42	9.81	1551	1663
	2007-2008	NA	19320	NA	10.00	NA	1932
Uttar Pradesh	2006-2007	15724	15136	8.56	10.50	1751	1408
Maharashtra	2006-2007	NA	13185	NA	7.92	NA	1625
LENTIL (MASUR)							
Uttar Pradesh	2006-2007	14105	13985	7.70	8.86	1735	1513
Uttarakhand	2006-2007	NA	15446	NA	9.80	NA	1576
RAPSEED & MUSTARD							
Chhattisgarh	2006-2007	NA	7524	NA	7.25	NA	1038
	2007-2008	NA	7825	NA	7.25	NA	1079
Gujarat	2006-2007	14938	18849	14.70	15.25	1001	1211
	2007-2008	NA	24091	NA	13.69	NA	1730

Haryana	2006-2007	21349	NA	13.86	NA	1424	1608
	2007-2008	NA	NA	NA	NA	NA	1650
Madhya Pradesh	2006-2007	14244	15298	11.12	10.00	1214	1530
	2007-2008	NA	18745	NA	10.50	NA	1785
Uttar Pradesh	2006-2007	17681	17248	13.95	10.40	1197	1606
Uttarakhand	2006-2007	NA	15446	NA	12.91	NA	1196
SAFFLOWER							
Chhattisgarh	2006-2007	NA	6949	NA	4.75	NA	1463
	2007-2008	NA	7227	NA	5.00	NA	1445
Maharashtra	2006-2007	9754	10576	7.51	8.05	1298	1310

Source: 1. Directorate of Economics and Statistics
2. State Replies for 2008-09 Season

Table – 3(I)
Comparison of Projection*

(In Rupees)

Crop/State	Year	State Yield	State Projections		* Comparable Estimates (using state data)		Yield (C.S)	Projections for 2008-09 (as done by CACP)	
			Qtl/ hect	Cost/ hect	Cost/qtl	Cost/ hect		Cost/qtl	Qtl/ hect.
1	2	3	4	5	6	7	8	9	10
WHEAT									
Bihar	2008-09	28.00	32145	1435	29223	1044	19.66	16362	701
Haryana	2008-09	40.47	45749	1153	45749	980	39.30	28681	607
Punjab	2008-09	42.00	40130	1500	40130	1000	42.36	28595	590
Maharashtra	2008-09	18.16	21501	1590	21178	1134	NP	NP	NP
GRAM									
Bihar	2008-09	14.00	31197	2785	28361	2026	8.40	11816	1296
Haryana	2008-09	7.99	16320	2201	16320	1893	6.13	10963	1646
Maharashtra	2008-09	7.92	12989	2203	12543	1555	7.42	14846	1979
BARLEY									
Haryana	2008-09	29.49	23889	842	23889	710	NP	NP	NP
RAPESEED & MUSTARD									
Bihar	2008-09	10.00	26468	3307	24062	2406	NP	NP	NP
Haryana	2008-09	11.77	24225	2392	24225	2058	13.42	19946	1366
LENTIL (MASUR)									
Bihar	2008-09	11.00	23555	2676	21414	1947	9.60	11442	1132
SAFFLOWER									

Maharashtra	2008-09	7.03	10631	2084	10205	1448	4.79	8388	1456
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Note: *Data supplied by the states have been recalculated to correspond to the current CACP concepts and methodologies.

NP – Not Projected due to non-availability of CS estimates

IV PRICE POLICY FOR 2008-09 SEASON

In arriving at the Price Policy for Rabi Crops of 2008-09 Season, the Commission has as usual considered various relevant factors such as cost of production, domestic and international demand-supply situation, market price trends, inter-sectoral terms of trade, food security situation and inter-crop price parity. This report made a detailed examination of the recent trends and structure of agricultural production in general and of rabi crops in particular. The Commission has as usual carried out a study of the cost of production of rabi crops and made projections regarding their likely levels during 2008-09.

4.2 The year 2007-08 can be considered a very good year for foodgrains production. According to the Fourth Advance Estimates of the Directorate of Economics and Statistics, Ministry of Agriculture, the total foodgrains production for the year 2007-08 is estimated at 230.67 million tonnes and stands out as record production ever achieved in India. This would be 13.4 million tonnes more than the final estimate of the production for the year 2006-07. Rabi foodgrains production increased from 106.71 million tonnes in 2006-07 to 109.71 million tonnes in 2007-08 – an increase of 3 million tonnes. On the other hand, there was an increase of 10 million tonnes in kharif foodgrains production during the same period. The projected demand of foodgrains production for the year 2011-12 is around 234 million tonnes. Therefore, the country is in a relatively comfortable position as India already achieved 230 million tonnes in the year 2007-08. However, the long term trend growth rate of foodgrains production was only around 0.85 per annum during the period 1995-96 to 2006-07. This growth rate was less than that of population growth.

4.3 The situation of Wheat is relatively better as the production in the last two years was much higher than the first five years of this decade. The production of wheat rose from 69.35 million tonnes in 2005-06 to 75.81 million tonnes in 2006-07 and to 78.40 million tonnes in 2007-08. However, in the case of other rabi crops such as barley, gram, rapeseed & mustard and safflower, there was a decline in production in 2007-08 as

compared to 2006-07 – the biggest decline being in rapeseed & mustard. The production of rapeseed & mustard declined from 74.4 million tonnes in 2006-07 to 58.0 million tonnes in 2007-08.

4.4 Owing to shortage of wheat, India imported 5.8 million tonnes in 2006-07 and 1.8 million tonnes in 2007-08 in order to build adequate buffer stock. The global food prices increased significantly in the last two years. The international prices of wheat (US HRW) increased from \$173 per metric tonne in January-March 2006 to \$198.4 in January-March 2007 and to \$411.8 in January-March 2008. The global supply of wheat production was also lower in the years 2006-07 and 2007-08. There are, however, some positive developments in global wheat situation in 2008-09. The FAO forecast indicates that wheat production would register record production in the year 2008. The world wheat production is expected to increase from 605.1 million tonnes in 2007-08 to 658 million tonnes in 2008-09. The ending stock of wheat is likely to increase from 144.5 million tonnes to 167.6 million tonnes– an increase of 16 per cent during the same period. Moreover, the international wheat prices began to decline by April, 2008. It declined to US \$240 by mid-May, about 50 per cent below the level in February. In June, 2008, the price of US wheat (Hard Red Winter) was US \$348.6 per tonne, 38 per cent less than that of March, 2008. There was also decline of wheat prices in futures market.

4.5 The wholesale price index (WPI) shows that price of wheat increased significantly during the period January, 2006 to August, 2007 and started declining since September, 2007. The annual average WPI of wheat for the year 2006-07 was higher by 13 per cent as compared to that of 2005-06. On the other hand, the price of wheat increased by only 4.3 per cent in 2007-08. It shows that wheat prices started declining since the middle of 2007. The WPI of wheat in June, 2008 was higher by 7.6 per cent over that of June, 2007. The price rise of barley also declined from 7.5 per cent in 2006-07 to 3.6 per cent in 2007-08. In the case of gram, the price rise was 33 per cent in 2006-07 over the previous year but declined to -4.2 per cent in 2007-08 over the year 2006-07. On the other hand the price rise of masur (lentil) increased sharply from 4.6

per cent in 2006-07 to 25.7 per cent in 2007-08. Similarly, there was sharp increase in the price rise of rapeseed & mustard and safflower in 2007-08 as compared to that of 2006-07. For example, the annual average price increase for rapeseed & mustard in 2006-07 was only 4.4 per cent over the year 2005-06. But, the increase in price rise was sharp at 18.8 per cent in 2007-08. One of the reasons for increase in prices of rapeseed & mustard could be the decline in production in the year 2007-08.

4.6 The procurement of wheat was only 9.2 million tonnes and 11.1 million tonnes respectively in the years 2006-07 and 2007-08. The government had to import wheat for buffer stock purposes. However, the procurement of wheat in the year 2008-09 reached at 22.53 million tonnes. India is in a comfortable position in terms of buffer stock and does not have to import wheat this year. It may be noted that the higher MSP along with other factors played important role in attaining the substantially higher level of procurement for wheat in the year 2008-09. The private players were active last year by offering a marginally higher wheat price than the government's market price. The government could largely eliminate the private sector this year due to enhanced MSP of wheat.

4.7 Cost of production is generally considered as the most important factor in the determination of minimum support prices. However, last year's report on the price policy for rabi crops indicated that there would be deviation in the case of wheat, especially because of greater weightage being assigned to food security and price stability, in view of high domestic and international prices. The all India weighted average C_2 cost of production of wheat for 2007-08 was Rs.625 per quintal. But, the Commission recommended Rs. 1000 per quintal as MSP for wheat in the 2007-08 season and the government accepted this recommendation. **It may be noted that the MSP was 60 per cent higher than C_2 cost of production for the 2007-08 season.** There has been a substantial increase in MSP for the last two years. It increased from Rs.700 per quintal in 2005-06 to Rs.850 per quintal in 2006-07 and to Rs.1000 per quintal in 2007-08. In other words, there has been 43 per cent increase in MSP for wheat in the last two years. The rationale for this increase was due to greater

weightage given to food security and price stability than cost of production. Inter-crop parity was changed in favour of wheat in order to help food security mission to achieve its objective of attaining higher production of wheat. Thus, there has been a significant deviation from the cost of production approach and the present MSP of Rs.1000 for wheat is already substantially higher than the projected C₂ cost.

4.8 The all India weighted average C₂ cost of production of wheat for 2008-09 season is estimated at Rs. 648.63 per quintal. **Even if we maintain last year's MSP of Rs.1000, this would be 54 per cent higher than the projected cost of production for 2008-09.** Therefore, if we go by cost considerations, there is no justification for increasing the MSP of wheat. Moreover, the country is comfortable in terms of production and, procurement. The price rise based on wholesale price index also showed a decline in the year 2007-08. The global situation of production and prices of wheat is also better this year as compared to last two years. However, keeping in view of the increase in cost of production of about 4 per cent this year over last year and other considerations such as overall higher rate of inflation and the need for sustained increase in wheat production, MSP of wheat may have to be raised by 7 to 8 per cent this year. **It may be noted that this increase is over the already high base of Rs.1000 per quintal fixed last year.**

4.9 In the case of other rabi crops such as barley, gram, lentil, rapeseed & mustard and safflower, the existing minimum support prices are higher than the projected C₂ cost of production for 2008-09 season. The MSP of Rs.1600 for gram in 2007-08 season is higher than that of the projected C₂ cost of Rs.1495 for the 2008-09 season. Similarly, the existing MSP of Rs. 1800 for rapeseed & mustard is much higher than the projected cost of Rs.1183. Thus, the margin is more than Rs.600 over cost for this crop. Therefore, on the basis of cost considerations, there is no justification for increase in MSP of barley, gram, lentil, rapeseed & mustard and safflower. However, some marginal increase may be needed to cover the increase in costs of production. Moreover, there was significant reduction in production for some of these crops particularly rapeseed & mustard.

4.10 The Commission made comparisons between the projections of costs made by CACP and those provided by the states. The comparable estimates show that the projected C₂ costs of production of wheat per quintal given by the states are higher than those of the Commission in respect of Bihar, Haryana and Punjab. In the case of gram, the Maharashtra's cost projection of State is lower while those of Bihar and Haryana higher than the corresponding projection of the Commission. Similarly, the projections of the costs by states are higher than those of the Commission for lentil and rapeseed & mustard. However, in the case of safflower, the cost estimate of the state is marginally lower than that of CACP.

4.11 The Commission has, as usual also considered the issue of price parity across crops and notes that rise of MSP for wheat has shifted price parity in favour of wheat. As against increase of 63 per cent in the MSP for wheat between 2001-02 to 2007-08, the corresponding increases for other crops ranged between 50 per cent for rapeseed & mustard to 30 per cent for barley. The MSP for pulses and oilseeds have increased over time and are higher enough to improve productivity. It may be noted, however, that non-price factors like irrigation and technology are more important than price factors for raising productivity of some pulses and oilseed crops.

4.12 Considering all the relevant factors, as indicated above, and after consultations with all the stakeholders, the Commission recommends that the minimum support prices of various rabi crops for 2008-09 be fixed as under:

<u>Commodity</u>	<u>Rs./Quintal</u>
Wheat	1080
Barley	680
Gram	1730
Masur (Lentil)	1870
Rapeseed/Mustard	1830
Safflower	1650

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;*** (Para 4.12)

ii) ***the government should announce remunerative MSP for wheat well in advance of the sowing season, so as to deliver the right signals to the farmers to undertake planting decisions. To facilitate effective procurement, the government should enter the market with a realistic procurement price in accord with the market fundamentals so that the designated procurement agencies may not fail to fulfill the laid down targets.***

(Para 1.6)

iii) ***a thorough review of the existing public distribution system of food that would arrive at measures to streamline and strengthen the system and importantly plug the possibilities for leakages and misuse, is required.***

(Para1.8)

iv) *all-out efforts are warranted to elevate the agricultural productivity. The present state of stagnancy/decline has to give way to sustained increase in yield, so that the country's agricultural sector would emerge as a significant player in the national economic growth.*

(Para 1.16)

v) *the Government needs to review the yearly assessment made about fertilizer requirements and also further improve and streamline the distribution network, so that fertilizer shortage may not hamper the growth in agriculture.*

(Para 1.17)

vi) *it is reiterated that the procurement operations should reach the unreached areas, so that the farmers are not denied the benefits of MSP and the Government is not deprived the potential for greater procurement. If necessary, open market operations have to be undertaken in the non-traditional regions in order to reduce open market prices.*

(Para 1.18)

vii) *due emphasis needs to be placed for elevating the allocation of resources to the agricultural sector and particularly for enhancing the level of public investment in the sector.*

(Para 1.23)

viii) *the Government should exploit the easy adaptability of barley and the potentiality of the crop in the value added segments by suitably making the farmers aware of the alternate uses of the crop and the quality requirement of the crop for use in the brewery sector.*

(Para 2.28)

ix) *more concerted efforts are warranted on the part of Governments, research institutions and farmers for increasing the area and productivity of pulses through adoption of better cultivation practices, technological break-through in high yielding seeds suited to regional agro-climatic situation,*

farm implements like soil and water testing, improved pest management, better extension services and enhanced irrigation availability.

(Para 2.33)

sd/-

(S. MAHENDRA DEV)

CHAIRMAN

Sd/-

(R. VISWANATHAN)

MEMBER

sd/-

(M.S. GREWAL)

MEMBER

sd/-

(V.M. JADHAV)

MEMBER

Sd/-

(K. G. RADHAKRISHNAN)

MEMBER SECRETARY

31st JULY, 2008