

**INDIA'S EXPERIENCE WITH FOOD SECURITY  
(1991-2002)**

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## CERTIFICATE

This is to certify that the dissertation entitled “**India’s Experience with Food Security (1991-2002)**” submitted in partial fulfillment for the **M. Phil** degree of this university has not been previously submitted for any other University and is my original work.

  
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## Chapter 1

# FOOD SECURITY: ISSUES AND CONCERNS

The Agriculture Policy: Vision 2020 states:

*India has made impressive strides on the agricultural front during the last three decades. Much of the credit for this success should go to the several million small farming families that form the backbone of Indian agriculture and economy. Policy support, production strategies, public investment in infrastructure, research and extension for crop, livestock and fisheries have significantly helped to increase food production and its availability.*

However, this upbeat version of the food situation in India neglects the reality of widespread poverty, malnutrition and income disparities in India. The problems are not rooted in the vagaries of natural phenomena, but in the deeply embedded political and economic patterns. There are massive governmental programmes - or “schemes”- for feeding poor children, providing subsidized foods, etc.- but still the problems persist. Enormous amounts of money are spent on such programmes. Yet, somehow, the benefits don't reach the people who need them most.

Banishing hunger and ensuring food security to all citizens has been accepted as the primary responsibility of the state towards its citizens, and is repeatedly endorsed at various national, regional and international fora. The concept of food security is interpreted in a variety of ways. However, physical and economic access to food at the household level, at all times, to ensure healthy and active life is the crux of food security. In practice, food security is, generally equated with the absence of hunger, or at best provision of pre-determined number of calories at the household level. The notion of food security and the principal goal of food security, i.e., enabling households to lead a healthy and active life.

## Meaning

The specific term "food security" is of recent origin, although in some form or other, adequate availability of food must have been one of the most primary concerns of the human beings since time immemorial. In recent years, most of the experts like to define food security as access by all people at all times to enough food for a healthy life. The FAO Committee formalised the definition and incorporated following three specific goals for food security:

- i) ensuring adequacy of food supplies;
- ii) maximising stability of supplies; and
- iii) securing access to available supplies to all who need them.

The World Bank added an "activity level" concept to these goals, stating that "food security must assure access by all people at all times to enough food for an active and healthy life." In turn, food insecurity was defined as the lack of access to enough food for a healthy, active life style. It is now being increasingly appreciated that food security is primarily a matter of ensuring effective demand rather than a problem relating to food supply. With such realisation, inter-relationship between poverty, hunger and food security is gaining international recognition and serious attempts are being made to define and identify people at risk. It is, therefore, important that every household should either have capacity to produce adequate food for all the members or have purchasing power to acquire it. It has to be appreciated that a country may be food surplus but all its citizens may not be enjoying food security as some may have no purchasing power. On the other hand, a country may be food deficit but every person may be enjoying food security, with that country being able to import the required quantity of food and each person having either direct access (through the family's income) or indirect access (provided by the welfare State) to required food. In its turn, the lack of adequate access is a function of either production fluctuation or price fluctuation or a combination of both. "These two fluctuation lead directly to a fluctuation in real income within the community. These fluctuations in real income, both direct & indirect, affect the farmer, the agricultural labourer, as well as other member of the society, will ultimately have an impact on household food consumption, that of the poorer households being particularly



sensitive."<sup>1</sup> It is therefore, necessary to combat such fluctuation in order to ensure and maintain food security, for which the country must hold highly liquid assets, either in the shape of food stocks or monetary instruments. Attaining food security is therefore, a costly affair and this is why we find rich countries being food secure at any cost & poor ones food-insecure.

It will be clear from the above that although national food security is important as providing a foundation, in the ultimate analysis what is more important is food security for each and every household and within it to every member of the family. The concept of household food security was adopted at the *International Conference on Nutrition* held at Rome in 1992. "Food security is defined in its most basic form as an access by all people at all times to the food needed for a healthy life". Achieving food security has thus three dimensions. "It is necessary to ensure a safe and nutritionally adequate food supply both at the national level and at the household level. It is necessary to have a reasonable degree of stability in the supply of food, both from one year to the other and during the year. And most critical, is the need to ensure that each household has physical, social and economic access to enough food to meet its needs".<sup>2</sup> This means that each household must have the knowledge and the ability to produce or resources to procure the food that it needs on a sustainable basis. The Conference went one step forward and recognised the importance of intake of balanced diets and also cautioned against over consumption or waste of nutrition as sometimes seen in developed countries. It reiterated that assuring food security should be the fundamental objective of the development strategy of countries and the extent of the attainment of this goal should be a major indicator of the success or failure of the developmental process. The Conference went on to suggest that in countries where food insecurity is quite prevalent a multi-sectoral and multi-organisational approach has to be adopted which should, inter-alia, include adoption of such appropriate developmental strategies which will encourage economic growth with a specific focus on removal of poverty.

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<sup>1</sup> Nawani, N.P. (1994), "Indian experience on household food and nutrition security", *Regional Expert Consultation*, FAD-UN, Bangkok, August 8-11.

<sup>2</sup> FAO/WHO, *Declaration and Plan of Action adopted at International Conference on Nutrition*, Rome, 1992.

Food insecurity, thus, can be seen as having four dimensions: availability, access, sustainability and absorption. Food absorption denotes the ability of an individual to assimilate and absorb food consumed. This ability depends on his or her state of health.

Food security depends more on demand, than supply. Factors that influence sustainable food security include: literacy rates; levels of farmer education; agricultural research and extension capacity; transport infrastructure; non-agricultural income opportunities; social support systems; international security and confidence in international trade; domestic civil strife; international capital movements, etc.<sup>3</sup>

Thus, Food Security should be analyzed by differentiating between the concepts of Food Availability and Food Accessibility. Availability refers to the physical presence of adequate food supplies; for instance, the physical ability of a particular area of land to produce food. Availability can also refer to the presence of food throughout the world, which can be distributed through the international trading system or as food aid. In general, adequate availability of food depends on effective agricultural production. There are four basic sets of factors that influence agricultural productivity and availability (either by hindering or enhancing its development); (1) soil factors (including such things as the physical properties of soil, its texture, slope, chemical properties, nutrient content, etc.); (2) plant factors (referring to species and the genetic variation that may exist within species); (3) climatic factors (includes such factors as moisture supply, temperature, solar radiation and carbon dioxide concentration); and (4) socioeconomic factors (refers to the price of agricultural inputs and products, farm income, availability of credit, and infrastructure for disseminating information about new knowledge and practices.)

Accessibility, on the other hand, refers to the ability of people within a particular country or region to actually receive or gain access to the food (for example, by having the financial means to purchase adequate food). In fact, as several seminar participants noted, the basic cause of chronic malnourishment is not the lack of food in the world, but the fact that the food is not getting to the people who need it most. Many factors are responsible for the present situation of food insecurity. These may include, population growth, Literacy rates, levels of farmer education, agricultural research and extension

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<sup>3</sup> Asia-Pacific Center For Security Studies (1998), "Food Security and Political Stability in the Asia-Pacific Region", Honolulu, accessible at: [http://www.apcss.org/Publications/Report\\_Food\\_Security\\_98.html](http://www.apcss.org/Publications/Report_Food_Security_98.html).

capacity, transport infrastructure, international capital movements and international labour movements.<sup>4</sup>

### **Food Security in India**

On April 16, 2001, the People's Union of Civil Liberties (PUCL) submitted a "writ petition" to the Supreme Court of India asking three major questions:

1. Starvation deaths have become a National Phenomenon while there is a surplus stock of food grains in government godowns. Does the right to life mean that people who are starving and who are too poor, to buy food grains free of cost by the State from the surplus stock lying with the State particularly when it is lying unused and rotting?
2. Does not the right to life under Article 21 of the Constitution of India include the right to food?
3. Does not the right to food which has been upheld by the apex Court imply that the State has the duty to provide food especially in situations of drought to people who are drought effected and are not in a position to purchase food?

Article 21 of the constitution entitled "Protection of life and personal liberty", says, in its entirety, "No person shall be deprived of his life or personal liberty except according to procedure established by law".

As a result of the ongoing proceedings, the Supreme Court has been issuing orders calling upon government agencies to identify the needy within their jurisdictions, and to assure that they receive adequate food. All state governments were directed to take their "entire allotment of foodgrains from the Central Government under the various Schemes and disburse the same in accordance with the Schemes".

The public interest litigation (PIL) initiated by the PUCL represents a new front in the battle for food rights, which has been waged with varying degrees of intensity in the States worst affected by adverse weather conditions over the last three years. Activist groups in Orissa, Rajasthan and Madhya Pradesh notably, have been campaigning for increased outlays in employment and rural works programmes, only to be frustrated by the continuing obduracy of financially strapped State governments.

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<sup>4</sup> ibid.

The orders issued by the court clearly established that the court understands the right to life, affirmed in article 21 of India's constitution, as implying the right to food.

However, India has not been able to achieve this goal. The realisation of the right to food has not been clearly established as the government's role.

Much of the debate in India has centered on the question of whether there have in fact been large numbers of starvation deaths. Some would say no and take a narrow meaning of "starvation". They take it to mean deaths directly attributable to an extreme lack of food, and they focus on adult deaths. In fact, most deaths associated with malnutrition are due to a combination of malnutrition and disease. UNICEF estimated that in one year 2000, about 2,420,000 children in India died before their fifth birthdays. It was estimated that for the same year about 10,929,000 children died before their fifth birthdays. Thus, more than a fifth of the child mortality worldwide occurs in India alone. The international agencies estimate that about half of these deaths of children under five are associated with malnutrition.

As a party to the *International Covenant on Economic, Social and Cultural Rights* and the *Convention on the Rights of the Child*, India has committed itself to honoring the right to adequate food. However, India still has to address the question of food rights. What are those rights, and where are they stated in the law? Whose rights are they? To what extent are these rights implemented? And what are the mechanisms of accountability for assuring that the law is implemented?

Food security can become a reality only at the household level in India. A consensus is now emerging favouring the "entitlement approach", developed by Amartya Sen to explain the causes of famine, and its consequences for different groups of people. This approach is a significant departure from the earlier explanation of famine solely in terms of decline in food availability.

The calorie – based definition of food security has also been found faulty. The major problem with the calorie now is to determine what would be considered as adequate number of calories. The norms of adequate calories will vary depending upon the external environment and the nature of activity of an individual. Besides, calorie adequacy cannot be equated to healthy and active life. This is evident from the fact that

while more and more people are able to access 'adequate' calories, this is not reflected in a sizable reduction in malnutrition.

There is now a growing consensus on the need to widen the definition of food security. Calorie norm, at best can provide a threshold but not the standard for food security. Food security acquires a meaning where it also, connotes nutritional security at the household level.

In the post 1991 era, a number of economic reforms were introduced in India, which had an effect on the State policies on food security. It is therefore necessary to understand the role of the State and effects of economic reforms on the problem of food insecurity in India.

*The Role of the Indian State in ensuring Food Security:* The state's role in strengthening food security is more prominent in ensuring availability of food and ensuring its access by the households. State interventions can be direct or indirect in nature. For example, investment in research and development in agriculture or the investment in infrastructure, or institution of land reforms will have an indirect but significant impact on the availability of food. In the short term, more direct impact is exercised by trade policies, price policies and by public distribution of food.

One of the important issues of concern is agricultural *trade policy* and food security. The widespread move towards globalization on the one hand, and decline in the food prices at the international level on the other, have been advanced as the arguments to forsake food self sufficiency as a national objective and organize production on the basis of comparative costs.<sup>5</sup> India faces a problem of managing occasional food surpluses. A country may face a situation where simultaneously there are bumper harvests, due to good weather, and very low world market prices, but it cannot export the surplus without recourse to export subsidies, whereas such subsidies are not open to it under its UR commitments. In such a situation, one alternative is to stockpile in order to avoid a price collapse, but at a high cost. The other is to let prices collapse, to the benefit of consumers in the short run but with an adverse impact on production and food security itself in the

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<sup>5</sup> Vyas, V.S. (2001), "Agriculture: Second Round of Economic Reforms", *Economic and Political Weekly*, March 10.

longer run. So long as a situation of this kind is a random event, the associated costs and negative effects can perhaps be absorbed. However, it has not been a random event for India, in that there have been several years of good crops and indeed stocks are mounting. If food security is an important goal of the AoA, some possibility should be provided for handling the situation without infringing the spirit of the Agreement.

The notion of comparative advantage does not take into account the dynamic role of technological and institutional measures. It also assumes quick and frequent shifts in cropping pattern by domestic producers to adjust to year to year changes in international prices. Moreover, wide swings in inter year and intra year fluctuations in the international prices, greater in magnitude than the fluctuations in the domestic prices, enhance the risk and uncertainty for the domestic producers as well as consumers.

There is some kind of unanimity with regards to the *agricultural price policy* in India. It is recognized that low and stable foodgrain prices are a potent tool to reduce poverty, reduce vulnerability of the poor to external shocks, and presumably, enhance food security. However, in India, the foodgrain producers themselves are very poor. Thus India has raised the foodgrain prices for the producers, lowered issue prices for the poor and subsidized the gap between the high procurement prices and low issue prices. This policy has been under a lot of pressure under the present international environment. A good way to resolve the dilemma arising out of 'poor producer poor consumer' syndrome is to raise agricultural productivity and thereby improve the producers' income terms of trade, and afford food at reasonable prices to the poor. Here the non-price factors are of importance. Efforts should be made to raise level the level of technology, provide rural infrastructure, strengthen supportive institutions, and invest in developing human capabilities.

Another area of state intervention is the *public distribution of food grains*. This functions in three ways: the government procures food grain from cultivators, it stores and manages stocks of grain, and it then delivers grain to different part of the country through the Public Distribution System (PDS) and other welfare programmes. The PDS was designed to be a universal welfare programme, whereby all households were entitled to buy specific quantities of selected commodities including rice and wheat at subsidized prices through a network of fair price shops.

PDS had a number of achievements to its merit. The first achievement has been the growth of domestic production and based on that the building up of buffer stocks of adequate level. Secondly, through the public distribution system, a minimal quantity of food grain (rice or wheat or both) has been made available at reasonable prices to consumers in all parts of the country. The system succeeded in transferring grain from regions of surplus production (such as the Northwestern States of Punjab and Haryana) to regions of deficit food grain production (such as the southern States of Kerala and Karnataka, the North-Eastern States, the Hill States, etc.). Moreover, through means of buffer stocks, open market operations and distribution through the PDS, the objective of price stabilization was achieved.

The point to note over here is that while the supply of grain and the associated subsidy are from the Central Government, the actual implementation including issue of ration cards, fixation of entitlements and determination of retail prices are the responsibility of State governments. It is not surprising then to learn that the performance of the PDS has varied hugely across states.

There have been many lacunae in the policies of food security including uneven performance across States of India, corruption and bad administration leading to large leakages in certain regions. The two main justifications given for dismantling the existing system are its high costs and distortion of the functioning of markets. In the present context, incompatibility with the requirements of the WTO in respect of eligible subsidies is an added argument for reformers. Specifically, the proponents of reform wish to replace the Minimum Support Price for cultivators with direct income support to producers (as in Europe and the USA) and similarly replace food subsidies and a complex system of intervention in storage, marketing and distribution (such as the PDS) with cash (or coupon) transfers to poor consumers. The basic assumption underlying the shift from intervention in storage and distribution to cash transfers is that markets function well and government interventions only distort market behaviour. The fact is that food grain markets in developing countries including India are neither perfectly competitive nor fully integrated. In such a situation, cash transfers alone cannot ensure adequate food security.

In recent years the issue prices have risen very rapidly. Also, in 1997, the Union government drastically reduced the offtake from the PDS when it introduced the Targeted PDS (TPDS), which divided consumers into those below poverty level (BPL), and those above poverty level (APL). The government calculates the economic cost comprising of the cost of procurement (Minimum Support Price or MSP), and storage, transportation and administrative costs.

As the MSP has also been rising continuously (and since 1998 to levels more than those recommended by the CACP), this cost worked out to more than the market prices in most areas.

APL consumers were to purchase grain from the PDS at a price equal to the economic cost, while the BPL consumers were expected to pay half the APL price. This resulted in the total withdrawal of the APL consumers from the PDS, while the BPL consumers found the issue prices beyond their purchasing power. The offtake of rice and wheat taken together fell by about 10 million tonnes in 2000-01, adding further to the already burgeoning grains stockpiled with the Food Corporation of India (FCI).

And today we witness this paradox in our country- about 73 million tonnes of wheat and rice in Government godowns and over 200 million children, women and men chronically undernourished.

It is argued that when in need India should buy foodgrains from abroad with the foreign exchange earnings from exports. However, in the face of competition from other developing countries, prices of India's exportables have been falling. Grain export, in contrast, is a monopoly of the developed world, which usually operates as a cartel. Faced with rising import costs and falling export earnings, India will soon find the system unviable.

Primary producers have made no gains from the agricultural trade liberalisation. They are now exposed to the vagaries of international price fluctuations, and with little state support to fall back on during hard times when prices of their produce are depressed. Many find themselves in deep debt, mostly to local moneylenders, and some have committed suicide.



## Survey of Literature

It is by now well known that the question of food security has a number of dimensions that go beyond the production, availability and demand for food. Ultimately, it is a question of the ability to access food for all the people at all times to lead a healthy life.

According to M.S. Swaminathan, there are two major components of the hunger elimination strategy. The first relates to producing adequate quantities of food and other agricultural commodities within the country. The second is launching a concerted attack on endemic hunger.<sup>6</sup> Producing adequate quantity of food, according to Swaminathan, would involve shift in the focus from a purely commodity-centered approach to a farming systems one. He lays emphasis on Soil health care, harvesting and conservation of rainwater and techniques such as drip irrigation to optimise the benefits from the available water. He laid stress on Integrated Nutrient Supply (INS) and Integrated Pest Management (IPM) systems to make excessive use of mineral fertilizers and chemical pesticides unnecessary. Every effort should be made to harness biogas, biomass, solar and wind energies to the maximum extent possible. Agro-processing industries can be promoted on the basis of an assessment of consumer demand. Such food processing industries should be promoted in villages in order to increase employment opportunities for rural youth. In addition, they can help to mitigate micronutrient deficiencies in the diet. It is important to give very careful consideration to the composition of the farming system. Soil conditions, water availability, agro-climatic features, home needs and above all, marketing opportunities will have to determine the choice of crops, farm animals and aquaculture systems. Among crops, the correct choice of varieties based on local growing and market conditions is equally vital.

Increased output from farming would also need a meaningful and effective information and skill empowerment system. Decentralised production systems will have to be supported by a few key centralised production services, such as the supply of credit, seeds, biopesticides, and animal disease diagnostics. An Information Shop set up by trained local youth could give farm families timely information on their entitlements as well as on meteorological, management and marketing factors.

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<sup>6</sup> Swaminathan, M.S. (1997), "Agricultural Production for Food Security", *Science Reporter*, August.

In the wake of Liberalisation, Swaminathan has said that it is important for India to ask for Livelihood security instead of food security. India needs to strive hard to enhance the competitiveness of agriculture through a productivity revolution and quality revolutions. There should also be revolution for post-harvest technology and value-addition. Agriculture has to be environmentally sustainable. To cap all these we have to strengthen market intelligence and trade infrastructure, he said. This can be achieved only through spreading awareness among the various stake holders through quality literacy, patent literacy, trade literacy, environmental literacy and by establishing a Virtual University for agricultural trade.<sup>7</sup>

C.H. Hanumantha Rao has made a distinction between food security and foodgrain security. According to him, the food basket in the country has become considerably diversified with a much greater share being occupied now by non-foodgrain items such as edible oils, sugar, milk, meat, eggs, vegetables and fruits. These non-foodgrain items now account for over 60 per cent of the consumer expenditure on food. Therefore, even if we are within easy reach of enabling every Indian to buy enough foodgrains, we need to move quite far for ensuring physical as well as economic access to many of these non-foodgrain items of food, especially for the poor.<sup>8</sup> Therefore, it is necessary to raise the purchasing power to the poor in order to increase their economic access to these non-cereal items. He says that diversification of agriculture into non-cereal products will itself raise employment and increase the purchasing power of the poor, to a considerable extent. This is because the potential for employment generation in dairying, horticulture, etc. is much greater than in cereals. Moreover, these activities require new and better skills and so the wage rates for such enterprises are going to be much higher. Development of agro-processing and non-farm enterprises in general in rural areas is going to be the most promising source for employment generation and for achieving effective food security in the country.

Rao has also laid down that the incentive framework for Indian agriculture improved considerably as a result of trade and exchange rate liberalisation and a

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<sup>7</sup> Swaminathan, M.S. (2003), "Seek Livelihood Security System At WTO Cancun Round", *The Financial Express*, February 03.

<sup>8</sup> Rao, C.H.H. (2002), "Food Security", *The Hindu*, Online Edition, accessible at: "[www.hinduonnet.com/thehindu/2002/03/23/stories/2002032300141000.htm](http://www.hinduonnet.com/thehindu/2002/03/23/stories/2002032300141000.htm)", March 23.

significant reduction in the protection to domestic industry, following economic reforms introduced in the country in the early 1990s. He says that the basic objectives of reforms in agriculture should be first, stepping up agricultural growth to sustain the overall growth rate in GDP at a high rate; second, diversifying agriculture with a view to promoting, among other things, the growth of rural non-farm sector such as agro-processing thus facilitating a significant shift of labour force from agriculture to non-agriculture; third, increasing application of cost-reducing technologies for making agriculture competitive; fourth, reducing rural poverty and inequality through broad-based growth of agriculture by reducing disparities between different regions and classes of farmers and by strengthening the role of women in farming; fifth, protecting environment by reversing the ongoing degradation of natural resources like land and water and by preventing the excessive chemicalisation of agriculture.<sup>9</sup>

However, the present reforms, starting with the Uruguay Round, have depicted a different picture. Indian agricultural trade has been adversely effected by the fact that the developed countries are heavily subsidising their agriculture. Therefore, he calls for abolishing of the different 'box' system and calls for removal of all subsidies to agriculture making it truly competitive.

As opposed to this view, Utsa Patnaik, lays down that trade liberalisation has had an adverse effect on the food security in India. Trade Liberalisation has led to removal of protection, neglect of investment, and official privileging of exports at the expense of food security. Foodgrain production in the agricultural output has been decreasing over the years. The risk factor for farmers has also increased greatly with the new export orientation, since international prices are notoriously volatile. Moreover, the risk of producing a commercial crop is borne entirely by the grower and the risk is increased when the cash crop is grown for export purposes.<sup>10</sup> She, therefore, stresses on the preservation and extension of Public Distribution System in India.<sup>11</sup>

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<sup>9</sup> Rao, C.H.H. (2003), "Reform Agenda for Agriculture", *Economic and Political Weekly*, February 15.

<sup>10</sup> Patnaik, Utsa (1998), "Globalisation, Poverty and Food Security: Towards the new Millenium", accessible at: <http://www.ercwilcom.net/indowindow/sad/article.php?child=25&article=21>.

<sup>11</sup> Patnaik, Utsa (2001), "Concentration Of Regional Food Output And The PDS", *People's Democracy*, Vol. XXV, No. 23, June 10, accessible at: [http://pd.cpim.org/2001/june10/june10\\_eco.htm](http://pd.cpim.org/2001/june10/june10_eco.htm).

According to Patnaik, the problem India is facing today is not the deficiency of supply of foodgrains but the deficiency of demand. The huge foodstocks are a result of a very large increase in the inequality of access to food in Indian society. The increased inequality of access in turn is the outcome of two sets of processes. The first is a massive cut in purchasing power with the poorer majority of the population, especially in villages, which itself has two components- contractionary, public-expenditure reducing economic reform policies in the nineties resulting in a collapse of employment growth and hence incomes, and sharply falling farm prices for commercial crops both globally and locally from 1996-7, also reducing incomes, for the extent of price fall has rivalled the extent of price crash in the years of agricultural depression preceding the Great Depression. The second process is implementation of targeting the food subsidy. The maximum cut in mass purchasing power, from 1997 onwards (as price falls came on top of job losses) were already taking place when, under pressure to "target" the food subsidy, government gave up the earlier system of unconditional and universal access by households to the Public Distribution System, and thereby initiated the institutional denial to the poor of access to cheap food, owing to the sadly misconceived system of APL-BPL introduced from 1997- 98. This means that while the permit-licence system in every other sphere has gone, it is only the poor who have to have a new permit now - recognized BPL status - to draw cheap food and further, their entitlement has also fallen. The result has been a drastic drop in off-take (sales) from the PDS. The combination of all these processes have led to the present situation of increasing hunger. Foodgrains availability per head in the country has hit an all-time low of only 152 kg. in the year 2001, nearly 23 kg. lower than in the early nineties.<sup>12</sup>

The immediate and urgent measure, according to Patnaik, is to go back to the earlier universal system, issue ration cards to all who want it, and make foodgrains available at the present BPL rates to all. A substantial part could also be distributed free in drought-affected areas. This would immediately raise the off-take from the PDS by at least about 8-10 million tonnes a year, but excess stocks would still remain. Longer term policies of restoring purchasing power need to be started on an urgent basis, and the

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<sup>12</sup> Patnaik, Utsa, (2002), "Food Stocks and Hunger in India", Right to Food Campaign, accessible at: <http://www.geocities.com/righttofood/data/UtsaPatnaik.pdf>.

stepping up of food-for-work programmes to cover every state whether drought affected or not, is the obvious answer.<sup>13</sup>

Another critic of trade liberalisation, Devinder Sharma, says that India has not gained anything from the process of liberalisation. With the removal of quantitative restrictions in 2001, India has opened its market and made the farming community vulnerable to the imports of highly subsidised products. The developed countries, through clever manipulation of subsidy-reduction commitments, have in reality increased their support to farmers. According to him, in the developing economies like India, food security systems are evolved as an integral part of a development strategy bringing about a striking technological change in food crops, providing effective price and market support to farmers and deploying a wide range of measures to generate employment and income for the rural poor to improve their level of well-being, including better physical and economic access to foodgrains. He, therefore, calls for reinforcing the quantitative restrictions in order to ensure food security in India.<sup>14</sup>

Amartya Sen says that hunger is a problem of general poverty and thus, overall economic growth and its distributional patterns are important in solving hunger problem. It is particularly critical to pay attention to employment opportunities, other ways of acquiring economic means, and also food prices, which influence people's ability to buy food, and thus affect the food entitlements they effectively enjoy. He also says that lack of basic education too contributes to undernourishment, partly because knowledge and communication are important, but also because the ability to secure jobs and incomes are influenced by the level of education.

According to him, the huge food subsidies in India, have not been able to reduce undernourishment because, the subsidy is mainly geared to keep food prices high for the sellers of food - farmers in general – rather than to make food prices low for the buyers of food. The high incentive to produce more food while giving little help to the poorer people to buy food has produced the massive stocks of food grains that we find in India today.<sup>15</sup>

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<sup>13</sup> Ibid

<sup>14</sup> Sharma, Devinder (2001), "WTO and Indian Agriculture: Trading in Food Insecurity", accessible at: <http://www.hinduonnet.com/bline/2001/10/01/stories/04010303.htm>, October 01.

<sup>15</sup> Sen, Amartya (2003), "Hunger in India", Right to Food Campaign, accessible at: <http://www.geocities.com/righttofood/data/amartya.pdf>.

Jene Dreze lays down that mere income generation programmes cannot succeed in absorbing the current food stocks. According to several recent studies, it is only at very low levels of income that foodgrain consumption rises with additional income; beyond that, income increases lead to higher consumption of pulses, vegetables, milk, fat and related items, but foodgrain consumption remains more or less unchanged. This suggests that, after a point, income-generation programmes will not help to resolve the fundamental imbalance between foodgrain demand and supply at the prevailing price. Resolving that imbalance ultimately calls for a decline in the relative price of foodgrains.<sup>16</sup>

Saxena has shown the interrelationship between poverty, food insecurity, malnutrition and hunger. He says that poverty is an extremely complex phenomenon, which manifests itself in a dense range of overlapping and interwoven economic, political and social deprivations. These include assetlessness, low-income levels, hunger, poor health, insecurity, physical and psychological hardship, social exclusion, degradation and discrimination, and political powerlessness and disarticulation. Therefore, policy instruments should be designed to address not only the low income and consumption aspect of poverty, but also the larger and complex social dimensions, and of the aspirations of the poor. 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. A distinction has been made between chronic and transitory food insecurity, which require very different policy responses, and greater attention to problems of risk and vulnerability. 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. Malnutrition is however much more widespread than hunger. It may be relevant to note that the prevalence of malnutrition is not only on account of lack of access to food but has also to do with the deficiency of safe drinking water, sanitation, environmental hygiene, primary health care and awareness. The problem of hunger, nutrition and food security is thus related to the whole process of development.<sup>17</sup>

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<sup>16</sup> Dreze, J (2001), *Starving the Poor*, Right to Food Campaign, accessible at: <http://www.geocities.com/righttofood/data/drezestarvingpoor.pdf>.

<sup>17</sup> Saxena, N.C. (2002), "Food Assistance Programmes and their Role in Alleviating Poverty and Hunger in India", accessible at <http://www.geocities.com/righttofood/data/nc-foodhunger.pdf>.

The question of hunger needs to be viewed in a framework of food insecurity which covers the following dimensions: (1) availability of food—to meet demands of growing population and changing dietary needs; (2) access to food, which is a function of purchasing power, sustainable livelihoods and employment opportunities and also entitlement to subsidized schemes; (3) absorption and utilization of food, which is a function of access to clean drinking water, environmental hygiene and primary health care and nutrition practices; (4) vulnerability, which covers external factors affecting food security, viz., natural and man made disasters; and (5) sustainability which involves attention to the conservation and enhancement of natural resources like land, water, forests and biodiversity.<sup>18</sup> Tackling hunger should be given first priority in strategies to reduce poverty. Traditional focus on increasing food production is not sufficient, and that new approaches must be found to increase consumption. It is possible to reduce the numbers of the poor (i.e. the headcount ratio) without assisting hungry people, who experience the deepest poverty. Malnutrition has a negative impact on labour productivity, and that the hungry often cannot take advantage of gainful employment opportunities. Anti-poverty programmes that are based on labour intensive activities and income generation may therefore be of little benefit to the hungry. Furthermore, there is evidence that hunger and malnutrition affect school performance and learning capacity. Education is often a key element of poverty reduction strategies, but may be of little benefit where children are hungry and malnourished.

Hunger can thus be a cause as well as a result of poverty. It is a cause of poverty for certain groups, whose productivity and learning capacity is impaired by hunger. In these cases hunger must be confronted first before poverty reduction strategies can be effective.

### **Objectives of the study**

It is important to understand the role of the Indian State with regards to ensuring Food Security in India. Has the Indian State been able to provide the right to food to its people. It is also imperative to analyze the effects of the government's policies on the food situation in India. This study is undertaken:

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<sup>18</sup> *ibid.*

1. To understand the role of Indian State in ensuring Food Security in India.
2. To analyze the effects of the economic reforms on Food security.
3. To explore the effect of elaborate government policies on India.

This study is undertaken to analyze the problem of food security in the post liberalisation era. In the second chapter, I will elaborate on the role of the state in providing food security in India both at the Center and the state levels. The third chapter will concentrate upon the effects of economic liberalisation in ensuring food security in India. India's decision to liberalise the economy has now brought it in a viscous circle where it is finding it hard to sustain itself in terms of ensuring the welfare of the people. As a signatory to the Uruguay Round Agreement, India has a number of obligations to be fulfilled. These effect the internal policies of the Indian State as well. The third chapter will analyze the effects of the Uruguay round on the State policies and its corresponding effect on the food situation in India. The fourth chapter explores the ground realities and the food situation in India. The problem of Hunger and Droughts is not an unnatural phenomenon in India, according M. Desai. However, whenever India faces a situation of drought, it has to employ firefighting techniques. This is has been further elaborated in the fourth chapter. Chapter five will conclude the work and will also provide some suggestions to tackle the present food problem.



## Chapter 2

### ROLE OF INDIAN STATE IN ENSURING FOOD SECURITY

Poverty, Food Security and Hunger are interrelated concepts. Poverty is an extremely complex phenomenon, which manifests itself in a dense range of overlapping and interwoven economic, political and social deprivations. These include assetlessness, low-income levels, hunger, poor health, insecurity, physical and psychological hardship, social exclusion, degradation and discrimination, and political powerlessness and disarticulation. Therefore, policy instruments should be designed to address not only the low income and consumption aspect of poverty, but also the larger and complex social dimensions, and of the aspirations of the poor.

Poverty in India is officially measured in terms of calorie consumption. The poverty line is the monthly per capita expenditure in 1973-74 all-India prices of Rs 49 in rural areas and Rs 57 in urban areas, with people below this expenditure considered poor. In 1999-00 this corresponded to an average per capita expenditure of Rs 328 for rural areas and Rs 454 for urban areas per month. These expenditures correspond to a total household expenditure estimated as sufficient to provide 2400 calories daily in rural areas and 2100 calories daily in urban areas, plus some basic non-food items. Therefore, in a way, when we quantify poverty in India, essentially we are measuring consumption of food, although steps needed to tackle poverty have to go beyond providing food assistance.

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.

According to National Sample Survey, people who did not have two square meals in a day in India constituted 19 per cent of total rural population in 1983 and were reduced to 7 per cent in 1993. Even while recognising difficulties in interpreting meaning of 'square meal' – basically, a culturally, socially and psychologically determined notion – one can safely assume that stark hunger is still a worrying phenomenon in a country that boasts of 61.96 million tonnes of foodgrains available with the government agencies

as on 1/7/2001, constituted of 22.75 million tonnes of rice and 38.92 million tonnes of wheat.

The question of hunger needs to be viewed in a framework of food insecurity which covers the following dimensions: (1) availability of food—to meet demands of growing population and changing dietary needs; (2) access to food, which is a function of purchasing power, sustainable livelihoods and employment opportunities and also entitlement to subsidized schemes; (3) absorption and utilization of food, which is a function of access to clean drinking water, environmental hygiene and primary health care and nutrition practices; (4) vulnerability, which covers external factors affecting food security, viz., natural and man made disasters; and (5) sustainability which involves attention to the conservation and enhancement of natural resources like land, water, forests and biodiversity.<sup>1</sup>

Tackling hunger should be given first priority in strategies to reduce poverty. Traditional focus on increasing food production is not sufficient, and that new approaches must be found to increase consumption. It is important to pay attention to employment opportunities, other ways of acquiring economic means, and also food prices which influence people's ability to buy food.

### **India's Food Security System: Role of Indian State**

Over the last decades, policies and programmes have been designed to ensure availability of foodgrains to all sections of the society, particularly the weaker sections. I shall discuss the main constituents of the food security system in India in this section.

*Achieving self sufficiency in foodgrains.* With the ushering in of the era of Plan development in 1951, achievement of self sufficiency in food was recognised as one of the important national development goals. The first three five year Plan concentrated on growth and institutional changes relating to land reforms in agriculture. In the mid sixties, a new technology in the form of High Yielding Varieties (HYV) was introduced for cereals. Public investment in irrigation was stepped up significantly. Large investments

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<sup>1</sup> Saxena, N.C. (2002), "Food Assistance Programmes and their role in alleviating Poverty and Hunger in India", accessible at: <http://www.geocities.com/righttofood/data/nc-foodhunger.pdf>.

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were made for development research system under aegis of Indian Council of Agriculture Research (ICAR) and State Agricultural Universities for disseminating new technologies to the farmers. Successive Five Year Plans and policies were aimed at improving the infrastructure, stepping use of fertilizers, use of modern machinery and implements and supply of credit. As a result of the new agricultural strategy adopted in 1964-65, a growth rate of 2.7% per annum in agricultural production was achieved in post independence era as compared to negligible growth rate of 0.3% per annum in first half of the century. Production of foodgrains increased from 50.8 million tonnes in 1950-51 to about 200 million tonnes in 1999-2000. The significant improvement in agricultural production achieved in a short period due to new agricultural strategies adopted in 1960's has come to known as *Green Revolution*. The increase in foodgrains production is also attributed to the irrigation potential, which increased from 22.6 million hectare in 1951 to about 94 million hectare in 1999-2000. India has succeeded in achieving self-sufficiency in production of foodgrains. With few exceptions, net import of cereals since 1970's have either been negative or negligibly positive. However, per capita annual availability of foodgrains can be a good indicator of self-sufficiency and adequacy at national level but such macro level availability has to be translated in economic and physical accessibility of adequate, safe and nutritious food at household level.<sup>2</sup>

Price support for farmers. The agricultural price policy followed by the government seeks to evolve a balanced and integrated price structure in the perspective of the overall needs of the economy. The system of price support for farmers is supposed to protect them from distress sales. Government procures foodgrains conforming to prescribed specifications offered by the farmer at the minimum support price. These operations are undertaken by Food Corporation of India in association with State Governments.

<sup>2</sup> Dubey, S.S. (2002), "Review of the Progress at the National Level in respect of World Food Summit (Agenda Item No. 4)", accessible at: [http://www.asiafivims.net/kids/Reg\\_web-2/Papers/India%20-%20ICN%20WFS.pdf](http://www.asiafivims.net/kids/Reg_web-2/Papers/India%20-%20ICN%20WFS.pdf).



*Food Corporation of India* is the main field level agency for food policies of central government. Its functions vary from procurement, storage, movement, transport, export, import to public distribution, sale of food grains and other foodstuffs.

(a) Procurement: - On behalf of the Central Government, Food Corporation of India along with State Government and their agencies procure a sizeable quantity of the total grain that is harvested in a season. In order to facilitate the farmers to bring their produce to the procuring agencies, the purchase Center (mandis) are opened even in the remote corners of the country. Procurement of wheat and paddy are usually done in these places. Farmers bring their harvested grain in huge quantities. Government fixes a minimum support price for FAQ grain and undertakes to procure the grain from the farmers at this price. An auction takes place in which private traders also participate. The highest bidder purchases from the farmer. Keeping farmer's interest in mind, the FCI/Govt. agencies purchase all the remaining unpurchased grains at the minimum support price. The main areas for procurement of wheat are the surplus states like Punjab, Haryana, Uttar Pradesh. The procurement operations need to be planned in detail beforehand, working out the link between storage points and specific marketing center's, arrangements for quality tests, estimate of requirements of gunny bags, their timely purchase and making them available at purchase center's etc. The Corporation procures wheat, paddy, rice and coarse-grains for Central pool either independently or in association with State Govt. and their agencies. While rice is procured as per levy orders issued by the state Govt. with prior concurrence of the Central Government, wheat, paddy and coarse-grains are procured under Price Support Scheme. The Corporation purchases million tonnes of wheat in the financial year from Punjab, Haryana, Rajasthan, UP etc., Govt. announces the Minimum Support Prices every season. Some time bonus payment is also announced to encourage the farmers to sell their wheat to Govt. agencies.

(b) Storage: - FCI have a network of storage depots strategically located all over India. These depots include silos, godowns and an indigenous method developed by FCI called Cover and Plinth (CAP). The Quality Control Wing in the FCI manage the task of preserving the health of the foodgrains from the stage of procurement to distribution. The Central Warehousing Corporation is operating 475 Warehouses

across the country with a storage capacity of 8.9 million tonnes providing warehousing services for a wide range of products ranging from agricultural produce to sophisticated industrial products. Warehousing activities of CWC include foodgrain warehouses, custom bonded warehouses, container freight stations, inland clearance depots and air cargo complexes. Apart from storage and handling, CWC also offers services in the area of clearing & forwarding, handling & transportation, procurement & distribution, disinfection services, fumigation services and other ancillary activities. CWC also offers consultancy services/ training for the construction of warehousing infrastructure to different agencies.

- (c) Transport: - FCI has the responsibility to transport foodgrains from surplus states to deficit states. Stocks procured in the markets and purchase centers is first collected in the nearest depot and from there despatched to the recipient States.

**Table 2.1**  
**MOVEMENT OF FOODGRAINS**  
(Figs. in million tonnes)

Year	Foodgrains	Sugar	Total
1995-96	20.3	1.3	21.6
1996-97	23.6	1.2	24.8
1997-98	19.1	1.1	20.2
1998-99	19.1	1.1	20.2
1999-00	22.1	0.7	22.9
2000-01	16.2	0.3	16.5
2001-02	20.4		20.4
2002-03*	24.0		24.0

Source: *Food Corporation of India*

\*As on February 2003

In order to facilitate free trade and movement of foodgrains, and to enable the farmers to get best prices for their produce, achieve price stability and ensure availability of foodgrains in deficit areas, a Central Order titled 'Removal of (Licensing Requirements, Stock Limits and Movement Restrictions) on Specified Foodstuffs Order, 2002 has been issued by Government (Department of Consumer Affairs), under Section 3 of the Essential Commodities Act, vide GSR 104 (E), dated 15.2.2002 according to which any dealer can freely buy, stock, sell, transport, distribute, dispose, acquire, use or consume any quantity of wheat, paddy/rice, coarse grains, sugar, edible oilseeds and

edible oils and shall not require any license or permit therefor. The order has come into force after 30 days from the date of its issue notwithstanding anything contrary in any order made by State Government before the commencement of the order. Issue of any control order by the States under the delegated powers for regulating by licenses, permits or otherwise, the storage, transport, distribution, etc. of the specified commodities would henceforth require the prior concurrence of the Central Government.

Buffer stocking policy. Even though there has been significant increase in foodgrains production in India as a result of Green Revolution but it is still subject to vagaries of nature. Therefore, maintaining an adequate size of buffer stocks is a part of national food policy. It was expected to provide inter seasonal stability to foodgrain supply and prices and also to ensure food security by meeting emergent situations arising out of unexpected crop failures, natural disasters etc.

Public Distribution System. It is now recognised that availability of food grains is not a sufficient condition to ensure food security to the poor. In addition to availability of food grains 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 food grains to the poor at subsidised prices. Employment generation programmes for the poor try to ensure that the poor have sufficient purchasing power. The Public Distribution System (PDS) tries to supply food grains to the poor at subsidised prices.

The Public Distribution System is designed to help both the producers and consumers of foodgrains by linking procurement to support prices and ensuring their distribution along with other essential commodities at affordable prices throughout the country. PDS continues to be a major instrument of Government's economic policy for ensuring food security for the poor. The 320 million people below poverty line in our country constitute the section of the society which is nutritionally at risk. With a network of more than 4.61 lakh Fair Price Shops (FPS) distributing annually commodities, i.e.,

foodgrains and sugar to about 180 million families, Public Distribution System in India is perhaps the largest distribution network of its type in the world.<sup>3</sup>

Under the PDS the Central Government has assumed responsibility for procurement and supply of essential commodities, viz., wheat, rice, levy sugar, imported edible oil, soft coke and kerosene to the State Governments and the Union Territories for distribution at affordable prices to the public. These commodities are made available to the state/UTs at fixed Central Issue Prices (CIPs) which are determined by the Central Government and generally involve subsidies borne by the Central Government. The implementation of the PDS is the joint responsibility of the Central Government and the State Governments/UT Administrations. The Central Government is responsible for procurement, storage and transportation of the PDS commodities up to the Central godowns and making them available to the States. The responsibility for distribution to the consumers through the Fair Price Shops and administration of PDS rests with the State Governments an UT Administration.

During the first few decades of its existence, the PDS did not operate as an anti-poverty programme, but merely as an instrument of price stabilisation. A major breakthrough came in 1964-65 with the establishment of two institutions: the Food Corporation of India (FCI) and the Agricultural Prices Commission (now Commission on Agricultural Costs and Prices). The former is a large parastatal trading corporation responsible for procurement, storage, transport and distribution of foodgrains. The latter advises the Indian government on pricing policy for agricultural commodities. Since the mid-1960s, PDS serves several objectives simultaneously, namely, (a) to cope with emergency situations, such as droughts; (b) to distribute food at fair prices to vulnerable people; and (c) to guarantee remunerative prices to farmers.<sup>4</sup> Till the late 1970s, the PDS was mainly restricted to urban areas and food deficit regions. The main emphasis was on price stabilisation as an alternative channel to private trade. Since the Sixth Five-year plan, however, the welfare importance of PDS has been recognised. In the 1980s, many rural areas were covered under the scheme. In the 1990s, the government restructured the PDS in the form of Revamped PDS and Targeted PDS.

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<sup>3</sup> *ibid.*

<sup>4</sup> Mooij, Jos (1998): *Food Policy and Politics: The Political Economy of the Public Distribution System in India*, Journal of Peasant Studies, Vol 25, No 2, pp 77-101.

**Table: 2.2**  
**FCI's ECONOMIC COST OF RICE AND WHEAT**

	(Rupees per quintal)				
	1999-00	2000-01	2001-02	2002-03	2003-04(BE)
<b>Rice</b>					
A. Acquisition Cost	887.30	1014.04	1052.66	1072.69	-
(i) Pooled cost of grain	831.24	930.41	961.16	981.01	-
(ii) Procurement incidentals	56.06	83.63	91.50	91.68	-
B. Distribution Cost	187.50	166.43	151.61	133.68	-
Economic Cost (A+B)	1074.80	1180.47	1204.27	1206.37	1248
<b>Wheat</b>					
A. Acquisition Cost	685.51	716.60	739.13	757.64	-
(i) Pooled cost of grain	518.08	580.66	571.93	585.76	-
(ii) Procurement incidentals	117.06	135.94	167.20	171.88	-
(iii) Carry over charges to State Governments	50.37	-	-	-	-
B. Distribution Cost	202.00	141.66	132.17	121.52	-
Economic Cost (A+B)	887.51	858.26	871.30	879.16	921

Source: *Food Bulletin*, Department of Food and Public Distribution

Evaluation of the role of state. For quite some time, the PDS was seen as a given, as an essential component of India's food security policy. However, in the wake of the structural adjustment programme, which was introduced in 1991, the PDS has been increasingly criticised. The main bone of contention is the subsidy, which is considered unsupportable.<sup>5</sup> Another point of critique is that there are considerable leakages. Food that is meant to be sold at fair prices in ration shops sometimes never reaches the cardholders because it is lost or sold illegally to others.<sup>6</sup> Another point of critique is related to the persistence of malnutrition. Despite the huge subsidy and the large-scale of this intervention, the food security of many vulnerable households is still marginal or insufficient. Distribution to the states has not been proportionate to the number of poor

<sup>5</sup> Randhawa, N S (1994), "Liberalisation and Implications for Agricultural Policy: An Overview", in G S Bhalla (ed) *Economic Liberalisation and Indian Agriculture*, Institute for Studies in Industrial Development, New Delhi, 353-78.

<sup>6</sup> Mooij, Jos (1999), "Real Targeting The Case of Food Distribution in India", *Food Policy*, Vol 24, pp 49-69.



people in each state, and within states the available supplies have not gravitated in favour of the poor.<sup>7</sup>

Food Subsidy- The term 'the food subsidy' refers to budgetary payments to the FCI to meet its operational deficit. In 1991, with the introduction of new programmes of structural adjustment and fiscal tightening in India, government officials and their economic advisers began to call for a reduction in subsidies, including food subsidies. They spoke in terms of a 'rationalisation', 'reduction' or 'withdrawal' of the food subsidy. One aspect of the discussion was on ways of targeting the public distribution system (PDS), a system of rationing that provides a set of basic commodities at subsidised prices through fair-price shops.

The food subsidy as defined in the government budget includes the entire operational deficit of the state-owned FCI. The four major items of food that are handled by the FCI are rice (and paddy), wheat, imported edible oils and sugar. Now the total central food subsidy includes the subsidy on sugar, and this is likely to vary in different years. In 1993-94, for example, about 86 per cent of the total food subsidy was on account of the cereal subsidy.<sup>8</sup> The FCI is responsible for buffer stock operations and the total foodgrain subsidy includes the costs associated with maintaining buffer stocks (such as handling costs, costs of storage, interest payments and administration). The total costs of storing and distributing the foodgrain procured by the FCI are apportioned, on the basis of certain principles, to distribution through the PDS and to the costs of maintaining buffer stocks. Data from FCI performance budgets show very clearly that the subsidy incurred on buffer stocking operations rose rapidly in absolute and relative terms in the 1990s. We shall discuss the problem related to the Buffer stocks in India later in this work.

There are two ways of subsidising agriculture: firstly, governments pay much higher price for the agricultural products than what the farmers can obtain under free market environment, and secondly, by supplying the inputs at a price that is below the

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<sup>7</sup> Tyagi, D S (1990): *Managing India's Food Economy: Problems and Alternatives*, Sage Publications, New Delhi.

<sup>8</sup> Swaminathan, Madhura (1999): *Food Subsidies in India: Understanding the Costs of the Food Corporation of India*, Economic and Political Weekly, December 25.

cost of supplying these. The Public Distribution System of the government has already been discussed earlier, hence, I shall discuss the input subsidies here.

Subsidies on inputs are advanced on the presumption that these are temporary measures and would be withdrawn once the objectives have been achieved. But past experience clearly shows that it becomes very difficult to reduce or abandon subsidies. There is nothing wrong with subsidies if they are well targeted and reach the intended beneficiaries and have a definite time frame for their termination. However, the major share of these subsidies has been appropriated by fewer well-developed regions and better off sections of the farming community.<sup>9</sup> Another problem associated with input subsidies is that they distort the choice of commodities and choice of techniques for each commodity.<sup>10</sup> They lead to inefficient choice of cropping patterns and there are indications that inputs are being overused in certain pockets of the country.

The input subsidies put a heavy burden on the fiscal imbalance of the nation as they grew at a much higher rate compared to the total combined plan expenditure on agriculture. Besides this, subsidy on irrigation through electricity and canal water causes distortion in cropping pattern in favour of water-intensive crops like paddy in Punjab and sugarcane in Maharashtra.

One of the most serious effects of input subsidy is on environmental degradation. Subsidy on canal water and subsidy on electricity has led to excessive irrigation causing salinity and waterlogging in some areas and overdraft and depletion of groundwater in others. Subsidy on fertilisers has similarly led to excessive application with adverse environmental effects.

Lastly, when the price of inputs do not reflect their scarcity value, there is very little incentive for farmers to adopt methods, which could make more efficient use of scarce resources. For e.g. large subsidies on fertilisers and irrigation make this seed-water-fertilizer technology relatively more attractive than biotechnology and thereby slows down the potential growth of the latter. Further, dry land farming remains

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<sup>9</sup> Subbarao, K (1985), "State Policies and Regional Disparity in Indian Agriculture", *Development and Change*, Vol 16, pp 523-46.

<sup>10</sup> Binswanger, Hans P (1974), "The Measurement of Technical Change Biases with many factors of Production", *American Economic Review*, December.

unattractive because of cheap water in irrigation areas. This indicates that input subsidies are crowding out productive investments in agriculture.

**Table 2.3**  
**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	17612	4.83
2002-03	21200	5.17

Source: *Planning Commission Working Paper No5/2002-PC (May 2002)*

Paradox of Rising Food Stocks and persistent Hunger- The government's buffer stock policy was intended to tackle the transitory food insecurity through price stabilisation by transferring resources from periods of plenty to those of scarcity. Transitory food insecurity is caused by fluctuations in agricultural output, which are mainly due to uncertain weather conditions; a large fraction of the cultivated area lacks adequate irrigation facilities and depends heavily on monsoons. Price stabilisation, achieved through buffer stock operations, helps both consumers and producers. Consumption levels of foodgrains are prevented from falling to low levels during bad crop years by disallowing prices from taking high values (by releasing grain in the market from buffer stocks). Similarly, farmers' income is prevented from falling to low levels by supporting prices at reasonable levels during years of good crop yield (by higher procurement and addition to stocks). Public stocks also address the problem of chronic food insecurity due

to poverty through the operation of Public Distribution System (PDS), which distributes foodgrains at subsidised prices, and other welfare/poverty alleviation programmes.<sup>11</sup>

The efficacy of buffer stocking policies in dealing with transitory food insecurity is reflected in the stability of foodgrain consumption and prices. However, it is becoming increasingly evident that stabilisation operations involving physical handling of foodgrains are fiscally expensive. The carrying cost of buffer stock has been rising at the rate of 15 per cent per annum in the 1990s. Storage losses are high. There is shortage of good quality storage facilities and mismatch in grain allocation to states leads to poor offtake, resulting in the rotting of grains in godowns. Increasing procurement/support price to farmers leads to mounting grain stocks causing a drain on the government's resources. The procurement incidentals, distribution and administrative costs, and carrying cost all put together form a high percentage of the actual purchase cost of grain. The economic reforms undertaken since 1991 have laid much emphasis on curbing fiscal deficit. This implies that the increasing public expenditure on food subsidy may not be sustainable in the future.

Nonetheless, the procurement and stock building of wheat and rice are continuing unabated season after season. Interestingly, this is taking place at a time when the output growth is witnessing a sharp deceleration. Production of rice, which increased at the rate 3.48 per cent per annum in the 1980s, increased only by 1.87 per cent per annum in the 1990s. The rates of growth of wheat output during the same periods were 4.38 and 3.21 per cent respectively. Procurement of wheat accelerated at an annual compound rate of growth of 3.65 per cent in the 1980s and 9.64 per cent in the 1990s; that of rice increased at 5.5 per cent during these two decades. In absolute terms, FCI's foodgrains procurement had been increasing at a moderate pace of four million to 13 million tonnes during the 1960s and 1970s. The procurement rose faster, though with year-to-year variations, to reach 24 million tonnes by 1990-91 and more than 40 million tonnes in 2000-01. The disposal of foodgrains through the public distribution system, which reached a peak of over 26 million tonnes in 1996-97 (the year before the introduction of the new targeted PDS), plummeted to 11.3 million tonnes in 2001-02. The inverse relationship between

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<sup>11</sup> Srinivasan, P V and Shikha Jha (1999), "Food Security through Price Stabilisation: Buffer Stocks vs Variable Levies", *Economic and Political Weekly*, November 20-26.

procurement and distribution is reflected in the public stocks rising to unmanageable levels. The total stock of foodgrains as on July 1, 1997 was reported at 21.4 million tonnes. The stock rose to 62 million tonnes by July 1, 2001 and further to 65 million tonnes, before declining somewhat thereafter.<sup>12</sup>

The government has been stipulating, since the Fourth Five-Year Plan (1969-73), the minimum stocks of foodgrains that the FCI should have with it on the first day of every quarter of the year. The stipulation was revised from time to time. While doing so, two basic propositions regarding the buffer stocking policy were (i) the purposes for which stocks are required, and (ii) the composition of stock. The stated objectives were: (a) assurance of normal supplies in case of fluctuations in production, (b) open market intervention to release unusual pressures on foodgrain prices, and (c) employment and asset creation programmes through the release of foodgrains as wages. The buffer stock requirements were projected taking into account: (a) base-level stocks, (b) food-security stocks and (c) operational stocks. The 'base-level stocks' are stocks lying in various FCI depots in small quantities scattered all over India, which cannot be easily pulled out for distribution at the required places. Here problems arise on several counts. First, some FCI depots are situated in remote areas, which are not easily accessible. Secondly, the railways, which move the FCI stocks from place to place, insist that, for the sake of economy, their rakes would not carry less than a specified quantity of foodgrains at a time. If stocks lying at a particular place are below this specified quantity, it remains unutilised until sufficient quantities are added to it. Thirdly, there are always some stocks in transit which are also not available for distribution until they reach their destination. Fourthly, some quantity of stocks in the depots would generally be unfit for human consumption. As this is acquired and stored at a cost, it is added to the base-level stocks for purposes of accounting. Lastly, there are leakages in storage and transit which cannot be accounted elsewhere, so it is also treated as base-level stock.<sup>13</sup>

'Operational Stocks' are those stocks, which are needed to meet normal PDS requirements between two seasons. Rice is cultivated during kharif and rabi seasons, whereas wheat is grown only during the rabi season. Kharif rice is harvested mainly

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<sup>12</sup> Raghavan, M (2003), "Food Stocks: Managing Excess", *Economic and Political Weekly*, March 1.

<sup>13</sup> *ibid.*

between October and December. The public agencies procure a part of this harvest in the form of paddy, which has to be milled into rice before the PDS gets it for sale. Another portion is procured as levy on millers. Generally, the levy procurement of kharif rice, harvested during October-December, takes place during January-March. The procurement of rabi rice, which is harvested during April-June, may continue until August or even September. Wheat harvested during April-June becomes available for PDS from July. It is considered that the 'operational stock' created in these sequences of procurement should be available for the next 11 months of the year.

'Food security stocks', according to official terminology, are intended to meet shortfalls expected in procurement over distribution in bad harvest years. The level of food security stocks is determined on the basis of (i) the extent of observed fluctuations in domestic production, and (ii) possibilities of imports from international markets at short notice. Going by these considerations, wheat is a robust crop with relatively less instability in production growth. It is also abundantly available in the international market so that it can be easily contracted for imports at short notice. Rice production, on the other hand, is geographically concentrated in a few countries, with thin and fragmented surpluses and relatively low world stockholdings.<sup>14</sup> Moreover, bad paddy harvests in India mostly coincide with bad paddy harvests in other major producing countries. Imports of rice to meet sudden shortfalls in domestic production are not as easy as sourcing of wheat. Therefore, while building up buffer stocks, more weight should go to rice than to wheat.

The government has been regularly reviewing the requirement of foodgrain stocks, apparently on the considerations brought out here. Accordingly, it instructed the FCI that, during the Eighth Five-Year Plan (1992-97), the annual buffer stocks should be within the range of 14.5-22.3 million tonnes. In 1997, when the size of the PDS was downsized with the TPDS, the government decided to raise the level of buffer stocks to 15.8-24.3 million tonnes for the Ninth Five-Year Plan (1997-2002). At the implementation level, these were treated as 'minimum' stocks. No upper limit was prescribed nor the break-up of base-level, operational and food security components

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<sup>14</sup> Dawe, D (2002), "The Changing Structure of the World Rice Market, 1950-2000", *Food Policy*, 27 (2002), 355-70.

indicated separately. Actual stocks have thus gone up many times higher than the stipulated stocks. The consequences are well known: excessive increase in carrying costs and unsustainable fiscal burden on the economy. Further, the composition of stocks shows that around 60 per cent of it is wheat and only 40 per cent rice. It is not accidental that mounting stocks with FCI in the face of decelerating production has coincided with a decline in per capita consumption of cereals, pervasive malnutrition and starvation deaths in various parts of the country.<sup>15</sup>

**Table 2.4**  
**PUBLIC DISTRIBUTION SYSTEM-PROCUREMENT, OFF-TAKE AND STOCKS**

(Million Tonnes)									
Year	Procurement			Offtake			Stocks*		
	Rice	Wheat	Total	Rice	Wheat	Total @	Rice	Wheat	Total @
1	2	3	4	5	6	7	8	9	10
1990-91	12.92	11.07	24.16	7.91	8.58	16.49	10.21	5.6	15.81
1991-92	9.41	7.75	17.16	10.26	10.48	20.74	8.86	2.21	11.07
1992-93	12.72	6.38	19.78	9.89	8.06	17.96	9.93	2.74	12.67
1993-94	13.56	12.84	26.4	9.46	9.14	18.61	13.55	7	20.54
1994-95	13.12	11.87	24.99	8.85	10.59	19.44	18.08	8.72	26.8
1995-96	9.97	12.33	22.24	11.63	12.72	24.35	13.06	7.76	20.82
1996-97	12.24	8.16	20.03	12.31	13.32	25.63	13.17	3.24	16.41
1997-98	14.36	9.3	23.82	11.2	7.76	18.96	13.05	5.08	18.12
1998-99	11.87	12.65	24.22	11.83	8.9	20.73	12.16	9.66	21.82
1999-00	17.31	14.14	31.43	12.42	10.63	23.05	15.72	13.19	28.91
2000-01	19.59	16.36	36.46	10.42	7.79	18.21	23.19	21.5	44.98
2001-02	21.28	20.63	41.3	15.32	15.99	31.31	24.91	26.04	51.02
2002-03	12.23	19.03							

2002-03- Estimates till 5<sup>th</sup> February 2003

@: Includes coarse cereals.

\*: Stocks are as at March-end.

Note: Procurement figures related to marketing years. Rice (Oct-Sept), Wheat (April-March)

Source: *Ministry of Food, Consumer Affairs and Public Distribution, Government of India*

Improving Agricultural Production:- The present policy of producing foodgrains surpluses only in some regions and then transporting it to backward regions needs to be re-examined. It is far better to increase production in the deficit and backward regions, so

<sup>15</sup> Raghavan, M (2003), "Food Stocks: Managing Excess", *Economic and Political Weekly*, March 1.

that the poor there are not dependent on production in Punjab or government doles, but proud producers and consumers in their own right. Increasing foodgrain production in the neglected regions therefore not only compensate any drop in Punjab etc due to reduced MSP, but will sustainably increase consumption of the poor, as such production will be labour using and not so much capital using. Therefore one requires a fundamental change in the agricultural policy.

The policy approach to agriculture, particularly in the 1990s, has been to secure increased production through subsidies on inputs such as power, water and fertiliser, and by increasing the minimum support price rather than through building new capital assets in irrigation, power and rural infrastructure, or improving the standards of maintenance of existing assets. Terms of trade for agricultural products have been generally moving in favour of agriculture after 1985-86, though in the earlier period 1974-75 to 1984-85 they had moved sharply against agriculture. On the contrary, public investment in agriculture has been consistently falling since 1980, though it showed an increasing trend in the earlier two decades. This has shifted the production base from low-cost regions to high cost regions, causing an increase the cost of production, regional imbalance, and increasing the burden of storage and transport of foodgrains.

Procurement of Foodgrains: - New initiatives have been taken in India in the field of decentralised procurement of foodgrains. The decentralised procurement system, introduced in 1997, has been accepted so far by the state governments of West Bengal, Uttar Pradesh, Madhya Pradesh and now by Tamil Nadu. More such initiatives should be encouraged in the future. Deficit states should be encouraged to buy directly from surplus states, and they should be compensated for transport and storage etc. These states will most probably hire private agencies to do so, which will bring private expertise into this field.

Most storage godowns with the FCI are small-scale low quality structures, or foodgrains are stored in the open called covered and plinth storage (CAP), leading to high storage losses. One should consider fiscal concessions to encourage new godown capacity in the private sector.<sup>16</sup>

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<sup>16</sup> Saxena N.C., (2002), "Synergizing Government Efforts for Food Security", accessible at: <http://www.geocities.com/righttofood/data/nc-synergizing.pdf>.



Private transporters get a low priority on railway movement forcing them to rely on more expensive truck transport. Similarly selective credit controls by RBI restrict access to trade financing by the private sector. These problems deserve attention.<sup>17</sup>

Regulated markets were supposed to improve efficiency, but many official market committees such as in UP, Punjab and Haryana make it illegal for farmers to sell through alternative channels (i.e. selling directly to millers). The markets have thus emerged as taxing mechanisms, rather than facilitating farmers to get the best price.

The present extraction rates for both wheat and rice are about 10 to 30 % below the international standards due to reservation of agro-processing units for small sector who use inefficient technologies. Therefore remove licensing controls on Roller Flour Mills and other food processing industry. De-reserve food processing units, especially rapeseed and groundnut processing units, from the SSI list.<sup>18</sup>

On the whole, laws and controls have repressed private foodgrain marketing, undercutting its potential contribution to long-term food security. However, recently GoI has made some progress in liberalization of controls, and in order to facilitate the free trade and movement of foodgrains, the Government issued a Control Order titled, 'Removal of (Licensing Requirements, Stock Limits and Movement Restrictions) on Specified Foodstuffs Order, 2002' on 15 February 2002. The Order allows any dealer to freely buy, stock, sell, transport, distribute, dispose, acquire, use or consume any quantity of wheat, paddy/rice, coarse grains, sugar, edible oilseeds and edible oils, without a licence or permit. State governments would require the Centre's prior permission before issuing any order for regulating, by licences or permits, the storage, transport and distribution of the specified commodities. This Order needs to be given wide publicity.<sup>19</sup>

### **Poverty Reduction, Employment Generation and Food Assistance Programmes**

Due to close linkage between Poverty, hunger and food security, it is important to explore the different poverty reduction, employment generation and food assistance schemes undertaken by the government in order to ensure food security.

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<sup>17</sup> *ibid.*

<sup>18</sup> *ibid.*

<sup>19</sup> *ibid.*

Targeted Public Distributed System (TPDS). The PDS as it stood earlier, was however 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, during the Ninth Plan period, the government streamlined the PDS, by issuing special cards to families Below Poverty Line (BPL) and selling foodgrains under PDS to them at specially subsidised prices with effect from June 1997.

Under the new scheme, viz., the Targeted Public Distribution System (TPDS) each poor family is entitled to 10 kgs of foodgrains per month (20 kg w.e.f April 2000) at specially subsidised prices. The identification of the poor is done by the states as per the state-wise poverty estimates of the Planning Commission.

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 foodgrains 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 foodgrains to APL families at the discounted rate of 70% of the economic cost. The CIP of APL wheat which was at Rs 830 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 foodgrain 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.

Evaluation of TPDS as a measure to ensure food security. The performance of TPDS was not very encouraging. Although it did increase the ration quota to the poor, but ironically, the poor have been unable to make full use of this quota due to their limited purchasing power. For example, in a study by Srivastava as quoted in Government of India (2000)

performance of TPDS in Uttar Pradesh has been highly unsatisfactory. Food subsidy to the poorest groups increased by a meagre amount (1.1 per cent to 1.3 per cent) due to the introduction of TPDS.

The policy-makers chose to focus their attention mainly on one aspect of targeting: exclusion of the rich from the PDS (i.e., reduction of E-mistakes – excessive coverage of the programme). The other aspect, i.e., inclusion of the poor (i.e., reduction of F-mistakes – failure to reach the target group), has received less attention. The main objective from the start onwards was to reduce the fiscal burden, rather than to improve food security.

Moreover, the large difference between open market and TPDS price provided a great incentive for the diversion of grain to the black market with the estimated leakage being 41 per cent. The selection of beneficiaries was not transparent and the basis for selection was “too complicated for the local officials to administer”. In the case of Bihar too the corruption levels are found to be high.<sup>20</sup> The delivery system was weak even before the introduction of TPDS and not much could be expected in terms of increasing the benefits to the poor.

There are also high costs involved in the correct identification of the poor. Narrow targeting at the level of individual households requires a very detailed data for all households and complex means of testing in order to identify the eligible households. Here there can be an error of exclusion and an error of inclusion. Direct targeting of the poor through means testing, involves high administrative cost due to the need for repeated periodic identification. The costs are further augmented due to widespread leakage to non-poor households by misrepresentation of information.

Prof. Abhijit Sen elaborated on the problems of TPDS by saying that any targeting will always involve problems of imperfect targeting. That is, you are likely to exclude people who should be included, or to include people who should be excluded. A group may not need government aid today, but they might need it tomorrow. Therefore, with food a targeting concept for food distribution is problematic because the whole

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<sup>20</sup> Mooij, Jos (1999), “Real Targeting The Case of Food Distribution in India”, *Food Policy*, Vol 24, pp 49-69.

system involves dealing with contingencies that cannot be foreseen, because of which one cannot pre-select people.

The introduction of targeting based on income poverty line has led to the exclusion from the BPL category, and subsequently from the PDS, of millions of undernourished people and people at the risk of undernourishment. In a country such as India, with a population that is predominantly rural and a workforce that is predominantly outside the formal sector, the identification of beneficiaries on the basis of a narrow income poverty line is conceptually and practically problematic. For instance, for a casual laborer whose earnings fluctuate from day to day, a static (one-time) poverty line is an inappropriate indicator of vulnerability. Another important aspect of income targeting in India is that the official poverty line used as a cut-off is set at an absurdly low level, corresponding to the expenditure required to purchase a minimum of calories. It is in no way an indicator of the adequacy of purchasing power to provide for a minimum decent standard of living.<sup>21</sup>

Since the launch of the targeted scheme, for poor families access to food has actually come down. Food entitlements have been cut by more than half. This, at a time when India's godowns have the largest "surplus" of foodgrains ever - 62 million tonnes - lying unused. Yet, half the population remains malnourished. The TPDS slashed food entitlements to a maximum of 30 kg a month for poor families and 10 kg for non-poor homes, as compared to 70 kg for families under the previous universal ration system. Many poor families have been overlooked. Around 54 per cent of BPL families were wrongly excluded under the TPDS, as compared to 5.5 per cent under the universal scheme, according to a survey of a Maharashtra village undertaken by Madhura Swaminathan and Neeta Mishra.

It was assumed that targeting would help reduce subsidy bill. The argument seems very self-evident and convincing: if you reduce the number of beneficiaries who receive subsidy, the total amount of subsidy will come down. This may be true in some instances, but in the case of the PDS there are two difficulties. First, the argument only holds when the subsidy given to the selected group is less than the previous universal subsidy. In the

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<sup>21</sup> Swaminathan, Madhura (2001), "A further attack on the PDS", *Frontline*, Vol-18, Issue-02, Jan 20-Feb 02.

case of the TPDS, this is doubtful. The foodgrain prices for BPL families are substantially lower than the PDS prices before the introduction of targeting. Secondly, the PDS subsidy is not only a consumers' subsidy but also a producers' subsidy. The subsidy bill does not only depend on the number of beneficiaries and the price they pay, but also on the amount of foodgrains purchased by the Indian government and the procurement price. Since 1991 procurement prices have experienced steep increases. The FCI, the procuring agent, has to purchase every quantity that is offered.<sup>22</sup>

This issue is largely ignored in the debate around targeting. But as long as the government of India continues to procure at high prices and as long as the FCI has an obligation to take everything that is offered (more than what it needs under TPDS conditions), the subsidy will remain high, whatever the FCI issue prices and whether distribution is targeted or not. This is so because, in case of high FCI issue prices, the offtake will come down and the FCI carrying charges will increase, while low FCI issue prices imply greater losses on each quantity of foodgrain handled. In short, there is no reason to assume that targeting, even when strictly applied, will help to solve the problems of the PDS. As long as the level of procurement does not come down, the FCI has the foodgrains and has to dispose of them in one way or another.<sup>23</sup>

*Sampoorna Grameen Rozgar Yojna (SGRY)*. The Food for Work Programme (FWP) was introduced in 1977 to provide employment in drought-affected areas. Food grain was paid as wages subject to the condition that durable community assets were built. The programme continued for six months in drought prone areas before it was merged with the NREP, a wage employment programme. Though State governments still had the option to pay part of the wages under the NREP in kind, this option was rarely exercised. No attempt was made to develop an inventory of projects and there were no indications for the annual allocation of foodgrains,<sup>24</sup> and the programme was forgotten.

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<sup>22</sup> Swaminathan, Madhura (1999), "Food Subsidies in India: Understanding the Costs of the Food Corporation of India", *Economic and Political Weekly*, December 25.

<sup>23</sup> Mooij, Jos (1999), "Dilemmas in Food Policy: About Institutional Contradictions and Vested Interests", *Economic and Political Weekly*, December 25.

<sup>24</sup> Mahapatra, R. (2001), "Drought of Relief", *Down to Earth*, 10 (2), June, accessible at: [http://www.cseindia.org/html/dte/dte20010615/dte\\_analy.htm](http://www.cseindia.org/html/dte/dte20010615/dte_analy.htm).

Recently, however, the Food for Work programme was relaunched as the Sampoorna Grameen Rozgar Yojana (SGRY) in 2001. The main objective of the Sampoorna Grameen Rozgar Yojana (SGRY, Rural Employment Scheme) was to provide additional wage employment in rural areas and promote food security, along with the creation of durable community, social and economic assets and infrastructure development. Under the scheme, 5 kgs of food grains (in kind) is distributed as part of wages per man-day. The provision of 5 million tonnes of foodgrains (worth Rs50 billion) every year to the States/UTs free of cost has been made. The Rs. 50 billion is to be utilised to meet the cash component for material costs and remaining wages (so the sum of wages and food grains ensures the payment of minimum wages). The State governments are free to calculate the cost of food grains paid as part of wages, at BPL (below the poverty line) rates, APL (above poverty line) rates or anywhere between the two rates. The works undertaken must be labour-intensive, leading to the creation of additional wage-employment, durable assets and infrastructure.

The Food Ministry releases grains at the direction of the Agriculture Ministry, while the Rural Development Ministry is responsible for administration and supervision. The scheme is executed by *Panchayati Raj* Institutions (PRIs) and line departments at all levels. No contractors, middlemen or intermediate agencies are employed for executing works under the scheme.

The Department of Rural Development releases 50% of the total funds to the *Zilla Parishads* (20%) and Intermediate Level *Panchayats* or *Panchayat Samitis* (30%). The remaining 50% of the funds are released to the *Gram Panchayats* through DRDAs/*Zilla Parishads*. The Department of Rural Development releases funds for the foodgrains directly to the Food Corporation of India (FCI) at the economic cost. At District level, the Project Director, DRDA coordinates the release and distribution of stocks under the programme.<sup>25</sup>

Thus the State Governments were asked to contribute rest of the wages in cash from their own sources. As the statutory minimum wages are even higher than the APL price of 5 kg of foodgrains, valuing foodgrains at BPL price would mean that the states

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<sup>25</sup> Nayak R. , N.C.Saxena and John Farrington (2002), *Reaching the Poor: The Influence of Policy and Administrative Processes on the Implementation of Government Poverty Schemes in India*, Overseas Development Institute, London, September.

will have to shell out huge sums from their depleted coffers. Thus the idea was to discourage populism, benefit only the most needy, and at the same time to reduce total burden on the exchequer. The State Governments were also asked to bear the cost of transport from the nearest FCI godown to the work site, as well as cost of supervision and handling.

Evaluation. Food for work programmes have a long history in India. These have been often implemented during periods of drought. The advantages of paying wages mostly in terms of foodgrains are many. First, it ensures that there is no starvation. Second, this would increase the availability of foodgrains for those in the poor families who are not participating as manual labour in the Food for Work Programme, such as children, old people, etc. Third, leakages will not be as high as in the case of other wage employment programmes, as by inflating the number of workers on a site it is easier to pocket cash than foodgrains. Even when a Supervisor fudges muster roll in a food for work scheme, he will have to sell the saved foodgrains in order to benefit himself. This at least increases the supply of food in the open market resulting in low food prices thus benefiting every one. And lastly, the poor are able to stock surplus food that comes handy, even when such works are withdrawn.<sup>26</sup>

However, the involvement of three central Ministries has led to problems of coordination and a dilution in their sense of ownership. The SGRY, like other wage employment programmes, is based on the assumption that productive activities are labour-intensive. However, this limits the range of activities that can be undertaken, e.g. watershed development activity. In practice, common wage employment activities such as road construction or the construction of school buildings or *Panchayat Ghars* are not labour-intensive. The scheme also faces problems with inadequate arrangements for the prompt movement, local storage, and substandard quality of foodgrains.<sup>27</sup>

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<sup>26</sup> Saxena, N.C. (2002), "Food Assistance Programmes and their role in alleviating Poverty and Hunger in India", accessible at: <http://www.geocities.com/righttofood/data/nc-foodhunger.pdf>.

<sup>27</sup> Nayak R. , N.C.Saxena and John Farrington (2002), *Reaching the Poor: The Influence of Policy and Administrative Processes on the Implementation of Government Poverty Schemes in India*, Overseas Development Institute, London, September.

Besides this, in many States, projects are being executed by using excavators, trucks and tractors instead of more labour intensive approaches. The muster rolls and measurement books are fudged which leads to loss of funds.<sup>28</sup>

Jawahar Rozgar Yojna (JRY). JRY was launched as a Centrally Sponsored Scheme on 1<sup>st</sup> April, 1989 by merging National Rural Employment Programme and Rural Landless Employment Guarantee Programme. The funds devolved to the village panchayats, intermediate panchayats and district panchayats in the ratio of 70:15:15. The panchayats were responsible for planning and execution of projects under JRY.

*Evaluation:* Studies revealed that employment generated per person was too inadequate to bring about meaningful increase in the earnings of the beneficiaries. The resources available were spread thinly so as to increase the coverage of areas/beneficiaries without any concern for duration of employment. Projects selected bore no relationship to the local needs or the agricultural development strategy. Considerations that guided selection of particular projects were not always based in the development of rural infrastructure. Neither the location of such works nor their timing was in accordance with the spirit of the programme. As a result, needless projects were taken up to avoid lapse of funds.

Employment Assurance Scheme (EAS). The Employment Assurance Scheme (EAS) which was launched on 2<sup>nd</sup> October 1993 was initially in operation in 1772 identified backward blocks situated in drought prone areas, desert areas, tribal areas and hill areas in which the Revamped Public Distribution System (RPDS) was in operation. It was gradually extended to other blocks and by 1997-98 the scheme was being implemented in all the 5448 rural blocks of the country.

The primary objective of the EAS was to provide gainful employment in manual work during the lean agricultural season. The secondary objective was the creation of community, social and economic assets for sustained employment and development.

Expenditure is in the ratio of 60:40 for the wage and non-wage (materials) components. Works are selected and incorporated into an Annual Plan by *Zilla Parishads*. The State governments, however, may provide food-grains as a part of wages

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<sup>28</sup> Saxena N.C., (2002), "Synergizing Government Efforts for Food Security", accessible at: <http://www.geocities.com/righttofood/data/nc-synergizing.pdf>.



if there is demand for it, by making their own local arrangement and by utilising their own resources towards subsidy, if any. No works is to be taken up under the programme if the demand for the wage employment can be fulfilled under other plan or non-plan works.

The *Zilla Parishads* are responsible for entrusting works to the implementing agencies, supervision and coordination of works, and furnishing necessary reports to the State and Central governments through the DRDAs. The implementing agencies for the EAS within a district can be any line department, corporation of the State Government or *Panchayati Raj* Institutions (PRIs) at all three levels.

Central assistance is released every year directly to the DRDAs, who in turn release 30% of the district allocation to the *Zilla Parishads* and 70% to the *Panchayat Samitis*. The State governments are expected to release their matching share to the DRDAs within a fortnight after the release of Central assistance. Payment of wages to beneficiaries is made on a fixed day of the week, preferably a day before the local market day, in the presence of village *Pradhan* or *Sarpanch*.

Evaluation of employment schemes. The inability of the States to contribute their matching shares for the EAS has resulted in several Blocks in the country not receiving their allocation of funds.<sup>29</sup> Transparency is minimal, and the needs of the village are not taken into consideration while deciding the works.<sup>30</sup> Then there is a problem of bogus reporting. Field staff have learnt to report figures in the manner expected of them, that is they must show that targets have been fully achieved irrespective of what the ground situation is. Collectors are under pressure from the state governments to furnish utilisation certificates, so that states could draw the next instalment from GOI. Therefore money is considered to have been spent when it is allotted from the district to the panchayats, even when no physical expenditure has taken place.

The fact that the programme leaves money in the hands of the bureaucracy has resulted in leakages and encouraged corruption. The CAG reports in its audit of the EAS

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<sup>29</sup> Government of India (2000), *Ninth Five Year Plan: Mid-term Appraisal*, Planning Commission, New Delhi.

<sup>30</sup> Mahapatra, R. (2001), "Drought of Relief", *Down to Earth*, 10 (2), June, accessible at: [http://www.cseindia.org/html/dte/dte20010615/dte\\_analy.htm](http://www.cseindia.org/html/dte/dte20010615/dte_analy.htm).

that money allotted to the scheme was diverted to personal accounts. This, compounded by the involvement of contractors in the procurement of materials, has led to very little of the wage component actually reaching beneficiaries.

Moreover, employment generation programmes create incomes for the rural poor but no assets. Once such programmes are withdrawn the poor may again fall below the poverty line, if family based assets are not created for them.<sup>31</sup>

Integrated Child Development Scheme. ICDS - launched in 1975 - is a nation-wide programme for the overall development of children below 6 years and of the expectant and nursing mothers. It provides a package of 6 services viz., supplementary feeding, immunization, health check-ups, referral services, pre-school education and health and nutrition education for its beneficiaries. ICDS also receives assistance from the World Bank to add some additional inputs.

The objectives of ICDS were: (1) to improve the nutritional and health status of children in the age group 0-6 years; (2) to lay the foundation for proper psychological, physical and social development of the child; (3) to reduce the incidence of mortality, morbidity, malnutrition and school drop out; (4) to regulate effective coordination of policy and programme implementation amongst various departments to promote child development; (5) to enhance the capability of the mother through proper nutrition education for taking care of the normal health and nutritional needs and health of the child.

Evaluation. The ICDS has completed 25 years of its implementation in October 2000. The National Evaluation of ICDS conducted by the National Institute of Public Co-operation and Child Development (NIPCCD), New Delhi, in 1992 and the Mid-term Evaluation of World Bank-assisted ICDS need special mention. The findings of the NIPCCD study indicate a very positive impact of ICDS on the health and nutrition status of pre-school children. The Mid-term evaluation of the World Bank assisted ICDS (Project-I) conducted in Andhra Pradesh during 1995-96 also revealed that the Project interventions had brought down the IMR to 62 per 1000 live births which was in

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<sup>31</sup> Saxena, N.C. (2002), "Food Assistance Programmes and their role in alleviating Poverty and Hunger in India", accessible at: <http://www.geocities.com/righttofood/data/nc-foodhunger.pdf>.

consonance with the project objective of 60 per 1000 live births. The incidence of severe malnutrition amongst children of 0-3 years was reduced to about 5 per cent and that of 3-6 years to 3 per cent. The proportion of low birth weight babies also came down to 20 per cent as against the project goal of 24 per cent. Similarly, in Orissa, the IMR had come down to 93.6 and the incidence of low birth weight babies to 23%.<sup>32</sup>

During the Ninth Plan ICDS programme in Orissa and Andhra Pradesh were evaluated by the National Institute of Nutrition. There was a major review of the nutrition sector and ICDS programme by the World Bank (WB) and Government of India in 1997. The findings were:<sup>33</sup>

- ICDS services were much in demand but there are problems in delivery, quality and coordination. The programme might perhaps be improving food security at household level, but failed to effectively address the issue of prevention, detection and management of undernourished child/mother.
- Children in 6-24 months age group and pregnant and lactating women did not come to the Anganwadi nor did they get food supplements.
- Available food was shared between mostly 3-5 year old children irrespective of their nutritional status.
- There was no focused attention on management of severely undernourished children.
- No attempt was made to provide ready mixes that could be given to 6-24 month child 3-4 times a day; nor was nutrition education focused on meeting these childrens' need from the family pot.
- Childcare education of the mother was poor or non-existent.
- There were gaps in workers training, supervision, and community support.
- Inter-sectoral coordination was poor.

Mid Day Meal Scheme. The midday meal scheme was launched as a two-pronged strategy- to lower the widespread incidence of malnutrition primarily among children of poor families and to increase their access to education. The scheme was aimed at boosting primary school attendance, by allowing children of parents living below

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<sup>32</sup> *ibid.*

<sup>33</sup> Government of India, (1997): *Ninth Five Year Plan*, Planning Commission, New Delhi.

subsistence levels to attain basic literacy levels rather than being pushed into the workforce at an early age.

Evaluation. Evaluation Studies have shown that the initial impact of the programme of enrolment and participation of children, especially girls, has been favourable. The average attendance rate has increased and dropout rate has decreased in the post Mid-day Meal period as compared to the pre-mid-day meal period.

However, According to the Mid-term Appraisal of the 9<sup>th</sup> Plan, midday meal schemes have with time, fallen prey to the ills of mal-administration, corruption and politicking. Schemes have been launched to cover all children studying in primary classes in government, local body and government-aided schools, but have failed to deliver on its promises. The state governments were to supplement the central efforts by providing the conversion costs for serving cooked meals for which financial assistance is available to them under the JRY/EAS funds. Most states, however, reported severe resource constraints, inadequate cooking arrangements and resentment among teachers. In recent years, the scheme has suffered from disruption in supply of foodgrains due to paucity of funds and non-reconciliation of lifting figures between states and FCI with the latter, in response, often resorting to the suspension of supply of foodgrains.<sup>34</sup>

Annapurna and Antyodaya. The National Old Age Pension Scheme (NOAPS) was introduced as a 100% Centrally Sponsored Scheme on 15<sup>th</sup> August 1995. Under this scheme about 60 lakh old people get monthly pension ranging from 100 to 250 Rs per month. The NOAPS has been a successful scheme. Government of India decided to extend this scheme to another 10 lakh old people, but give them only 10 kg of grain, either wheat or rice free of charge every month. The budget allocation during 2000-01, which was the first year of its operation, was 100 crores, but only 17.44 crore Rs could be spent. Under Antyodaya, the poorest were to get wheat at Rs. 2 per kg and rice at Rs 3 per kg. However, identification of the poorest has still not been done, as the criteria for selecting the poorest is not objective.

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<sup>34</sup> Government of India (2000), *Ninth Five Year Plan: Mid-term Appraisal*, Planning Commission, New Delhi.

**Table 2.5**  
**OFFTAKE OF FOODGRAINS (RICE+WHEAT) UNDER WELFARE SCHEMES**

Welfare Schemes	<i>lakh tones</i>		
	2000-01	2001-02	2002-03 (upto December)
Annapurna	0.25	0.93	0.87
Earthquake	10.72	0.12	0.00
World Food Programme	0.05	0.50	0.32
SGRY	0.33	18.83	54.76
Indigent People	0.00	0.17	0.08
Nutrition Programme	0.18	1.35	1.22
Hostel SC/ST/OBC	0.00	0.83	1.02
Food for Work	5.44	28.36	1.18
Mid-Day-Meal	14.93	20.76	15.11
<b>Total</b>	<b>31.91</b>	<b>71.85</b>	<b>74.58</b>

Source: Website [www.indiabudget.nic.in](http://www.indiabudget.nic.in)

Evaluation. This scheme has some how not taken off for several reasons. First, people prefer to get cash, and not grain, the quality of which is quite poor. Second, the village panchayat is indifferent to running this scheme, and the block machinery does not have the wherewithal to store foodgrain only for a few people in a village, and deliver it to them. Thirdly, no provision has been made for storage, transport, and losses in foodgrains. Fourthly, the scheme requires coordination with FCI, and that is often lacking. Finally, Haryana, Karnataka and Tamil Nadu did not agree to implement the scheme in its current form. Many others have desired modifications before implementing it. Only 19,000 tonnes of foodgrains was lifted by 10 states during 2000-01. The performance in 2001-02 was equally dismal.

#### Grants for Centrally Sponsored Schemes

Besides the schemes that are discussed above, there are many more schemes like National Old Age Pension Scheme, Indira Awaas Yojna, Accelerated Rural Water Supply programme, Drought Prone Areas Programme, etc. Though the objective was to improve the food security and reduce poverty through these programmes, much remains to be done. The Government of India currently commits some Rs250 billion (£3.5 bn) to a number of poverty-reduction schemes, projects and programmes in support of the livelihoods of the poor. The majority of financial provisions under these schemes are

allocated to rural areas. These therefore provide an important starting point in any effort to identify – as the wider study seeks to – what role government policy can in future play in enhancing the livelihoods of the poor.

A first prerequisite for any such scheme to impact on the poor is that funds allocated under it should actually reach the poor; more specifically, that they should reach the intended beneficiaries. A second is that they should achieve their intended purpose. Where schemes simply seek to transfer resources from the better off to the poor, this second purpose is achieved if the funds reach the intended beneficiaries; in other schemes, such as those aiming to enhance productive assets in some way, to assess whether this second objective is achieved would require a further set of investigations.

Because of constitutionally determined divisions of rights and responsibility, the revenue-raising capacity of Indian States is less than that of central government. To compensate, there are statutory provisions for transfer from the center to States. There are three broad types of transfer: via the Finance Commission, via the support to the States' 5-year Plans and via GoI Ministries. The Government of India commits some Rs 250 billion (£3.5 bn) to Centrally Sponsored Schemes (CSS) every year. Grants for CSS are meant to supplement the resources of the State governments, who are responsible for the implementation of these schemes and who are expected to pay a matching contribution, typically of 25%. However, contributions to the social sector from the State Plans have steadily declined over the last two decades – with the share of the social sector in the Plan budget of the Central Ministries having increased from 30% to 70%. This trend is reflective of the steadily increased economic dependence of the States on the Center, as well as the changing political economy of Center-State relations. Centrally Sponsored Schemes are important channels for transfers to the States, who rely on transfers from the Center for additional funds apart from tax and non-tax revenue sources granted to them through the Finance Commission agreements.

**Table 2.6**  
**GRANTS FROM THE CENTER**

				(Rs. Crore)
	States	2000-01	2001-02	2002-03
		(Accounts)	(Revised Estimates)	(Budget Estimates)
	1	2	3	4
1	Andhra Pradesh	2,201.1	3,484.9	4,104.0
		(9.4)	(58.3)	(17.8)
2	Arunachal Pradesh	760.3	1,063.3	988.6
		(27.1)	(39.9)	(-7.0)
3	Assam	2,018.3	2,741.5	3,230.0
		(17.2)	(35.8)	(17.8)
4	Bihar	1,070.1	1,247.2	1,730.0
		(-48.6)	(16.5)	(38.7)
5	Chhattisgarh	335.1	864.2	901.8
		—	(157.9)	(4.3)
6	Goa	67.0	68.1	72.4
		(66.9)	(1.8)	(6.2)
7	Gujarat	1,768.9	2,745.1	2,398.1
		(53.2)	(55.2)	(-12.6)
8	Haryana	478.1	656.8	864.1
		(2.9)	(37.4)	(31.6)
9	Himachal Pradesh	1,809.9	2,280.3	2,145.7
		(61.9)	(280.1)	(-66.0)
10	Jammu & Kashmir	3,794.5	4,970.8	4,422.4
		(15.0)	(31.0)	(-11.0)
11	Jharkhand	—	871.5	1,862.4
		—	—	(113.7)
12	Karnataka	1,546.2	2,077.7	2,320.4
		(9.0)	(34.4)	(11.7)
13	Kerala	615.9	767.6	1,143.1
		(-9.7)	(24.6)	(48.9)
14	Madhya Pradesh	1,519.9	2,465.3	2,919.6
		(-9.4)	(62.2)	(18.4)
15	Maharashtra	1,462.7	2,166.5	2,352.5
		(0.3)	(48.1)	(8.6)
16	Manipur	790.4	1,108.1	943.9
		(31.9)	(40.2)	(-14.8)
17	Meghalaya	762.7	928.8	987.2
		(83.8)	(21.8)	(6.3)
18	Mizoram	686.0	918.6	809.3
		(19.0)	(33.9)	(-11.9)
19	Nagaland	1,236.9	1,271.6	1,358.2
		(127.6)	(2.8)	(6.8)

Cont...

	1	2	3	4
20	Orissa	1,428.6	1,800.8	2,415.6
		(-16.7)	(26.1)	(34.1)
21	Punjab	827.1	917.3	1,622.5
		(58.9)	(10.9)	(76.9)
22	Rajasthan	2,577.2	2,457.2	2,232.9
		(71.8)	(-4.7)	(-9.1)
23	Sikkim	436.0	624.8	634.1
		(36.0)	(43.3)	(1.5)
24	Tamil Nadu	1,539.9	1,577.2	1,714.7
		(11.2)	(2.4)	(8.7)
25	Tripura	1,181.8	1,373.6	1,500.0
		(61.7)	(16.2)	(9.2)
26	Uttaranchal	446.8	1,309.0	1,248.7
		—	(192.9)	(-4.6)
27	Uttar Pradesh	2,773.2	4,378.4	4,191.4
		(6.5)	(57.9)	(-4.3)
28	West Bengal	3,154.5	3,041.6	2,500.8
		(105.0)	(-3.6)	(-17.8)
29	NCT Delhi	495.0	503.2	488.0
		(11.0)	(1.7)	(-3.0)
	<b>All States</b>	<b>37,783.8</b>	<b>50,681.0</b>	<b>54,102.1</b>
		<b>(23.4)</b>	<b>(34.1)</b>	<b>(6.8)</b>

Notes: - Not Available

1. Figures in brackets represent percentage variation over the previous year.
  2. Figures for Bihar and Nagaland for 2000-01 (Accounts) relate to Revised Estimates.
- Source: *Budget Documents of State Governments*

However, these transfers have been criticised as being ‘discretionary’ as they are designed by the central ministries where many non-economic considerations enter into the distribution mechanism.<sup>35</sup> Another reason for this is that many poorer States are unable to provide matching funds to co-finance, or otherwise lack the capacity to absorb the funding.<sup>36</sup> World Bank also finds that richer and more developed States have received more Plan transfers per capita than poorer and less developed ones. There is also

<sup>35</sup> Rao, M. Govinda and Singh, N. (2000), *The Political Economy of Centre-State Fiscal Transfers in India*, Santa Cruz, CA: University of California at Santa Cruz.

<sup>36</sup> World Bank (1995), “India Country Economic Memorandum – Recent Economic Developments: Achievements and Challenges”, *Report Number 14402-IN*, New Delhi, World Bank, South Asia Region.



evidence at the aggregate level that funding for projects approved by the Planning Commission is spent, at least in part, on recurrent expenditure items.<sup>37</sup>

Grants for CSS could in effect be financing items such as salaries and consumables, which are meant to be outside Plan budgets. These trends must also be seen in light of the political economy of Center-State relations in India. With the decline of the Congress Party, regional parties and those built on sectional interests have gained importance. While, as we noted above, States have become increasingly dependent on the Center economically, they have become increasingly politically independent and indeed, powerful. While the Center has often used the funds for Centrally Sponsored Schemes as a tool to enhance its political visibility at State level the allocation of funds is also dictated by compulsions to bow to regional parties at State levels who are also coalition partners at the Center.

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<sup>37</sup> *ibid.*

### Chapter 3

## **GLOBALISATION AND FOOD SECURITY: IMPACT OF ECONOMIC REFORMS**

India underwent a series of successful agricultural revolutions, starting with the "green" revolution in wheat and rice in the 1970s, the "white" revolution in milk and, in the 1980s, the "yellow" revolution in oilseeds. As a result, it has achieved self-sufficiency in most basic foods, in stark contrast to the earlier years of chronic food deficits.

Until 1991, India followed an inward-looking development strategy with a trade regime characterized by quantitative restrictions, licensing and high tariffs. As a result, domestic markets were virtually insulated from changes in world market prices. The Government intervened heavily in both product and input markets, through price support programmes backed by government procurement and input subsidies. These interventions resulted in net taxation of the agricultural sector, while the non-agricultural sector received protection. The extent of the total taxation of the sector was estimated to correspond to 29 percent of the value of agricultural production during 1971-85, 18 percent during 1986-91, but only 9 percent during 1992-95.<sup>1</sup>

India has undertaken a substantial degree of trade liberalization, beginning in 1991. Initially, the focus was on manufactures, including capital goods. Liberalization was extended to agriculture in 1994, when the Government lifted a number of restrictions on imports and exports, simplified trade measures and reduced public interventions in domestic markets.

I would analyse the effects of these economic reforms on the food security in India. I will also see if the economic reforms have achieved what they were set to achieve.

### **The Uruguay Round (1994)**

Since the Second World War, there have been a number of trade agreements aimed at freeing World Trade and enforcing a number of World Trade rules. The eighth such

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<sup>1</sup> Pursell, G. (1996), "Some Aspects of the Liberalization of South Asian Agricultural Policies: How can the WTO Help?", in B. Blarel, G. Pursell and A. Valdés (eds.), *Implications of the Uruguay Round for South Asia: The Case of Agriculture*, Proceedings of a World Bank/FAO Workshop, Allied Publishers, New Delhi, 1999.

agreement was signed in 1994 at Marakesh. That agreement besides creating the WTO aimed at settling mechanisms, reducing the barriers to trade and also touched on a range of new issues. The Final Act embodying the agreements of the Uruguay Round of multilateral trade negotiations was signed on April 15, 1994. Though that Act was the eighth in a series of multilateral trade agreements arrived at since World War II, both its defenders and its critics considered it a major landmark and a new point of departure in the long drawn out effort at fashioning a multilateral, rule-based and relatively open trade regime.

The Uruguay Round went beyond intensifying past efforts at reducing the barriers to trade, by extending GATT disciplines to a range of "sensitive" commodities, like agricultural goods, textiles and apparel, which had hitherto not been subject to the same discipline that applied to the trade in most manufactures. It touched on a range of new issues such as trade in services, trade-related intellectual property measures (TRIPs) and trade-related investment measures (TRIMs).

#### **Agreement on Agriculture**

The Agreement on Agriculture signed at the end of the Uruguay Round of negotiations, which has as its objective the establishment of a "fair and market-oriented agriculture trading system", dealt in the main with three groups of issues. These were:

- (i) better market access, or easier entry of imported goods into different national markets;
- (ii) reduced domestic support, or lower direct or indirect support provided to domestic farmers by national governments; and
- (iii) lower export subsidies or lower budgetary support for exporters of agricultural products.

**Market Access.** Market access was sought to be increased in a number of ways:

First, the AoA made tariffication mandatory. That is, countries had to dismantle, in a phased manner, any non-tariff barriers such as a ban on imports of particular agricultural products or ceilings set on the quantities of individual products that could be

imported (otherwise termed quantitative restrictions or QRs), and only use import tariffs or duties as means of protection.

Second, the agreement required that the developed countries reduced their tariff levels by 36 per cent over a six year period from the start of implementation, with a commitment to reduce tariffs on each tariff line by a minimum of 10 per cent. Developing countries were required to reduce tariffs by 24 per cent over a 4-year period, and ensure a tariff reduction of 10 per cent in each tariff line. It needs to be noted, however, that given the level of such tariffs at the time of implementation of the tariff reduction commitment, the actual increase in access may not be substantial.

The Least Developed Countries were provided a concession, inasmuch as they were not required to reduce their tariff levels.

Three, all countries had to specify ceilings at which their tariffs were bound, or the minimum level to which tariffs would be raised under any circumstances.

Finally, there was a minimum level of actual access of imported commodities to domestic markets that each country had to ensure. This was set at 3 per cent of average domestic consumption during the 1986-88 reference years, to be ensured by 1995 and 5 per cent of the same by 2000 in the case of the developed countries and 2004 in the case of the developing countries.

If countries did not reflect this minimum access, they were expected to use the mechanism of "tariff-rate quotas", or lower tariffs for imports of a magnitude required to ensure the realisation of minimum access requirements.

Despite these detailed specifications, the AoA provided with an "escape clause" in the event of a large and disruptive inflow of imports. Under the Special Safeguards provisions, countries that had tariffed their QRs if faced, in the case of tariffed products, with an import surge or by a fall in import prices to levels which were low relative to those that prevailed during the 1986-88 reference period, were allowed to impose higher tariffs and other restrictions to restrain imports.

*Domestic Support.* The AoA defined the principles on the basis of which the Aggregate Measure of Support (AMS) provided by the government of a country to its agricultural sector was to be computed. The aggregate measure of support was the sum total of AoA

violative product-specific and non-product-specific support provided by national and sub-national or federal governments in individual countries. The original Dunkel Draft of the Uruguay Round Agreement provided for commitments to reduce domestic support on a product by product basis. The agreement between the G-2, the US and EC at meetings that took place at Blair House in Washington in November 1992 (known as the Blair House Accord), which paved the way for the successful conclusion of the negotiations on the UR, replaced these product-wise commitments to a commitment to reduce overall support to agriculture.

Support in the form of explicit or implicit subsidies normally comes in two forms: (i) price support, or measures such as government procurement, backed by export or import controls using tariffs and QRs, that result in market prices that are different from those that would have prevailed in the absence of these interventionist measures; and (ii) budgetary support, in the form of explicit budgetary outlays on subsidies on farm inputs and credit, on agricultural research and extension, on deficiency payments, on insurance and disaster payments, on diversion payments for temporary retirement of resources and on compensation in lieu of reductions in market price support or implicit budgetary outlay in the form of revenues foregone as a measure of support to agriculture.

Not all of these measures of support were considered violative of free trade principles and therefore eligible for inclusion in calculations of the AMS. In fact, the Agreement on Agriculture categorised the different possible measures of support into three categories.

The first, termed the "**amber box**" measures, were seen as "those policies which do have a substantial impact on the patterns and flow of trade". All such domestic support measures that were to be taken into account when computing the AMS level, which countries had to commit themselves to reduce in the aftermath of the agreement.

The second, termed the "**green-box**" measures, were those that were seen as having no major effect on production and trade and were considered completely non-violative of the AoA and not subjected to any reduction commitments. They included a variety of "direct payments" to farmers, which were seen as augmenting their incomes without influencing production decisions. Among them were:

- Producer retirement programmes;
- Resource (e.g. land) retirement programmes;
- Environmental protection programmes;
- Regional Assistance programmes;
- Public stockholding for food security reasons;
- Agricultural input subsidies for low-income, resource-poor families;
- Domestic food aid
- Certain types of investment aid;
- General services that provide among other things:
  - Research, training and extension
  - Marketing information
  - Certain types of rural infrastructure

The third, termed the "**blue-box**" measures, were additional exemptions arrived at through the Blair House accord and were introduced to allow the US and the EC to continue to support agriculture, while meeting AMS provisions. They were exempt from inclusion in the AMS subject to reduction commitments, but were conditionally actionable. These included notably compensatory payments and land set-aside programmes of the EU's Common Agricultural Policy, aimed at compensating producers for limiting production, and the US government's deficiency payments scheme, aimed at compensating producers facing market prices that are below some targeted level. Blue box provisions are considered to be "non-trade distorting". Such payments were exempt if they: (1) are based on fixed area and yields; or (2) made on 85 per cent or less of the base level of production; or (3) made on fixed number of head of livestock.

AMS Reduction Commitments. The agreement required developed countries to reduce their AMS levels by 20 per cent in the case of the developed countries and 13.3 per cent in the case of the developing countries during the implementation period. However, there was a minimum or de minimus level of support that all countries were allowed to provide, which was set at 5 per cent of the value of production in the case of the developed countries and 10 per cent in the case of the developing countries. Countries were not required to reduce their AMS below this level in order to realise their domestic

support reduction commitments. Further, those countries characterised by an AMS that was below the de minimus level, were free to increase the extent of support they offered to agriculture.

The asymmetry involved in setting an acceptable floor to the AMS but no ceiling, meant that countries, especially the developed countries, that had subsidised their agriculture heavily in the past, and had to reduce the volume of such support by 20 per cent, could end up with levels of support far higher than even 10 per cent of the value of their agricultural output.

Export Subsidies. In its bid to make agricultural trade freer, the AoA required nations to reduce the subsidies they offered to exporters of agricultural products, as these were considered an unfair practice. Signatories to the AoA committed themselves to reduce the expenditure they incurred on such subsidies to levels that were 36 per cent lower than their 1986-90 average values in the case of the developed countries and 24 per cent lower relative to the same figure in the case of developing countries. Further, countries agreed to reduce the volume of agricultural exports that were subsidised, by reducing the share of subsidised exports by 24 per cent relative to the 1986-88 base period in the case of the developed countries and 14 per cent in the case of developing countries. Further, it was mandated that commodities that were not subsidised at the time of the agreement would not be supported with subsidies in the future as well.

Quantitative Restrictions (QRs). Article XI of the General Agreement on Tariffs and Trade 1994 provides that no prohibitions or restrictions (other than duties i.e., tariffs) whether made through quotas, import or export licenses or other measures shall be maintained by any member of the WTO. However, under provisions of Article XVIII-B of GATT, we maintain quantitative restrictions on import of items in respect of 2400 tariff lines in the HS (Harmonised System) codes. In May 1997, India presented a plan for elimination of these restrictions on imports over a period of 9 years, which was considered at consultations held in the Committee on Balance of Payments Restrictions in June-July 1997. While the plan generally received the support of developing countries, the developed countries felt that the phase-out period was too long and that the number of items proposed for phase-out during the later years of the plan were too many. Although

India agreed to reduce the phase-out period to 7 years, even this was not acceptable to the developed countries. Subsequently, the US, EC, Canada, Australia, New Zealand and Switzerland initiated dispute settlement proceedings against India and sought consultations under Article XXII of GATT. In the consultations that followed, India reached agreements with all countries except the US and entered into a phase-out period of 6 years starting from 1997. The US filed a dispute against India. A panel was constituted on 18th November, 1997 to examine the US allegations that the continued maintenance of QRs on imports by India was inconsistent with India's obligations under the WTO agreement. The WTO Dispute Settlement Body (DSB) ruled against India in September 1999. India began lifting the QRs unilaterally, pending conclusion of negotiations with the United States. In December 1999 it reached agreement on a time limit for lifting the remaining QRs, which was determined as 18 months from the date of adoption of the Report of the DSB, i.e. April 2001. In the meantime, in the budget presented to Parliament in February 2000, the Government reiterated its intention to remove QRs on 714 tariff lines (including non-agricultural products) from April 2000.

#### **Experience with implementing the Agreement on Agriculture**

One of the most important goals of the World Trade Organisation's Agreement on Agriculture has been removal of trade distortions resulting from different levels of input subsidies, price and market support, export subsidy and other kinds of trade-distorting support across countries. The agreement allows for support within some limits, known as *de minimis* level, but seeks to reduce domestic support exceeding the exempt level. This was seen as a very favourable factor for countries such as India, where support given to the agriculture sector was found to be negative. On the other hand, OECD countries were found heavily subsidising their agriculture. Based on this, it was expected that the implementation of the Agreement on Agriculture (AoA) would result in reduction of domestic support in OECD countries, which would in turn raise international prices of agricultural commodities and would improve export prospects for India and other countries. However, contrary to predictions, international agricultural prices in the post-WTO period have declined sharply, and agricultural exports from developing countries such as India have declined. This has raised serious concerns, and answers are being



sought on why international prices have dropped to very low levels in the post-WTO period.<sup>2</sup>

As discussed earlier, the WTO agreement envisages two kinds of support for agriculture, namely, domestic support and export subsidies. Domestic support is further classified into five categories: (a) aggregate measure of support (AMS), which includes product-specific and non-product specific support, (b) green-box support, (c) blue-box support, (d) *de minimis* support, and (e) special and differential (S and D) treatment box. Of these, the WTO agreement requires a reduction only in AMS and export subsidies, whereas support under all other heads is exempted. The non-exempt support can be further grouped into two types, one representing the commitment of a country to the WTO and the second showing actual levels of AMS and export subsidy provided by member countries.

Aggregate Measure of Support includes (a) the sum total of subsidies on inputs such as fertiliser, water, credit and power, and (b) market price support measured by calculating the difference between domestic administered market price and external reference price (world price) multiplied by the quantity of production eligible to get applied administered price.<sup>3</sup>

As most of the developing countries were familiar only with support in the form of input subsidies and price and marketing support, at the time of signing of the GATT agreement, developing countries got the impression that reduction in AMS would imply reduction in overall support for agriculture. These countries were not quite familiar with support in different forms of direct payment to producers, infrastructural services, pest control, environment programmes, inspection and market intelligence, which, as per the WTO agreement, is clubbed under the green box and is exempt from reduction commitments. With the implementation of the WTO agreement, several member countries realized the seriousness of green-box subsidies, level of export subsidy and AMS in developed countries' agriculture. It is now said that developed countries shifted support from non-exempt categories to exempt category, which is providing their produce advantage over the produce of developing countries.

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<sup>2</sup> Chand, R. and Lieu Mathew Phillip (2001), "Subsidies and Support in Agriculture: Is WTO providing level Playing field?", *Economic and Political Weekly*, August 11.

<sup>3</sup> *ibid.*

Tariff. Reduction of tariff is normally expected to improve the prospect of market access for imported products in a country. The prospect is, however, hampered if the country provides subsidy to the domestic producers. If two countries subsidise their respective domestic producers to the same extent, mutual reduction of tariffs may bring the benefit of enhancement of market access to both of the countries. But if one country provides heavy subsidy to its producers while the other is not able to do so, mutual reduction of tariff according to some usual formula will bring much more benefit to the former compared to the latter in terms of enhanced export. Even if there is heavy reduction of the tariff, the market access in a country remains hindered so long as the producers continue to get high subsidies. Subsidies, direct or indirect, enable the producers to keep the domestic prices artificially low in order to compete with the imports, even when the cost of production is higher.

At present, many developed countries provide very high subsidies to their farmers in several forms, while the developing countries do not provide subsidies except to a small extent. Even if the developing countries are permitted to provide subsidies, they will not be able to do so in a significant manner, because they do not have adequate financial resources for this purpose.

The guidelines for market access adopted in the Uruguay Round stipulated average total reduction of tariff by 36 percent for the developed countries over a period of six years, with a minimum reduction of 15 percent in each tariff line. The corresponding percentages for the developing countries respectively were 24 and 10 over a period of ten years. As mentioned earlier, this pattern of market access commitments will not be beneficial to the developing countries. High subsidies in the developed countries make their tariff reduction much less useful for the market access of the products from the developing countries. At the same time, the developing countries, by reducing their own tariffs, are exposing their domestic production to the double risk of less barriers at the border and artificially reduced prices of imports. This is a clear negation of the "level playing field" principle and is highly iniquitous and unbalanced.

The AoA required all countries to allow a certain minimum market access for every agricultural product at five per cent for developed countries and four per cent for developing countries. Southern nations, with low cost of production, were always told

that with the developed countries would have to open up their markets for cheaper food imports as a result of which the developing countries would gain enormously.

A recent study by the Food and Agricultural Organisation of the United Nations (FAO), concludes that there has been hardly any change in the volume of exports. Tariff peaks or in other words high import duties continue to block exports from the developing countries. Tariffs still remain very high, especially in case of cereals, sugar and dairy products. Sanitary and phytosanitary measures, which were enforced to ensure quality of the imported products, actually continue to be a major barrier in diversifying exports in horticulture and meat products. Selective reduction in tariffs by the developed countries have also blocked the exports from developing countries. And on top of it, only 36 countries (all developed) have the right to impose special safeguard provisions if agriculture imports distort their domestic market. And this provision has been used 399 times till 1999.

India was forced to either phase out or eliminate the quantitative restrictions (QRs) on agricultural commodities and products latest by April 1, 2001. India has, therefore, opened its market and in turn made the farming community vulnerable to the imports of highly subsidised products. Already, cheaper imports of skimmed milk powder, edible oils, sugar, tea, arecanut, apples, coconut etc have flooded the market.

Special Safeguards. A country can take special safeguard measures in agriculture without proving injury or threat of injury to domestic production. But the conditions have been so fixed in the current agreement that this facility is generally available to only the developed countries, and not to the developing countries, except a very few. Only the countries that converted their non-tariff measures to equivalent tariffs have the right to use special safeguard measures. The developing countries, except a very few, did not have such non-tariff measures to be converted to tariffs; hence this special facility is not available to them. It is one of the biggest ironies in the current agreement that those distorting the trade through non-tariff measures were given the advantage of special protection for their farmers, whereas those that did not distort trade were denied this advantage.

Special safeguard is relevant in agriculture, as the general safeguard provisions may be very difficult to be used. The existence of injury or threat of injury to domestic production, as is required for applying the general safeguard, may be difficult and cumbersome to be proved in the agriculture sector in developing countries, particularly because of the highly dispersed nature of the production units. The developed countries have been having the benefit of the use of the special safeguard that does not require injury to be proved; whereas the developing countries have been denied this facility. This is an example of gross inequity in the current agreement.

Tariff Rate Quotas (TRQ). The current agreement allows the countries to specify some quantities in specific products to be imported at zero tariff or nominal tariff. The import above this quantity in a year is to be allowed at high tariff rates. In most of the cases, the tariffs beyond the TRQ are prohibitive; hence imports beyond the quota levels are practically stopped. In several cases, the quotas are assigned to specific exporting countries; it blocks the export prospects of other countries in these markets. The situation needs being corrected.

The agreement also requires countries to undertake commitments of some minimum market access opportunity, i.e., commitment to allow certain minimum level of import. In practice, it was applicable only to very few countries that did not apply tariffication in respect of some products. But the concept of allowing minimum level of import itself appears to be improper. Besides, the language of the current agreement is such that it can create confusion about its applicability to all countries. It will be highly improper to extend this concept to the developing countries in general in the new negotiations. Hence a specific clarification to this effect is needed.

Domestic Support. The domestic support is divided into two categories, i.e., (i) those which have to be reduced and (ii) those which are exempted from reduction. The reducible support was to be reduced by 20 percent by the developed countries in six years period. The required reduction in case of the developing countries was 13.3 percent over ten year's period. Generally the developing countries, except a very few, did not have reducible support; hence they did not have to effect any reduction. But they were prohibited from providing subsidy in future beyond the de minimis level, i.e., 10 percent

of the value of production. Thus the developed countries, that had high reducible domestic support, continued with them up to 80 percent of their original level, whereas the developing countries could not use domestic support beyond the de minimis. There is a clear imbalance and inequity in this situation.

But much greater imbalance and inequity as well as distortion occurred by exempting some types of domestic support used by the major developed countries from reduction commonly known as "green box" subsidies and "blue box" subsidies. The major developed countries adopted a clever method of enhancing the "green box" subsidies, while keeping their commitment to reduce the reducible support. Thus, in effect, they increased their overall domestic support. The real trap lay in allowing an escape route by exempting the "green box" subsidies from reduction.

This was done on the assertion that these subsidies were not trade distorting. These subsidies are in the form of direct payment to producers, income support, income insurance and income safety net programmes, relief from natural disasters, subsidies for retirement of production and resources, investment aids, payment under environmental programmes and regional. These payments are made specifically to farmers and not to those pursuing other occupations. The payments are thus not a part of the general welfare programme of the country, but limited to infusing strength to farming. These subsidies would naturally result in enhancing the staying capacity of. In fact, it is very much a myth to claim that these payments are not trade distorting. There is absolutely no reason to exempt them from reduction commitment.

The same applies to the domestic support so called "blue box" subsidies. Of course, in this case there is no assertion of its being non-trade-distortive; and yet it was exempted from reduction. There is no rationale for exempting it from reduction commitment.

Also the "green box" subsidies are immune from countervailing duty action. The normal relief against them in the form of countervailing duty is not available.

Exemption of some types of support from reduction and stipulation of only a small reduction (20 percent) of the reducible subsidies provide an iniquitous and unfair advantage to the developed countries, particularly because the developing countries are in no position to pay high subsidies even if they are allowed to do so. Limitation of their

financial resources would prevent them from doing so. The modalities on domestic support have to take this basic inequity in view.

Clever manipulation of their subsidy reduction commitments has in reality increased the support to farmers in the developed countries. In the United States, subsidy to a mere 9,00,000 farmers has increased by 700 times since 1996. In absolute terms, the farm support in the OECD countries increased by 8 per cent to reach the staggering figure of US \$ 363 billion in 1998. In the European Union (EU), direct payments to farmers after the reforms initiated in March 1999 to the Common Agricultural Policy, now account for 126 per cent of the net income of cereal producers and 129 per cent for the bovine meat producers. And this falls under the "blue box". Explicit and implicit support to farmers is therefore protected under the various colours of the protection boxes: green box, amber box and blue box.

Even if these boxes remain eligible for developing countries, the fact is that not many of them have the budgets to support agriculture. In India, we are being told that our Aggregate Measure of Support (AMS), a measure of the subsidies that are provided to agriculture, being negative (against the upper limit of ten per cent) we can still raise our subsidies to farmers. In reality, India is committed to do away with agricultural subsidies under the Structural Adjustment Programme of the World Bank and the IMF. In any case, India provides only one billion-dollar worth of indirect subsidies to 550 million farmers! It was anticipated that due to reduction in domestic support in developed countries, cereal production would shift from developed countries to developing countries. Empirical evidence, however, shows that such a trend is not at all visible. In fact, all indications (and efforts of World Bank/IMF) point towards making the developed countries the hub of cereal production. The Bretton Woods institutions have been asking developing countries to diversify to cash crops as a pre-condition for advancing loans. In other words, while the developing countries shift from cereals to cash crops like flowers and vegetables, they are left with no option but to import staple foods. Moreover, with such massive subsidies intact, and with the QRs lifted, developing countries are sure to be inundated with food imports - a process that has already initiated further marginalisation of farming and farm communities.

**Table3.1**  
**MINIMUM SUPPORT PRICE FOR FOODGRAINS (Fair Average Quality)**

Year	Paddy Common #	Coarse Cereals	Wheat	Gram	Arhar	Moong	Urad
1990-91	205	180	225	450	480	480	480
1991-92	230	205	280	500	550	550	550
1992-93	270	240	330\$	600	640	640	640
1993-94	310	260	350\$	640	700	700	700
1994-95	340	280	360	670	760	760	760
1995-96	360	300	380	700	800	800	800
1996-97	380	310	475*	740	840	840	840
1997-98	415	360	510@	815	900	900	900
1998-99	440	390	550	895	960	960	960
1999-00	490	415	580	1015	1105	1105	1105
2000-01	510	445	610	1100	1200	1200	1200
2001-02	530	485	620	1200	1320	1320	1320

#: From 1997-98 MSP is announced only for two varieties of paddy - Common and Grade 'A' as against the earlier three categories of common, fine and super fine

\$ : Including a central bonus of Rs. 25.00 per quintal

\* :Including a central bonus of Rs. 60.00 per quintal payable upto June 30, 1997.

@ : Including a central bonus of Rs. 55.00 per quintal over and above MSP of Rs. 455.00 per quintal for procurement during April 1, 1998 to June 30, 1998.

Source : *Ministry Of Agriculture, Government of India*

Export Subsidies. Developed countries were expected to reduce the budgetary outlay for their export subsidy by 36 percent and coverage of export quantity by 21 percent in six years. The corresponding requirement from the developing countries was reduction by 24 percent and 14 percent respectively in 10 years. Very few developing countries were using export subsidies and thus they did not have to give a commitment schedule for reduction. A country that did not give a schedule for reduction could not maintain or introduce export subsidy in future. In this manner, the developing countries have been prohibited from giving any export subsidy in future. The situation now is that the developed countries continue to have the entitlement for export subsidy to a substantial extent, whereas the developing countries are prohibited to provide export subsidy. This amounts to a clear imbalance and inequity in the situation.

Besides, there are some types of measures, which have similar effects as export subsidy in artificially boosting up export, e.g., export credit, export credit guarantee and export insurance. There is no commitment for reduction of such measures. It is possible

for a developed country to reduce its export subsidy according to its commitment but increase the export credit at the same time. Hence, like domestic support, there is an escape route here too for circumventing the obligation of reducing export subsidy effectively.

The developing countries do not have adequate financial resources to provide export subsidy or export credit or similar other facility. Hence they cannot use these export-enhancing facilities even if they are allowed to do so. This feature adds to the imbalance and inequity in the system of export subsidy. It needs being corrected.

WTO enables only 25 countries to provide export subsidies for their agricultural products and commodities. Other countries, which do not have agricultural export subsidies, like India, cannot make any new provisions for it. Export subsidies that need to be pruned, as per a formula, are not provided in India. On the other hand, the US continues to find legitimacy for even export credits, which are actually used to promote and push American agricultural exports. There are others, like Australia and New Zealand, which are not willing to do away with commodity export boards. In any case, developed countries provide 90 per cent of the global export subsidies.

The Indian Ministry of Agriculture acknowledges that despite the rules being defined, the expected gains have eluded the developing countries. It was expected that with the removal of trade distorting measures, agricultural exports from the developing countries will increase. This did not happen. In fact, India has on the other hand seen a massive increase in the imports of agricultural commodities and products - from about Rs 50,000 million in 1995 to over Rs 1,50,000 million in 1999-2000 - a three-fold increase. In edible oils alone, the import bill has soared to Rs 90,000 million. The so-called fair trading system has also not helped efficient producers in realising a higher price for their products. On the contrary, prices of most agricultural commodities are declining in the world markets.<sup>4</sup>

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<sup>4</sup> Sharma, D (2001), "WTO and Indian Agriculture: Trading in Food Insecurity", Financial Daily, *The Hindu*, October 1.



## Seattle and Doha

Seattle saw strong differences emerging the US and EU. While the US was pressing for substantial liberalisation of trade in agricultural products through lower tariffs and an end to subsidies to farmers, EU was almost totally opposed to the American line. Its argument was that American support to its farmers in the form of income payments was nearly as much as in the EU; the only difference was that the Americans did not reckon the income payments they made to farmers as subsidies. The EU and US were also opposed to the inclusion of investment and competition in the WTO agenda.<sup>5</sup>

The developing countries too were opposed to their inclusion on the ground that the developed countries would, by introducing these non-trade matters, use them as pretexts for keeping their markets closed. The developing countries also stoutly opposed the US demand that government procurement should be brought under the umbrella of WTO. This would prevent developing country governments from differentiating between domestic and foreign suppliers in the matter of government procurement to provide incentives to local industry. While both the US and EU had their own ideas on the issues to be included in the WTO's agenda, they were unwilling to accept the demands of the developing countries to review the implementation of the existing agreements. The developing countries found this attitude of the US and EU extremely unhelpful even when it was generally conceded that major problems needed to be rectified, be they on patents, subsidies, textiles or trade. The developed countries had been resorting to various devices to protect their agriculture and industry under the existing world trade regime and were now trying to introduce new forms of protectionism by raising non-trade issues and linking them with trade. It is understandable, therefore, that the developing countries refused to fall in line with either the US or EU, even though resort was made to both promises of concessions and threats of sanctions.<sup>6</sup>

India's commerce minister, Maran, made a strong statement at Seattle calling for a positive agenda that is trade-related: market access should be based on equity. Addressing the plenary session, Maran stated that "Only if our approach is development-centric, can our work programme act as a facilitator for accelerated growth of developing

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<sup>5</sup> Editorial (1999), "WTO: Meaningful Consensus", *Economic and Political Weekly*, December 18

<sup>6</sup> *ibid.*

countries. Therefore every step we take in the direction of trade liberalisation should ensure rewards in the form of larger markets and greater trade-flows for all – let welfare gains benefit everyone on the planet and not a mere fortunate few.” A multilateral framework on investment is unnecessary and not desirable, India felt. The central theme of any negotiations should be to focus on all-round development capable of eradicating poverty, stated Maran, for “economic integration cannot advance if the interests of the poor are left behind”.<sup>7</sup>

The Doha declaration made agricultural negotiations one part of a ‘single undertaking’ to be completed by January 1, 2005. That is, in a take ‘all-or-nothing’ scheme, countries had to arrive at and be bound by agreements in all areas in which negotiations were to be initiated in the new round. This means that if agreement is not worked out with regard to agriculture, there would be no change in the multilateral trade regime governing industry, services or related areas either and no progress in new areas, such as competition policy, foreign investment and public procurement, all of which are crucial to the economic agenda of the developed countries. This would mean that even if the developed countries make some concessions in the agricultural area, they would do so only in return for major concessions in other areas, such as services for example.

It is no doubt true that the declaration requires that negotiations should be geared to realizing substantial improvements in market access; reductions of, with a view to phasing out, all forms of export subsidies; and substantial reductions in trade-distorting domestic support. However, developing countries had wanted a more clear-cut commitment regarding the phasing out of export subsidies. The provision of such subsidies tends to keep down the prices of food in international markets. This could lead to import surges into developing countries that adversely affect the livelihoods of farmers. The declaration calls for negotiations not to phase out such subsidies, but to reduce them with a view to phasing out.

Further, the declaration speaks of substantial reductions in trade-distorting domestic support. The crucial issue here is what trade distorting. Thus far, the developed countries have used the green-box and blue-box provisions available in the Uruguay

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<sup>7</sup> Mathrani, S (1999), “Revolt of Developing Countries at Seattle”, *Economic and Political Weekly*, December 18.

Round agreement to offer substantial support to their agricultural sectors through means not considered trade distorting. Principal among these measures are decoupled-payments, especially income support and deficiency payments. Since a large number of payments of that kind affect agricultural production in the developed countries, they also affect the volume of agricultural trade and the prices at which such trade occurs. The ambiguous definition of trade-distortion has allowed developed country producers to derive huge benefits.

A disappointment at the Doha meeting was that the promise of greater transparency made after the fiasco at Seattle was not delivered.

Doha made clear the distance developing countries, as a group, have to travel if they are to make any real difference to the unequal international trading order. The most disconcerting was the innumerable ways in which the developed countries conspired to divide the developing countries and win major concessions for themselves. The scenario as it evolved was indeed quite instructive. To start with, the US set itself up as a reasonable negotiator demanding some liberalisation of agricultural trade plus inclusion of issues such as industrial tariffs and anti-dumping duties in the agenda for a new round of trade negotiations. The EU on the other hand remains intransigent on agricultural protection and subsidies, but puts on the table a range of new issues varying from the environment to investment and competition policies. This almost predetermines the compromise that is to come: the EU gives in a bit on agricultural trade, the developed camp as a whole agrees to discuss implementation, but they get in return a new round which at the minimum has the issues raised by the US on the agenda and at the maximum includes all the issues raised by the EU.

### **Agricultural Trade Policy**

Agricultural commodities can be broadly divided into two categories, food crops and non-food crops. There is an established policy of encouraging exports in commercial crops. This should continue. There are, however, several reasons why the policy of food self-sufficiency which largely applies to self-sufficiency in principal cereals, i e, wheat and rice, has to continue. The major considerations justifying self-sufficiency in principal foodgrains are the following. Expenditure on foodgrains, mainly cereals, accounts for

over 40 per cent of the expenditure of the bottom one-third of India's population. Any fluctuations in foodgrains prices will result in undue hardship for this section of the population. Price elasticity with respect to prices of cereals was estimated at  $-0.493$  for the very poor and  $-0.409$  for the poor in the rural areas. Corresponding figures for urban areas for the two groups of the poor population are  $-0.313$  and  $-0.166$ .<sup>8</sup> It is now well established that international prices are far more volatile than domestic prices.<sup>9</sup> Therefore, allowing foodgrains imports to any sizeable extent will be tantamount to importing price instability.

It is not only as consumers but also as producers that the poor have a stake in maximising foodgrains production. The bulk of the poor are in the rural areas. Their livelihood depends on the growth of agriculture. Currently, foodgrains occupy nearly 68 per cent of the cropped area and account for the same weight in output. There is a gradual shift in production from foodgrains to non-foodgrains in which, presumably, poor cultivators are also participating. However, the agricultural economy, particularly the economy of the small and marginal farmers is not resilient enough to enable poor farmers to make drastic switches from food crops to non-food crops within a short period. The switch from agriculture to non-agricultural production will be even more slow and gradual.<sup>10</sup>

On the supply side, it has to be recognised that the foodgrain surpluses in food exporting surplus countries are not adequate to meet the demands of the large countries like India and China to any measurable extent. If production of wheat and rice were to be frozen and the rest were to be imported, huge amount of foreign exchange will only be spent on imports. With progressively larger demand from China, and disruption in cereal production in former Soviet Union, any rise in India's demand for cereals would result in a rapid increase in the cereal prices.<sup>11</sup> Thus, foodgrain production should be encouraged in India.

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<sup>8</sup> Radhakrishna, R and C Ravi (1992), "Effects of Growth, Relative Price and Preferences on Food and Nutrition", *Indian Economic Review*, vol 27, Special No, pp 303-23.

<sup>9</sup> Nayyar, Deepak and Abhijit Sen (1994), "International Trade and Agricultural Sector in India", in G S Bhalla (ed), *Economic Liberalisation and Indian Agriculture*, pp 61-106, Institute for Studies in Industrial Development, New Delhi, India.

<sup>10</sup> Vyas, V.S. (1999), "Agricultural Trade Policy and Export Strategy", *Economic and Political Weekly*, March 27-April 2.

<sup>11</sup> *ibid.*

Thus, there is no escape from expanding foodgrains production domestically to meet the basic requirements for food. Marginal imports of food, say, one to two million tonnes in the total requirement of 200 million tonnes does not vitiate the above arguments. Nor does a 'switch' trade of a few hundred thousand tonnes go against the tenets of food self-sufficiency.

One of the major issues in agricultural trade policy is our stance on food self-sufficiency. The widespread move towards globalisation on the one hand, and secular decline in the foodgrains prices at the international level on the other, have been advanced as the arguments to forsake food self-sufficiency as a national objective, and organise production on the basis of comparative costs.

This proposition is flawed on several counts. In the first place, the notion of comparative advantage (often represented by the border prices) is, at best, a static concept. It does not take into account the dynamic role of technological and institutional measures. It also assumes ability for quick and frequent shifts in cropping pattern by domestic producers to adjust to the changes in international prices. Wide inter-year and intra-year fluctuations in international prices of foodgrains, greater in magnitude than the fluctuations in domestic prices, enhance risk and uncertainty for the domestic producers as well as consumers. Advocacy of unrestricted exposure to the international markets ignores the fact that a large majority of rural producers depend on foodgrains production as their main source of livelihood; and, it overestimates the resilience of the system to compensate these producers from heavy and sudden dislocations. Thus the assumptions on the basis of which the plea for abandoning food self-sufficiency is made are not borne out by the facts, not at least in a large and poor country such as India. For some time to come we have to stick to the objective of food self-sufficiency.

### **Intellectual Property Rights**

Intellectual Property Rights (IPRs) were included in the Uruguay Round of Negotiations under GATT and formally became a part of the WTO. India initially resisted the inclusion of IPRs in the WTO but ultimately signed the agreement. India did so because the WTO was a take it or leave it agreement (either a member accepts all the agreements or none, leaving no scope for partial agreement), and India hoped to gain concessions in

textiles and agriculture in exchange for giving in on IPRs. TRIPS reflects the views of industrialized nations that patents are a fundamental right comparable to the right of physical property, whereas India and other developing nations see it “fundamentally as a economic policy question”.

The TRIPS agreement under the Uruguay round of multilateral trade negotiations is the most comprehensive multi-lateral agreement on intellectual property. This agreement seeks to include non-discrimination and equal application of minimum standards of protection by all members in relation to every category of IPRs. The three main features of the agreement are (i) minimum standards of protection to be provided by each member; (ii) domestic procedures and remedies for the enforcement of IPRs; and (iii) dispute settlement between World Trade Organisation (WTO) members about the respect of the TRIPS obligations subject to the WTO’s dispute settlement procedures. The areas of intellectual property that the TRIPS agreement covers are: copyright and related rights; trademarks including service marks; geographical indications including appellations of origin; industrial designs; patents including the protection of new varieties of plants; the layout-designs of integrated circuits and undisclosed know-ledge including trade secrets and test data.

For the purpose of this study I would limit my discussion to its effect on the agricultural; development and food security in India.

For decades, India did not allow patents on seeds or plants and had no system of protection for plant varieties. India, along with other developing countries, adhered to the policy of ‘common heritage of mankind’, i e, that agricultural resources are to be freely used and shared by all. The conclusion of the TRIPs Agreement under the World Trade Organisation and the signing of the Convention on Biological Diversity led to changes in India’s policy. The TRIPs Agreement stipulates that all member countries must grant IPR protection for plant varieties. The Convention on Biological Diversity abandons the common heritage framework and asserts that plant genetic resources are the sovereign right of nations in which they originate. In other words, no longer are plants and seeds viewed as a free resource, but as commodities that can be owned.

The TRIPS agreement, to which India is a party, requires among other things, that all signatories generate either a patent or a *sui generis* system for the protection of plant

varieties. A patent regime implies the registration of plant varieties in the breeder's name, to ensure the breeder has *exclusive* rights to all uses of that variety. This means that any future use of the variety has to be made against a royalty payment and with the permission of the breeder. The *sui generis* system is similar but less strict, in the sense, that each country is free to impose a wide range of restrictions upon breeders' rights as they see fit for research and protecting farmers' rights.

UPOV was formed for a common understanding and for sharing of knowledge and skills among member countries. It is based on the *sui generis* system of protection. It has in fact been publicised as the role model for a *sui generis* system that developing countries should adopt. UPOV's primary concern is to provide incentives to seed breeders to develop newer and higher yielding seeds for horticultural plants and crop production. Member countries as a result must follow certain common laws for the registration and the protection of new varieties of seeds, thus ensuring that the breeder has exclusive rights over sale of seeds. The successive acts (the most recent of which was drawn up in 1991) adopted over the years by UPOV have led to increasing protection for the breeders of new varieties and the progressive reduction of farmers' rights. In effect, it has moved much closer to a patent system than a *sui generis* one, and thus, has potentially denied its member countries many of the advantages that the latter system could have provided.

In the wake of TRIPS, most countries have passed or are in the process of legislating their own laws for the protection of plant varieties. Some laws, especially in some developing countries, have been much broader in scope and distinctly different from the UPOV norms. These, among others, include acts passed by Bangladesh, Pakistan, Philippines, Taiwan, Thailand and India.

India's PVP Act (2001) was formulated for the registration of new as well as extant varieties of seeds. In a more farmer-friendly stance, it provides for the farmer many rights that are denied under UPOV. It also includes a provision for passing on a share of the benefits to local communities whose knowledge contributes to the evolution of a plant variety. Under the TRIPS agreement, it is not binding upon India to join the UPOV. It is also not necessary for international cooperation especially since the *National Treatment* clause of TRIPS obliges member states to grant nationals of other member states the same privileges they give their own nationals.

The Indian PVP law, which has been hailed as a progressive, pro-developing country legislation, has some notable features. Apart from strong and proactive Farmers Rights, it has a well-defined Breeder's Right as well. The Indian legislation succeeds in balancing the rights of Breeders and Farmers and exploits the flexibility granted in TRIPS, in an intelligent manner. The Act incorporating the principles laid down in the 1992 Convention on Biological Diversity (CBD) recognises farmers' role as conservers, breeders and cultivators. It provides legal rights to farmers to "save, exchange and sell seeds of all varieties." The Act has provisions for registering farmers' varieties so that their ownership and innovation is recognised. Though the Indian legislation is far from perfect it is the first law in the world to grant formal, legal rights to farmers. It led to the belief that the fight for Farmers' Rights had been partly won and that now India can provide other developing countries with an alternative to the UPOV model.

But barely a year after this milestone, the Indian government decided to join the Union for Protection of New Varieties and Plants (UPOV), which is primarily a breeders organization. There was a general consensus that India had broken new ground and deviated from the UPOV (International Union for the Protection of New Varieties of Plants) model of sui generis legislation. UPOV, which is an international organization of plant breeders, was established by the large seed industries in 1961 to protect their market interests. UPOV member states are predominantly wealthy developed countries with huge industrialized economies that are not dependent on agriculture. They certainly do not have food security concerns nor do they have small and marginal farmers that need protection. Developing countries with agrarian economies like India must oppose UPOV since it goes against their kind of agriculture, their vulnerability in food sector and their farmers' interests. In India, farmers supply over 85% of the total seeds planted in the country because today they have complete right over seed. UPOV denies these rights and propagates strong rights in favour of plant breeders.

There is a conflict of interest between India and UPOV. The former is rich in traditional systems of plant cultivation but lacks private seed corporations who insist on the need for protection and incentives. Instead there are Government bodies like the Indian Agricultural Research Institute (IARI), which carries out the major part of its research on new varieties of seeds. Its gene-rich, bio diverse and natural systems of



cultivation are a major resource. This is the interest that is benefited when India signs treaties like the International Treaty on Plant Genetic Resources for Food and Agriculture' and the 'Convention on Biological Diversity' (CBD). UPOV, on the other hand, is primarily occupied with protecting the interests of new seed breeders, often at the expense of traditional systems of cultivation. It is but natural that the two systems should be in conflict.<sup>12</sup>

The post Green Revolution, agriculture production scenario seems to pose several challenges for food security in developing countries. It is high time that agricultural R and D plans prioritise investment on new technologies so as to rightly balance or rather supplement the traditional techniques with new technologies such as biotechnology. However, the opinion about biotechnology among the developing countries is mixed. There are experts who actually enlist several factors why biotechnology per se, is not the right technology to ensure food security and reduce poverty in the developing countries. They even go up to the extent of saying that biotechnology is a technology that has been shaped by a narrow range of private interests – interests that are incompatible with the demands of an ecologically sound and socially – just agriculture. Thus the issues that the advent of this technology raises, covers a much wider canvass. The ethical dimension of the genetically modified organisms (GMOs) have further confounded the ongoing confusion on the relevance of biotechnology for the developing countries. In the last decade or so, the transnational corporations have emerged as a major source of biotechnology products. This trend has, probably, further contributed to the concerns among the developing countries amidst growing reports about bio-piracy. These concerns have got reflected in the wider debate being initiated to assess the relevance of this technology for developing countries.

In such a scenario, it may not be entirely misplaced, to observe that, since biotechnology is a frontier technology, upcoming in a dynamic international environment, it probably requires an altogether different approach to ensure the growth of the technology along with the desired socio-economic goals. Thus it poses a two-fold challenge, on one hand, the growth of technology has to be ensured and on the other,

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<sup>12</sup> Sahai, S (2001), "Plant Variety Protection and Farmers' Rights Law", *Economic and Political Weekly*, September 1.

policies would have to be evolved not only to restrict its adverse implications but also for ensuring growth in the agricultural sector. Any imbalance between the two may offset the wider developmental impetus, which the agricultural sector needs at this point.<sup>13</sup>

The WTO TRIPs refers to have either a patent regime or an effective sui generis system for protection of plant varieties. In last decade or so, the developing countries have strongly debated the various aspects of sui generis system and what actually constitutes it. However, as is evident from the earlier sections the varietal protection is being attempted through much more stronger patent regime, which do not allow any kind of exemption and is much narrower in its scope than the plant patents or plant variety protection. There is a continuous growth in what is called the utility patents in the US while the Biotechnology Directive of EU has suggested a similar mechanism for the protection of biotechnological inventions in the Europe. Along with this there is also a growing trend of patenting the research tools as well. Thus in light of the developments in biotechnology the profile of patent regime is fast changing in the developed countries. Needless to mention that a large part of this research is emanating from the private sector.

These changes would have severe implications for the developing countries. In this context, the role of public re-search institutions becomes very relevant. In developing countries productivity levels have yet to move anyway closer to the ones achieved in the developed countries. This requires not only the continuation of all budgetary support for the public research institutions in the developing countries but if required even increasing them to meet the demand. It is also important to ensure that public plant breeders/laboratories have access to the best science and germplasm. Similarly capacity in public plant breeding should be enhanced. This increased capacity should be directed towards those crops, which are not likely to attract private investment. Over last so many years public plant breeding programmes have evolved with a free exchange of germplasm and cooperative scientific endeavours.<sup>14</sup>

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<sup>13</sup> Chaturvedi, S (2002), "Agricultural Biotechnology and New Trends in IPR Regime", *Economic and Political Weekly*, March 30.

<sup>14</sup> *ibid.*

## Evaluation of liberalisation in agriculture and its effect on Food Security

The Structural adjustment programmes of the World Bank and the IMF on the one hand and the Agriculture and TRIPs agreements of the World Trade Organisation have created new conditions of food insecurity for large numbers of Indians who already suffer severe deprivation and malnutrition.

Export and import liberalisation in the area of staple food grains is threatening to create a 'new class' who have lost their livelihoods and all means to participate effectively as producers and consumers in the food economy. Not only is this a denial of their fundamental right to food, it will also create major social displacement, dislocation and disintegration in the area of food and agriculture needs to be guided by equity and ecological imperatives.

Export liberalisation was already resulting in rise in food prices and declining food accessibility for poorer people, while import liberalisation was threatening to wipe out millions of small producers by destroying domestic markets.

Internationally, food is being traded by powerful multinational companies. By passing on the reins of the nation's food security to these companies and the trading blocks through a policing system under the WTO, India is witnessing a gradual collapse of food self-sufficiency and the scrapping of the public distribution system, the very foundations of food security. It is quite clearly visible that the new trade regime in agriculture only aims at eliminating the hungry and not hunger, the small and marginal farmers and not unsustainable agriculture. Added to this is the agreement on trade-related intellectual property rights (TRIPs) and the sanitary and phytosanitary measures, the dominance of Indian agriculture becomes complete.

The latest report published by the Food and Agriculture Organisation (FAO) in Rome, *The State of Food Insecurity in the World 2002*, According to this report, "progress in reducing hunger has virtually halted". The FAO estimates that in the period between 1998 and 2000, there were at least 840 million undernourished people in the world.<sup>15</sup>

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<sup>15</sup> Ghosh, J (2002), "Food Insecurity, a Global Concern", *Frontline*, November 9- 22.

In the period between 1991-92 and 1998-2000, the number of undernourished people decreased by only 2.5 million a year, well below the declared goals. And even this rather small improvement was because of improved food and nutrition in certain pockets such as East Asia, with China alone reducing the number of chronically hungry people by 74 million people (or almost half) over this period.<sup>16</sup>

In addition, the Report points out that more than two billion people have micronutrient malnutrition characterised by chronic dietary deficiencies. The effects of chronic hunger are dramatic and can directly or indirectly result in death; indeed, the Report estimates that 25,000 people die of poverty and hunger every day. But micronutrient malnutrition is also of great social concern. With such deficiencies, children fail to grow and develop normally; in adult life cognition is impaired, immune systems are compromised, and mental and physical capacities are limited. It is alarming to realise that more than one-fifth of the world's population could be thus afflicted.

The Report assesses the major cause of hunger in these terms. It identifies structural causes, such as inadequate access to land and poverty because of inadequate livelihood, as well as conjunctural factors such as armed conflicts, droughts and floods, and political, social and economic disruptions. The emphasis on land relations, and the need for land and other institutional reforms in agriculture, to combat hunger, is particularly well taken.

The most significant point is one that is mentioned but given somewhat less attention in the Report: the crucial issue of livelihoods. The Report recognises that loss of livelihood is typically the key shock factor that then generates a process that culminates in greater hunger and malnourishment in most developing countries.

India needs a food security system that looks much beyond management of scarce supplies and critical situations. Food security systems are evolved as an integral part of a development strategy bringing about a striking technological change in food crops, providing effective price and market support to farmers and deploying a wide range of measures to generate employment and income for the rural poor with a view to improve their level of well-being, including better physical and economic access to foodgrains. Free trade in food products and agricultural commodities does not help the survival of

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<sup>16</sup> *ibid.*

farming communities in developing countries like India, where it forms the backbone of the economy.

Food security, can be ensured if the developing countries have provisions and powers to re-enforce QRs. No amount of tinkering with suitable clauses on market access, domestic support and export subsidies is going to serve the food security needs of the developing countries. Besides this, the elimination of subsidies, including domestic support and those for agricultural exports need to be linked to the removal of QRs. After all, border protection is the only way for the developing countries to avoid being inundated by cheap and highly subsidised food and agricultural commodity imports.<sup>17</sup>

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<sup>17</sup> Sharma, D (2001), "WTO and Indian Agriculture: Trading in Food Insecurity", *Financial Daily*, The Hindu, October 1.

## Chapter 4

### FOOD SECURITY – GROUND REALITIES

As analysed in the previous sections, Food Security is defined as availability, accessibility, adequacy and sustainability of food. It is important for us to see how far has the Indian State been able to realise these dimensions of food security with its elaborate structures and economic reform policies. Availability, Accessibility and sustainability are not separate phenomena - they overlap. Food production is linked to livelihood access, food access and food consumption. Livelihood access in turn influences the demand for food and better prices and incentives for production. Better livelihood access also leads to better education, better living standards, better sanitation, and better knowledge of nutrition, better absorption and better health. For achieving accessibility it is also important that the poor have sufficient means to purchase food. The purchasing power of the poor to buy food can be ensured in two ways. One way is Government directly providing food or income support in the form of foodgrains at subsidised prices, nutrition programmes, employment programmes. The other way is to increase purchasing power by facilitating creation of productive employment through sectoral development. Here right to employment or livelihood is important.

#### Availability

*Foodgrain Production.* One achievement of India is that it achieved self-sufficiency of food grains at the national level. After remaining a food deficit country for about two decades after independence, India has not only become self sufficient in foodgrains but now has a surplus of foodgrains.<sup>1</sup> The situation improved gradually after the mid-1960s with the introduction of high yielding varieties (HYVs) of crops, and the development of agriculture infrastructure for irrigation, input supply, storage and marketing. The era of all-round development on the agriculture front has been called the Green Revolution. The foodgrains production increased from about 50 million tonnes in 1950-51 to around 211

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<sup>1</sup> GOI (2003), *Tenth Five Year Plan: 2002-2007*, Volumes I, II, III, Planning Commission, Government of India

million tonnes in 2001-02. The production of oilseeds, cotton, sugarcane, fruits, vegetables and milk also increased appreciably.

**Table: 4.1**  
**AGRICULTURAL PRODUCTION-FOOD GRAINS**

(million tonnes)						
Year	Cereals				Pulses	Total Foodgrains (5+6)
	Rice	Wheat	Coarse Cereals	Total (2 to 4)		
1	2	3	4	5	6	7
1980-81	53.63	36.31	29.02	118.96	10.63	129.59
1981-82	53.25	37.45	31.09	121.79	11.51	133.30
1982-83	47.12	42.79	27.75	117.66	11.86	129.52
1983-84	60.1	45.48	33.9	139.49	12.89	152.37
1984-85	58.34	44.07	31.17	133.58	11.96	145.54
1985-86	63.83	47.05	26.2	137.08	13.36	150.44
1986-87	60.56	44.32	26.83	131.71	11.71	143.42
1987-88	56.86	46.17	26.36	129.39	10.96	140.35
1988-89	70.49	54.11	31.47	156.07	13.85	169.92
1989-90	73.57	49.85	34.76	158.18	12.86	171.04
1990-91	74.29	55.14	32.7	162.13	14.26	176.39
1991-92	74.68	55.69	25.99	156.36	12.02	168.38
1992-93	72.86	57.21	36.59	166.66	12.82	179.48
1993-94	80.3	59.84	30.82	170.95	13.3	184.26
1994-95	81.81	65.77	29.88	177.46	14.04	191.50
1995-96	76.98	62.1	29.03	168.11	12.31	180.42
1996-97	81.74	69.35	34.1	185.19	14.24	199.44
1997-98	82.53	66.35	30.4	179.29	12.98	192.26
1998-99	86.08	71.29	31.34	188.71	14.91	203.61
1999-00	89.68	76.37	30.33	196.38	13.42	209.80
2000-01	87.7	69.68	31.08	188.46	11.08	196.81
2001-02	93.08	71.81	33.94	198.84	13.19	212.02
2002-03	77.2	68.89	25.1	171.71	11.46	182.57
AE						

AE: Advanced Estimates

Source: *Ministry of Agriculture, Government of India (as on 01.07.2003)*

However, in spite of the spectacular achievements, various constraints and disturbing trends continue to hamper the requisite growth of the agricultural sector. During the 1990s (1989-90 to 1999-00), the growth of agriculture decelerated as

compared to the 1980s (1979-80 to 1989-90). The growth rate of foodgrains production declined to 1.92% per annum from 3.54% per annum. The growth rate of productivity in foodgrains decelerated to 1.32% in the 1990s as compared to 3.3% in the 1980s. The overall growth rate of crop production declined from 3.72% to 2.29% and productivity from 2.99% to 1.21% per annum.<sup>2</sup>

Per Capita Availability

**Table: 4.2**  
**NET AVAILABILITY OF CEREALS AND PULSES**

Year	Per capita net availability per day (grams)			Edible oil (Kg.)	Vanaspati (Kg.)	Sugar (Nov-Oct) (Kg.)
	Cereals	Pulses	Total Foodgrains			
1951	334.2	60.7	394.9	2.5*	0.7*	5.0*
1961	399.7	69.0	468.7	3.2	0.8	4.8
1971	417.6	51.2	468.8	3.5	1.0	7.4
1981	417.3	37.5	454.8	3.8	1.2	7.3
1990	435.3	41.1	476.4	5.3	1.1	12.3
1991	468.5	41.6	510.1	5.5	1.0	12.7
1992	434.5	34.3	468.8	5.4	1.0	13.0
1993	427.9	36.2	464.1	5.8	1.0	13.7
1994	434.0	37.2	471.2	6.1	1.0	12.5
1995	457.6	37.8	495.4	6.3	1.0	13.2
1996	443.4	32.8	476.2	7.0	1.0	14.1
1997	468.2	37.3	505.5	8.0	1.0	14.6
1998	417.3	33.0	450.3	6.2	1.0	14.5
1999	433.5	36.9	470.4	8.5	1.3	14.9
2000	426.0	32.0	458.0	9.1	1.3	15.6
2001(P)	390.6	26.4	417.0	8.0	1.4	15.8

\*Pertains to the year 1955-56

(P) Provisional

Source: *Economic Survey 2001-2002*, Government of India

The per capita net availability of foodgrains increased by only about 10% over the last 50 years. During the same period, per capita availability of pulses declined significantly. On the other hand, per capita availability of sugar and edible oils has increased over time. In the 1990s, per capita availability of foodgrains has not increased

<sup>2</sup> Mahendra Dev, S. (2003), *Right to Food In India*, Center for Development and Human Rights, New Delhi, June.



because of accumulation 60 million tonnes of foodgrains by the government and due to exports.

### Adequacy

Once the foodstuffs are physically available, they have to satisfy the dietary needs among other criteria, to qualify as adequate. Thus nutritional aspects need to be duly taken into consideration in order to look at the adequacy aspect in the availability of food and not just physical availability.

Calorie and Protein. The nutritional status is defined taking into account calorie and protein intakes as well as minimum cut-off points for either on the assumption of sedentary, moderate and heavy work.<sup>3</sup> The per capita calorie intake for rural population declined from 2364 kcal per day in 1987-88 to 2030 kcal per day in 1999-00. For the bottom 30% of the population, the calorie intake increased up to 1993-94 and declined in 1999-00. In the year 1999-00, the calorie intake was 1626 kcal per day for the bottom 30% of population. This level is much below the norm of 2400 calories in rural areas. However, there is a controversy over the minimum calorie consumption per consumer unit per diem. Sukhatme<sup>4</sup> and Minhas<sup>5</sup> have questioned the sanctity of calorie norms widely used by nutritionists and consider them to be exaggerated. The NNMB data in 1996-97 shows that about 48 per cent of the households consumed more than adequate amount of both proteins and calories, while 20 per cent of households consumed inadequate amounts of both the nutrients.<sup>6</sup>

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<sup>3</sup> Gopalan, C. (1992), "Undernutrition: Measurement and Implications", in S. Osmani (ed.) *Nutrition and Poverty*, New Delhi, Oxford University Press.

<sup>4</sup> Sukhatme, P.V. (1982), "Poverty and Malnutrition", in P.V. Sukhatme (ed.), *Newer Concepts in Nutrition and their Implications for Policy*, Maharashtra Association for the Cultivation of Science, Pune

<sup>5</sup> Minhas, B.S. (1991), "On Estimating the Inadequacy of Energy Intakes: Revealed Food Consumption Behaviour versus Nutritional Norms", *The Journal of Development Studies*, vol.28, no.1

<sup>6</sup> Mahendra Dev, S. (2003), *Right to Food In India*, Center for Development and Human Rights, New Delhi, June.

**Table: 4.3**  
**AVERAGE PER CAPITA CALORIE INTAKE (kcal/day) : RURAL**

Decile Group	1972-73	1977-78	1983	1993-94	1990-00
Lowest 30%	1504	1630	1620	1678	1626
Middle 40%	2170	2296	2144	2119	2009
Top 30%	3161	3190	2929	2672	2463
All	2268	2364	2222	2152	2030

Source: *NSS Consumer Expenditure Surveys*

The NSS data shows that the average protein intake in rural India remained at 62 grams per consumer unit per day until 1983 but declined by 2 grams in 1993-94. There are some states where the average protein intake has been declining continuously since 1972-73. These are Assam, Himachal Pradesh, Punjab, Tamil Nadu and Uttar Pradesh. In Kerala, Orissa and West Bengal, protein intake has increased. On the whole at the average level protein energy malnutrition is not apparent in any of the states. This, however, does not rule out the possibility of protein energy malnutrition in the lower expenditure groups.<sup>7</sup>

Micro nutrient Deficiencies. Pre-independent India faced public health problems like Goitre, blindness, beriberi and pellagra. Through sustained dietary changes, India has been able to eliminate Beriberi and Pellagra. However, There has not been any decline in the prevalence of anemia due to iron and folic acid deficiency. Surveys have shown that the intake of Vitamin A is very low in young children, dietary adolescent girls and pregnant women.

The Expert Group of ICMR, made the following recommendations in 1990 for nutritional requirements.<sup>8</sup>

<sup>7</sup> MS Swaminathan Research Foundation (2001), *Food Insecurity Atlas of Rural India*, published by UN World Food Programmes and MS Swaminathan Research Foundation

<sup>8</sup> Government of India (1990), *Report of Committee on Dietary Allowances*, ICMR, New Delhi.

**Table: 4.4**  
**ENERGY ALLOWANCE FOR ADULTS**

Category	Reference Body Weight Kg.	Activity	Energy Allowance (K.Cal.)
Man	60	Sedentary	2425
		Moderate	2875
		Heavy	3800
Woman	50	Sedentary	1875
		Moderate	2225
		Heavy	2925

Source: ICMR Report 1990

**Table: 4.5**  
**PROTEIN ALLOWANCES FOR ADULTS**

Category	Body Weight		Protein requirement in grams	
	Kg.	Per Kg.	Per Day	
Man	60	1.00	60	
Woman	50	1.00	50	

Source: ICMR Report 1990

**Table: 4.6**  
**CALORIE AND PROTEIN UNDERNUTRITION IN RURAL INDIA (1987-2000)**

	1987-88			1993-94			1999-2000		
	S	M	H	S	M	H	S	M	H
<b>Calorie deficiency</b>	4.77	54.79	80.32	20.66	28.40	50.27	2.78	4.33	11.63
<b>Protein deficiency</b>		32.26			20.55		2.36	2.36	2.36
<b>Both Calorie and Protein deficiency</b>	25.96	29.82	32.16	16.03	18.53	20.35	1.79	2.02	2.25

Source: NSS Household Consumption Surveys

As can be seen from the table, the range for calorie and protein undernutrition is large. Over the period 1987-93, there is a sharp reduction in the prevalence of both calorie and protein undernutrition. It is significant that reduction in calorie undernutrition is higher for lower calorie requirements (i.e. for sedentary and moderate work), suggesting that large segments of the rural population with low calorie intakes in 1987-88 had higher intakes in 1993-94. The results for 1999-2000 show a very large drop in undernutrition in terms of calories as well as protein.

The National Family Health Surveys (NFHS I and NFHS II) provide information on undernourishment of women and children. Comparison of Body Mass Index (BMI), which is essentially a measure of weight for height, brings this out clearly the undernourishment of women. At the all India level, 36 per cent of women were suffering from undernourishment in 1998-99. The malnutrition (weight for age) for children declined from 53.4 per cent in 1992-93 to 47 per cent in 1998-99 at all India level.

Some indicators on anemia of women and children based on NFHS data are given below. It shows that more than 50 per cent of women and more than 70 per cent of children have anemia.

**Table 4.7**  
**PERCENTAGE OF WOMEN AND CHILDREN WITH ANEMIA**

States	% of Women with anemia	% of Children with anemia
<b>Andhra Pradesh</b>	49.8	72.3
Assam	69.7	63.2
Bihar	63.4	81.3
Gujrat	46.3	74.5
Haryana	47.0	83.9
Karnataka	42.4	70.6
Kerala	22.7	43.9
Madhya Pradesh	54.3	75.0
Maharashtra	48.5	76.0
Orissa	63.0	72.3
Punjab	41.4	80.0
Rajasthan	48.5	82.3
Tamil Nadu	56.5	69.0
Uttar Pradesh	48.7	73.9
West Bengal	62.7	78.3
<b>India</b>	<b>51.8</b>	<b>74.3</b>

Source: *National Family Health Survey (NFHS-2)*, 1998-99

### **Accessibility**

*Physical Accessibility.* At the national, the food is easily accessible. However, the north eastern states and other remote and tribal areas do face a problem in accessing sufficient foodgrains. The government of India has programmes to take care of these problems. However, there is a different angle that need to be explored here. The vulnerable groups

in India at the Intra-household level do not get sufficient food. These groups would include old age population, pregnant and lactating women, children, etc.

In India, it is believed that the male members of the house get more food than the female members. According to Pettigrew, boys may be favoured in India by giving first priority in breast-feeding and in food supplementation.<sup>9</sup> In India, upper-middle caste groups favour sons more in food allocation than lower status groups and tribal groups.<sup>10</sup> Sen and Sengupta studied the question of undernourishment of boys and girls in two villages of West Bengal. Based on weight-for-age indicator, they found bias to boys over girls.<sup>11</sup> Sen cautions about the interpretation of causal process. The lower level of nourishment of girls may not relate directly to their being underfed vis-à-vis boys. 'Often enough, the differences may particularly arise from the neglect of health care of girls compared with what boys get'.<sup>12</sup>

Economic Accessibility. The Human Development Report 2003 has stated that India is home to the largest number of hungry people i.e. 23.3 million. India is placed 127<sup>th</sup> among the 175 countries in the Human Development Index calculated by the United Nations Development Programme, based on economic, social and educational indices, among others. "India, home to one in six of the world's people, has achieved great progress on most fronts. Poverty has been dramatically reduced and improvements made in education for both males and females," the 367-page report said.

The expenditure on food (calorie intake) with some allowance for non-food expenditure is mostly used as a basis for determining the poverty line. The official poverty ratios for all India and major states shows that the rural poverty declined by about 10 percentage points in the 1990s while urban poverty declined by 9% points during the same period. In almost all the states, poverty declined in the 1990s. However, rural poverty was above 40 per cent in three states viz., Orissa, Bihar, Assam and in three

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<sup>9</sup> Pettigrew, J. (1986), "Child Neglect in rural Punjab Families", *Journal of Comparative Family Studies*, Vol.17 No.1:63-85

<sup>10</sup> Warrier, S. (1992), "Patriarchy and daughter disfavour in West Bengal, India", Ph.d dissertation draft, Syracuse University, Syracuse, N.Y., USA, quoted by S. Mahendra Dev, in *Right to Food in India*, CDHR, New Delhi, June 2003.

<sup>11</sup> Sen, A. and S.Sengupta (1983), "Malnutrition of Rural Indian Children and the Sex Bias", *Economic and Political Weekly*, vol.19.

<sup>12</sup> Sen, A. (2001), "Many Faces of Gender Equality", *Frontline*, Vol.18, Issue 22, Oct27-Nov9, 2001

states (M.P., U.P. and West Bengal) it was above 30 per cent. In the case of urban poverty, states such as Orissa, M.P., Bihar, U.P. showed higher incidence in 1999-2000. Thus, although income poverty declined significantly at the all India level, regional disparities are quite high.

**Table 4.8**  
**INCIDENCE OF POVERTY ACROSS STATES**

States	Rural			Urban			Total		
	1973-74	1993-94	1999-00	1973-74	1993-94	1999-00	1973-74	1993-94	1999-00
A.P.	48.41	15.92	11.05	50.61	38.33	26.63	48.86	22.19	15.77
Assam	52.67	45.01	40.04	36.92	7.73	7.47	51.21	40.86	36.09
Bihar	62.99	58.21	44.30	52.96	34.50	32.91	61.91	54.96	42.60
Guj.	46.35	22.18	13.17	52.57	27.89	15.59	48.15	24.21	14.07
Har.	34.23	28.02	8.27	40.18	16.38	9.99	35.36	25.05	8.74
Karn.	55.14	29.88	17.38	52.53	40.14	25.25	54.47	33.16	20.04
Ker.	59.19	25.76	9.38	62.74	24.55	20.27	59.79	25.43	12.72
M.P.	62.66	40.64	37.06	57.65	48.38	38.44	61.78	42.52	37.43
Mah.	57.71	37.93	23.72	43.87	35.15	26.81	53.24	36.86	25.02
Orissa	67.28	49.72	48.01	55.62	41.64	42.83	66.18	48.56	47.15
Punjab	28.21	11.95	6.35	27.96	11.35	5.75	28.15	11.77	6.16
Raj.	44.76	26.46	13.74	52.13	30.49	19.85	46.14	27.41	15.28
T.N.	57.43	32.48	20.55	49.40	39.77	22.11	54.94	35.03	21.12
U.P.	56.53	42.28	31.22	60.09	35.39	30.89	57.07	40.85	31.15
W.B.	73.16	40.80	31.85	34.67	22.41	14.86	63.43	35.66	27.02
India	56.44	37.27	27.09	49.01	32.36	23.62	54.88	35.97	26.10

Source: *Economic Survey 2001-02*, Government of India

The increase in employment opportunities can mean an increase in the purchasing power of the people, which can also lead to food security. The growth rate of rural employment was around 0.5% per annum between 1993-94 and 1999-00 as compared to 1.7% per annum between 1983 and 1993-94.

Another indicator of purchasing power is agricultural wages. At the all India level, the growth of real agricultural wages declined from about 5 per cent per annum in the 1980s to 2.5 per cent per annum in the 1990s. Deaton and Dreze say that a healthy growth of real agricultural wages appear to be a sufficient condition for significant reduction in poverty in rural areas.<sup>13</sup> In all the states where real wages have grown more

<sup>13</sup> Deaton, Angus and Jean Dreze (2002), "Poverty and Inequality in India: A Reexamination", *Economic and Political Weekly*, Vol.37, No.36

than 2.5 per cent (Gujarat, Karnataka, Kerala, Tamil Nadu) have experienced sharp reduction in rural poverty. On the other hand, entire region (Assam, Orissa, West Bengal and Bihar), Andhra Pradesh and Madhya Pradesh experienced low growth in agricultural wages and lower reduction in poverty.

**Table 4.9**  
**GROWTH RATES OF REAL AGRICULTURAL WAGES ACROSS**  
**STATES:1990-2000**

States	Growth rates of real wages (%)
Andhra Pradesh	1.3
Assam	-0.7
Bihar	0.3
Gujrat	5.1
Haryana	2.7
Karnataka	3.2
Kerala	7.9
Madhya Pradesh	1.8
Maharashtra	1.6
Orissa	0.7
Punjab	-0.8
Rajasthan	2.8
Tamil Nadu	6.7
Uttar Pradesh	2.5
West Bengal	1.6
<b>All India</b>	<b>2.5</b>

Source: *Dreze and Sen*<sup>14</sup>

The public distribution system (PDS) is one of the instruments to help the poor in accessing limited quantities of food at subsidized rates.<sup>15</sup> National Sample Survey Organisation (NSSO) in its 55<sup>th</sup> round in 1999-2000 collected information on purchases of rice, wheat, sugar and kerosene made in fair price shops. These data have been analysed to examine the utilization of PDS. According to the 1999-2000 data, the PDS is accessible (Percentage of households purchases in Fair Price Shops) to about 30 percent of Indian rural households for rice and only 17 percent for wheat.

<sup>14</sup> Dreze, Jean and A.Sen (2002), *India: Development and Participation*, Oxford University Press, London.

<sup>15</sup> Mahendra Dev, S. (2003), *Right to Food in India*, CDHR, New Delhi, June

**Table: 4.10**  
**PERCENTAGE OF HOUSEHOLD ASSESSING PDS: 1999-00**

States	Rural		Urban	
	Rice	Wheat	Rice	Wheat
Andhra Pradesh	62.93	1.84	29.34	15.86
Assam	37.22	1.74	22.28	1.25
Bihar	5.40	8.98	2.30	4.66
Gujrat	43.98	34.32	17.54	12.78
Haryana	0.72	2.16	0.35	1.34
Himachal	34.90	20.08	17.23	10.98
J&K	36.55	21.44	42.89	26.13
Karnataka	68.24	61.96	40.19	37.49
Kerala	68.52	37.08	59.99	39.88
M.P.	16.10	10.90	6.81	3.45
Maharashtra	44.26	43.43	15.17	14.75
Orissa	51.38	4.98	29.76	17.72
Punjab	0.24	0.21	0.14	0.10
Rajasthan	0.61	5.46	0.28	2.41
Tamil Nadu	75.21	15.09	52.59	30.32
Uttar Pradesh	8.07	7.34	3.29	2.93
West Bengal	17.49	16.06	6.87	18.36
<b>All India</b>	<b>32.38</b>	<b>16.59</b>	<b>20.28</b>	<b>15.12</b>

Source: *Estimated from NSSO 1999-2000 Consumer Expenditure Data*  
Access indicates the percentage of households reporting purchases from PDS.



## CONCLUSION

India at present finds itself in the midst of a paradoxical situation: endemic mass-hunger coexisting with the mounting foodgrain stocks. The foodgrain stocks available with the Food Corporation of India (FCI) stand at more than 65 million tonnes against an annual requirement of around 20 million tonnes for ensuring food security. Still, an estimated 200 million people are underfed and 50 million on the brink of starvation, resulting in starvation deaths.<sup>1</sup>

The first question that comes to our mind is what is wrong with our system? Why hasn't the Indian State been able to honour the right to food inspite of its been committed to the cause and inspite of the Supreme Court's repeated reminders to the states for the same? India has witnessed "green" revolution a few years back, which made India a self-sufficient country in food grains. However, due to gross mismanagement and adverse effects of the economic reforms, per capita availability of foodgrains have gone down, agricultural production has stagnated, prices of foodgrains have gone up, and conditions of mass poverty and malnutrition have prevailed.

The 1990s have seen a steady decline in the level of per capita food availability in the country as a whole. This decline is not due to the deficiency of supply but due to deficiency of demand. The Economic Survey 2001-02 lays down that the increasing food stocks are a results of the fact that the minimum support prices to the farmers have been to high resulting in excessive procurement and hence issue prices also had to be raised. Some economists also state that the decline in per capita food availability is because of a change in the dietary habits of the people. With the rise in income, people diversify their consumption pattern away from cereals towards animal products.

However, these arguments miss the basic fact that the increase in stocks is the result of a very large increase in the inequality of access to food in Indian society over the last five years in particular. The increased inequality of access in turn is the outcome of two sets of processes. The first is the massive cut in the purchasing power with the poorer majority of population. This has been the result of reduced public expenditure as a result

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<sup>1</sup> Goyal, Prashant (2002): Food Security in India, accessible at:  
"http://www.hinduonnet.com/thehindu/biz/2002/01/10/stories/2002011000440200.htm"

of the economic reforms which has also led to a decline in employment growth and hence incomes. Besides this, the falling farm prices for commercial crops both globally and locally has also reduced the income levels. The second process is implementation of targeting the food subsidy. Under pressure from the WTO agreements, the government, in order to reduce the food subsidies decided to target the BPL population. This has made it difficult for the poor to draw cheap food. The result has been a drop in off-take from the PDS. The combination of all these processes have led to the present situation of increasing hunger.

Analysing the official data, we find that the foodgrains growth rate decreased in the nineties and the per head income increased substantially. Thus, an additional level of imports would have been required in order to meet the demand in the country. As laid down by Utsa Patnaik, all empirical evidence shows that the absorption of foodgrains for all purposes always goes up fairly sharply with rising per head income. However, in India, we faced a situation of enormous foodstocks. This indicated that even though the average income was going up, the per capita consumption was going down. Moreover, the pre capita calorie intakes have also gone down according to the NSS data. The reason behind this trend is the increase in inequality of income distribution during the nineties.

The importance of reduction in poverty and provision of basic needs has been emphasized in all the five year plans since independence particularly since the 5<sup>th</sup> Five-Year Plan. India adopted a multi-sectoral and multi-pronged strategy to improve the food and nutrition situation of its population. The Central and State Governments of India implement a broad package of programmes to improve accessibility and adequacy of food and nutrition for the poor and vulnerable groups. However, the inability of the States to take initiatives and the increase in the corruption levels has kept the results of such programmes modest. Thus there is a need for the Indian State to take some corrective policy measures in order to ensure the right to food to every person.

## Suggestions

- To start with it is necessary to universalise the PDS so that everyone has access to it. Due to present criteria of identifying the people below the poverty line, it becomes very difficult to ensure food security to those who are just above the poverty line.
- Another suggestion is to involve the Panchayati Raj institutions to identify the poor and monitor their progress.
- Effective implementation of Food for Work programmes can also increase food accessibility. This will also help reduce the foodstocks.
- Women empowerment and increase in their nutritional standards should also be looked at as they are very instrumental in ensuring food security.
- Expansion of Employment guarantee schemes throughout the country can also increase food entitlements. The experience of the nineties in employment creation is not very encouraging. Thus there is a need to increase education and skills of the people.
- Increase agricultural production of foodgrains.
- In the case of agricultural policies, there is a need to have faster reforms in agriculture in order to have win-win-situation for farmer, worker and consumer. Supply side factors such as irrigation, infrastructure, technology, research and extension and, marketing have to be improved to have higher and sustainable growth.
- Due to its commitments to the WTO, India can not increase its food subsidies. But, it can be vigilant regarding imports from other countries and impose tariffs as the situation demands.

The primary responsibility in implementing the right to food lies with the government (center and states). In order to fulfil the obligations all levels of government and public sector organizations must coordinate their actions. This coordination should be not only among themselves, but also with other parties within the country including NGOs, individuals and other national institutions, as well as with other countries and international organizations. Such coordination, or at least the existence of a functioning coordination mechanism, would be essential for effective implementation of right to food.

## ANNEXURES

### ANNEXURE A

#### **AVAILABILITY, PROCUREMENT AND PUBLIC DISTRIBUTION OF FOOD GRAIN, INDIA, 1975 TO 2002**

<i>Year</i>	<i>Net Production</i>	<i>Net imports</i>	<i>Net Availability (NA)</i>	<i>Procurement</i>	<i>Public distribution (PD)</i>	<i>PD/NA (%)</i>
1975	87.4	7.5	89.3	9.6	11.3	12.6
1976	105.9	0.7	95.8	12.8	9.2	9.6
1977	97.3	0.1	99.0	9.9	11.7	11.8
1978	110.6	-0.6	110.2	11.1	10.2	9.2
1979	115.4	-0.2	114.9	13.8	11.7	10.2
1980	96.0	-0.3	101.4	11.2	15.0	14.8
1981	113.4	0.7	114.3	13.0	13.0	11.4
1982	116.6	1.6	116.9	15.4	14.8	12.6
1983	113.3	4.1	114.7	15.6	16.2	14.1
1984	133.3	2.4	128.6	18.7	13.3	10.4
1985	127.4	-0.4	124.3	20.1	15.8	12.7
1986	131.6	0.5	133.8	19.7	17.3	12.9
1987	125.5	-0.2	134.8	15.7	18.7	13.8
1988	122.8	3.8	130.8	14.1	18.6	14.2
1989	148.7	1.2	147.2	18.9	16.4	11.1
1990	149.7	1.3	144.8	24.0	16.0	11.0
1991	154.3	-0.1	158.6	19.6	20.8	13.1
1992	147.3	-0.4	148.4	17.9	18.8	12.7
1993	157.5	3.1	149.8	28.1	16.4	10.9
1994	161.2	1.1	154.8	26.0	14.0	9.1
1995	167.6	-2.6	166.7	22.6	15.3	9.0
1996	157.9	-3.1	163.3	19.8	18.3	11.2
1997	174.5	-0.1	176.2	23.6	17.8	10.1
1998	168.2	-2.5	159.6	26.3	18.6	11.1
1999	178.2	-1.3	169.4	30.8	17.7	9.9
2000	182.8	-1.4	167.5	35.5	12.8	7.0
2001	171.6	-2.7	156.3	42.2	11.3	6.6

Source: *Economic Survey 2001-02*. All quantities are in million tonnes.

## ANNEXURE B

**PAST AND PRESENT MACRO-SCENARIO ON EMPLOYMENT  
AND UNEMPLOYMENT (CDS BASIS)**

	(person years)				
	Million			Growth per annum (%)	
	1983	1993-94	1999-2000	1983- 1993-94	1993-94- 1999-2000
<b>All India</b>					
Population	718.20	894.01	1003.97	2.00	1.95
Labour Force	261.33	335.97	363.33	2.43	1.31
Work Force	239.57	315.84	336.75	2.70	1.07
Unemployment rate (%)	(8.30)	(5.99)	(7.32)		
No. of unemployed	21.76	20.13	26.58	-0.08	4.74
<b>Rural</b>					
Population	546.61	658.83	727.50	1.79	1.67
Labour Force	204.18	255.38	270.39	2.15	0.96
Work Force	187.92	241.04	250.89	2.40	0.67
Unemployment rate (%)	(7.96)	(5.61)	(7.21)		
No. of unemployed	16.26	14.34	19.50	-1.19	5.26
<b>Urban</b>					
Population	171.59	234.98	276.47	3.04	2.74
Labour Force	57.15	80.60	92.95	3.33	2.40
Work Force	51.64	74.80	85.84	3.59	2.32
Unemployment rate (%)	(9.64)	(7.19)	(7.65)		
No. of unemployed	5.51	5.80	7.11	0.49	3.45

Source: *Planning Commission*

## ANNEXURE C

**HUMAN DEVELOPMENT INDEX**

<b>High Human Development</b>	<b>Medium Human Development</b>		<b>Low Human Development</b>
1. Norway	56. Antigua and Barbuda	99. Sri Lanka	142. Cameroon
2. Iceland	57. Bulgaria	100. Armenia	143. Nepal
3. Sweden	58. Malaysia	101. Uzbekistan	144. Pakistan
4. Australia	59. Panama	102. Kyrgyzstan	145. Zimbabwe
5. Netherlands	60. Macedonia, TFYR	103. Cape Verde	146. Kenya
6. Belgium	61. Libyan Arab Jamahiriya	104. China	147. Uganda
7. United States	62. Mauritius	105. El Salvador	148. Yemen
8. Canada	63. Russian Federation	106. Iran, Islamic Rep. of	149. Madagascar
9. Japan	64. Colombia	107. Algeria	150. Haiti
10. Switzerland	65. Brazil	108. Moldova, Rep. of	151. Gambia
11. Denmark	66. Bosnia and Herzegovina	109. Viet Nam	152. Nigeria
12. Ireland	67. Belize	110. Syrian Arab Republic	153. Djibouti
13. United Kingdom	68. Dominica	111. South Africa	154. Mauritania
14. Finland	69. Venezuela	112. Indonesia	155. Eritrea
15. Luxembourg	70. Samoa (Western)	113. Tajikistan	156. Senegal
16. Austria	71. Saint Lucia	114. Bolivia	157. Guinea
17. France	72. Romania	115. Honduras	158. Rwanda
18. Germany	73. Saudi Arabia	116. Equatorial Guinea	159. Benin
19. Spain	74. Thailand	117. Mongolia	160. Tanzania, U. Rep. of
20. New Zealand	75. Ukraine	118. Gabon	161. Côte d'Ivoire
21. Italy	76. Kazakhstan	119. Guatemala	162. Malawi
22. Israel	77. Suriname	120. Egypt	163. Zambia
23. Portugal	78. Jamaica	121. Nicaragua	164. Angola
24. Greece	79. Oman	122. São Tomé and Príncipe	165. Chad
25. Cyprus	80. St. Vincent and the Grenadines	123. Solomon Islands	166. Guinea-Bissau
26. Hong Kong, China (SAR)	81. Fiji	124. Namibia	167. Congo, Dem. Rep. of the

Cont...

<b>High Human Development</b>	<b>Medium Human Development</b>		<b>Low Human Development</b>
27. Barbados	82. Peru	125. Botswana	168. Central African Republic
28. Singapore	83. Lebanon	126. Morocco	169. Ethiopia
29. Slovenia	84. Paraguay	127. India	170. Mozambique
30. Korea, Republic of	85. Philippines	128. Vanuatu	171. Burundi
31. Brunei Darussalam	86. Maldives	129. Ghana	172. Mali
32. Czech Republic	87. Turkmenistan	130. Cambodia	173. Burkina Faso
33. Malta	88. Georgia	131. Myanmar	174. Niger
34. Argentina	89. Azerbaijan	132. Papua New Guinea	175. Sierra Leone
35. Poland	90. Jordan	133. Swaziland	
36. Seychelles	91. Tunisia	134. Comoros	
37. Bahrain	92. Guyana	135. Lao People's Dem.Rep.	
38. Hungary	93. Grenada	136. Bhutan	
39. Slovakia	94. Dominican Republic	137. Lesotho	
40. Uruguay	95. Albania	138. Sudan	
41. Estonia	96. Turkey	139. Bangladesh	
42. Costa Rica	97. Ecuador	140. Congo	
43. Chile	98. Occupied Palestinian Territories	141. Togo	
44. Qatar			
45. Lithuania			
46. Kuwait			
47. Croatia			
48. United Arab Emirates			
49. Bahamas			
50. Saint Kitts and Nevis			
52. Cuba			
53. Belarus			
54. Trinidad and Tobago			
55. Mexico			

Source: *Human Development Report 2003*

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