In this report the Commission presents its views on price policy for Copra for the 2007 season. The Commission recommends that:

(i) the Minimum Support Prices (MSP) of milling and ball copra for the 2007 season, be fixed as under:

<table>
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<th>Product</th>
<th>Price (Rs per quintal)</th>
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</thead>
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<tr>
<td>Milling Copra</td>
<td>3620</td>
</tr>
<tr>
<td>Ball Copra</td>
<td>3870</td>
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</table>

(ii) Coconut Development Board, in collaboration with State Agriculture Universities and ICAR Institutes should undertake an extensive programme to improve production and productivity of coconut in a cost effective manner. Adequate infrastructure facilities should be created in the coconut producing states in terms of Regional Coconut Nurseries and promoting production of seedlings in private sector by establishing seed gardens and coconut nurseries to meet the demand for seed nuts and seedlings, which may arise due to uprooting of the diseased plants. Also efforts should be made to produce large number of seedlings of elite and released varieties of coconut. This would go a long way in increasing the production potential of palms and enhance the income of farmers;

(iii) CDB may articulate irrigation as a major input for coconut development and set aside a part of the TMOC budget towards irrigation assistance through grants to the states. Rain water harvesting in coconut gardens as an effective and economical source of irrigation should also be promoted;
(iv) consistent research efforts should be made to develop disease resistant varieties of coconut and also varieties which could survive efficiently in rain-fed conditions; (Para 9)

(v) the Commission reiterates its earlier recommendation that to safeguard the livelihood security of a large number of coconut growers, threatened by yield losses on account of pests and diseases, coconut plantations should be covered under the National Agricultural Insurance Scheme; (Para 10)

(vi) the state Governments in consultation with NAFED, KERAFED, TANFED and other similar organizations should work out a parity price for green coconut/raw coconut, based on weight and other relevant factors and fix MSP for green coconut so that the benefit of minimum support price for copra is transmitted to coconut growers and also ensure that green copra is procured at MSP and processed immediately by concerned agencies. For this, necessary drying and procuring facilities should be strengthened at the local level. (Para 12)

(vii) operational hassles in procurement of copra by Primary Cooperative Societies be sorted out by NAFED, KERAFED, TANFED, similar institutions in other states and all concerned well in time so that interest of farmers remains protected. (Para 13)

(viii) coconut should be exempted from VAT and, in general, all coconut products should be brought in the zero tax zone net. (Para 19)

(ix) public-private partnerships should be encouraged to undertake research and development of state of the art technologies for diversified use of coconut. (Para 21)

2. The Commission submitted its report on price policy for copra for the 2006 season on September 8, 2005 recommending the Minimum Support Price (MSP)
for the fair average quality (FAQ) of milling copra at Rs.3590 per quintal and of ball copra at Rs. 3840 per quintal. The Government, in turn, announced the price support for copra on January 6, 2006, fixing the MSP at the same levels as recommended by the Commission. These prices marked an increase of Rs. 20 per quintal for both milling and ball copra over the respective MSP fixed for the preceding season. (Table 1)

3. The Commission has been emphasizing in its earlier reports that the MSP for copra, being a perennial crop, should be announced before the marketing season. The MSPs for copra for the previous two seasons have been announced by the Government in the month of January, enabling the farmers and the various stakeholders to get timely price signals well before the marketing season begins. The Commission appreciates this and hopes that the practice of announcing MSP for Copra by the Government in the month of January would be maintained in future also.

4. From 1995-96 to 2004-05, the area under coconut has increased from 18.34 lakh hectares to 19.35 lakh hectares. The area under coconut witnessed a decline of 1.06 lakh hectares in 1998-99 over the previous year, entirely due to decline in Kerala. The extreme summer in the major coconut growing southern states and the cyclone in AP during 1996 caused major damages to coconut orchards. Subsequently, the area increased gradually upto 2001-02 and remained almost stagnant in the following years with a minor set back during the year 2002-03. This may be attributed to uprooting of the advanced diseases infected palms and replanting combined with nearly 43241 hectares brought under new planting/under planting by providing incentive subsidy during 1997-98 to 2005-06. (Table 2)

5. The production of coconut recorded a decline of 118 million nuts from 12951 million nuts in 1995-96 to 12833 million nuts in 2004-05 displaying large variations in the intervening years with the peak of 13061 million nuts in 1996-97 and a trough of 12129 million nuts in 1999-2000. The coconut production in Kerala during the last three years has consistently increased. The production of nuts increased from 5338 million in 2002-03 to 5484 million in 2003-04 and further to 5727 million in 2004-05. In Andhra Pradesh, the production showed
nominal increases consecutively in these three years, whereas in Tamil Nadu it recovered in 2004-05 from the lost grounds during the previous two years. It may be interesting to note that Lakshdweep which accounts for only 1 percent of the total production has the highest per hectare yield of 19750 and 22310 nuts per hectare respectively in the years 2005-6 and 2006-7 among all the producing states. (Table 2)

6. The All India productivity of coconut, after showing a marginal decline in 2003-04 over 2002-03 increased to 6632 nuts/hectare in 2004-05. Nevertheless, this is lower than the productivity achieved in 2000-01 and 2001-02 and much lower than the peak of 7145 nuts/hectare reached in 1998-99. However, in Kerala the yield per hectare showed continuous increase from 5895 nuts in 2002-03 to 6379 nuts in 2004-05. Similar trend was noticed in the case of Andhra Pradesh also. In Karnataka, the yield/hectare registered a decline in 2004-05 to 3139 nuts from the annual average of about 4065 nuts during the previous three years and an average of about 5187 nuts per annum during the six years ended 2000-01. In Tamil Nadu, the second largest producer of coconut with highest productivity level amongst states, the yield rate declined sharply from 11621 nuts/hectare in 1996-97 to 7260 nuts in 2003-04. There was, however, a smart recovery to 9083 nuts/hectare in 2004-05. The improved performance of coconut during the last two years in the major producing states may largely be attributed to normal rainfall and favourable climatic conditions. Secondly, the intensity of mite infestation has been considerably controlled through proper treatments, which improved the quality of the coconuts and the volume of output in all the major growing states. The other programmes/ schemes for coconut development are also supporting the efforts to improve productivity. A study conducted by the Central Plantation Crops Research Institute (CPCRI), sponsored by the Coconut Development Board (CDB), forecasted the coconut production at around 14,000 million nuts in the year 2006-07, that would be an all time record. Thus, the coconut economy is poised to witness strong domestic supply pressure in the ensuing season. (Table 2)

7. The favourable trend in production and productivity in the last three years and the improvement in the general health of the crop, as reported by CDB, is largely attributed to the near successful implementation of the schemes / programmes on coconut development. CDB is implementing a programme of
Integrated Farming for Productivity Improvement. Cutting and removal of disease advanced plants, especially root wilt, a serious disease affecting plants in Kerala, Tamil Nadu, etc. is the main component of this programme. Under the programme, about 30 lakh root (wilt) diseased palms were removed in Kerala state alone. The constraints in the development of the crop may be mainly attributed to the dearth of quality planting materials, low productivity in major coconut producing belts mainly due to non-adoption of improved technologies, including irrigation, existence of large number of senile and uneconomic palms, prevalence of diseases like root wilt and Thanjavur wilt, attack of pests like black head caterpillar and eriophyid mite etc. The Commission recommends that Coconut Development Board, in collaboration with State Agricultural Universities and ICAR Institutes, should undertake an extensive programme to improve production and productivity of coconut in a cost effective manner. Adequate infrastructure facilities should be created in the coconut producing states in terms of Regional Coconut Nurseries and promoting production of seedlings in private sector by establishing seed gardens and coconut nurseries to meet the demand for seed nuts and seedlings, which may arise due to uprooting of the diseased plants. Also efforts should be made to produce large number of seedlings of elite and released varieties of coconut. This would go a long way in increasing the production potential of palms and enhance the income of farmers.

8. Coconut palm is susceptible to a number of diseases, some of which are lethal, while others reduce the vigor of the palms causing yield loss. The root (wilt) disease, caused by Phytoplasma has caused considerable damages and yield loses in the coconut gardens of Kerala. The disease is prevalent in all the southern districts and sporadic in other parts of the states. It is debilitating in nature and there is no cure for the total eradication of the disease. Technology Mission on Coconut (TMOC) was launched for preventing spread of root wilt in the border districts of infected areas. It may be pertinent to note that around 85 per cent of the crop in Kerala is rainfed. It is a proven fact that coconut responds well to irrigation coupled with fertilizers/ nutrients. This could not be exploited in Kerala due to the fragmented and scattered land holdings. A Pilot survey conducted by the Board during the year 2004-05 revealed that the incidence of mite was low in well-managed coconut gardens with proper irrigation. The survey
also revealed that even though the mite infestation persisted, the severity of damage in terms of reduction in number of nuts has been reduced on account of congenial climates and adequate build up of beneficial bio-agents parasites and predators. The Commission has been recommending for improvement of irrigation facilities to the coconut farms but nothing much seems to have happened. The Commission apprehends that in the absence of proper irrigation facilities, the good work being done by the CPCRI and the various other development programmes may not yield desired results. Since lack of irrigation is a major constraint in the enhancement of yield, particularly in Kerala and Karnataka, the Commission reiterates and recommends that CDB may articulate irrigation as a major input for coconut development and set aside a part of the TMOC budget towards irrigation assistance through grants to the states. Rain water harvesting in coconut gardens as an effective and economical source of irrigation should also be promoted.

9. Various research institutes, particularly the Central Plantation Crops Research Institute (CPCRI) are doing a lot of good work in the area of crop protection, crop improvement, coconut based mixed farming, post harvest technology and various activities for the promotion and development of coconut economy. Still a lot needs to be done. The research and extension linkages need to be strengthened. The Commission recommends that consistent research efforts should be made to develop disease resistant varieties of coconut and also varieties which could survive efficiently in rain-fed conditions. Field visits to coconut farmers by the Commission reveals that the attack of pests and diseases could be averted/ minimized by application of bio-fertilizers, in addition to irrigation. Proper extension services and extensionists should transfer this research from labs to the fields.

10. In recent years, the risk in coconut cultivation has increased and the coconut growers have suffered loss due to lower yield because of frequent drought and the eriophyid mite infestation. The Commission in its earlier reports had been recommending for risk management for the farmers in the form of insurance. The Commission reiterates its earlier recommendation that to
safeguard the livelihood security of a large number of coconut growers, threatened by yield losses on account of pests and diseases, coconut plantations should be covered under the National Agricultural Insurance Scheme.

11. The market for coconut (with husk) during the period January 2003 to July 2006 remained highly volatile. The annual average Wholesale Price Index (WPI base 1993-94 = 100) for coconut (fresh) for the year 2002 (January-December) was 121.4. During 2003 the WPI increased to 146.5 and peaked at 155.2 for 2004. The average WPI for the year 2005 sharply declined to 138.6. The WPI for August, 2006 at 122.4 was 10 per cent lower than the WPI for August, 2005. The maximum price recorded at Thiruvananthapuram was Rs. 7013 per thousand nuts in February, 2005. However, the prices declined to Rs. 3975 per thousand nuts in July 2006. The prices of both milling and edible copra displayed buoyancy since 2003 till the first quarter of the year 2005, and remained above the MSP, and not necessitating any market interventions. However, the market buoyancy did not sustain and a reversal of price trend was noticed since April 2005. The WPI of copra for December, 2004 was at all time high at 210.6. By December, 2005, the WPI slumped to 155.5 and during August, 2006 it was depressed at 139.5. The price of milling copra had been reeling remaining below MSP since July 2005 and the trend continued during the current year season, despite the fact that the procurement activities were initiated both in Kerala and Tamil Nadu. Similar market behaviour was noticed in all the major coconut markets in the country. Analysis of price of copra in two major markets viz Kochi and Alappuzha from July 2005 - June 2006 reveals that the monthly and average price of milling copra ruled below the MSP declared by the government. Some of these price derivatives relate to copra of quality below FAQ. Owing to the festival demand, there was some recovery on price front in September-October 2006 but this trend is not likely to continue in the near future. Nevertheless, the quantity of copra procured in the states of Karnataka and Kerala was inadequate to influence the market price. The quantum of procurement during the current season was reported only at 2562 MT in Kerala and 665 MT in Tamil Nadu, which is grossly inadequate to induce any meaningful impact on the market price. It is further expected that increased production of
copra in the coming season compared to previous years may lead to price crash in the market which in turn may also depress the farm-gate price of coconut.

(Table 3, 4, 6, 7 &10)

12. The Commission took note of the distinct feature of MSP operation for copra, that provides price safeguard to the produce largely traded by non-farmers who add value to the raw coconut purchased by them from the farmers. It was gathered that less than 10% of the coconut farmers resort to making copra out of their produce. Others sell raw coconuts on harvest from farm gate itself to the local traders. These traders convert the raw coconut into copra as a cottage industry and sell to oil mill owners. Some of the oil mill owners also directly purchase raw coconut from farmers. In this chain, the MSP for copra goes to the persons dealing with copra who in most cases are not coconut growers. The Commission Recommends that the state Governments in consultation with NAFED, KERAFED, TANFED and other similar organizations should work out a parity price for green coconut/raw coconut, based on weight and other relevant factors and fix MSP for green coconut so that the benefit of minimum support price for copra is transmitted to coconut growers and also ensure that green copra is procured at MSP and processed immediately by concerned agencies. For this, necessary drying and procuring facilities should be strengthened at the local level.

13. The anticipated good harvest of coconut in the forthcoming season would necessitate preparedness on different fronts to maintain the stability of market. The policy instruments of tariff and other border measures may have to be judiciously put in place by the government for averting any glut in the market due to easy imports. Besides, the mechanism of market intervention for effective operation of MSP would require to be strengthened and streamlined. While reviewing the subdued performance of market intervention during 2006, when the copra prices were reported to be ruling below MSP, the Commission was apprised about the passive attitude of Primary Agricultural Cooperative Societies (PACS) in procurement operations. PACS have an important role in procurement of copra and transmitting the relative price for coconut to the farmers. The financial status of several PACS is also not sound. However, the PACS reportedly do not receive appropriate service charges for conversion of coconut to copra from NAFED. Such procurement also facilitates the capacity
utilization of processing capabilities of KERAFED which was reported to be below breakeven in the current season. Therefore, the Commission, recommends that operational hassles in procurement of copra by Primary Cooperative Societies be sorted out by NAFED, KERAFED, TANFED, similar institutions in other states and all concerned well in time so that interest of farmers remains protected.

14. The market prices of coconut oil during the years, 2003 to 2004 in Kochi and Alappuzha ruled almost steady between Rs. 5800–6600 per quintal, due to lower availability of milling copra. In 2005, the price of coconut oil at Kochi market began to slide. Presently the rate of coconut oil is ruling at Rs. 4700-4800 per quintal in Kerala. The year 2006 witnessed further decline in prices which is continuing un-interrupted. Though the prices, in view of the ensuing festival season, the prices have improved to some extent, the market may continue to remain subdued in ensuing marketing season. (Table 11)

15. The prices of copra as well as that of coconut oil in the international market also displayed the volatility akin to the domestic market. The average world prices of copra (Philippines, Indonesia, CIF Europe) for 2003 was USD 301 per metric tonne. During 2004 it had sharply risen to USD 450 per metric tonne. Since March, 2005 the world prices of copra have started declining from USD 474 per metric tonne and in July, 2006 it was USD 384 per metric tonne. The world prices of coconut oil (CIF Rotterdam) were buoyant during 2004, and the average price was USD 661 per metric tonne. During 2005, the average world prices of coconut oil declined to USD 617 per metric tonne and by July, 2006 it has fallen to USD 583 per metric tonne. (Table 8 & 9)

16. The behaviour of coconut oil prices is largely dependent on overall supply of oils and fats in the country. Firstly, the abundant availability of palm oil in the domestic market at cheaper rate due to liberal imports and the dynamic growth of alternative vegetable oils have reduced the coconut oil markets abruptly, even in traditionally coconut oil user state like Kerala. Secondly, competition amongst producers within the country has also contributed to low prices as supply of late has exceeded the demand. Thirdly, the liberalized trade regime with neighboring countries have further eased the imports of vegetable oils, coconut oil and other coconut products like coconut cream, instant coconut powder, desiccated coconut powder etc. Fourthly, the increased production of coconut on account of
good climate in the major coconut growing states also affected the price adversely. Some recent Policy decisions however, may help to improve the situation.

17. At present, a concessional duty of 70 percent on crude palm oil and 80 percent on refined oil is being applied. It has been decided that cooking oils will pay peak customs duty of 100 percent from November 1, 2006. Besides, the government’s decision to route vanaspati imports from Sri Lanka through NAFED, may restrict the entry of cheap vanaspati into the country. Moreover, there are other international factors which may induce an upward trend in the domestic price of copra. The falling stock position and the rising prices of palm oil in Malaysia may help to boost the domestic prices of copra.

18. The fall in copra prices incidentally coincided with the introduction of VAT (Value Added Tax) in the Kerala. In order to assess the impact of VAT on the prices of copra and coconut oil in the state, CDB commissioned a study through the Centre for Taxation Studies (CTS) Trivandrum. Introduction of VAT has further eroded the competitiveness of copra and coconut oil of the state since local dealers purchasing coconut for converting into copra have to pay 4% effective tax while interstate transfer continued to enjoy exemption. This has adversely affected the small traders. The prices of copra and coconut oil were on the decline both in Kerala and in Tamil Nadu, but in percentage terms the decline was higher in Kerala. The study also highlighted the demand and supply imbalance in coconut oil. The tax revenue from VAT on copra has increased considerably after the introduction of VAT even though the price of crop was adversely affected. In Tamil Nadu, copra prices were more stable due to non-introduction of VAT. The favourable climatic conditions coupled with the low cost of production and transportation facilities boosted the copra industry in Tamil Nadu. A need was felt for a comprehensive study into the extent of revenue earned by the State from the VAT vis-à-vis the adverse effects to the agricultural sector and small scale copra industry that generates employment in the rural sector.

19. The Coconut Development Board expressed the view that the incidence of VAT on the raw nut was not justified, as there was no value addition involved. In view of the fact that coconut provides employment to nearly 35 lakh farmers and that coconut is the single most important crop in the state, there is a strong case
for mitigating the hardships faced by farmers by bringing coconut and coconut products under the zero tax items. The Commission endorses the views of the CDB and recommends that coconut should be exempted from VAT and, in general, all coconut products should be brought in the zero tax zone net.

20. There are still a number of unexplored areas in coconut research in India, particularly relating to the development of diversified products from coconut such as coconut milk based RTS beverages and dairy whiteners, coconut paneer, nata-de-coco etc. The Commission appreciates that a project has been funded by Coconut Development Board (CDB) which aims at comprehensive research program involving the development of dietary fiber powder from coconut residue and its evaluation with the conventionally available fruit based products. A wide range of dietary fibers are available in the market, serving nutritional purpose also. Insoluble fibers in biscuits, cooked meat products, confectionery, drinks, sauces, desserts and yoghurt act as bulking agents and thus reduce the calorie content. In a variety of foods such as chocolate, sausages, cakes and minced beef, fat can be reduced considerably by replacing fat with fiber. In biscuits and pastry products, 25 percent of sugar has been successfully substituted by fiber-rich ingredients without sacrificing the textural properties.

21. Likewise, the tender coconut water can be concentrated and canned in tetra-packs for export as well as domestic purpose. Coconut and its water are rich source of proteins, metal ions that are useful micronutrients. The coconut research may take vibrant trend with the advent of latest technologies such as membrane processing and other techniques. These things are only possible when regulatory and governing agencies come forward to sponsor further research projects to harness their potential. It would be encouraging if the private industries and R&D institutions work together for development of state of-the-art technologies and finance part of the research. It would be fair to infer that if research on the diversified products from coconut is undertaken earnestly, the farm income of the coconut growers will improve. The Commission recommends that public-private partnerships should be encouraged to undertake research for development of state of the art technologies for diversified use of coconut.

22. Cost of cultivation/ production is, by far, one of the most important parameters considered in the recommendation of MSP. The Directorate of
Economics and Statistics has provided data under the Comprehensive Scheme (CS) on cost of production of coconut for the year 2004-5. Cost of production data from the states of Kerala, Tamil Nadu, Karnataka, Andaman & Nicobar and Lakshadweep and also from the Central Agencies like Central Plantation Crops Research Institute (CPCRI), Coconut Development Board (CDB) and NAFED has been considered and per nut weighted average projected cost of copra for the year 2007-08 has been calculated based on the cost estimates provided by the aforementioned states/agencies for the year 2007-08.

23. The government of Kerala has worked out the establishment and maintenance cost at Rs. 235227 and Rs. 22977 per hectare respectively. This establishment cost is based on a 10 year establishment period and amortized cost has been calculated considering a bank rate of 7 per cent per annum and average economic life of the coconut palm as 50 years. However, in a meeting on issues concerning cost of cultivation of coconut, held in Kochi on June 22, 2005, a decision was taken to consider the bank rate as the rate of interest for working out the annuity value. After making these adjustments and adding the amortized cost derived from the cost recovery formula to the annual maintenance cost and dividing with the yield indicated, the state arrives at an estimate of Rs. 5.68 per nut. As against this, the projected cost for the year 2007, using the CS estimate for Kerala for the year 2004-5 works out to Rs. 5.39 per nut. On the basis of the cost estimates provided by the CPCRI, CDB ,NAFED, state government of Kerala and also the projection for the year 2007-08 on the basis of CS estimate per nut average cost for Kerala works out to Rs. 4.76 per nut. The projected cost for Tamil Nadu, Karnataka, Andaman & Nicobar and Lakshadweep states has been worked out at Rs. 5.00, Rs. 4.26, Rs. 6.00 and Rs. 6.13 per nut respectively. The cost data provided by the state of Andhra Pradesh are not complete and so have not been considered. The weighted average total cost of production (weights being the production in the respective states) on the basis of above estimates works out to Rs.4.78 per nut. Assuming that 725 nuts are required for producing one quintal of copra and considering the conversion cost of Rs. 193 per quintal provided by the NAFED, the cost of producing one quintal of copra is estimated at Rs.3658.

24. Thus, based on overall demand-supply situation and market prices, both domestic and international, there is no scope for any hike in the MSP for copra
for the 2007 season. However, in view of increase in the Cost of Production and deteriorating economic condition of the farmers, marginal hike in MSP would be in order. Therefore, the Commission recommends that *the Minimum Support Prices (MSP) of milling and ball copra for the 2007 season, be fixed as follows:*

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(T. Haque)
CHAIRMAN

(K. PONNUKANNU) (M.S. GREAWAL) (V.M. JADHAV)
MEMBER MEMBER MEMBER

(RAJIV MEHTA)
MEMBER SECRETARY

October 13th, 2006