

TFYP WORKING GROUP Sr.No.65/2001

**REPORT OF
THE WORKING GROUP ON**

**PUBLIC DISTRIBUTION SYSTEM
AND FOOD SECURITY**

**FOR
THE TENTH FIVE YEAR PLAN
(2002-2007)**

**GOVERNMENT OF INDIA
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PREFACE

Food Security is a subject which closely touches upon the well-being of the majority of our people. So when I was requested to be the Chairman of the Working Group on Public Distribution System and Food Security, I readily accepted it.

When I took over, a great deal of the work had already been done. Lot of work was in progress. Dr. Arvind Virmani, Member-Secretary had a clear idea what had been accomplished and what needed to be done. All this made my task a great deal lighter.

The deliberations of the Working Group were facilitated by a monograph prepared by Dr. J.V. Meenakshi on "The Public Distribution System in the context of Changing Food Consumption Trends". Dr. Shikha Jha and Dr. Anil Sharma, members of the Working Group also helped in the preparation of the Working Group Report by providing valuable research inputs. A note on Food Coupons in Andhra Pradesh was provided by Shri H.S.Brahma, Secretary, Food, Government of Andhra Pradesh. In fact all the members of the Working Group took active interest in the work of the Committee and made valuable and constructive contributions. It was truly a working group. Shri P. V. Rajeev Sebastian, provided excellent assistance in drafting the report.

The problems facing the country on the food front are immense. Sound advice in dealing with the problems are not lacking. We have here assembled together a great deal of ideas which could provide direction as to how the nation should proceed. I am happy to present this report of the Tenth Plan Working Group on Public Distribution System and Food Security for the consideration of the Planning Commission and all those concerned with the issue of food security.

**DR.KIRIT PARIKH
CHAIRMAN**

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Chapter I

INTRODUCTION

A fairly long series of normal monsoons has coincided with a transformation of the minimum support price into a procurement price ensuring relatively higher returns on production of rice and wheat. Consequently there is today, a surplus of food grains accumulated in the FCI godowns, which is well beyond prescribed buffer stock norms. The problem facing the country today is not one of shortage of food grains but finding ways and means of managing the accumulated surplus. Moreover, seen from a long-term perspective, one needs to examine the consequences of policy alternatives from the point of view of long-term food security of the country.

While on the one hand, there is a need to produce adequate food grains, domestically, which can be supplemented by imports in times of need, there is also the requirement to have a look at the distribution network for food grains. The Public Distribution System (PDS) in the country facilitates transfer of the food grains produced to the various geographical regions and to the poor and needy. In the light of the growing food subsidy and food stocks many doubts have been raised about the cost-effectiveness of the PDS. We need to restructure the Public Distribution System and also explore the possibility of introducing innovative ideas such as decentralized procurement, food stamps or food credit/debit cards to eliminate hunger and make food available to the poor wherever they may be in cost-effective manner. It is in this context that the Tenth Plan Working Group on Public Distribution System and Food Security has been constituted.

The Tenth Plan Working Group on Public Distribution System and Food Security was set up on 21-11-2000. The notification setting up the working group and subsequent amendments to this notification may be seen at Annexure. The terms of reference of the Working Group are as follows:

Terms of reference

1. To review the performance of various programmes under the Public Distribution System.
2. Measures to improve targeting of the Public Distribution System.
3. To review the implementation of TPDS.

4. To review the coverage of commodities supplied through PDS.
5. To examine the aspect of diversion of commodities from PDS.
6. To recommend measures regarding decentralization of operations.
7. To recommend measures to encourage private trade in foodgrains.
8. To examine the scope of Essential Commodities Act.
9. To review Policy and Procedure of Procurement of Foodgrains.
10. To examine the role of FCI in the new setting.
11. To examine the role of FCI in management of the buffer stock.
12. To examine the aspects of quality and quantity of foodgrains procurement.
13. Assessment of requirement of storage network and various nodal and retail outlets particularly in rural, remote and inaccessible areas and expenditure involved.
14. Assessment of transport requirements on the basis of anticipated movement of commodities from ports/producing areas and consuming centres.
15. To recommend measures to reduce costs including transit and storage losses.
16. To review the ongoing Centrally Sponsored/Central Sector Schemes for strengthening of Public Distribution System.
17. To review the measures being taken for protecting the interest of the consumers in regard to matters such as quality, weight, price etc. and make suitable recommendations.
18. To examine the functioning of the fair price shops including cost of distribution to determine their viability so that the malpractices in their functioning are curbed.
19. To review the voluntary consumer movement and the people's involvement in the Public Distribution System and to make recommendations to strengthen the consumer movement.
20. To consider any other matter(s) relevant to effective functioning and management of the Public Distribution System as an integral part of the national economy and planning process.

The first meeting of the Working Group was held on 14-2-2001 with Shri M.D. Asthana as Chairman. Subsequently, Shri M.D. Asthana relinquished charge of the D.P. Division of the Planning Commission. Consequently Dr. Kirit Parikh was appointed as the Chairman of the Working Group. The second, third and fourth meetings of the Working Group were held on 18-7-2001, 18-9-2001 and 16-10-2001 with Dr. Kirit Parikh as Chairman.

The Working Group Report has four chapters including this introduction. The second chapter of the report on Food Security deals with the changing consumption pattern for food in India and reviews some studies on demand and supply projections for cereals in

India. The Chapter also examines the link between minimum support prices, quantum of procurement, and stock of food grains in India. The Third Chapter on Public Distribution System examines the role of Public Distribution System in India and outlines measures aimed at reforming the food distribution system in the country. The Fourth Chapter provides a summary and list of major recommendations.

Chapter II

FOOD SECURITY

The stock of food grains available with the government agencies as on 1-7-2001 was 61.96 million tonnes, which constituted of 22.75 million tonnes of rice and 38.92 million tonnes of wheat. This level of stock was well above the buffer stock norms prescribed by the government. Thus, the problem today on the food front is not one of scarcity but that of managing the surplus. In this context it is useful to start by looking at the definition of food security given by the Rome Declaration on World Food Security at the World Food Summit, held in 1996. As per the Declaration *“food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.”* Food insecurity is not the same as hunger. It is a much wider problem. Hunger is, of course, one of the main aspects of food security.

A civilised society cannot in the 21st century allow any of its citizens to die of starvation or go hungry for prolonged periods. The country is today concerned that in spite of the fact that the FCI godowns are overflowing with grain adequate food is not being consumed by the vulnerable sections of society. There are two aspects to this problem. One is the issue of having enough purchasing power or income to buy food and the other is the access to food (physical availability of food). Though the overall generation of jobs is closely connected to efficient economic growth, there are some special aspects that must be kept in mind. Thus in remote, inaccessible and backward regions both job opportunities and access to food may be constrained. In such situations, food-for-work and related schemes are necessary. These may need to be supplemented by more innovative schemes like grain banks. Community grain banks can be set up in such areas wherefrom the needy can borrow grain in times of need and repay the grain after the emergency is over. Natural disasters such as earthquakes also create conditions in which emergency assistance must be provided by the government and the administration has to be alert to such spurts in hunger. Finally a minimal amount of social security must be provided to those who are old, sick or disabled and cannot partake of work even if it is available. Special schemes must ensure that they do not go hungry.

In this report, we discuss the problem from two angles, namely, availability and distribution of cereals and availability of income and work. In the next chapter we deal with the Public Distribution System - how it can be made more efficient and how it can be ensured that the poor derive maximum benefit from it. The question of diversion from PDS, stabilization of food grain prices through buffer stock operations and

ensuring availability of food grain in remote and tribal areas through the operation of a grain bank scheme are among the issues discussed in the chapter on Public Distribution System. While the distribution network for food facilitates availability of food in remote areas, the people should also have adequate source of income to buy food. In this connection, schemes such as food for work programme also become important in tackling the problem of lack of purchasing power and hunger.

In this chapter, we first take note of the changing demand pattern of food consumption where the consumers, including the poor are showing a preference to consume more of non-cereals as compared to cereals and within cereals they show a preference for rice and wheat as against coarse cereals. We also examine how the demand pattern differs in various regions of the country. In this chapter, we also review some recent literature on projections for total demand and supply of cereals in the country. It is found that the overall demand-supply situation is quite satisfactory. Further, we also examine here some of the causes for the accumulation of surplus stock of food grains in the FCI godowns. It is found that the practice of announcing minimum support prices for food grains, often in excess of the levels prescribed by the Commission of Agriculture Costs and Prices, at levels above the market clearing price, has contributed substantially to the accumulation of surplus stocks with FCI.

I. CHANGES IN FOOD CONSUMPTION PATTERN

It is now widely recognized that dramatic changes in food consumption patterns have taken place in India in the post green revolution period. For example, at the all-India level, cereal consumption declined from 15.3 kilograms per capita per month (hereafter kgs pcpm) in 1972/73, to 13.4 kgs pcpm in 1993/94 in rural areas. In urban areas, the decline was more modest--from 11.3 to 10.6 kgs pcpm over the same period. At the same time, the consumption of milk and meat products has increased. Such changes in the diet, in the direction of greater variety, have come to be expected as one outcome of the process of economic development.

Given the cultural diversity of the country, and the wide variations in food habits associated with it, it is important to analyze whether changes in food consumption patterns are specific to certain regions, or whether they are more widespread. An ability to identify *regional* differences in consumption trends can also enable the design of more effective mechanisms of targeting food subsidies.

1. The Food Basket is More Diversified:

As far as the composition of food expenditures on average and for the poorest quartile are concerned, it is clear that in both rural and urban areas, considerable regional differences exist (Appendix table-1). For instance in rural areas, cereal shares in 1993/94 were the lowest in Northern India—both on average and for the poorest quartile—and the highest in Eastern India. At the same time, the share of food expenditures devoted to milk and meat products was the highest in Northern India and the lowest in Eastern India. This is not surprising, given that the Eastern Indian states are among the poorest, while the Northern India states (especially Punjab and Haryana) are among the richest.

What is also apparent is that between 1972/73 and 1993/94 the food basket has become much more diversified. In particular, cereal shares have seen a dramatic decline of ten percentage points in most regions--in both rural and urban India. Similarly, the share of meat and milk products, and vegetables and fruits has increased over time.

It is important to note that the trend towards a more diversified diet can be discerned not just on average, *but among the poorest 25 percent of the population as well*. Thus although cereals continue to dominate food expenditures, over time their importance has decreased; while at the same time, cereals have become cheaper in relation to other food groups.

2. Average Cereal intake has Declined—even among the Poor:

The evidence suggests that average cereal consumption has declined in all regions and every state except Maharashtra and Kerala and to a lesser extent West Bengal. Furthermore, in at least three regions of the country, this *decrease is not confined to the upper income groups; rather it has occurred among the poorest quartiles as well* (Appendix table-2). In the central region cereal consumption of the lowest rural quartile increased between 1987-8 and 1993-4 but remains below the level in 1972-73. Further even in this case the average consumption of rice and wheat has fallen even in this period. Only in the eastern region has cereal consumption increased till 1993-4 among the rural poor.

3. Rice and Wheat are replacing the Coarse Cereals

The decrease in average cereal consumption masks important substitutions within the cereals; the more expensive rice and wheat are gaining in importance, replacing the coarse cereals. Such substitutions within the cereals—from inferior to preferred cereals—often precede the switch away from cereal to non-cereal foods, and are sometimes thought of as being indicative of perceived dietary adequacy.

These substitutions have occurred in nearly all regions in India; in several cases despite a rise in relative prices of rice or wheat. Furthermore, in many regions, *these substitutions are evident even among the poorest quartile groups*. To the extent that the caloric content of all cereals is nearly equal, the average diet—and in many cases even the poor person's diet—has become more expensive.

It is worth reiterating that this switch to a preferred and more diversified diet has taken place in most but not all parts of India. This may be indicative of perceived dietary adequacy at least in those areas where the consumption of cereals among the poorest has also seen a decline. Where the consumption of cereals among the poor has actually increased, clearly increased income is spent on the cheapest sources of calories--the cereals. A note on regional consumption trends is given at Annexure IV.

II. Demand Supply Projections for Cereals:

It is generally agreed that the rate of growth in the demand for cereals as food will not be as high as that in the derived demand for cereals as feedgrains for livestock. The relative magnitudes of increase are however a matter of debate. Tim Dyson and Amresh Hanchate have made forecast of demand for cereals in India for 2020. Dyson and Hanchate (2000) in their paper stress the need to incorporate the vastly different demographic pattern in states and their implications for population forecasts. Dyson and Hanchate's demand forecasts for 2020, based on a population of 1315 million, are as follows:

Food: 193.5 million tons
 Feed: 30.1 million tons
 Total: 223.6 million tons

They acknowledge the feed forecasts to be 'rough and almost certainly on the high side.'

Demand forecasts arising out of IFPRI's IMPACT model are somewhat higher at 237.3 million tones:

	Food	Feed	Total
With 3-4% p.a. pc income growth	223.6	13.3	237.3

This implies that, given the changes in consumption patterns, it is likely that the demand for direct consumption of cereals will be driven primarily by population growth. Furthermore, it is important to consider regional/state specificity in demand behaviour. This is intuitively

appealing - and perhaps even obvious – given the cultural diversity of the country. Recent studies indicate that equality of behavioural parameters across states and regions within the country is decisively rejected by Indian data. This result is remarkably invariant to the functional form used to test it.

G.S.Bhalla et al has estimated that with a 3.7% rate of growth in per capita incomes cereal demand can be as high as 296 million tones in 2020, of which over one-fifth would be on account of feedgrain. G.S.Bhalla et al’s demand estimates are high because as some of the recent research indicates, and as is apparent from the pattern of cereal consumption outlined in Sections I of this chapter, income effects on consumption are not only non-linear, but non-monotonic as well. Quadratic generalizations of popular functional forms such as the Linear Expenditure System and the Almost Ideal Demand System inevitably explain demand behaviour better than the linear counterparts. This implies that there is a ‘curvature’ to the income elasticities of demand which decrease substantially with income (growth).

Secondly, in 1993, feedgrains constituted less than 3% of total cereal demand; so that the 11 and 25 per cent implicit in the forecasts represent extremely high rates of growth in the indirect demand component of total cereal demand. Although there are other countries, which achieved such high rates of growth, the circumstances are sufficiently different to invalidate a direct comparison with the Indian scenario. Even though changes in taste away from cereals to meat products does imply that the indirect demand for cereals will increase over time, it is unlikely to occur so quickly and dramatically.

How do these compare with supply projections? The evidence available suggests that there is likely to be no problem in meeting the lower end of cereal demand projections from domestic supply.

Cereal Supply in 2020 (million tons):

We shall now look at some supply forecasts which are as follows:

Praduman Kumar’s estimates:

With constant growth in total factor productivity	309
With deceleration in total factor productivity	270

G.S. Bhalla’s estimates:

Extrapolating 1965-1993 trend	347
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Increased fertilizer use and irrigation	251
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IMPACT model (IFPRI):

Base calculation	256
With additional land degradation	234
With reduced land degradation	271

The table above indicates that supply forecasts range from 250 to over 300 million tons. Thus there appears to be no case for concern over cereal demand outstripping cereal supply in the Indian context. The message we can derive from the discussion so far is that the demand pattern for food consumption is undergoing a change in India. People today prefer to consume more of non-cereals and among cereals the preference is for rice and wheat as against coarse cereals. There is a shift in the consumption pattern of the population in favour of superior food items like milk, vegetables, fruits, animal foods and so on. Thus the growth of aggregate demand for cereals in the country can be said to be kept in check due to two factors, namely slow down in the pace of population growth and shift in consumer preference towards non-cereals. However, some of the studies made on cereal consumption requirements in the country have not taken into consideration the full implications of changing consumer preferences and have led to exaggerated demand projections for cereals. The demand projections for cereals which take into consideration changing consumer preferences come out with demand estimates for cereals which match favourably with the supply projections indicating that the requirements of cereals in the country will be adequately met by domestic supplies during the period of at least upto the year 2020. Thus there is no need for undue concern on this front.

III. Minimum Support Prices and Excessive Stocks of Wheat and Rice

The Commission for Agricultural Costs and Prices (CACP) recommends prices for 25 agricultural commodities. In its recommendations the CACP takes into account not only a comprehensive overview of the entire structure of the economy and details relating to a particular commodity but also a number of other important factors. This is reflected in the list of factors that go into the determination of support prices - cost of production; changes in input-output prices, open market prices, demand and supply; inter-crop price parity; effect on industrial cost structure, general price level, cost of living; and international price situation. Based on the recommendations made by the CACP the government announces minimum support prices. The objectives of price policy are two fold – (i) to assure the producer that the price of his

produce will not be allowed to fall below a certain minimum level, and (ii) to protect the consumer against an excessive rise in prices.

Over the past few years, however, it has been observed that there has been a tendency to fix procurement prices of cereals (wheat and rice) higher than those recommended by the CACP (Appendix Table III). According to a study carried out by Dr Anil Sharma the average excess of actual procurement prices announced for wheat over cost of production during the 1980s was 63 per cent, which increased to 96 per cent during the 1990s. A more or less similar trend is observed in the case of rice as well. There is one distinction, however. The level of the difference between the actual procurement prices announced by the government and those recommended by the commission is relatively small in the case of rice. Likewise, the magnitude of the trends in procurement prices, both nominal as well as real during the 1990s in the case of rice is much smaller than in the case of wheat. The average margin of procurement prices over cost of production also shows similar movements as was observed in the case of wheat, though the extent of difference was not as high as in the case of wheat.

These evidences clearly show that there has been an attempt to fix procurement prices of cereals (wheat in particular) higher than those recommended by the CACP. The reasons for this could have been the low procurement during some years when the procurement prices were unattractive to the farmers and the need for maintaining parity with international prices due to large depreciation of the rupee in the early 1990s. But, even this was perhaps not true, specifically with respect to international prices of these two crops during the last few years. For example, international prices of wheat after having touched a new peak in 1996-97 declined steeply thereafter. But, domestic prices have witnessed an increase during the last few years. The international prices of rice have also witnessed a sharp decline after 1995-96 as against an increase in domestic procurement prices.

There are several disadvantages of fixing support prices at relatively high levels. As mentioned before support prices set the floor for both farm harvest prices and wholesale prices. The farm harvest prices are those, which prevail during six to eight weeks immediately after the harvesting period and wholesale prices are those, which prevail in the wholesale markets. Studies carried out by Dr Sharma shows that a 10 per cent increase in the procurement price of wheat pushes up wholesale price of wheat by 5.54 per cent. A similar increase in the procurement price of rice, however, raises the wholesale price by a much higher margin, i.e., 10.67 per cent. The increase in the general price level of these two commodities reduces the demand in the economy, which ultimately results in increased procurement by the Food Corporation of India.

Thus, Food Corporation of India (FCI), which is entrusted with the responsibility of running market intervention operations for wheat and rice ends up buying more than what the agency would have initially thought. This is particularly true when prices are expected to remain low and traders do not find it lucrative to buy, store and sell at a later date. Studies reveal that a 10 per cent increase in the real procurement price raises the procurement of wheat by a little more than 13.84 per cent (Appendix Table IV). In the case of rice also a 10 per cent increase in the real procurement price increases the level of procurement by close to 10 per cent (Appendix Table V). The increased procurement of cereals pushes up both the cost of procurement as well as the level of stocks held by the government, which raises the cost of carrying a higher level of stocks.

Given these estimates and elasticity estimates of supply and demand the quantity of wheat and rice that has been added to the stocks due to the excessive increase in the procurement prices of these two crops during the past few years was calculated. There are four different ways through which addition to the stocks of cereals would take place when increase in procurement prices takes place. Firstly, direct increase in procurement due to higher output due to the extra incentive that is provided to the producers. Secondly, extra incentive in the form of higher procurement prices leads to increase in the output in the following year, which raises procurement in that year as a result of the increase in output. Thirdly, the increase in the open market prices due to higher procurement prices lowers the demand in the economy, which ultimately results in increased procurement. Finally, higher procurement prices would lead to a higher increase in the procurement incidentals and hence the economic cost goes up. This gets reflected in the central issue prices. And, higher increase in the central issue prices reduces the off-take of cereals from the Public Distribution System. Although, increase due to this component is expected to be small because the changes in the central issue prices have not been effected at regular intervals and do not reflect changes in the economic cost fully. Also, difference in the changes in the real issue prices (issue prices deflated by the wholesale price index) work out to be quite small for quite a number of years.

The estimates based on the above framework show that after 1997-98, about 12.8 million tonnes of additional quantity of wheat has been procured due to the undue increase in the procurement prices of wheat (Appendix Table IV). Similarly, in the case of rice nearly 3.4 million tonnes have been added to the stocks of cereals due to increases above the CACP recommendations in the procurement prices during the past five years (Appendix Table V). These estimates, therefore, show that the actual stocks of cereals, which started building up after 1997-98 would have been lower today by about 16 million tonnes if the government had not pushed up the procurement prices unnecessarily and

would have adhered to the recommendations of the CACP. It is important to note, however, that these are not precise numbers and will vary according to the parameters used in the estimation of these effects. Therefore, results provide only rough estimates of the impact and magnitude of unduly larger increase in the procurement prices of these two cereals during the past five years. Some proposals which can be considered to be alternatives to fixation of minimum support prices have been provided at Annexure V.

MSP and Food Procurement Policy:

The MSP Scheme served the country well in the past three and a half decades. However, in recent years, it has started encountering certain problems. This is mainly because of two reasons, firstly, the scenario of agricultural production has undergone significant changes over the past four years. Surpluses of several agricultural commodities have started appearing in several States and this trend is likely to continue in the coming years as well. Former deficit states like Bihar, Assam and Eastern UP have started generating surpluses of certain cereals. At the macro level, the position can be seen by the fact that the average production of foodgrains, which was 187 million tonnes during the Eighth Five Year Plan, is expected to have increased to 205 million tonnes in the Ninth Five Year Plan. Thus the increase in average total food production is in excess of total food grains requirements of around 196 million tonnes as at the end of the Ninth Plan as worked out on the basis of normative approach.

Secondly, the way MSP Scheme has been operated in recent years has certain adverse effects on the operation of the private trade. As a result of high MSP, the private trade has not been able to play its natural role in respect of two major cereals, namely wheat and rice which account for over 80 per cent of total food grains production. Under the MSP Scheme the prices of major agricultural commodities are not only exogenously determined but these prices are also sought to be defended through nodal procurement agencies like the FCI. In other words, the markets are not allowed to play their normal role of determining prices. The adverse effect lay hidden as long as the country operated in a situation of shortages and was operating as a 'closed economy'. During the period of shortages, the demand outstrips the supply as a result of which the private trade has incentive to operate. High import duties and quantitative restrictions protect the economy from "outside influence" creating environment for successful implementation of price stabilisation policies. Bringing equilibrium in the market, a function which is normally required to be performed by the private trade, was successfully performed by the public sector nodal agencies. But the private trade got marginalized and it did not grow as it should have. Once these two conditions altered the adverse effects have started manifesting themselves, and the FCI is plagued with sustained surpluses. Accordingly, in the changing

environment, it is essential to think of reforms, particularly if the potential of private trade to help stabilize prices cost-effectively has to be utilised.

The Government's policy of recommending relatively higher MSP for wheat and rice as compared to the MSP for other crops served the cause of the country well in the eighties and nineties. It helped exploit the opportunity created by green revolution and led to much higher average productivity of wheat and rice much higher than the average productivity of pulses or coarse cereals. For instance, the average productivity of pulses is 0.7 tonnes per ha. And that of coarse cereals is about 1 tonne per ha. On the other hand, the average productivity of wheat is 2.7 tonnes per ha. And that of rice is 1.9 ha. In fact in the States of Punjab, Haryana and certain parts of Western UP, the yield of wheat is around 5 tonnes per ha. And the yield of rice in these States is also around 3 tonnes per ha. The yield of rice in Tamil Nadu, A.P. and West Bengal is also very high. Therefore, relatively higher prices of MSP for these crops increased the profitability of these crops and motivated the farmers to divert their areas to these crops from coarse cereals, pulses and even oilseeds as in the case of Punjab. This enabled the country to achieve higher output of food grains and reach a situation of surpluses. But in the changing context of the nineties the need for rethinking on this approach is overdue.

CONCLUSION:

The discussion so far has shown that a dramatic change is taking place in the food consumption pattern of the population. The people are exhibiting a growing preference to consume more of non-cereals as compared to cereals and within cereals there is a preference for rice and wheat as against coarse cereals. This phenomenon of change in demand pattern is visible in both rural and urban areas and among both rich as well as the poor. Changing consumption preference would have led to a slower growth of aggregate demand for cereals. Demand and supply projections for cereals indicate that there will be adequate domestic supply to meet demand up to at least the year 2020.

The food security situation in the country can therefore be considered to be satisfactory as far as the food production aspect is concerned. The incentive being given to farmers by way of higher minimum support prices could lead to high costs in future as farmers use more fertilizer and pesticides (and possible use of inferior land) to increase output of these two crops in preference to others. This will discourage exports and at the same time lead to higher prices for the consumer. The net result is likely to be even greater excess supply, which is not matched by demand and even greater surplus of cereal stocks with FCI.

It may be pointed out that our policy regarding buffer-stocking should not be one of maintaining the maximum possible size of buffer stock but the optimum size. A huge buffer stock in itself will prove to be unviable and lead to inflationary pressures. A high level of buffer stock is maintained through expansion of bank credit, which crowds out non-food credit and/or raises the cost of credit to the economy. Alternatively it can lead to increased money supply and inflationary pressures. High level of food subsidies will also lead to a large fiscal deficit and can generate inflationary pressures. Thus maintenance of a huge buffer stock as well as providing large food subsidies both have an inflationary component involved. The objective therefore should be to maintain the optimum size of buffer stock to ensure stabilization of food prices. High levels of procurement and issue prices can also be inflationary. In a study carried out by Dr. Kirit Parikh, it has been estimated that a buffer stock of about 10 million tones will be adequate for the purpose of price stabilization.

While the objective of maintaining buffer stocks and operating the PDS is maintenance of price stability, the needs of the poor could also be protected by generation of adequate purchasing power, employment and income with the people. If adequate employment and purchasing power become available with the people, there will be less need to provide food subsidies. The objective of removal of poverty could be achieved by programmes of employment generation and increase in incomes of the economically backward sections of society through a publicly funded food for work programme aimed at creating infrastructure facilities in rural areas.

Chapter III

PUBLIC DISTRIBUTION SYSTEM

Today, the country is facing a paradoxical situation. While the FCI godowns are overflowing with grain, there are regions in the country affected by drought and floods yearning for larger supplies of foodgrains. It is now recognised that availability of foodgrains is not a sufficient condition to ensure food security to the poor. In addition to availability of foodgrains it is also necessary that the poor have sufficient means to purchase food. The capacity of the poor to purchase food can be ensured in two ways. You can either raise the level of incomes of the poor or you can supply foodgrains to the poor at subsidised prices. Employment generation programmes for the poor tries to ensure that the poor have sufficient purchasing power. The Public Distribution System (PDS) tries to supply foodgrains to the poor at subsidised prices.

With a network of more than 4.62 lakh Fair Price Shops (FPS) distributing annually commodities worth more than Rs 30,000 crore, to about 16 crore families, the PDS in India is perhaps the largest distribution network of its type in the world. This huge network can play a more meaningful role only if the system translates the macro level self-sufficiency in foodgrains achieved by the country into micro level, i.e. by ensuring availability of food for the poor households.

All is not well with the Public Distribution System in India. The annual food subsidy involved in maintaining the system is huge (see Appendix Table VI). For the year 2001-02 an amount of Rs.13675 crore is proposed to be spent on food subsidy according to the budget estimates. This volume of food subsidy accounts for 3.64 percent of the total budgeted expenditure of the central government. A close look at the Table would show that the level of food subsidies in India as a proportion of total government expenditure has gone up from a level of about 2.5 percent or below during the beginning of the 1990s to more than 3.6 percent today. The per capita food subsidy expenditure by the government in 2000-01 was about Rs 117 or nearly Rs 10 per head per month. This, however, does not mean that consumers got Rs 10 per head per month, for the cost of distributing this subsidy has to be deducted from the subsidy expenditure by the government. Some part of the subsidy also accrue to the producers.

The Food subsidy contains an element of producer's subsidy besides the subsidy involved in the implementation of various schemes, like the Open Market Sales Scheme. It includes consumer subsidy (Economic Cost minus CIP) and buffer subsidy (carrying cost of buffer stocks). As on 1-7-2001 we had 616.71 lakh tones of rice and wheat in the central pool as against the minimum buffer stocking norms of 243 lakh tones and maximum buffer stock of 315 lakh tones. In other words, the stocks in excess of the minimum buffer stocking norms were 373.71 lakh tones and

the stocks in excess of the maximum buffer stocking norms was 301.71 lakh tones. It can be argued that excess stocks which are not required for our food security system should not be shown as food subsidy but as agricultural/producer subsidy.

One of the problems involved in the operation of PDS is the issue of containing the food subsidy to reasonable levels. Other major issues which confront the system at the present juncture include the issue of targeting the system to benefit the genuine poor and restricting the coverage of PDS to only the key commodities. De-centralization of operations and devolving to the states the key decision making powers as regards the operation of PDS are also important issues that need to be addressed. One could also try to reform the system by introducing innovative ideas like food stamps and food credit/debit cards to facilitate better working of the system with a view to reduce malpractices like diversion and reducing the costs of food delivered to the poor. These are some of the issues that are proposed to be dealt with in this chapter. Other issues being discussed include the role of FCI, food procurement and fixation of minimum support price and the operation of buffer stock. We start our discussion with the section on Implementation of targeted PDS.

Implementation of TPDS

The importance of an effective mechanism that ensures availability of food at affordable prices at household level for the poor can hardly be over emphasised. However, the PDS as it stood earlier, was widely criticised for its failure to serve the population below the poverty line, its urban bias, negligible coverage in the states with the highest concentration of the rural poor and lack of transparent and accountable arrangements for delivery. Realising this, the government streamlined the PDS, by issuing special cards to families Below Poverty Line (BPL) and selling food grains under PDS to them at specially subsidised prices with effect from June, 1997.

Under the Targeted Public Distribution System (TPDS) as initiated in June 1997, each poor family was entitled to 10 kgs of foodgrains per month at specially subsidised prices. This was expected to benefit about 6 crore poor families. The state-wise poverty estimates of the Planning Commission based on the methodology of the 'Expert Group' on estimation of proportion and number of poor chaired by late Prof. Lakdawala defined the number of poor in each state. The identification of the poor is done by the states. The Committee did not give identification guidelines. The thrust is to include only the really poor and vulnerable sections of the society such as landless agricultural labourers, marginal farmers, rural artisans/craftsmen such as potters, tappers, weavers,

blacksmiths, carpenters etc, in the rural areas and slum dwellers and persons earning their livelihood on a daily basis in the informal sector like porters, rickshaw pullers and hand cart pullers, fruit and flower sellers on the pavements etc. in urban areas.

Keeping in view the consensus on increasing the allocation of food grains to BPL category and to better target the food subsidy, Government of India increased the allocation to BPL families from 10 kgs. to 20 kgs. of food grains per family per month at 50% of economic cost from April 1, 2000. The allocation for APL was retained at the same level as at the time of introduction of TPDS but the Central Issue Prices for APL was fixed at 100% of economic cost from that date so that entire consumer subsidy could be directed for the benefit of BPL population.

The number of BPL families has increased w.e.f. 1.12.2000 by shifting the base to the population projections of the Registrar General as on 1.3.2000 instead of the earlier population projection of 1995. The change has resulted in increasing the number of BPL families to 652.03 lakh as against 596.23 lakh families originally estimated when TPDS was introduced in June, 1997. The increased level of allocation of food grains for BPL category is about 147 lakh tones per annum.

In order to reduce excess stocks lying with the Food Corporation of India, Government have recently initiated the following measures under the TPDS w.e.f. 12.7.2001:

1. The BPL allocation of food grains has been increased from 20 kgs. to 25 kgs. per family per month w.e.f. July, 2001, the CIP for BPL families at Rs.4.15 per kg. for wheat and Rs.5.65 per kg. for rice is 48% of the economic cost.
2. The Government has decided to allocate food grains to APL families at the discounted rate of 70% of the economic cost. The CIP of APL wheat which was at Rs.8.30 per quintal has been reduced to Rs.610 per quintal and CIP of APL rice which was at Rs.1130 per quintal has been reduced to Rs.830 per quintal.

Further, under the Antyodaya Anna Yojana, 25 kgs. of food grain are provided to the poorest of the poor families at a highly subsidised rate of Rs.2 per kg. for wheat and Rs.3 per kg. for rice. It also needs to be mentioned that the Public Distribution System (Control) Order 2001 has been promulgated which seeks to plug the loopholes in the PDS and make it more efficient and effective.

Issues Involved in Implementation of TPDS

One of the issues involved in the implementation of TPDS is the identification of the target group. The poverty ratios estimated by the Lakdawala Committee have been used to determine the number of BPL population in each State/UT. But when the States/UTs sit down to identify the actual beneficiaries the population identified generally exceed the estimates made by the Expert Group. The government has now decided to use the projected population of states as on 1-3-2000 for determining the number of BPL families in a state as against the population figure for 1995 used earlier. This will generally lead to an increase in the number of BPL families in a state. The allocation of food grains under BPL quota is now based on the population of states as on 1-3-2000, average size of households in a state in 1991 and the poverty ratio of states obtained as in 1993-94. The new NSS round on poverty has indicated a lower incidence of poverty in many states and this can have an impact on the BPL population of various states. While we can arrive at a figure for the BPL population based on the poverty estimates, when identification of the poor is done by the states the identified population does not necessarily match BPL estimates based on poverty.

To improve delivery to the underserved poor a possible approach which would be to supplement TPDS with area based targeting under which the population of inaccessible areas like hill areas, desert areas, drought-prone areas etc. are targeted. The substantial regional variations in PDS performance suggests that geographical targeting may be one feasible avenue for ensuring food security. The introduction of the Revamped Public Distribution System was to address some of these problems. Under the RPDS, certain regions which were poorly developed and/or remote were identified, and PDS supplies made available to these areas at still lower prices. This was subsequently replaced by the TPDS in 1997.

Apart from sustained intervention of the kind outlined above, the occurrence and location-specificity of drought also argue for an area-based approach. For example, consider the response to drought in Maharashtra in the 1970s. Enhanced supplies of subsidized food, as well as measures that tied food receipts to participation in public works, all contributed to what is now almost universally recognized as a well-managed drought; further evidence of the effectiveness of need-based geographical targeting.

However it has been pointed out that area based targeting approach is not the ideal approach. The focus should be on the poor in all areas. RPDS covered only 20% of the total population. The Report of the Sub-group on Policy aspects of PDS for the formulation of the Ninth Five Year Plan has stated that even if it is presumed that 70% of this population was below the poverty line, this implies that 14% of the poor in the country resided in the RPDS blocks and about 16% elsewhere assuming the poor to constitute about 30% of the total population.

The quality of food grain supplied through the PDS also leaves much to be desired. The problem has arisen partly due to relaxed specification of quality while procurements are made. Such relaxation need to be avoided in the future in the interests of a well managed public distribution system. If any state government requests for relaxation of quality norms, this should be invariably accompanied by an appropriate price reduction besides exemption from statutory state levies.

When the monthly quota supplied to the poor families under TPDS is 25 kgs, it is evident that the poor families will not have the economic capacity to buy their full monthly quota of food grain in one go. The least that can be expected in this regard is that delivery system permits the poor to buy their rations at least on a weekly basis. The issue has been addressed in Public Distribution System (Control) Order 2001.

Restructuring of PDS

To make the implementation of TPDS more effective, it is desirable that the following points may be taken into consideration:

- 1) Items other than rice and wheat need to be excluded from the purview of TPDS. The main objective of providing food subsidy to the poor is to ensure food security. Rice and wheat are the two commodities, which are eagerly sought after as basic necessities by the poor in India. Provision of food subsidies should be restricted to these two commodities.
- 2) Items such as sugar should be kept outside the purview of PDS. Sugar should be decontrolled and the system of levy on sugar should be discontinued.
- 3) It is argued that if production of coarse cereals, is encouraged in dryland areas environment damage like degradation of soil can be checked to some extent. However, there is difficulty in supplying coarse cereals through PDS and bringing them under the cover of food subsidy. The average shelf-life of coarse grains is limited making them unsuitable for long term storage and distribution under PDS. Inclusion of coarse cereals under PDS cannot be taken up as a national level program since there is no standard variety of coarse grain. But initiatives from the side of state governments are possible catering to the needs of specific localities.
- 4) Kerosene oil is also a commodity supplied through PDS and intended for the poor. But this is an item where there occurs large scale illicit diversion where the benefits meant for the poor are cornered by miscreants and subsidised kerosene is used for adulteration with diesel. Subsidy on kerosene while it benefits the

poor to a certain extent is very often cornered by the rich and subsidised kerosene ultimately ends up being used for commercial purposes. A study carried out by Indira Gandhi Institute for Development Research, Mumbai shows that there is huge leakage of kerosene meant for PDS in the four states covered by the study. It is irrational, therefore to continue to subsidise kerosene at rates that are so high and continue its distribution through the PDS. Subsidy on kerosene should be gradually phased out by raising its supply price under PDS while at the same time eliminating all domestic central (e.g. cenvat) and state (e.g. sales) taxes on kerosene so as to encourage private supply of kerosene through normal distribution channels. Alternately, if kerosene is to be retained under PDS the extent of subsidy given should be reduced below 30% so that there is less incentive for diversion and for adulteration with diesel.

- 5) All further attempts to include more and more commodities under the coverage of food subsidy should be resisted.
- 6) At the same time the FPS should be permitted to sell all commodities (other than rice and wheat) at full market prices through PDS outlets so as to ensure their economic viability.
- 7) The coverage of TPDS and food subsidy should be restricted to the population below the poverty line. For the people above the poverty line who have the purchasing power to buy food the requirement is only to ensure availability of food grains at a stable price in the market. There is no need to extend the coverage of food subsidy to this population. Stability in food grain prices should be ensured through the maintenance of a buffer stock and open market operations of the FCI. However, during the present period when there exist huge surplus stocks of food grains with FCI it may be necessary to continue below “economic cost” supplies of cereals under PDS to the APL population as a temporary measure.
- 8) With the liberalization of external sector, the operation of the buffer stock can be supplemented by timely exports and imports and effectively this will mean that the buffer stock required will be smaller in size.
- 9) Ration cards should not be used by the administration as an identification card for various purposes. The role should be assigned to multi-purpose identity cards in the future. Many people get ration cards issued only to establish their identity before the administration.
- 10) There are several plan schemes in operation, which are in the nature of welfare or income transfer schemes where distribution of food

grains is involved. Such schemes, all serving the same purpose, could be merged and some sort of convergence among them could be evolved.

Diversion of PDS Commodities:

A study was conducted by the Tata Economic Consultancy Services to ascertain the extent of diversion of commodities supplied under PDS from the system. At the national level, it is assessed that there is 36% diversion of wheat, 31% diversion of rice and 23% diversion of sugar. These are most likely estimates of diversion based on the sample survey conducted. Statistically at 90% confidence level, the actual diversion of wheat would fall in the range of 32-40% rice in 27-35% and sugar 20-26%. Appendix Table-VII shows the extent of diversion in various states and union territories of India. The table shows that diversion is more in the Northern, Eastern and North Eastern regions. Diversion is comparatively less in the Southern and Western regions. As extreme cases 64% diversion of rice is estimated in Bihar and Assam. In the case of wheat 100% diversion is estimated in Nagaland and 69% in Punjab. The huge extent of leakages as brought out in the report has been disputed by several state governments. A view has also been expressed that the sample size used in the study was small and therefore was not truly representative.

It is significant to note that less diversion is estimated in the case of sugar as compared to rice and wheat. In this connection, it has to be noted that sugar is a commodity where even the well-to-do section buy from the PDS outlets. Greater diversion in the case of rice and wheat (not generally purchased by the well-to-do section from PDS outlets) is perhaps an indication that a large amount of the quota meant to be distributed among the well-to-do is actually diverted to the open market. This again strengthens the argument for excluding the population above the poverty line from the PDS.

The report also examines the effectiveness of Essential Commodities Act, 1995 and Prevention of Black-Marketing and Maintenance of Essential Commodities Act, 1980 in checking diversion. The report says that no correlation was observed between the frequency of use of Enforcement Acts in particular states and extent of diversion in these states. In the Northern Region, Uttar Pradesh has more diversion of rice and sugar than Punjab despite higher number of raids and convictions. Similarly, in the Western Region, Gujarat does not appear to be very much better managed than Madhya Pradesh and Rajasthan despite having the highest number of detentions in the country under these acts.

A study done by ISI researchers using NSS data for 1993-4 along with other for two states (Andhra Pradesh & Maharashtra) estimated both the extent of leakage as well as the economic inefficiency of the public

food procurement system relative to the open market. The study shows that only 56 to 58.5% of the total food subsidy (i.e. Center and State) reaches the PDS consumers. Leakages can range from 15% to 28% of the subsidy while 16 to 26.5% of the subsidy is eaten up by the inefficiency of the government procurement and distribution system (FCI plus State level) relative to the market.

Marketing Arrangements:

The amount of budgetary food subsidy is influenced by a number of controllable factors. It depends on the quantity of food grains procured, distributed and maintained as stock on the one hand, and procurement price, issue price and economic cost of distribution and maintaining buffer stock on the other. The factors affecting the growth of budgetary food subsidies can be grouped into the following :

- the growth in the level of government operations in food grains as reflected in the rising volumes of procurement, distribution and buffer stocks;
- relatively higher growth rates of procurement prices compared to issue prices; and
- very high growth rates of (unit) costs of distribution and stocking of food grains.

In order to contain the level of food subsidy within manageable limits major reforms are required in the pattern of marketing of food grains in the country. At the outset it may be mentioned that all types of restriction over inter-state movement of food grains should be removed once and for all. Secondly, it is necessary to strengthen the system of private trade and marketing of food grains. Thirdly, the concept of having fair price shops over the length and breadth of the country should be looked into afresh. It may be more efficient to move towards a new system of providing food subsidy through the normal food supply shops that exist through out the length and breadth of the country, supplemented by Fair Price Shops in remote and inaccessible regions where such shops may be absent. This could be achieved through the introduction of food stamps or the food credit card system as outlined below:

Under the system of food stamps, instead of issuing ration cards, the states could issue a subsidy entitlement card (SEC). The SEC should show the number of members in a poor family, their age etc, and indicate their entitlement level for food stamps.

There could, in principle, be different levels of entitlement based on age. All adult members from a poor family could be entitled to “a” number

of food stamps per month while the entitlement for a child could be “b” number of food stamps. There could also be a higher subsidy entitlement based on old age or infirmity. The SEC will indicate the total number of food stamps a family is entitled to every month.

The members of a family would produce their SEC and collect their monthly quota of food stamps from prescribed distribution centres. By using these food stamps in any food supply shop the poor should be able to purchase food grains (rice and wheat) at a price (Rs x) below the market price. The retailer who sells food to the stamp holder could accumulate these food stamps issued by the state governments and claim (Rs x) per food stamp from the state treasury.

It needs to be noticed that there is less scope for corruption under a system of food stamps than under the existing system. Under the existing system, it is well known that Fair Price Shop owners declare on paper that they have sold a certain quantity of food to the poor at subsidised prices but actually make a big profit by selling the food at market prices. Under a system of food stamps there will be less possibility, of such diversion of food supplies. The retailer can claim food subsidy only if he acquires food stamps by selling food to the poor at subsidised prices. Under this system it could be made mandatory for retail traders in food grains to display the selling price of food grains at a prominent place in their shops.

However, it has to be noted that the system of food stamps should be introduced with caution and initially on an experimental basis in selected locations. The introduction of the scheme can lead to the production of counterfeit food stamps and also malpractices from the side of the food shop owners who will try to exploit loopholes in the system. To reduce malpractices, it is felt that food stamps should be issued to female members of the family who can be designated as heads of households for the purpose. Informal trading of food stamps can also convert the food subsidy into an income subsidy. The use of smart cards in the form of a food credit/debit card can remove these problems and ensure provision of a food subsidy (i.e. a reduction in the relative price of food), as it can have inbuilt security features that make it difficult if not impossible to trade.

The experience with food stamps has been mixed worldwide. In Sri Lanka, the food ration system was replaced in September 1979 with a food stamp programme, supported in part by the IMF, to reduce overall costs, and improve efficiency. Food stamps were provided to families whose self-declared incomes fell below a specified norm, and took into account family size and composition. The Sri Lankan experience suggests that switch to the food stamp system did succeed in reducing budgetary costs, which decreased from 15 per cent to 3 per cent of total government expenditures. However, a part of this decrease is explained by a decision to retain the nominal value of food stamps, and not adjust them for inflation.

However, in terms of better ensuring food security, the scheme was less successful.

A food coupon system for distribution of rice and kerosene through PDS was introduced in Andhra Pradesh during 1998-1999. Basically, the scheme was aimed at improving the delivery system of kerosene and rice. Under the scheme mere possession of card was not adequate to draw PDS rice, wheat or kerosene. Physical presence of the cardholder whose photo was affixed on the card was insisted upon for obtaining the coupons. Coupons are issued once in a year and coupon holders are entitled to draw rice and kerosene on monthly basis. To facilitate the coupon holder to draw rice and kerosene in easy instalments in a month, coupons have been distributed for denominations like 4 Kgs., 8 Kgs. etc. Under coupon system, coupon holder/ beneficiary is aware of his entitlement. The State Government feels that this system has largely eliminated the scope of cheating of the beneficiary by dealers to deliver lesser quantity than entitlement. Coupon guarantees the stake holder his right to draw the specific quantity every month. Unless coupon is produced rice or kerosene is not released. This facilitates proper accounting of actual quantity distributed in the month as it is reckoned based on the quantity covered by coupons produced by the beneficiaries. Quantity distributed vis a vis the coupons produced could be verified every month by the officials of the Civil Supplies/Revenue Department. This has reduced the scope of diversion of rice and kerosene to a great extent, if not totally eliminated it. Introduction of coupon system also resulted in reduction of number of cards by approximately 8 lakhs, which were either bogus or with ineligible families. A quantity of about 20,000 tonnes of rice and 7,100 kilo litres of kerosene is saved due to this system every month. In financial terms, an amount of Rs. 9 crores per month on rice and Rs. 5.67 crores per month on kerosene is being saved in subsidy. Coupon system could be made more effective if the list of beneficiaries is computerized fair-price shop wise so that duplicate names, if any, could be identified and eliminated. This step would also reduce the cost of PDS substantially. However, steps should be taken to prevent counterfeit coupons by unscrupulous elements. Regular and staggered distribution of coupons could also prevent mischief and manipulation.

A food credit card system could be a superior alternative to the prevalent system of specialized Fair Price Shops and perhaps even to a food stamp system. Food credit/debit cards could be used by the customers to buy subsidized food grains from the market and the retailers can claim the subsidy from the government. Though the issue costs of a food credit card are likely to be higher than for existing ration card, the running costs may be lower than for specialized Fair Price Shops as the credit card can be used in any existing retail shops that accepts such cards. This will eliminate the need for an exclusive FPS system and consequently its entire overhead cost. This will partly compensate for the initial costs of setting up a

leakage proof credit card system using smart card technology. The rest would be compensated for by the elimination of leakage at all stages of the current food procurement, storage and distribution system (including the FCI). To minimise the cost, existing credit card companies could be induced to set up and run the food credit card system at cost in return for advertisement rights to this social service.

There is a fear among some academics that food stamps may be traded on the informal market and thus be effectively converted from a food subsidy to an income subsidy. The food credit card, can obviate this problem as it is much more difficult to trade. Additional safety features such as identifying characteristics of the card holder and periodic validation (and re-charging) can be built into the system, which will make it virtually non-tradable. The food credit can also have the inbuilt flexibility of changing over from a food subsidy to an income transfer system if there is a subsequent change in the policy. The food credit card can be made applicable to all cereals including coarse grains. If desired, a different subsidy rate can be specified for different cereals. As coarse cereals are consumed primarily by the poor, the smart card will allow some self-selecting/self-targeting features to be built into the system.

The food credit card could also be integrated with a food-for-work programme without incurring the additional administrative and logistic costs of transporting food to each area where there is need to provide work. Payment for the work would be done by incrementing the food credit of the worker. Once set up this credit card system could also be used to provide social security to the old, infirm, disabled and handicapped citizens. This could be done for instance by programming a higher subsidy proportion for such groups.

A Committee needs to be set up to examine the feasibility of introducing the system of rations through food stamps and food credit/debit cards in the country using smart card technology.

Decentralisation of Operations

Experience with increase in issue price of food grains shows how politically unpalatable it has become to increase PDS prices. Based on the net consumer subsidy spent on providing food through the PDS the central budget should make a provision for national food subsidy. This subsidy will be distributed among the states according to a prescribed formula based on latest available data and updated poverty ratios. Henceforth, it should be the duty of the state governments to determine the quantum of food subsidy based on the contribution they get from the centre and adding the states own resources to it. The centre could also agree to enhance the quantum of centre's food subsidy contribution to compensate for increase

in prices. The new system will also result in a more equitable distribution of the benefits of food subsidy among different states of India.

The operation of PDS should be the responsibility of the state governments. If a state government feels that its administrative and managerial resources are inadequate to the task it can in turn sub-contract this job to the other State agencies or the private sector. The role of the centre should be only allocation of food subsidy among the states and procurement, storage and distribution of food grains through the medium of FCI. Maintenance of buffer stock will be the joint responsibility of the central and the state governments. The scheme of decentralized procurement, which is in operation should be promoted and more and more states should be encouraged to adapt this scheme. If the need is felt a number of FCI godowns (with staff) could be handed over to the state governments.

The issue of food stamps should be the responsibility of the state governments. The subsidy element involved in each food stamp could be decided by the state governments based on the resources available with them to meet the subsidy. In this regard the subsidy provided by the centre could be supplemented by the states own resources.

The task of fixing issue price of food grains may be left to the discretion of state governments. As long as fixation of issue price is done by the centre, changes in issue price should be made every time there is a revision of procurement price of food grains. This will drive home the message to the public that issue price of food grains are being raised due to increase in cost of production. Under the circumstance, there will be less resistance to increase in issue price of food grains.

The decision like issue price of food grains, quantum of food subsidy per food stamp, amount of food grains that should be supplied per individual per month, etc should be left to be decided by the state governments based on the capacity of the state to conduct food subsidy operations.

Operation of Buffer Stocks and FCI

The high level of market prices of wheat now prevailing in India are due to primarily the rise in the procurement prices over the past three years or so and taxes and charges on cereals imposed by state governments. The difference between the economic cost of Food Corporation of India (FCI) and the market price also contributes to the higher price. The previously referenced Indian Statistical Institute study showed that up to 16% of the subsidy provided in one state could be due to the inefficiency of the FCI. Whatever may be the criticism against FCI, it has to be admitted that the corporation plays an important role in the food economy of India. The

contribution of FCI would be enhanced if there was greater competition in food trade from other public, co-operative and private organisations.

While provision of food subsidy is an important element of the food security system in India, an equally important role is played by food procurement and buffer stock operations. Since agricultural production is subject to fluctuations due to climatic factors, it is necessary to maintain an adequate level of buffer stock to bring about stability in food grain prices in the country.

A study conducted by Dr Kirit Parikh has concluded that a buffer stock of around 10 million tonnes can be considered to be adequate from the national food security angle. The Expenditure Reforms Commission has also endorsed this recommendation according to which a food security buffer stock of 10 million tonnes – 4 million tonnes of wheat and 6 million tonnes of rice- would be adequate. The present levels of buffer stocks in the country is far in excess of requirements and create more economic instability than stability.

The FCI can maintain a minimum level of buffer stock and then undertake open market operations within a prescribed price band. It can conduct open market operations by releasing stocks in the open market when shortages are prevalent and prices are high. The FCI can also purchase food grains from the open market when there is excess supply and prices are depressed. However its objective should not be to procure all that is offered by the farmers but only to maintain an optimum level of buffer stock. The FCI can therefore be instructed to limit its role in the future to more manageable and optimum levels, recognising the fact that a high level of buffer stock of food grains can itself be a factor contributing to inflation. Presently the level of food credit is more than Rs. 40,000 crore. Large food credit will have significant macro economic implications. The impact of food credit on money supply is also not insignificant.

The FCI could also play a role in the international market for food grains by resorting to imports when stock levels are low and exporting food grains when there is surplus stocks. The private sector and the farmers must also be allowed a role in the export of food grains, by removing quantitative restriction on the export of wheat and rice. The lifting of QRs on import of wheat and rice has already been accompanied by high import duties that are well above the general peak rate of duty of 35%. These duties can be brought down in line with the reduction in peak rates.

The FCI will continue to have a vital role in the maintenance of the food buffer stock to take care of fluctuations in year to year production of food grains. Its monopoly of food procurement must be ended by allowing State procurement agencies to operate in all parts of the country (i.e. even in other states). The restriction on private food grain trade must be lifted

and the bias against them removed so that competitive forces can have freer play in reducing intermediation costs. In particular the constraints and restrictions on entry of modern food procurement, transport, processing and distribution companies must be removed so that the benefits of modern management practices like silo storage, logistics and large scale processing can flourish. This will benefit both farmers and consumers.

It has also to be noted that when procurement prices for food grains are fixed these should not be pegged at such a high level which can lead to accumulation of surplus stocks in FCI godowns much in excess of prescribed buffer stock norms. In this connection there is a need to strictly adhere to the recommendations of the Commission for Agricultural Costs and Prices and not resorting to fixation of procurement prices much in excess of the estimated costs of production. The main objective of our food procurement policy should be stabilization of food prices rather than provision of subsidies to producers. Even today when food subsidies are provided to the BPL population only a limited proportion of the food requirements of the BPL population is met by the PDS. For the rest of their requirements even the BPL families have to depend on the private traders. Thus the objective of stabilization of food grain prices becomes important. This objective has to be achieved by appropriate buffer stocking operations and market interventions by the FCI.

New initiatives have been taken in India in the field of decentralised procurement of food grains. Several state governments have for instance initiated their own food procurement operations. More such initiatives are likely in the future. Under such a situation it is conceivable that some of the FCI godowns (with staff) are transferred to the state governments. In this context the task of maintaining buffer stocks could even become the joint responsibility of the central and state governments.

The government should make efforts to evolve a standardised grain grading system which would benefit farmers, traders and consumers by lowering transaction costs, providing growers with rewards for delivering quality output and incentives to use quality enhancing technologies and practices and facilitate integration of domestic markets with world markets. FCI should transfer more and more of its marketing functions under concession arrangements and management contracts to the private sector and encourage it to invest in more modern grain handling systems.

Encouraging Private Trade in Foodgrains

In India with its wide network of FCI godowns and PDS outlets, a great deal of the distribution of food grains was handled by the public sector. The role of the private sector in this regard has been limited. In the future, there is a need to strengthen the role of private trade in the matter of storage and distribution of food grains. Various restrictions that continue to

inhibit private initiatives in this regard need to be removed. Only then private trade will have the incentive to make huge investment in grain handling operations. Tax concessions could also be extended to the private sector to promote such investments.

In the operation of PDS, while it is the ultimate objective to restrict supply of subsidised food grains to only the population below the poverty line, the better off sections of society will be expected to meet their entire requirements by purchases from the open market. Thus as the principle of targeting is more strictly applied in the case of PDS, there is all the more reason to promote private trade in food grains supported by more sophisticated grain handling techniques.

While the National Policy on Handling, Storage and Transportation of Foodgrains is timely, its success is largely dependent upon highly regulated and controlled sectors of the economy. Unless the control regime governing storage and movement of food grains and other essential commodities is suitably relaxed, the degree of success would be limited. State governments have imposed many restrictions on the movement and storage of food grains. Even when the country has achieved food self-sufficiency, many of these controls which have outlived their utility are still continuing. There is need to withdraw them urgently, keeping in view the emerging economic environment. Legislative and administrative measures for removing impediments on storage and movement of food grains as proposed need to be accorded topmost priority.

Another set of controls emanate from the provisions of Essential Commodities Act. Most of the provisions in this Act have become irrelevant in the context of having achieved self sufficiency in production.. They hamper the market from performing its productive and commercial role. A large number of permits and licences are required to be obtained from the authorities under the Essential Commodities Act and periodically returns have to be submitted and inspections carried out, which add to transaction costs. Some notifications under the same Act restrict movement of goods from the surplus states to deficit states. These controls and restrictions, which include the ever present threat of arrest, act as disincentives to production and distribution of essential commodities by organised companies that can exploit economies of scale and modernise the entire food sector. Besides, there is urgent need to upgrade market infrastructure, cold storage facilities, mandi facilities and roads for which the private sector should be encouraged to make productive investment.

The government has adopted various measures to improve agricultural marketing. These steps include establishing regulated markets, constructing warehouses, grading and standardising produce, standardising weights and measures, and providing information on agricultural prices. The basic object of the existing marketing structure has been to ensure

reasonable gain to the farmers by creating environment in the markets for fair play of market practices and other transport measures.

The Central Government advised all the State Governments to enact marketing legislation to provide competitive and transparent transactional methods to protect interests of the farmers. Barring a few, most of the States and Union Territories embarked upon a massive programme of regulation of markets after enacting the legislation. As on 31.3.2000, out of 7262 wholesale markets, 7169 have been covered under regulation. The country also has nearly 28000 rural periodical markets, 15% of which function under the ambit of regulation. The advent of regulated markets has helped in mitigating the market handicaps of producers/sellers at the wholesale assembling level.

The institution of regulated markets, set up to strengthen and develop agricultural marketing in the country met, however, with a limited success. It is only the Government which initiates the process of setting up of a market for different commodities, which are regulated and for certain areas, in which the regulation is enforced. Private sector on its own cannot take any initiative in assessing the viability and feasibility for setting up of markets equipped with requisite facilities at competitive costs and in any place other than the notified market area. Whenever there is a principal market in the city, the sub-market of the collection centres are not permitted. There is no scope under the existing law for direct marketing by the farmers for procurement. Functionaries of the marketing system, namely, commission agents, traders, processors, weigh man, surveyors, brokers have to obtain licence to function in the market area. The rules and bye-laws stipulate lengthy procedures and documentation for licensing.

With a view to strengthen agricultural marketing in the country, an Expert Committee set up by the Ministry of Agriculture, has suggested several measures including a review of the existing legal framework governing the institutions of regulated markets and to remove all such restrictive provision which inhibit growth of a competitive marketing structure in the country. An Inter-Ministerial Task Force is examining these recommendations for implementation. The recommendations made by the Expert Committee include the following:

1. The Committee has suggested promotion of direct marketing as one of the alternative marketing structures that will sustain incentives for quality and enhanced productivity, reduce distribution losses and improve farmer incomes with improved technology support and methods. Accordingly the market will operate outside the purview of the Agricultural Produce Marketing Act and will be owned by professional agencies in private sector, wholesalers, trade associations and other investors.

2. The Committee also recommends that more and more commodities be added to the list covered under forward marketing.
3. The Committee is of the view that items like wine and beer which are based on fruits and vegetables and have low alcohol content should be considered as items of food and should be promoted as health drinks.
4. Considering the limited reach of public extension services, it has suggested privatisation of extension services with appropriate financial backup from the public sector.

Reducing the Scope of Essential Commodities Act, 1955.

In March 1993, Central Government decided to treat the entire country as a single food zone for inter-state and intra-state movement of food grains and advised the States/UTs to take action accordingly. Restrictions exist even with regard to movement of paddy across the district boundaries. There is an impression that the restrictions have continued even without adequate justifications because it hits the interests of certain class of renters who have had a parasitic existence on the restrictions imposed decades earlier.

Reports suggest that besides the statutory restrictions, some states also impose informal restrictions on movement of foodgrains outside the state during particular periods of the year. Groundnuts, onions, cotton etc. have routinely been subjected to restrictive regime of movements. Some of the restrictions imposed by the States are in the form of written instructions while others are in the form of oral orders or word of mouth instructions.

The other restrictive practices under the Essential Commodities Act include prescribing the stock limits on storage of essential commodities, licensing requirements for godowns of essential commodities and for putting up the processing units of agricultural products etc.

These restrictions are hampering the growth of free trade in the country and are against the interest of the producers as well as consumers. For example, it is felt that if restrictive regime on sugar is removed, economies of scale in the production of sugar can be exploited more fully to the ultimate benefit of both farmers and consumers. It will slowly lead to a regime of stability in the sugarcane/sugar production. By not doing so, one of the commodities in which India holds tremendous advantage is not being exploited. In an age where WTO has forced the national boundaries to be thrown open, the restrictions on the inter-state or intra-state movement of agricultural products is paradoxical.

Since the restrictions on movement are sometimes even by the word of mouth, the documentation of the restrictions imposed by the State would be very difficult. The State would also not easily share the written restrictions imposed by them. The oral restrictions imposed would not be shared by the State authorities in any case as most of the time they are not legal. The only help in this regard could come from the traders associations or the Vyapar Mandals who are the actual sufferers of this sort of restrictive and sometimes illegal regimes. They not only face the difficulty in regard to their trade, they have also to shell out illegal gratifications to get round these restrictions. Unless attempts are made to prepare the public opinion against such restrictive practices, it would be very difficult to get the States to agree to dismantle the restrictive regimes.

Decontrol of Sugar:

Sugar industry had been subjected to compulsory licensing for establishing new capacity and expanding the existing capacity. With the continuity of industrial reforms as envisaged in the Ninth Plan, the sugar industry has been de-licensed in September, 1998. However, the policy of partial control and dual pricing for sugar is still in operation. Fifteen per cent of the sugar production is lifted as levy by the Government of India. The balance 85 per cent is sold by the sugar mills at market price under a regulated system.

The present system of partial control leads to higher market price for free sale sugar as the mills have to make room for loss incurred in supplying 15 per cent of production in levy at below cost. Sugar is a commodity where the subsidy burden resulting from low-cost levy sugar is borne by the industry rather than the government.

The main advantage of the system of partial control is that it makes available certain quantity of sugar to consumers at lower price through PDS. However, it is well recognised that there are leakages from PDS into open market where prices are higher. The Standing Committee on Food, Civil Supplies and Public Distribution (1995-96 10th Lok Sabha) in its 15th report on sugar while recommending the continuation of the policy of partial decontrol observed in para 29 in part-B of its report that "It has been brought to the notice of the committee that the large-scale leakages of levy sugar into open market is taking place, thus defeating the very purpose for which PDS has been commissioned".

Even where sugar in PDS reaches the card holders, the financial benefit accruing is very small. For an average family of five members, the allocation, even if there were no leakage, would be about 2 kgs. per month which would mean financial benefit of about Rs.6/- to Rs.8/- per month depending on the quantum of sugar supplied through PDS..

A High Powered Committee (HPC) under the chairmanship of Shri B.B. Mahajan was set up by the Food Ministry on March 14, 1997 in pursuance of a directive by the Allahabad High Court in a writ petition challenging the power of the state government to advise sugar mills on the cane price payable to cane growers. The committee had gone into various details of sugar sector. After weighing the advantages and disadvantages, the Mahajan Committee felt that the time has come for complete decontrol of sugar. However, a sudden decision to decontrol may adversely affect the factories with consequent hardships for the cane growers supplying cane to such mills and the workers employed therein. The committee, therefore, recommended that the decontrol may be phased over a period of two years. A policy change of this nature should be effected only at the beginning of a sugar season. It was suggested that from the beginning of the sugar season following the date of announcement of the policy, the ratio of levy sugar may be reduced to 20 per cent which may be continued at the same rate during the next sugar season and from the beginning of the subsequent sugar season, the levy may be completely abolished.

Sugar is a superior food item and could be removed from PDS. Much of the demand for inclusion of sugar as an item within the PDS arises from the desire to consume subsidised sugar by the relatively well-to-do. There is little reason to agree to that. On balance, it is worth considering discontinuation of supply of sugar through PDS altogether.

With effect from 1-2-2001 levy sugar supply under PDS has been restricted to only the BPL families in all states/UTs except North Eastern States, hill States and island territories where considering the logistics, nutritional requirement and availability of free sale sugar at relatively higher prices, levy sugar is being supplied to all ration card holders. The decision constitutes another step forward in the direction of decontrol of the sugar industry and implementation of the Mahajan Committee recommendations.

PDS Plan Schemes

While the provision for food subsidy is made in the non-Plan budget of the Central Government, for strengthening the operational machinery of the PDS, the Planning Commission provides funds under its plan programmes for the following schemes:

- 1) Construction of Godowns
- 2) Purchase of Mobile Vans/Trucks
- 3) Training, Research and Monitoring

The godowns scheme is intended to assist the State Governments/UTs. for construction of small godowns of the capacity upto 2000 tonnes. The Mobile Vans scheme is intended to provide financial

assistance to the State Government/UT administrations for purchase of mobile vans/trucks for distributing essential commodities in rural/hilly/remote and other disadvantaged areas where static/regular Fair Price Shops are not found viable/feasible. The training scheme aims at strengthening and upgrading the skill of personnel engaged in PDS and also to improve the management of supplies. The efforts of the State Governments/UT administrations, Civil Supplies Corporations etc. are supplemented by providing financial assistance for organising training programmes on PDS. Evaluation studies, research studies on various aspects of PDS are also sponsored under the scheme. Plan outlay/expenditure under the schemes are as shown in Appendix Table VIII.

According to the CAG Report, the Government of India released Rs.58.73 crore and Rs.62.96 crore for construction of godowns and purchase of mobile vans respectively during 1983-99. Responses of the State Governments were, however, lukewarm. Large number of godowns for which the Central Government provided funds were not constructed and many were not put to the intended use. Many state governments did not purchase mobile vans for which funds were released by the Central Government. Large number of vans were out of order or used for purposes other than for doorstep delivery of foodgrains.

A decision has been taken to abolish the scheme 'Purchase of Vans' during the Tenth Plan. The operation of the scheme 'Construction of Godowns' should be restricted to North Eastern States, Hill States and Island territories during the Tenth Plan period. The funds under the scheme 'Training, Research & Monitoring' need to be increasingly diverted towards sponsoring studies on the operation and viability of the food security system in the country.

Grain Bank Scheme:

As a part of Government's efforts to prevent deaths of children in remote and backward tribal areas due to fall in nutrition standards, a scheme of Village Grain Banks has been launched during 1996-97. A one-time grant towards purchase of grains, at the rate of 1 quintal per family of tribals in such areas, storage facilities for the grains and purchase of weights and scales is provided by the Ministry of Tribal Affairs through TRIFED, as the channelising agency. The bank will be managed by the village committee elected by the beneficiaries themselves who are members of the bank. They can borrow grains from the grain banks at the times of scarcity.

A grain bank scheme is also being run under the aegis of the Department of Rural Development in Jhabua district. The scheme was launched on pilot basis in 1995 in 18 villages. The performance of last 2

years encouraged DRDA to adopt the strategy in all the villages under Integrated Watershed Development Programme. Presently, there are 184 grain-banks functioning in watershed areas run by the community itself. In last season, 12363 families took loan from the grain bank.

A proposal of Madhya Pradesh Government on the subject envisages evolution of community-based support systems (to substitute/supplement PDS operations) where PDS does not exist. Self-help groups of BPL families will be formed and charged a membership fee of Rs.50/-. The self-help groups will be eligible to receive supplies of food grains and other infrastructure based assistance from the Government. Activities will be organized under the grain bank scheme to develop degraded lands through food for work Programme on the periphery of forests having significant Adivasi population by self-help groups. The grain banks will be managed by committees of women beneficiaries to be called anaj samitis. The government will give a one-time supply of 100 kgs of wheat or rice to each grain bank. The grain will be stored by the traditional method in earthen kothas constructed with free local material and free family labour.

One could consider setting up of grain banks in remote and isolated areas where the reach of PDS is not there and in regions where there is the problem of inadequate employment generation such as in tribal areas and in the periphery of the forests such as in the tribal and forest belts of Madhya Pradesh. The grain bank scheme to be successful has to be combined with food for work programme so as to ensure generation of income with the people which is necessary to ensure repayment of borrowed grain by the beneficiaries.

It is felt that a scheme such as grain bank scheme, if implemented, should run with least interference from the side of the Government. It should be run under the aegis of NGOs. The moment it is realized that grain under the scheme is supplied by the government, there will be a tendency among beneficiaries not to repay borrowed grain. However, the initial supply of grain may be provided by the government and the storage capacity may be created under the food for work programmes of the government. The scheme may run well during times when there is a surplus food grain stock with the government. A system of food distribution running parallel with the current PDS may however not be desirable in perpetuity as it could result in lack of accountability on the part of both.

Chapter IV

SUMMARY AND RECOMMENDATIONS

At the all-India level cereal consumption has declined from 15.3 kilogram per capita per month in 1972-73 to 13.4 kilogram in 1993-94 in rural areas and from 11.3 kgs. to 10.6 kgs. in urban areas. The population of India is showing a preference for consumption of lesser amount of cereals and greater amount of foods such as milk, other animal products and fruits and vegetables. This type of trend is in general visible both in rural and urban areas and among the poor as well as the non-poor.

The changing pattern of food consumption leaves a mark on the aggregate demand for cereals in the country and as a consequence the demand will grow at a slower pace than earlier expected. Demand and supply projections for cereals, taking into consideration changing consumer preferences, indicate that the supply position for cereals in the next 20 years will remain satisfactory in comparison with demand projections and there is no need for undue concern on this front.

The changing demand pattern for cereals is only one of the factors that may have led to the accumulation of surplus food grains stocks in our FCI godowns as it leads to less demand for cereals from consumers from PDS. The main factor that has contributed to excess stocks is the fact that in recent years there has been a tendency among successive governments to fix minimum support prices for paddy and wheat in excess of the levels prescribed by the Commission for Agricultural Costs and Prices (CACP). While this increases farmers incentive to produce more, it has raised the market prices and has reduced the demand for cereals. Studies conducted show that fixing of procurement prices over and above the levels prescribed by the CACP has led to procurement of an additional quantity of wheat of about 12.8 million tonnes and in the case of rice, this was about 3.4 million tonnes. This points to the need for strictly adhering to the recommendations of the CACP while procurement prices for cereals are fixed.

The stock of food grains available in our FCI godowns, today, is far in excess of the buffer stock requirements. This is not to say that all people in the country get enough to eat. Many lack adequate income to buy the food they need. The PDS was expected to provide the needed support to poor consumers. If PDS were effective, the demand for cereals would have increased.

Besides the mounting grain stocks the hefty increase in the annual food subsidy from Rs.2450 crores in 1990-91 to Rs.9200 crores in 1999-00 and to Rs.13,675 crores in 2001-02 indicate that all is not well with the targeted Public Distribution System (TPDS) in India. There is 36%

diversion of wheat, 31% diversion of rice and 23% diversion of sugar from the system at the national level according to a study conducted by the Tata Economic Consultancy Services. TPDS does not seem to be working in the poorest north and north-eastern states.

To improve delivery to the undeserved poor a possible approach that could be considered, is to supplement TPDS with area based targeting under which the population of inaccessible areas like hill areas, desert areas, drought-prone areas etc. are targeted. In the case of remote rural and forest areas where the PDS has not reached grain banks can also play a role if members of the local community take responsibility for, contribute to and participate in their management.

The concept of having fair price shops over the length and breadth of the country needs to be reviewed. Such shops may be needed only in very remote and inaccessible areas. In general it may be more efficient to move towards a new system of food subsidy using food stamps or food credit/debit cards. There is less scope for corruption and diversion under a system of food stamps than under the existing system. The experiment with food coupons in Andhra Pradesh also leads to the same conclusion.

New initiatives have been taken in India in the field of decentralized procurement of food grains. Some state governments have for instance initiated their own food procurement operations. More such initiatives should be encouraged in the future. Under such a situation, it is conceivable that some of the FCI godowns (with staff) are transferred to the state governments.

The Expenditure Reforms Commission has recommended a food security buffer stock of 10 million tonnes - 4 million tonnes of wheat and 6 million tonnes of rice. This was based on a study conducted by Dr. Kirit Parikh which had concluded that for price stabilization a buffer stock of around 10 million tonnes can be considered to be adequate from the national food security angle. The challenge is to reduce food stocks to roughly half its present level and use it for reducing malnutrition, without adversely affecting the farmers and institute a policy that would not result in accumulation of unwanted stocks in the future. This would need several legal and policy changes, which would enhance the role of private sector and make markets less distorted than these are at present. On the whole, laws and controls have repressed private food grain marketing, undercutting its potential contribution to long-term food security.

There are various options to support farmers that do not require direct market interventions by the government and that can achieve price and income stability and lead to desired agricultural growth at lower costs to the government. Some such alternatives have been presented in the report (see Annexure V) so as to promote public awareness and debate on

these issues. These policy issues are not being recommended for immediate implementation.

Major Recommendations

- 1) Quantum of total food subsidy to be provided, issue price of food grains, amount of food grains to be distributed per head, the extent of subsidy involved in food stamps etc. should be decided by the state governments.
- 2) There should be greater decentralisation of operations relating to PDS. States should be free to procure cereals themselves, buy it from private traders or from FCI, and maintain buffer stocks. Any rules and regulations standing in the way of the States in this regard should be removed.
- 3) The Centre would, however, continue to provide food subsidy. Based on the net consumer subsidy spent on providing food through the PDS the central budget should make a provision for national food subsidy. This subsidy would be distributed among the states according to a prescribed formula based on latest available data and updated poverty ratios. The state governments can supplement the grants received from the centre by their own resources to provide food subsidy. Rice and wheat should be supplied to the States/UTs at the full economic cost.
- 4) In the long run the food subsidy should be confined to the population below the poverty line. However, for the present, while excess stocks of food grains exist in FCI godowns, cereals can be supplied under PDS to the APL population at a concessional rate as a temporary measure.
- 5) It is desirable that the central food subsidy be restricted to two main items, only, namely, rice and wheat. State specific schemes can, however, be introduced for distribution of coarse grains under PDS in States where decentralised system of cereals procurement has been introduced. The coarse cereals subsidy provided to States should however be covered under the overall subsidy allocation made as per recommendation 3.
- 6) Sugar should be decontrolled and the system of levy on sugar should be discontinued. If the government desires to continue the sugar subsidy it must make an explicit budgetary provision.
- 7) The poor should be permitted to buy rations from PDS at more frequent intervals, at least on a weekly basis. This issue has been addressed in Public Distribution System (Control) Order 2001.

- 8) Procurement of food grains under relaxed specification of quality should be avoided in the future in the interests of well managed public distribution system. If any state government requests for relaxation of quality norms, this should be invariably be accompanied by an appropriate price reduction besides exemption from statutory state levies.
- 9) It may be more efficient to supply subsidized food grains to the public through the system of food stamps or food credit cards (smart cards). A Committee needs to be set up to examine the operational details and feasibility of these new systems. This committee could also work out a schedule of experimental introduction, monitoring and evaluation. This will ensure that decision on comprehensive introduction is based on Indian experience and that the system design minimises any potential disruption.
- 10) The government should discourage the use of ration cards for identification purpose. For the purpose of identification multi-purpose identity cards should be used as per the control order issued by the food department.
- 11) The excessive rise in the Minimum Support Price (MSP) over the last three years has led to accumulation of stocks and contributed to the rise in market prices of wheat and rice. This hurts the poor and undermines the contributions of the PDS. The credit blocked in these stocks also puts pressure on interest rates and can crowd out more productive investment. MSP should be at a level that protects the farmer against risk of losing money due to collapse of the price of the product. It should in most years be below the market price. Thus MSP should not exceed the sum of variable cost and family wages, at least as long as cereals stocks with FCI exceed the recommended buffer stock.
- 12) Stabilization of cereals prices should continue to be one of the important objectives of food policy. This can be achieved through the operation of a buffer stock combined with timely intervention by the FCI in domestic markets and a liberal import-export policy for food grains.
- 13) The Essential Commodities Act and (State) Agricultural Produce Marketing Acts are hampering the growth of free trade in agricultural goods and the development of a modern agro-processing industry in the country and need to be reviewed.

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Yojna Bhavan,
Sansad Marg,
New Delhi-110 001
November 21, 2000

Subject: Working Group on Public Distribution System and Food Security for Tenth Plan (2002-2007).

It has been decided to set up Working Group on Public Distribution System and Food Security for the Tenth Plan. The terms of reference of the Group will be as follows:

1. To review the performance of various programmes under the Public Distribution System.
2. Measures to improve targeting of the Public Distribution System.
3. To review the implementation of TPDS.
4. To review the coverage of commodities supplied through PDS.
5. To examine the aspect of diversion of commodities from PDS.
6. To recommend measures regarding decentralization of operations.
7. To recommend measures to encourage private trade in foodgrains.
8. To examine the scope of Essential Commodities Act.
9. To review Policy and Procedure of Procurement of Foodgrains.
10. To examine the role of FCI in the new setting.
11. To examine the role of FCI in management of the buffer stock.
12. To examine the aspects of quality and quantity of foodgrains procurement.
13. Assessment of requirement of storage network and various nodal and retail outlets particularly in rural, remote and inaccessible areas and expenditure involved.
14. Assessment of transport requirements on the basis of anticipated movement of commodities from ports/producing areas and consuming centers.
15. To recommend measures to reduce costs including transit and storage losses.
16. To review the ongoing Centrally Sponsored/Central Sector Schemes for strengthening of Public Distribution System.

17. To review the measures being taken for protecting the interest of the consumers in regard to matters such as quality, weight, price etc. and make suitable recommendations.
18. To examine the functioning of the fair price shops including cost of distribution to determine their viability so that the malpractices in their functioning are curbed.
19. To review the voluntary consumer movement and the people's involvement in the Public Distribution System and to make recommendations to strengthen the consumer movement.
20. To consider any other matter(s) relevant to effective functioning and management of the Public Distribution System as an integral part of the national economy and planning process.

The composition of the Working Group will be as under:

1. Pr. Adviser (DP) - **Chairman**
2. Secretary, Deptt. of Food and PD
3. Dr. Kirit Parikh, Mumbai
4. Dr. Ashok Gulati, IEG, Delhi
5. Dr Mahendra Dev, Director, CESS, Hyderabad
6. Dr. Shikha Jha, IGIDR, Mumbai
7. Dr. Anil Sharma, NCAER
8. Shri M.V. Shastri, Convenor (CWS)
9. Dr. Prabhakar Parakala
10. ESA, Directorate of Economic and Statistics
11. EA, Deptt. of Economic Affairs
12. Chairman, Food Corporation of India
13. Managing Director, Central Warehousing Corporation
14. Secretary (Food) Govt. of West Bengal
15. Secretary (Food), Govt. of Tamil Nadu
16. Secretary (Food), Govt. of Rajasthan
17. Secretary (Food), Govt. of Bihar
18. Secretary (Food), Govt. of Andhra Pradesh
19. Economic Adviser (DP) - **Member Secretary**

Non-officials shall be entitled to TA/DA as per permissible to Grade I Officers of Government of India and the expenditure will be borne by Planning Commission. The TA/DA of Government and Public Sector officials will be borne by their respective organizations.

Sd/-
(T.R. Meena)
Dy.Secretary (Admn.)

- To,
1. Chairman, Working Group
 2. Member-Secretary of the Working Group
 3. All Members of the Working Group

Copy for information to:

1. P.S. to Deputy Chairman
2. P.S. to Member (DP)
3. Sr. P.P.S. to Secretary
4. All Heads of Division
5. S.O. (Adm.I)/Accounts I Branch
6. P.C.Division(2copies)

Annexure-II

No.27(1)/DP/PC/2000
Government of India
Planning Commission

Yojana Bhavan
Sansad Marg
New Delhi-110 001

December 6, 2000

Sub: Working Group on Public Distribution System and Food Security for Tenth Plan (2002-2007).

With respect to Planning Commission Order of even number dated 21-11-2000 setting up the Working Group on Public Distribution System and Food Security for the Tenth Plan, it has now been decided to include Shri A. Shyam Mohan as an additional member of the Working Group.

Sd/-
(T. R. Meena)
Deputy. Secretary (Admn.)

To:

1. Chairman, Working Group
2. Member Secretary, Working Group
3. Shri A. Shyam Mohan

Copy to:

1. PS to Deputy Chairman
2. PS to Member (DP)
3. Sr. PPS to Secretary
4. All Heads of Division
5. SO (Admn.I)/Accounts I Branch
6. PC Division (2 copies)
7. PA to Dy. Secretary (Admn.)

Annexure-III

No.27(1)/DP/PC/2000
Government of India
Planning Commission

Yojana Bhavan
Sansad Marg
New Delhi-110 001

June 8, 2001

Sub: Working Group on Public Distribution System and Food Security for Tenth Plan (2002-2007).

With respect to Planning Commission Order of even number dated 21-11-2000 setting up the Working Group on Public Distribution System and Food Security for the Tenth Plan, it has now been decided that Dr. Kirit Parik will be the Chairman of the Working Group and Dr. Arvind Virmani, Adviser (DP) will be its Member-Secretary.

Sd/-
(T. R. Meena)
Deputy. Secretary (Admn.)

To:

All the members of the Working Group.

Copy to:

1. PS to Deputy Chairman
2. PS to Member (DP)
3. Sr. PPS to Secretary
4. All Heads of Division
5. SO (Admn.I)/Accounts I Branch
6. PC Division (2 copies)
7. PS to Dy. Secretary (Admn.)

REGIONAL CONSUMPTION TRENDS

Northern India:

Cereal consumption in *rural* Northern India has clearly declined--from 16.9 kgs pcpm in 1972/73 to 12.5 kgs pcpm in 1993/94. The decrease was effected by cutting back on the consumption of both rice and other cereals; wheat consumption remained unchanged at 9.7 kgs pcpm. This reduction in cereal consumption was not confined to richer income groups: cereal consumption for the poorest 25 percent also declined from 13.8 to 11.1 kgs pcpm, brought about by reduced consumption of coarse cereals, and to a lesser extent, that of rice.

In *urban* areas the decrease in cereal consumption was more modest: from 11.6 to 9.9 kgs pcpm on average, and from 10.5 to 9.4 kgs pcpm for the poor. Wheat consumption declined on average, but may have increased somewhat for the first quartile group; while coarse cereals seem to be virtually disappearing from the urban diet over these two decades. The decline in coarse cereal consumption was inconsistent with the unchanged trend in its price relative to wheat in rural areas; in urban areas, it was perhaps consistent with the increase in its relative price.

Uttar Pradesh:

The pattern of consumption in *rural* Uttar Pradesh is similar to that of the North. Average cereal consumption declined from 16.8 to 13.9 kgs pcpm between 1972/73 and 1993/94--a decrease, once again, entirely effected through a decrease in coarse cereal consumption, while the magnitude of wheat consumed increased by about 500 gms pcpm and that of rice remained virtually unchanged. This pattern is discernable among all income groups, and occurred at a time when coarse cereals were becoming cheaper relative to wheat at least among the poorest income group.

In *urban* Uttar Pradesh average cereal consumption declined from 12.2 to 11.1 kgs pcpm, and for the poorest quartile, from 11.1 to 10.7 kgs pcpm over this period. As in rural Uttar Pradesh, this decrease was entirely effected through a decline in coarse cereal consumption: which fell from 1 kg pcpm in 1972/73 to 100 grams pcpm in 1993/94 on average. For the bottom income quartile this decrease was more dramatic: from 1.8 kgs pcpm to 100 grams pcpm. Wheat consumption increased somewhat until 1987/88 and then declined subsequently. There was very little movement in relative prices over this period.

Central India:

In *rural* Central India, cereal consumption declined from 17.6 kgs pcpm to about 14.5 kgs pcpm between 1972/73 and 1993/94. However, wheat consumption increased by more than 50 percent: from 4.8 kgs pcpm in 1972/73 to 7.3 kgs pcpm two decades later. In contrast, coarse cereal consumption fell in both absolute and relative terms: in 1972/73, they accounted for 44 percent of all cereals consumed; in 1993/94, the figure was a little over a quarter. Among the poor, the magnitude of decrease in total cereal consumption was much less: about 250 grams pcpm; but similar magnitudes of substitution away from the coarse cereals is evident. Coarse cereals accounted for 56 percent of all cereals consumed by the poorest 25 percent in 1972/73, while the corresponding percentage two decades later was only 40 percent. The consumption of rice also declined in this region among all income groups. While the decrease in rice consumption is consistent with the increase in the relative price of rice in rural areas, it is noteworthy that the trend in coarse cereal consumption is not: coarse cereals, which are cheaper than wheat, became cheaper still over the two decades.

In *urban* areas, the decline in coarse cereal consumption was not offset by an increase in wheat and rice consumption; thus total cereal consumption fell both on average and for the poor. Over this period, coarse cereals became cheaper relative to wheat in urban areas.

Western India:

In *rural* Western India, average cereal consumption fell by nearly two kilograms per capita per month over the two decades ending in 1993/94. This was almost entirely attributed to a decline in coarse cereal consumption: coarse cereals accounted for nearly two-thirds of all cereals consumed in this region in 1972/73; they accounted for barely over one-half two decades later. At the same time, rice consumption increased by nearly 1 kg pcpm. These substitutions took place at a time when both rice and coarse cereals were becoming cheaper relative to wheat. Clearly, for the coarse cereals, income effects mattered more. For the poorest quartile, however, the trends are different. Cereal consumption increased somewhat: from 9.6 to 10 kgs pcpm, as did that of coarse cereals and rice, while consumption of wheat fell.

In the *urban* areas of Western India, average cereal consumption increased somewhat between 1972/73 and 1987/88 (comparable years) but then declined thereafter. This was true for the poorest quartile as well, so

that consumption remained unchanged between 1972/73 and 1993/94. These two decades were characterized by declining wheat and coarse cereal consumption, but an increase in the consumption of rice, the relative price of which fell with respect to wheat.

Eastern India:

Rural Eastern India, saw an increase in cereal consumption between 1972/73 and 1987/88 from 14.9 to 15.4 kgs pcpm, but then witnessed a decline to 14.8 kgs pcpm by 1993/94. For the poor, however, cereal consumption increased consistently over this period, from 9.7 kgs pcpm in 1972/73 to 12.3 kgs pcpm in 1993/94. At the same time, consumption of rice and, to a lesser extent, wheat increased, while that of coarse cereals declined—both on average as well as for the poor. This substitution away from the coarse cereals occurred at a time when coarse cereals were becoming slightly cheaper in this region.

Urban Eastern India witnessed a steady increase in the consumption of cereals—both on average and among the poor; with increased rice consumption dominating the declining wheat and coarse cereal consumption. As was the case in rural Eastern India, the relative prices of coarse cereals declined with respect to wheat over the two decades.

Southern India:

In *rural* Southern India, while average cereal consumption declined, reflecting the decline in consumption among the richer income groups, that among the poorest quartile increased. This increase was brought about entirely through increased rice consumption—which went up by 63 percent over the two decades among the poor, thereby substituting in part for the enormous decline in coarse cereal consumption in this region. The South is not a major consumer of wheat.

In *urban* areas, rice consumption among the poor increased, but this was not sufficient to offset the decline in coarse cereal consumption; total cereal consumption among the poor thus declined from 9.5 to 9.2 kgs pcpm. For the other quartiles, however, rice consumption, as well as that of coarse cereals declined, leaving total cereal consumption on average lower in 1993/94 than in 1972/73. In both rural and urban areas, on average, rice became more expensive relative to the coarse cereals (not wheat) over this period.

ALTERNATIVES TO PRICE SUPPORT POLICIES

Price volatility creates uncertainty and risks that can threaten agricultural performance and negatively impact the income and welfare of farmers and the rural poor. In India, policy instruments to cope with the uncertainty and risks associated with price volatility have been used to minimise or eliminate this volatility thus creating an obstacle to an efficient and competitive arbitrage of agricultural commodities across space and time. The fiscal and economic costs associated with these policies that included canalised external trade (public monopoly), widespread controls on private sector activities and numerous market interventions have been on the rise. While these instruments are proving fiscally costly, they are also creating serious price and market distortions, which reduce growth and competitiveness of Indian agriculture. These policies could be reformed in an effort to stimulate agricultural growth while providing support to producers and consumers.

Market performance is a crucial factor in determining the case for government intervention. The case is weak when markets work well in the absence of intervention. There are various options to support farmers that do not require direct market intervention by the government and that can achieve price and income stability and lead to desired agricultural growth at lower costs to the government. The alternatives that can be explored in the Indian context include subsidy to private storage, support for creation of private warehouses to improve storage facilities, variable levies and futures markets. These alternatives are presented here so as to promote a debate on the feasibility of these alternatives in the Indian context. They can be considered for implementation only after a thorough public scrutiny. In this report we are not recommending them for immediate implementation.

COMMODITY PROGRAMMES

These programmes are designed to assist producers in the orderly marketing of commodities by taking off the pressure to sell at harvest time. In different countries, commodity programmes provide support to producers through deficiency-payment, loans and acreage-reduction programmes. Payments for commodity programmes vary with crop yields and outputs of programme crops. These programmes can thus at times be very costly. In the following we discuss various such programmes.

Storage loans

Such loans (also known as *nonrecourse* loans in the USA) provide price support to farmers, whereby the Government sets a floor price (the loan rate) for covered crops – guaranteeing farmers this price for their crop. To be eligible for such a loan, a producer must keep the produce from a contract farm as collateral to pledge for this loan. Without collateral, the programme can be a failure. In practice, farmers borrow at the loan rate, with their crop as collateral against the loan. The loan is intended to be a marketing tool that allows farmers to temporarily store some of their crop and to sell it over a period of a few months, thus avoiding any glut on the market and the resulting steep drops in market prices. If market prices remain below the loan rate (the support price), a farmer can choose to forfeit the crop instead of repaying the loan. To reduce the default rate, granting of loan in one year could be linked to loan repayment for the previous year. Keeping track of such transactions would add to the administrative cost but is still likely to be cheaper than the current system.

Crop insurance

Crop insurance is another way of spreading risk. It provides a means for the farmer to spread the cost of occasional crop losses over time, reducing annual fluctuation in farm income. Under the heavily subsidised crop insurance programme as operated in the USA, farmers may insure up to a specified level, say 75% of their average crop yield, receiving payment on additional losses if natural disasters or adverse weather causes yields to fall below the insured level. Up to 30% of the cost of insurance is paid by the concerned ministry for coverage up to 65%. No additional subsidy is provided on extra coverage. Even with high premium rates, premiums have covered little more than 40 percent of total programme costs. Incentives to participate in the crop insurance programme may be diminished by high premium rates, inadequate coverage and perceived administrative problems. But an unintended consequence of crop insurance often is adverse selection, i.e., the encouragement and subsidy of farmers most at risk. The farmers who purchase crop insurance tend to be those facing the highest risks, keeping programme costs and premiums high. Due to informational and other problems such as moral hazard, the costs of administering a crop insurance program are very high and such programs apparently are not cost effective in reducing risk even in developed countries like the U.S.A. It may not be an attractive option for India too.

Low-interest emergency loans

These loans are offered at a subsidised interest rate to eligible farmers who sustain losses due to natural disasters in

disaster-prone areas as declared by the ministry of agriculture. Eligibility is restricted to farmers who have taken crop insurance, are unable to find credit and whose crop losses exceed a specified level, say 30%. Emergency loans become an alternative to price stabilisation programmes in situations where the latter are designed to cover catastrophic cases.

FUTURES CONTRACTS AND COMMODITY OPTIONS

Commodity options and futures and forward contracts are other alternatives that can provide price and income supports to farmers without direct government interference. The presence of a futures market provides incentives to physical market traders to improve their market practices. For example, information on future prices can improve storage decisions. The need to deliver specific grades of a commodity to an exchange warehouse will spur improvement in grading performance on the physical market. If the government encourages the use of these instruments, farmers could be protected against price and income-risk without much need for the holding of public buffer stocks. A BICP Report submitted in 1991 had argued that for better management of the food economy in India, the country should seriously consider entering the international futures market. This would enable the government to reduce buffer stocks held for price stabilisation operations and thus cut down operational cost and subsidy. It may also curtail speculative stocks held by traders in times of critical food shortages in the economy (which, however has not been the case in the last decade).

Farmers in India rarely use futures markets directly. This is similar to the United States, where futures markets have operated for a long time, and where only a small percentage of farmers use futures or option contracts directly. Indian farmers would benefit indirectly from using co-operatives or other intermediaries, or simply from better deals with traders using futures markets. The conditions exist for the indirect participation of Indian farmers on futures markets, since in most states, farmers sell their commodities through the “regulated markets”. In India, both large and small traders are the main users of futures contracts. In the presence of futures markets, the reforms through the recently announced National Policy on Handling and Storage of Foodgrains would be more effective in reducing storage and transit losses.

SUBSIDY TO PRIVATE STORAGE

One of the options to stabilise prices without direct intervention is to subsidise private storage. The implicit assumption

behind the government's attempt to stabilise prices, irrespective of the method adopted, is that private agents store sub-optimal levels of grain due to market failures of different kinds. For example, certain positive externalities from increased price stability do not get reflected in the private agents' profits. These include distributional and social benefits in the form of prevention of under-nourishment among the poor and avoidance of national emergencies (famines etc.). There can also be disincentives to adequate private storage due to government price controls that prevent the storage agents from reaping 'windfall' profits during extreme shortages. However, in practice, positive stocks are observed even when expected future price falls short of the spot price plus marginal storage cost. This is because the agents perceive a positive marginal benefit from holding stocks, in addition to expected profit. The evidence collected from Bangladesh also shows that stockholders (farmers, millers, and merchants) were not solely motivated by expected profits but maintained stocks as a desirable precaution in a period of very considerable social instability.

Greater confidence about the government's stock position could go a long way towards diffusing excessive speculative activity. By stabilising prices, buffer stock policies reduce the incentives for private speculation. And so, changes in the government's stock level displace private storage. In perfectly competitive markets the displacement will be one-to-one so that public buffer stocks will be ineffective as price stabilisers. However, in situations of large outputs, when public stocks reach high levels, if upper limits are imposed on the level of stockholding and production controls used to prevent prices from falling, then this would encourage private storage. If the production control mechanism is designed such that expected future price always remains above the upper limit of a price band, then the private storage will take place such that it will prevent the price to fall below the support or floor level. However, note that while private storage helps to stabilise prices, as a by-product, it also reduces the opportunity of the selling public stocks so that public stocks would need to be held for longer duration in the presence of private storage. Thus, an alternative to physical stockholding by public agencies could be to subsidise private storage.

The main costs for private storage agents are those incurred in physical holding of stocks (handling costs, rental value of storage space, etc.) and the foregone interest earnings on the funds invested in them. Thus, subsidy can be administered directly on the per unit storage cost or through a subsidy on interest rate. It is found that for

price stabilisation subsidising private storage is a cheaper alternative to holding buffer stocks. However, interest rate subsidies on loans for storage have been demonstrated to be inefficient in stabilising market prices as compared to a direct subsidy.

VARIABLE LEVIES ON TRADE

Unrestricted international trade is often advocated as an alternative stabilisation policy to buffer stocks. The argument is that shocks to domestic consumption can be at least partly offset by an increase in imports or fall in exports. Thus free trade could help cushion domestic consumption against random shocks arising from price expectations or production possibilities. In the case where private external trade is permitted, variable trade levies (taxes/ subsidies) can be used for stabilising domestic prices. That is, prices are prevented from going above the ceiling level by either subsidising imports or taxing exports depending on the trade status. Similarly, prices are stopped from falling below the floor level by either taxing imports or subsidising exports depending on whether net imports are positive or negative. Research studies carried out by a member of the Working Group has shown that under liberalised trade, compared to buffer stocks variable levies/ subsidies are more effective in stabilising domestic prices.

In comparing any alternatives, there are at least two considerations. One, to what extent they satisfy the specified objectives, e.g., price stabilisation. And, two, the costs involved. Therefore, different policy mixes will have different stabilisation effects and different cost implications. The costs of buffer stocking include net purchase and operational costs apart from storage costs and losses. The main cost of trading in international markets relates to the fluctuations in world prices and exchange rates. Due to trade and transport margins import price is higher than export price. Also, India being a large country, the volume of trade especially in rice is likely to be large and hence the price received for its exports is likely to fall with the size of exports and the opposite in the case of imports. In a scenario of liberalised external trade, a policy instrument to control trade could be the imposition of variable levies, i.e., taxes/ subsidies on imports/ exports as the situation may warrant.

**APPENDIX TABLE 1: COMPOSITION OF FOOD EXPENDITURES, BY REGION, 1972/73
AND 1993/94
(percent shares)**

RURAL INDIA:

	1972/73				1993/94			
	Cereals	Milk & Meat	Vegetables & Fruits	Other Foods	Cereals	Milk & Meat	Vegetables & Fruits	Other Foods
Northern:								
Average	35	30	6	29	23	36	11	31
Poorest Quartile	44	21	6	29	32	24	10	33
Uttar Pradesh:								
Average	58	15	7	20	35	23	12	30
Poorest Quartile	69	7	7	17	49	12	12	28
Central:								
Average	55	17	5	23	36	26	10	28
Poorest Quartile	72	9	4	15	47	15	9	29
Western:								
Average	56	11	6	27	30	18	13	38
Poorest Quartile	63	7	6	24	35	13	12	39
Eastern:								
Average	66	9	7	18	52	14	13	21
Poorest Quartile	73	3	7	17	63	7	12	18
Southern:								
Average	57	10	7	26	38	17	13	32
Poorest Quartile	67	5	6	22	46	11	12	30

URBAN INDIA:

	1972/73				1993/94			
	Cereals	Milk & Meat	Vegetables & Fruits	Other Foods	Cereals	Milk & Meat	Vegetables & Fruits	Other Foods
Northern:								
Average	25	30	10	35	20	32	15	32
Poorest Quartile	37	22	8	33	27	25	13	35
Uttar Pradesh:								
Average	39	21	9	31	25	26	15	33
Poorest Quartile	53	12	8	27	40	17	13	30
Central:								
Average	37	20	9	34	26	26	14	35
Poorest Quartile	51	13	7	29	37	18	11	34
Western:								
Average	34	18	10	38	23	23	15	39
Poorest Quartile	50	11	7	32	32	16	13	38
Eastern:								
Average	40	18	11	31	33	22	15	31
Poorest Quartile	58	9	10	23	52	12	13	22
Southern:								
Average	43	16	8	33	30	21	13	36
Poorest Quartile	57	9	7	27	39	15	13	33

Source: Computed from *Sarvekshana*, various issues

APPENDIX TABLE 2
CONSUMPTION OF CEREALS, BY REGION, 1972/73, 1987/88 AND 1993/94
(kilograms per capita per month)

RURAL INDIA:

	Average				Poorest Quartile			
	Rice	Wheat	Coarse Cereals	Total Cereals	Rice	Wheat	Coarse Cereals	Total Cereals
Northern								
1972/73	2.9	9.7	4.3	16.9	1.7	7.4	4.7	13.8
1987/88	2.6	10.5	1.5	14.4	1.8	8.7	1.4	11.9
1993/94	1.7	9.7	1.0	12.5	1.4	8.4	1.4	11.1
Uttar Pradesh								
1972/73	4.0	8.7	4.1	16.8	2.6	6.1	5.0	13.6
1987/88	3.7	10.6	1.0	15.3	2.7	7.2	3.1	13.0
1993/94	4.0	9.2	0.8	13.9	3.5	8.1	0.8	12.3
Central								
1972/73	5.1	4.8	7.7	17.6	4.3	1.8	7.7	13.8
1987/88	4.0	8.3	3.5	15.9	3.3	5.9	3.6	12.9
1993/94	3.7	7.3	3.5	14.5	3.1	5.0	5.5	13.5
Western								
1972/73	2.5	2.4	6.8	13.7	1.4	2.0	6.2	9.6
1987/88	3.3	2.5	7.3	13.0	1.9	1.6	7.4	10.8
1993/94	3.5	2.3	6.0	11.7	1.9	1.3	6.8	10.0
Eastern								
1972/73	9.9	3.0	2.0	14.9	5.1	2.0	2.6	9.7
1987/88	11.4	3.3	0.6	15.4	8.3	2.5	1.0	11.8
1993/94	11.1	3.2	0.5	14.8	9.1	2.4	0.7	12.3
Southern								
1972/73	8.9	0.2	4.3	13.4	5.2	0.2	4.4	9.7
1987/88	10.4	0.3	2.1	12.8	7.5	0.1	2.9	10.5
1993/94	10.7	0.4	1.0	12.1	8.5	0.2	1.5	10.2

URBAN INDIA:

	Average				Poorest Quartile			
	Rice	Wheat	Coarse Cereals	Total Cereals	Rice	Wheat	Coarse Cereals	Total Cereals
Northern								
1972/73	2.3	8.7	0.6	11.6	1.9	7.7	0.9	10.5
1987/88	2.5	8.4	0.1	10.9	2.1	7.7	0.1	9.9
1993/94	1.8	8.1	0.1	9.9	1.5	7.8	0.1	9.4
Uttar Pradesh								
1972/73	2.4	8.9	1.0	12.2	1.6	7.8	1.8	11.1
1987/88	2.4	9.2	Neg	11.6	1.9	8.8	0.1	10.8
1993/94	2.6	8.4	0.1	11.1	2.3	8.3	0.1	10.7
Central								
1972/73	2.2	8.1	2.7	13.0	1.6	6.5	3.5	11.6
1987/88	2.2	9.4	0.6	12.2	1.8	7.2	2.4	11.3
1993/94	2.4	8.5	0.5	11.4	2.1	7.7	1.0	10.8
Western								
1972/73	2.7	4.3	3.0	10.0	1.7	3.8	3.9	9.3
1987/88	3.5	4.1	2.7	10.2	2.5	2.9	4.4	9.8
1993/94	3.7	1.0	1.9	9.6	2.8	3.1	3.3	9.3
Eastern								
1972/73	6.9	4.6	0.3	11.8	6.0	4.1	0.5	10.7
1987/88	8.4	4.0	0.1	12.5	7.9	3.4	0.1	11.4
1993/94	8.4	3.8	Neg	12.2	8.6	3.0	0.1	11.7
Southern								
1972/73	9.9	0.6	0.8	11.2	8.0	0.3	1.3	9.5
1987/88	9.6	0.8	0.3	10.7	8.3	0.3	0.6	9.1
1993/94	9.4	0.8	0.2	10.5	8.5	0.4	0.3	9.2

Appendix Table III
PROCUREMENT/MINIMUM SUPPORT PRICES OF FOOD GRAINS
(Rs. per quintal)

Commodity	Quality	Crop/Marketing Year	Price Recommended by the CACP	Price announced by the Govt.
1. Paddy	FAQ	1978-79	82	85
		1979-80	90	95
		1980-81	100	105
		1981-82	115	115
		1982-83	122	122
		1983-84	132	132
		1984-85	137	137
		1985-86	140	142
		1986-87	146	146
		1987-88	150	150
		1988-89	160	160
		1989-90	172	185
		1990-91	205	205
		1991-92	235	230
		1992-93	260	270
		1993-94	310	310
		1994-95	340	340
		1995-96	355	360
		1996-97	370	380
		1997-98	415	415
1998-99	440	440		
1999-00	465	490		
2000-01	510	510		
2001-02	520	530		
2. Wheat	FAQ	1978-79	110	112
		1979-80	115	115
		1980-81	117	117
		1981-82	127	130
		1982-83	142	142
		1983-84	151	151
		1984-85	155	152
		1985-86	157	157
		1986-87	162	162
		1987-88	165	166
		1988-89	173	173
		1989-90	183	185
		1990-91	200	215
		1991-92	225	225
		1992-93	245	250
		1993-94	305	330
		1994-95	350	350
		1995-96	360	360
		1996-97	380	380
		1997-98	405	475
1998-99	455	510		
1999-00	490	550		
2000-01	550	580		
2001-02	580	610		

Appendix Table IV: Estimated Addition to the Stocks of Wheat due to the Excessive Increase in the Procurement Prices (Million tonnes)					
Marketing Year	Increased procurement due to the increase in actual procurement price over the recommended price	Increased procurement due to the increase in output as a result of the excessive increase in the procurement price	Reduction in off-take under the PDS due the excessive increase in central issue price	Reduction in demand due the excessive increase in the open market prices as a result of excessive increase in the procurement price	Total
1997-98	2.0	0.00	0.16	1.72	3.88
1998-99	1.5	0.22	-0.05	1.20	2.87
1999-00	1.6	0.16	0.08	1.25	3.09
2000-01	0.7	0.16	-0.17	0.63	1.32
2001-02	0.9	0.08	0.00	0.64	1.63

Source: Computed.

Notes: The elasticity parameters used in these estimates are as follows;
Elasticity of procurement with respect to procurement price = 1.38
Elasticity of procurement with respect to output of wheat = 0.62
Elasticity of PDS Off-take with respect to central issue price = -1.53
Elasticity of supply of wheat with respect to procurement price = 0.24
Elasticity of wholesale price of wheat with respect to procurement price of wheat = 0.55
Elasticity of demand for wheat with respect to prices of wheat = -0.36

Appendix Table V: Estimated Addition to the Stocks of Rice due to the Excessive Increase in the Procurement Prices (Million tonnes)					
Marketing Year	Increased procurement due to the increase in Actual procurement price over the recommended price	Increased procurement due to the increase in output as a result of the excessive increase in the procurement price	Reduction in off-take under the PDS due the excessive increase in central issue price	Reduction in demand due the excessive increase in the open market prices as a result of excessive increase in the procurement price	Total
1996-97	0.34	0.04	0.01	0.59	0.98
1997-98	0.00	0.08	0.00	-0.05	0.03
1998-99	0.00	0.00	0.00	-0.05	-0.06
1999-00	0.36	0.00	0.01	0.54	0.91
2000-01	0.55	0.08	0.02	0.87	1.51

Source: Computed.

Notes: The elasticity parameters used in these estimates are as follows;
Elasticity of procurement with respect to procurement price = 0.99
Elasticity of procurement with respect to output of rice = 1.10
Elasticity of PDS Off-take with respect to central issue price = -0.75
Elasticity of supply of rice with respect to procurement price = 0.21
Elasticity of wholesale price of rice with respect to procurement price of rice = 1.07
Elasticity of demand for rice with respect to prices of rice = -0.36

Appendix Table-VI

Food Subsidy of the Central Government

Year	Amount (Rs.Crore)	% of Total (Govt Expenditure)
1990-91	2450	2.33
1991-92	2850	2.56
1992-93	2785	2.27
1993-94	5537	3.90
1994-95	4509	2.80
1995-96	4960	2.78
1996-97	5166	2.46
1997-98	7500	3.23
1998-99	8700	3.11
1999-00	9200	3.03
2000-01	12125	3.61
2001-02	13675	3.64

Appendix Table-VII
State and National Level Diversion from PDS

Name of State/UT	Estimated Diversion (%)		
	Wheat	Rice	Sugar
NORTHERN REGION			
1. Delhi	53	53	25
2. Haryana	53	44	28
3. Himachal Pradesh	47	18	8
4. Jammu & Kashmir	28	29	28
5. Punjab	69	40	6
6. Uttar Pradesh	46	49	36
WESTERN REGION			
1. Goa	23	28	6
2. Gujarat	23	21	18
3. Maharashtra	26	30	22
4. Madhya Pradesh	20	24	32
5. Rajasthan	31	36	17
SOUTHERN REGION			
1. Andhra Pradesh	15	19	16
2. Karnataka	30	18	19
3. Kerala	28	23	25
4. Tamil Nadu	24	33	28
EASTERN REGION			
1. Bihar	44	64	47
2. Orissa	39	54	28
3. Sikkim	52	21	41
4. West Bengal	40	34	24
NORTH EASTERN REGION			
1. Arunachal Pradesh	47	56	23
2. Assam	61	64	52
3. Manipur	48	19	37
4. Meghalaya	62	54	39
5. Mizoram	63	54	41
6. Nagaland	100	46	24
7. Tripura	27	33	13
UNION TERRITORIES			
1. Chandigarh	24	12	35
2. Dadra & Nagar Haveli	18	7	26
3. Daman & Diu	40	38	13
4. Pondicherry	40	20	39
NATIONAL LEVEL	36	31	23

Appendix Table VIII
PDS Schemes – Plan Outlay/Expenditure (Rs. crores)

Scheme	1999-00 Actual	2000-01 Actual	2001-02 (B.E.)
1. Construction of Godowns	22.29	8.00	11.50
2. Purchase of Vans/Trucks	1.06	0.24	0.30
3. Training, Research & Monitoring	0.49	0.16	0.50
Total	23.84	8.40	12.30