Chapter VI – Conclusion

Food security is an issue of significant importance for a country like India where still a high proportion of people are reported below poverty line & malnourishment & hunger is still widely prevalent. The need for food security and the awareness & consciousness about the right to food has been growing over the years with efforts from various quarters (ranging from the Right to Food Campaign to the Food Security Atlas and Sustainability of Food Security Atlases being released etc.) making us more conscious of the fact that maintaining food security is important and it is nothing but human security in the long run. For ascertaining whether a state is food secure or not, certain aspects or parameters have to be considered. These are food availability, accessibility and food absorption. Along with these three that tell us about the current food security situation, sustainability of food security is equally important for the long term. Also one has to place the aspect of food security in the context of rural development as it helps in improving all aspects of food security i.e. schemes on food based programmes and programmes for development of natural resources, poverty alleviation and employment generating programmes along with development of rural infrastructure, provision of nutritional programmes, better health, water supply and sanitation facilities. Rural development is crucial for achieving a food secure India. All these aspects can only be maintained well if one has good governance & a balanced governance requires that one has government, private sector, NGOs, PRIs and Cooperatives working harmoniously to preserve, promote and protect the interests of the common man.

In the context of food security in India, when one examines the parameters of food availability and food accessibility, then one studies the agricultural sector as it affects not only food availability through its production & its overall performance but it also provides employment, thereby influencing the incomes and the economic accessibility i.e. purchasing power to buy food. When one looks at the agriculture sector one finds that it has been at the center of a lot of debate recently. It has been affected by the ‘Agreement on Agriculture’ thus global policies have permeated into our local agriculture and affected its functioning through provisions of market access, domestic support & export subsidies. All these provisions have given rise to not only
differences between developing and developed countries but also within India between Centre & states. India’s federal system has acted as an institution which has been mediating between WTO rules and the response from domestic actors/domestic politics. States have objected to the policies catering to the WTO rules and institutions and have questioned the impact of these policies specially on the important sectors, one of them being agriculture, with the bone of contention being the fact that agriculture is a state subject & some states have challenged the legality of the Government of India’s actions at the WTO without consulting them. Also concerns have been raised that Agreement on Agriculture with freer international trade & cutting down of domestic support should not be at the expense of self-sufficiency in agricultural commodities nor at the expense of food & livelihood security. It is seen that many a times a policy decision taken by the Centre can have repercussions for the states as they get to feel the brunt of its impact. This has happened with agriculture & through agriculture to the food security situation.

Since agriculture is the backbone of food security, one looks at the agricultural sector’s performance and one finds the following -

- GDP growth in agriculture & allied sectors averaged only 1% per annum (during the first three years of the Tenth Five Year Plan). The advance estimates for 2005-2006 projected a growth rate of 2.3%. Tenth Five Year Plan target of 4% growth has not been realized

- Production of foodgrains has gone down & yield of major crops has decelerated. Total foodgrain production has gone down from 213.5 million tonnes in 2003-2004 to 204.6 million tonnes in 2004-2005. When one looks at the total foodgrains, one finds the deceleration in yield has been from 1731 kg/hectare in 2003-2004 to 1703 kg/hectare in 2004-2005. Yields of principal crops have also gone down (in total cereals it has gone down from 1987 kg/hectare in 2003-2004 to 1918 kg/hectare in 2004-2005). The yield of rice and wheat (the two principal food grain crops) have also decelerated. For rice from 2077 kg/hectare in 2003-2004 to 2026 kg/hectare in 2004-2005. Yield of wheat has remained more or less the same between 2003-2004 to 2004-2005 (2713 kg/hectare and 2718 kg/hectare respectively. For pulses also the yields have decelerated from 637 kg/hectare to 595 kg/hectare from 2003-2004 to 2004-2005. The deceleration in production and yields for major food crops is
not a good sign for food availability. Prime Minister Manmohan Singh has called upon scientists to work towards a second Green Revolution and focus on dryland agriculture and the needs of small farmers. The second Green Revolution, according to him, should not be confined to only food crops but should also cover non-food crops, horticulture and new plant-varieties. He has urged scientists to develop technology which is efficient in both farm and non farm business and which use labour.

- Also decline in rate of growth of foodgrains has been sharper. One finds that in percentage distribution of area, area under food crops has come down & non-food crops have gone up. The per capita availability of foodgrains has declined from 179.7 kgs per year in 2002(P) to 159.2 kgs per year in 2003 (P). The availability of cereals per annum declined from 166.9 kgs per year in 2002 (P) to 148.6 kgs per year in 2003 (P). This is a disturbing trend as cereals are the basic ingredient of the average Indian diet. However as per the current trends there are signs of an increase in 2004 – provisional figures – as compared to 2003 as far as net availability of foodgrains is concerned.

- The shift from foodgrains to cash crops has taken place but it has not worked well as global agricultural prices have been falling leading to a lot of distress for the farmers. Many of them had taken loans from moneylenders, which lead them to indebtedness as prices clashed in the world market leading many of them to suicides. Meanwhile the production of major horticultural crops has gone up and there has been an increase in production of vegetables.

The sustainability of food availability is very much affected by ecology but when one examines the ecological scene one finds that there has been an overexploitation of natural resources with areas under forest depleting, the level of groundwater going down and the degradation of prime agricultural lands. This definitely would affect the future of food availability. Further for analyzing food availability, export and import policies and procurement and buffer stock has been seen. The imports of cereal and pulses had come down in the first few years of the new millennium along with exports (although export of rice has gone up during 2005-2006). Low imports and the cautious approach with regard to export is a positive sign with regard to domestic availability of foodgrains. Maintaining a buffer stock is a
must for ensuring self-sufficiency at all times since the margin between buffer and actual stock held has been reducing considerably. As against the buffer norm of 16.2 million tones in October 2005 of wheat and rice, the actual stock held was 15.1 million tones in 2005 October. As on December 1, 2005 stocks of foodgrains at 19 million tonnes were lower than those in December 2004. The main reason for the decline in stocks was due to lower stocks of wheat resulting in import of wheat in 2006. This decision of the government has attracted severe criticism. Projected increase in foodgrain production in future should ensure a more stable food self-sufficient scenario. Our foodgrain production was expected to increase in 2005-2006 by 5 million tonnes. From a centralized procurement system with the FCI at the head, there have been certain initiatives taken by some states towards a decentralized procurement and distribution structure at the state level. However the role of FCI continues to be crucial.

Agriculture also is instrumental in providing employment & thus can play a crucial role in reducing poverty and food insecurity as it has been seen that the poor people are most likely to face threat of hunger & malnourishment, as they are likely to have low purchasing power to buy food. If one looks at rural employment and rural poverty one finds that

- Unemployment levels seem to have increased & growth rate of rural employment was around 0.5% per annum between 1993-1994 and 1999-2000 as compared to 1.7% per annum between 1983 and 1993-1994. Overall employment growth declined from 2.04% during 1983-1994 to 0.98% during 1994-2000. Thus employment growth has considerably decreased. The unemployed rate went up for males between 1993-1994 to 2004 from 5.6% to 9.0% in rural areas and for females it was 5.6% to 9.3% during the above period, on the basis of current daily status.

- Rural poverty figures are contradictory. The official figures state it at 27.1% (rural poverty incidence) & 23.6% (urban poverty incidence) in 1999-2000 i.e. a decline since 1993-1994. There are, however, suggestions by many that the actual figures are much higher. Since rural
unemployment has increased and rural poverty also seems to be high, chances of economic food accessibility are lower.

- Land and Non-Farm sector have been examined as these two are principal sources of income & on this income depends the living standards of the poor & hence their purchasing power in terms of food.

- Land is an important source of livelihood but landlessness seems to have increased & the proportion of landless labourers too in the labour force. Percentage of cultivators has gone down (71.9% in 1951 to 54.4% in 2001) and the percentage of agricultural labourers has gone up (28.1% in 1951 to 45.6% in 2001) in proportion to the total agricultural workers.

- Also small & marginal holdings have increased and there has been increase in the area operated by them corresponding to a decline in the area operated by medium & large holdings. The majority of our holdings are small in size. Between 1990-1991 and 1995-1996 the increase in the number of holdings in case of marginal farms have been from 59.4% to 61.6% and the area operated during the same period has increased from 15.0% to 17.2%. The percentage area operated by small farmers has increased from 17.4% to 18.8% during the same period. The percentage area operated by medium and the large farmers, on the other hand has reduced from 27.1% to 25.3% and 17.3% to 14.8% respectively.

- Smaller farms in today's liberalized world can face problems as it is difficult to apply technology on a smaller farm. Increasing productivity will also lead to improved incomes. Also technology is very important nowadays especially if one has to compete with competitive products entering our country. Small farms will lose their viability unless technology is upgraded & steps are taken to improve their productivity.

- Besides land, non-farm sector can complement the farm sector in improving employment prospects. Rural non-farm sector can be more labour absorbing, utilize local talent, make a dent into rural poverty & in nonfarm sector per worker productivity & earning is higher. But growth in non-farm employment has stagnated in India and it has faced the impact of
liberalization. Even the Mid Term Appraisal of the Tenth Five Year Plan states that the non-farming rural activities have seen a secular decline in recent years. The Dairy & Handloom have been affected by cheap imports & they suffer from lack of infrastructure & capital. They are not able to also compete in terms of quality. Poultry & khadi & village industries have also been affected. They are required to operate according to considerations of market viability and are facing problems. Moreover market makes a distinction between skilled & unskilled labour & often the latter is pushed out of non-farm sector and with no landbase of their own are placed in a precarious situation.

Favourable terms of trade can again help in increasing economic accessibility for the farmers. However removal of quantitative restrictions & market access provision has opened Indian markets to imports threatening Indian products but as far as Indian exports are concerned, our products suffer from decline in export subsidy & lack of accessibility to foreign markets as the developed countries continue to have high tariffs. Oilseeds, cotton, sugarcane & plantation sector has been unable to operate properly. Market Access provision of the AoA has brought a lot of competition for them without any adequate support in improving the yield or quality of our own products. The increase in income that could have happened from the shift to cash crops has not materialized. Thus the poorer sections which live mainly in the rural areas and depend on agriculture for their livelihood have suffered both as producers (declining incomes from cash crops, higher prices of inputs, low yield) and as consumers (decline in foodgrain production and thus food availability). Thus agriculture has faced low labour productivity & adverse terms of trade.

Agriculture has also been facing other problems like lack of sufficient credit facilities. Although flow of institutional credit has increased over the years (the total ground level credit flow for agriculture and allied activities increased from Rs.86,981 crore in 2003-2004 to Rs.125,309 crore in 2004-2005), still there are a number of
farmers who are dependent on money-lenders especially the small & marginal farmers & thus get exploited. Also agriculture suffers not only from lack of extension services but also a lack of research and development. Thus one sees that food security is facing a number of problems not only in terms of food availability but also in terms of accessibility mainly on account of the crisis that agriculture is currently passing through.

Government has provided various kind of support to promote growth & to fulfill its distributional objectives. It has tried to affect the parameters of food availability by supporting agricultural production through giving subsidies & MSP. It has also tried to improve physical food accessibility – by the public distribution system and making the PDS work efficiently for the poorer sections of the population. Subsidies are provided for the main agricultural inputs i.e. electricity, water, fertilizer and food subsidies. Agricultural subsidies have consistently increased from 1993 to 2000-01 i.e. from Rs.14069 crores in 1993-94 to Rs.34784 crores in 2000-01. The overall subsidy bill has been pegged at Rs.46,213 crore for 2006-2007 and the budget 2006-2007 has talked of a consensus being evolved to tackle the problem of subsidies. Food subsidies have also risen from Rs.2450 crores in 1990-91 to Rs.25800 crores in 2003-04(RE). As a percentage of GDP, they have increased from 0.43% in 1990-91 to 0.93% in 2003-04 (RE). Food subsidies is pegged at Rs.24,200 crores for 2006-2007. One needs to rationalize the subsidies and increase the support structure commensurate with the increase in input costs. Also developed regions seem to be benefiting more & this regional inequality is accompanied by inequality among the farmers. Thus along with rationalization, proper equitable distribution is equally necessary. Also while giving subsidies, it needs to be seen that subsidies given for agricultural inputs are utilized properly and no wastage takes place. Excessive use of water, power & fertilizers can be ecologically disastrous and it can affect future production. For sustainability of food security, it is necessary to maintain an ecological balance between the available natural resources and their use to ensure optimum benefit in the long run. Having said the above, there is also the need to create a level playing field as far as developed countries are concerned. Domestic support given to the farmers in the developed countries of West & East Asia & the OECD countries is much higher and we should try to bring down their high level of support if the aim is to compete in an equal environment in the international arena.
Matching their level of support is difficult for us as we have a much larger number to cater to & less monetary resources. Thus, even while continuing with subsidy, we need to rationalize it. Food subsidies need to continue as it is an important safety net.

The government provides MSP and these MSPs have been consistently higher than the MSP recommended by Commission on Agricultural Costs and Prices (CACP). Also the excessive attention to wheat and rice has distorted the cropping pattern in favour of these two foodgrains & has led to adverse environmental impact. For wheat, MSP has increased from Rs.360 per quintal in 1994-95 to Rs.640 in 2004-05 & for paddy common, it has increased from Rs.340 in 1994-95 to Rs.560 in 2004-05. The MSPs have however increased more than the production costs.

One should continue with giving MSPs but one needs to rationalize the MSPs to reflect the actual production costs incurred by farmers.

Also high generous MSPs continue to be provided to a tiny percentage of well off farmers & to rice and wheat. This needs to be made more equitable not only in terms of farmers but also in terms of crops in order to protect ecology and encourage different cropping pattern.

If one looks at the distribution network set up by the government through the PDS, one finds that the PDS through Fair Price Shops providing foodgrains at affordable prices has been the key element of the food security system in India. In 1997 the Government of India introduced the TPDS – the policy initiated targeting of households on the basis of an income criterion i.e. used the income poverty line to make a distinction between ‘poor’ and ‘non-poor’ households. However the TPDS has faced several criticisms, the important one being its failure to serve people below poverty line (BPL families). Targeting has excluded the needy ones as targeting is done based on the poverty line defined by the Planning Commission whereas poverty figures seem to be much higher thus excluding many of those who deserve to be in the BPL category. Targeting has affected adversely the PDS network & its viability. Also in our country where agriculture is the main source of livelihood there is considerable seasonal variation and incomes fluctuate. Thus a household can be at times below poverty line and at times above poverty line. Also for those who earn from casual labour or from self-employment, incomes fluctuate over time & even day to day.
The PDS by creating different price structures segregates people which is socially problematic. Also the size of the BPL population in the TPDS is identified by the Central Government which has led to conflict between Centre & States as to whom to count as poor. Monitoring mechanisms like PRIs have not operated as compared to the desired levels, full cost pricing caused the APL to exit PDS. Thus arises a need for universal PDS. It is better to have a universal PDS with a stabilized price which would be above costs of production.

When one looks at the offtake from the Central pool in Antyodaya, it is observed that there has been an increase from 33.46 lakh tonnes in 2004-2005 (April-November) to 45.16 lakh tonnes in 2005-2006 (April-November). Moreover the total offtake under Welfare schemes have also increased during the same period (64.76 Lakh tonnes to 67.71 lakh tonnes). However the situation remains grim and a lot is desired from the food availability and physical accessibility point of view. One needs to still improve on the net food availability. Also PDS issue prices for BPL have increased from 1997-1998 to 2003-2004 for both wheat and rice (Rs.250 per quintal to Rs.450 per quintal and Rs.350 per quintal to Rs.565 per quintal respectively). In January 2006 Central Issue Prices were hiked while cutting back on the quantum of grain issued for both BPL and APL categories. This can have an adverse effect on food accessibility in future.

When one looks at the distribution network, in terms of food accessibility, one also looks at the consumption patterns. There is a declining trend in the share of food in total expenditure for both rural and urban areas. As compared to 64% in the rural areas and 56% in the urban areas in 1987-1988, it was 56% and 44% respectively in 2000-2001. Cereal availability and cereal consumption has gone down. If one looks at the percentage share of monthly per capita expenditure (MPCE) on food items in rural and urban areas, one finds that the percentage share of cereals in both rural and urban areas has fallen from 40.99% (1987-1988) to 34.5% (2001-2002) and from 26.46% (1987-1988) to 24.30% (2001-2002) respectively. The percentage share on the other hand for non-cereals for rural and urban areas has increased during the same period. In 2004 the average MPCE for both rural & urban areas has increased, but the percentage share of cereals in total consumption expenditure was 18% (Rural) compared to 26% in 1987-88 & in urban India it was 10% compared to 15% in 1987-
88. This is definitely a disturbing sign as diversification towards non-food does not necessarily mean welfare & this kind of diversification tends to affect the lower sections of the population severely in terms of malnourishment or hunger.

Balanced diet, knowledge of nutrition & food dietary practices are important for proper food absorption which is the final step in achieving food security for a healthy & long life. Food absorption has been examined in terms of nutritional status, rural health indicators, safe water supply, environmental sanitation & hygiene. The better these indicators are, the better are the chances for food absorption.

Nutrition – India has been facing the problem of malnutrition and the nutritional status of the population has not received much attention. Even the Tenth Five Year Plan has admitted that there are pockets in the country where severe undernutrition takes place. There has also been a continuous decline in per capita calorie consumption for rural areas over the years. Nutritional poverty is much higher in comparison to official poverty in both rural and urban areas. The headcount ratio of nutritional poverty was 38.8% in rural populations and 27.5% in urban populations in 1999-2000 (official poverty ratios being 27.1% and 23.6% respectively). Levels of child undernutrition continue to be high and adult males and females continue to suffer from Chronic Energy Deficiency (CED). Anaemia affects a large section of the population and many suffer from micronutrient deficiencies.

Health – Health is a very critical area and the Mid Term Appraisal of the Tenth Five Year Plan pointed out that the public expenditure on health (Centre plus State) has been declining and is currently around 0.9% of the GDP. This needs to be increased. The National Common Minimum Programme has envisaged raising public spending on health with focus on primary health care. The National Rural Health Mission (2005) is going to cover the entire country & it is a new major initiative. Also State Health System Development Projects are under implementation. The total allocation for the Department of Health and Family Welfare has been enhanced by 22% to Rs.12,546 crore of which Rs.8,207 crore will be on the National Rural Health Mission. If one looks at the health indicators, we find that life expectancy at birth for India has improved and it is 61.6 for males (1998-2002) & 63.3 for females (1998-2002). The IMR in 2003 was 60 (57 for males and 64 for females) as compared to 63
in 2002. These figures can be certainly improved with proper political will to develop health sector and investment, as health indicators like IMR and under 5 mortality rates continue to be exceptionally high even today.

Safe Water Supply & Sanitation – At present the total access to safe drinking water has increased over the years and it has increased from 38.2% in 1981 to 62.3% in 1991 to 77.9% in 2001. Steps are taken to ensure that safe drinking water is provided to all households. The Accelerated Rural Water Supply Programme (ARWSP) is being implemented and it is going to focus on uncovered & partially covered habitations. The Central Allocation of funds for ARWSP has been stepped up. PRLs will also be involved in ARWSP. Urban areas are being covered by Accelerated Urban Supply Programme (AUWSP) since 1993-1994. Also the Total Sanitation Campaign is going to be extended to all districts.

Besides food availability, accessibility and absorption, the aspect of rural development is also very important. The Mid Term Appraisal of the 10th Five Year Plan pointed out that the total share of agriculture, irrigation & rural development had reduced from 20.1% (9th Plan) to 18.7% (10th Plan). Utsa Patnaik says ‘due to drastic reduction in the state’s spending in rural development, there has been loss of purchasing power & this is reflected in a steep fall in the per-head foodgrains absorption.’ An outlay of Rs.13,466.40 crore (including supplementary grants) had been provided for 2004-2005 for the Department of Rural Development and expenditure of the Central Government on Social Services including rural development has been increased. Panchayats, Cooperatives & NGOs – all play an important role in rural development. There are various aspects of rural development which are important in their own way in promoting food security.

Rural development schemes have been started i.e. poverty alleviation & employment-generating programmes in order to generate employment & increase purchasing power. The important programmes are as follows

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1 Patnaik, Utsa (2005), “It is time for Kumbhakarna to wake up”, The Hindu, Delhi, August 5.
- **NREG** - The NREG scheme is the most recent scheme that has been implemented in February 2006. This is important as it promises to be a legal right and the responsibility of funding it rests with the Central government rather than with the states. Also the gram panchayats have been given an important role and the scheme most importantly would cover all rural households and will not be limited only to poor or BPL households. Muster rolls will also be available with the panchayat office with periodic report of work done and there is also provision of daily unemployment allowance. It remains to be seen how it would be implemented. Of the Rs.14,300 crore for rural employment, Rs.11,300 crore will be utilized under the NREG Scheme. The SGRY and NFWP have been subsumed under this scheme.

- **SGRY** – The percentage expenditure against total available funds has increased from 79.90% (2002-2003) to 86.41% (2003-2004) & the number of mandays generated has also increased from 74.83 crore mandays (2002-2003) to 87.36 crore mandays in 2003-2004. The amount of foodgrains released by the programme has also increased from 45.26 lakh tonnes in 2002-2003 to 49.97 lakh tonnes in 2003-2004. Rs.3,000 crore is to be spent on SGRY according to the Budget 2006-2007.

- **SGSY** – As a programme for self employment of rural poor, this scheme has improved. The number of Swarozgaris assisted has gone up from 8.27 lakhs (2002-2003) to 8.96 lakhs in 2003-2004 and the share of SC/ST swarozgaris rose from 44.32% (1999-2000) to 45.97% (2002-2003) to 46.12% (2003-2004). Moreover the programme has increased the capabilities of the swarozgaris (majority of whom belong to BPL category) as majority of individual beneficiaries market their produce or services on their own. Also percentage expenditure to total available funds has improved from 85.53% in 2002-2003 to 86.01% in 2003-2004. Upto November 2005, the Centre and States had allocated Rs.8,067 crore of which Rs.6,980 crore had been utilized to assist 62.75 lakh self-employed.

- Along with the above schemes, there are also direct food based programmes like Annapurna, Antyodaya, Grain Bank Schemes, Mid-day meals and ICDS. It has been decided by eight states to universalize the cooked meal programme and it is being revised. Also the NCMP envisages that the ICDS scheme will be universalized and a functional anganwadi centre will be provided in every settlement. The allocation for both Mid-Day meal and ICDS has been increased in the budget 2006-2007.
Thus both food based and poverty alleviation and employment generating schemes serve two different objectives – the former dealing with the physical distribution of the foodgrains and the latter aims at increasing employment and purchasing power, reducing poverty and increasing the capabilities for securing a livelihood for themselves. Both these categories of schemes are needed and should work harmoniously and in synchronization with each other. However these schemes do suffer from lack of adequate infrastructure, lack of resources and awareness among target groups. Training of officials as well as people involved with the PRI structure needs improvement. In case of direct food based programme, the distribution network needs to be enhanced. Along with the above, there are also other areas that need to be necessarily developed.

Rural Infrastructure – Bharat Nirman is to be implemented over a period of next four years covering irrigation, roads, water supply, housing, rural electrification and rural telecom connectivity. The Pradhan Mantri Gram Sadak Yojana aims at providing rural connectivity and in the NCMP the goal of increasing and modernizing rural roads has been included. Also PURA (Provision of Urban Amenities in Rural Areas) as an idea contains solutions to problems of rural India like unemployment, lack of connectivity. Pradhan Mantri Gramodaya Yojana is another initiative in this direction. A massive programme for rural electrification is on. The objective is to cover 1.25 lakh villages in 5 years. The allocation for Bharat Nirman has been increased in the Budget 2006-2007.

In the context of rural development, programmes for development of natural resources, education, social security also needs to be improved. Ecological degradation can affect the sustainability of food security, therefore programmes for development of natural resources is a must. There are already many programmes for watershed development but there is need for convergence for better efficient performance. Drought prone Areas Programme, IWDP are being implemented for development of wastelands / degraded land. Land and forest regeneration, capacity building & training & revival of traditional water harvesting structures have been identified for attention during the 10th Plan. Also allocation for the education sector has been increased by 31.5% in Budget 2006-2007 & Sarva Shiksha Abhiyan continues to be implemented and allocation for this programme has been increased.
As far as decentralized institutions are concerned, the following have been examined:

PRIs can be useful for rural development by making development programmes work for the rural people at the grassroots and transferring decision-making authority to the villages. They are also responsible for raising consciousness among the rural people. Cooperatives have been organized in various areas such as dairy, sugar, poultry, credit, marketing, distribution, housing, fishing etc. The NGOs supplement the role of the government in social welfare through rural development schemes. They know the local conditions well and this helps in designing & monitoring the programmes. They help in targeting of the poor (identifying beneficiaries), raising consciousness, allocating local resources & delivery of necessary services. NGOs help in decentralized development & often PRIs & NGOs work in close collaboration at the grass root level for the betterment of conditions. They work not only for distributing food but also in areas like health, education, agriculture, land and water management etc.

Food Security situation in Punjab and West Bengal have been analysed by using the same parameters:

Food availability

- In Punjab the percentage contribution of primary sector in the net state domestic product has declined from 48.23% in 1993-1994 to 41.48% in 2001-2002. This may have contributed to the deceleration of Punjab state economy (between 1992-1993 & 1996-1997, the average growth rate of gross state income was 4.8% - national average being 6.8%). In West Bengal on the other hand, the share of agriculture in gross state domestic product has more or less been consistent lately (2000-2001 - 22.4%, 2001-2002-22.6%). West Bengal agriculture’s share in gross state domestic product could be one of the reasons for the state economy doing well.

- In both the states the production of foodgrains has declined & there has also been a decline in cereal’s production. Thus foodgrain availability & especially that of cereals has been affected. Crop yields were also affected & they have declined in both the states.
Both the states show similarity in terms of shift from foodcrops to nonfood crops & the area under foodcrops has declined & under nonfood crops has gone up.

The two crops wheat & rice have dominated the cropping pattern especially in Punjab. However in recent past, area under fruits and vegetables have increased in both the states.

Along with the present food availability, ecological factors contribute to the sustainability in the long run. Sustainable states are those with sufficient resources to continue food security at existing levels & that have the capacity to enhance food security in the future. States that are low in food security but high in sustainability should lay emphasis on improving livelihood access. On the other hand, states that are food secure but low on substance should try to ensure conservation of natural resources. The Atlas of Sustainability of Food Security in India comments that "the balance between future sustainability & present security is important." Thus along with present food security in terms of food availability, food accessibility & food absorption, conservation of natural resources is important for future sustenance. Ecological problems need to be dealt with by both the states.

The state of Punjab is facing the problems of falling water level & water logging. Moreover it has an abnormally low forest cover of 5.5% (national average being 23%). Punjab's soil is witnessing a micronutrient imbalance & there is excessive drain on its subsoil water on account of its cropping intensity. West Bengal on the other hand is suffering from lack of water management & floods. Like Punjab it is also suffering from soil degradation, soil erosion & water logging. Forests constitute 14% of the geographical area which is better than Punjab but less than the national average. Also it is accompanied by fast declining area of land under miscellaneous tree groves & permanent pastures. This may lead to serious environmental consequences for the future.

Food Accessibility

In order to assess the food accessibility parameters, one needs to look at the rural employment & rural poverty figures

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Rural employment in West Bengal in the period 1993-1994 to 1999-2000 grew at a very low annual rate of less than 0.6% per annum, only one third of the rate of growth of rural population. Urban employment growth per annum at 2.3% was also well below. Similarly unemployment rate in Punjab has also gone up.

The situation one can say is worse off in Punjab as percentage decadal growth of population remained more or less same between 1981-1991 & 1991-2001 (20.81% & 20.10%). On the other hand for West Bengal the population percentage decadal growth has reduced from 24.73% (1981-1991) to 17.77% (1999-2001).

If one considers the two sources of livelihood – land and nonfarm sectors, one finds that

- In both the states the proportion of cultivators to total workers has declined
- Agricultural labourers have increased
- In Punjab the agricultural labourers & the small & marginal farmers after losing their land (agriculture is capital intensive and majority of land holdings are large) shifted to nonfarm sector. West Bengal too has seen a progressive increase in nonfarm sector but this has been accompanied by spread in boro rice cultivation. Small holding cultivation (majority of holdings are small and marginal holdings) has increased the bargaining power of agricultural labourers unlike in Punjab where they are not unionized. The policy of Special Economic Zones (SEZs) has turned out to be controversial as the state of West Bengal is using its powers to mobilize land and paving the way for private capital investment, sometimes at the cost of original land owners. In Jan 2007, the Centre put on hold clearances for all proposals from developers which would have enabled them to start work. After a missive from the Prime Minister’s Office, meeting of Board of Approvals for SEZs has been put off indefinitely. The green light for the SEZs on hold may be delayed as a section in the government wants the zones to be kept in abeyance till a new rehabilitation policy, focusing on use of agricultural land and better compensation for the displaced has been put in place.
Thus one observes that there is a shift in both the states towards the nonfarm sector.

Rural Poverty – If one looks at poverty figures, one finds that shift to nonfarm sector may have benefited both the states. Inspite of going through landlessness and unemployment, Punjab has continued to have only 6.16% of people below poverty line in 1999-2000. Its productivity, which still continues to be high as compared to other states, has also kept the poverty levels low. However it definitely needs to improve on its technology. West Bengal has also reported declines in poverty and this has taken place not only because of land reforms but also because of the considerable shift to nonfarm sector and the figure was 27% of people below poverty line in 1999-2000. Thus nonfarm sector is important not only from a long term strategy of employment for the rural households affecting food accessibility but also for stimulating growth in agriculture through inter sectoral linkages which is beneficial for food availability too. It has also managed to keep the poverty levels from going up.

The shift to cash crops (cotton, oilseeds, sugarcane) in Punjab & diversification has not been really successful (contract farming has led to problems between farmers & contracting agencies – also as cotton prices at international level crashed, there were suicides by cotton farmers). West Bengal is beginning to promote its agro-based products including vegetables and fruits. Diversification can be useful only when 1. Proper credit, infrastructure & marketing facilities are available to compete with outside products and 2. It can also be taken up by even small farmers. The two states need to still work on it.

The scope for diversification & exports is present. Punjab has surplus of wheat, rice, milk and milk products & it is competitive in price & both the states can utilize the surplus for fruits and vegetables. Diversification & exports if undertaken with the right kind of infrastructural support & marketing & credit, extended linkages can help in earning profits & increasing incomes. However the above facilities are still not developed. Also the respective states will be facing the impact of AoA through provisions of market access and export subsidy. Also before going for diversification and export, one needs to keep the following things in mind.
1. Both the states play a crucial role in affecting the food security of our country by affecting food availability.

2. Both of them in the recent past have reported a decline in foodgrains production specially in cereals. Therefore balance between exports on one hand & foodgrains production and availability on the other needs to be maintained. An imbalance is not only going to affect food security of the individual states but also the entire country.

When one looks at the government support in terms of food availability and accessibility, one finds the following:

- Both the states have a high consumption of fertilizers & Punjab has a very high percentage share of consumption of power (which is being given free unlike West Bengal)
- Both have suffered ecological problems, because of which one needs to rationalize the use of inputs
- Both are also facing the impact of AoA in terms of prices of inputs going up & the cutting on domestic support debate hitting them equally.

The procurement operations in Punjab is done by FCI & the four state agencies of MARKFED, PUNSUP etc. There is purchase by both traders as well as government agencies. However in the recent past, problems have cropped up of losses, improper maintenance of stocks etc. West Bengal on the other hand has introduced the Decentralized Procurement Scheme. MSP of Wheat in Punjab has increased by 171% between 1990-1991 and 2000-2001 whereas C2 costs have gone up by 124%. Similarly for rice too, in West Bengal the MSP has increased to the tune of 122% & the C2 cost has increased by 110% between 1997-1998 and 2000-2001. Thus both the states have higher MSPs than the C2 cost.

Punjab is a surplus state & therefore 99.9% of the rural population do not draw even a single grain from the PDS. Moreover it has only 6.16% of the population below poverty line (Rural plus Urban) in 1999-2000. Thus except for a small miniscule percentage, the PDS is not needed by others. West Bengal has adopted the innovative Decentralised Procurement & Distribution System whereby the state government procures at its own price & distributes it through PDS to BPL and APL
families. West Bengal can afford to try this new distribution network as it is a reasonably surplus state with a large network of fairprice shops & active PRIs which help in proper functioning of the system. West Bengal also has argued in favour of a universal PDS.

As far as consumption pattern is concerned, one finds that in 2003, the share of food in total expenditure in Punjab was 45% & for West Bengal it was 60% (national average being 54% in rural India). Even for consumption of cereals, the share of cereals in total expenditure for Punjab was 8% and for West Bengal it was 24% (national average being 18%). For both the states the pattern is similar for urban states too. The 60th Round of NSS for 2004 reiterates the same trends. Thus on both the above indicators West Bengal is better. Intake of milk & milk products is one of the reasons for the low intake of cereals in Punjab. However both have done better than many of the other states in India as in both the states less than 10% of the population consumed less than 1890 Kcal. This is a positive sign. However the decline in the share of cereals and the shift and diversification of diets in Punjab does not necessarily mean more welfare as the state is still dealing with cases of malnutrition and anaemia.

When one examines the food absorption aspect, then a look at the indicators give us the following conclusions

Nutrition – As compared to West Bengal, Punjab has lower incidence of anaemia, CED, and malnutrition. However the decline in nutritional poverty is more in West Bengal at 8.51% for rural and 6.97% for urban between 1993-1994 and 1999-2000 as against Punjab’s 0.37% and 4.53% respectively during the same period.

When one looks at the Health indicators one finds that

- Life Expectancy – in 1998-2002 it was 68.5 for Punjab and 63.9 for West Bengal. For both the states life expectancy has increased but Punjab is better placed than the two.

- IMR – Punjab’s IMR of 49 in 2003 is much better than the national average of 60 but more than 4 times worse than the IMR of 11 by Kerala in 2003. West Bengal was better placed than Punjab at 46 (2003).
Since 1980 in Punjab there has been a four-fold increase in the number of primary health centers servicing rural Punjab & the reach of health instruments has also been very good. However public investments have been low & there is increasing privatization (where poor have to pay huge amounts) which shows that there has been a breakdown in the public health care system. On the other hand in West Bengal 76% of the health institutes are run by the government. The government’s main aim is to involve the PRIs in creating community health consciousness & to take over some basic activities of Primary Health Centres. Both the states however according to the 60th NSS Round have reported higher levels of private source of treatment than the government ones. This is a dangerous trend as deprived people often are deeply affected as these private health services charge more. Therefore government needs to play a more active interventionist role in the future, with regard to health services.

Water Supply and Sanitation – Punjab has done well in water supply and in rural Punjab 85.2% households have water of satisfactory quality and this number equals the national average. The Tenth Five Year Plan envisages coverage of the entire rural population with water supply facilities & the state government is committed for cent percent coverage of rural and urban population with safe drinking water. However there are reports of contamination of surface & groundwater because of the fertilizers seeping into the soil. This problem therefore needs to be tackled. The state government has also initiated the Water Resources Management Project for assistance from World Bank to improve rural water supply & sanitation of villages. In West Bengal accessibility to safe drinking water has increased to 88.5% in 2001. However it is still low as compared to Punjab’s 97.6%. Arsenic contamination of groundwater is a problem in West Bengal and this needs to be tackled.

Rural Development & the initiatives taken for achieving it at the state level are as follows –

Poverty Alleviation and Employment Generating Programmes – Both in Punjab as well as in West Bengal SGSY and SGRY have been operational. Under SGSY, both the states have taken steps to set up micro-enterprises. Emphasis has been
given on developing appropriate skill & infrastructure. Also under SGRY 91% of available funds were utilized by Punjab in 2003-2004. In West Bengal the implementation of the scheme suffered a setback due to the engagement of implementing functionaries in the panchayat election 2003. Non-delivery of rice from FCI also contributed to poor performance under the programme. Mid day meals and ICDS are both operational in Punjab and West Bengal, the functioning of which needs to be improved. There are also specific programmes which aim at improving rural infrastructure. The Pradhan Mantri Gramodaya Yojana has been operational in both the states which aim at improving drinking water facilities, rural electrification, health care, primary education, housing & nutrition. All the villages in Punjab have already been electrified but not all the households are covered. Under PMGY in Punjab the target is to cover all the remaining households of the villages by the end of the Eleventh Five Year Plan i.e.2012. Similarly for West Bengal under PMGY, steps are being taken to improve rural electrification. Also for Punjab 99.2% of villages are linked with roads (1999-2000) whereas in West Bengal road transport connections are only moderately developed. Infact more than half of the villages in West Bengal lacked connection by roadways in the mid 1990s. Much needs to be done for improving infrastructure.

Both the states have initiated programmes for development of natural resources. In Punjab efforts are being made through the various programmes to
- enhance water allowance level & repair damaged water supply schemes
- emphasis is being laid on farm forestry.
- Steps are being taken to improve through programmes for soil conservation

West Bengal on the other hand has initiated the following programmes
- Integrated Wasteland programmes
- Watershed development programme under Watershed Development fund of NABARD
- Ongoing watershed development programme taken up under EAS. New Initiative called 'Hariyali' has been launched since 2003. The guideline responsible for implementation has been given to the gram panchayats and it will be applicable to IWDP & DPAP.

The basic difference between Punjab & West Bengal in terms of rural development is that unlike Punjab, in West Bengal it is the PRIs which have kept themselves busy with the rural development since early 1980s. Panchayats in West Bengal are the foundation on which the entire structure of rural development stands. PRIs have been instrumental in West Bengal for socio-economic change. They have been entrusted with the management of rural employment programmes, public health & education, rural diversification, monitoring the PDS for food, forestry management & land reclamation etc. They have also made efforts to improve sanitation, availability of drinking water, rural electrification, irrigation etc. However there are reports of politicization, limited devolution of funds, reported lack of participation etc. The PRIs in West Bengal are considered more or less a successful model as compared to other states & the crucial role played by them cannot be denied. Punjab on the other hand needs to strengthen its PRI structure. Also in Punjab, the NGOs & other local level community institutions are missing from the state altogether. This needs to be addressed. West Bengal on the other hand again scores well as PRIs and NGOs tend to work harmoniously in a number of activities like supply of drinking water and sanitation, watershed development, formation of self help groups in the rural areas for the betterment of the common man. In West Bengal more than 1,00,000 SHGs have been formed by different organizations (both Government and Non-Government). Also the Civil Society Support Programme has been designed and the basic orientation is at ensuring a synergy among the efforts of the Civil Society Organizations, government & the local bodies.

Finally in the arena of Cooperatives, Punjab has been successful and they have played a crucial role in the economic development of the state. Today cooperatives have pervaded all aspects of life including milk supply, articles of daily consumption, housing, rural credit. Cooperative agricultural societies & Cooperative banks have
been operational. However in the recent past they have suffered from losses, poor service conditions & competitions from MNCs and their products have posed a threat to the functioning of the cooperatives. Thus efforts need to be made to protect & improve the cooperative structure. West Bengal's cooperative structure also needs an overhaul.

**Measures to be taken**

Food availability, food accessibility and food absorption – all three are interlinked & crucial for food security. The following measures need to be taken in order to improve the food security situation in the long run.

We need to improve on foodgrain production and increase productivity through improved technology that is environment friendly & increase investment in agriculture. A strong agricultural base & growth in agriculture is one of the important policies to reduce poverty and achieve food security. Since majority are small & marginal farmers, the need of increasing the productivity of small farms is a must. As M.S. Swaminathan says 'increasing the productivity & profitability of small farms in an ecologically sustainable manner is the single most effective step for reducing poverty & hunger in our country.'

The Approach Paper to the XI Five Year Plan talks of corrective policies to be adopted not only for small and marginal farmers but also on middle and large farmers who too suffer from productivity stagnation arising from a variety of constraints and calls for a second green revolution to raise the growth rate of agricultural GDP. More money needs to be pumped in to have technology upgradation and agricultural research. Research should be undertaken to create more options for the poorer regions and for small & poorer farmers & they should be as M.S. Swaminathan says 'promoting labour diversification & not displacement.'

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3 Swaminathan, M.S. (2005), India's Greatest Living Industry, Hundred Years Later, IARI Centenary lecture. New Delhi, Indian Agricultural Research Institute, March 16, p.3.


Agricultural research should work in collaboration with farmers' groups – each group representing an area so that programmes can be chalked out depending on the inputs from the farmers. The Approach Paper to the XI Five Year Plan talks of the need on recognition for strategies specific to different agro-climatic zones. One needs more public investment, easy availability of credit & marketing & extension services. These also need to be improved in order to make the shift to diversification successful. Fruits (horticulture), vegetables, milk & milk products, livestock products (dairying and poultry), agro industry – all these sectors provide opportunities for export & increasing employment opportunities & incomes. However one needs to remember that diversification for export requires an infrastructure which the states don’t have.

Thus it becomes necessary not only to provide support (in the form of capital, technology, credit & marketing facilities, infrastructure & storage facilities) but also make sure that the farmers have a level playing field in the international arena by demanding for more market access in developed countries & lowering of tariffs. If not, then one should raise one’s own tariff rates to protect our farmers from cheaply imported products which are destroying our domestic market. One has to take care that the balance between foodgrains & non-foodgrains production is maintained; lowering of the former can result in problems. One has to remember that self-sufficiency at home & proper foodgrains availability and accessibility is a necessary pre condition before we diversify or export. On account of the low buffer stock, the government in 2006 was forced to import huge quantities of wheat. After being self-sufficient for a couple of decades, such an alarming act has raised a lot of questions on the management of foodgrains.

With regard to access to land, there is a need for detection and distribution of surplus land (through ceiling laws) for optimum allocation of land resources amongst the rural poor. The agenda of land reforms need to be brought to the forefront again. Non farm sector should be promoted as it is a channel through which employment can be generated, poverty reduced and growth in agriculture stimulated. The Chinese have adopted a two pronged strategy of enhancing productivity & rural township
enterprises by Self Help Groups. Also rural people need to be provided with proper skills in order to make a paradigm shift from unskilled to skilled sector to make it easier for them in a liberalized competitive world which favours people with skills. Nonfarm sector can play a crucial role in increasing our capability of food accessibility. However the development of the nonfarm sector should not be done at the cost of the farm sector. Both should work in harmony. Also as the two are interlinked, the crisis in one will affect the other. Thus emphasis needs to be on maintaining a balance.

Government provides a support structure to promote food availability by increasing production through subsidies and MSPs and food accessibility (through distribution network). Some changes are required here. They are

Subsidies need to be rationalized & they should be commensurate with the rise in input costs. The money, which is saved from input subsidies should be put into rural development schemes mainly for poverty removal, employment – generation, rural infrastructure, agricultural research & extension services. Creation of employment opportunities would improve the economic accessibility of the people, remove poverty and help in food accessibility. MSPs should be rationalized & they should be commensurate with the production costs. PDS should be made universal & the working of the decentralized procurement & distribution network which has been started as an experiment should be reviewed carefully. FCI's role needs to be strengthened and made strategic with respect to procurement and distribution. The government needs to keep a vigilant control on the abnormal increases in foodgrain prices and the activities of the private traders.

In order to improve the food absorption – areas of health & nutrition should receive more priority as well as more funds. The Central Government not only needs to provide assistance to state government, but also the role of state government needs to be strongly re-established vis-avis the private agencies with regard to healthcare. Awareness should be created regarding balanced dietary standards & nutritional requirements and programmes which improve the nutritional levels of the poor should
get priority. The universalization of ICDS needs to be reaffirmed and the performance of Mid-Day meal schemes should be monitored properly & management supervision mechanisms should be improved. Also since India is producing more fruits & vegetables, one could promote the cultivation & consumption of the above two to check micro-nutritional deficiencies. Safe drinking water & sanitation facilities should be provided and existing facilities improved. Implementation of the PURA and Bharat Nirman can go a long way in the betterment of conditions in rural infrastructure.

Rural development schemes specially the schemes of poverty alleviation & employment generating ones, schemes for rural infrastructure should receive proper attention. They need to be implemented with people's participation and not in a bureaucratic manner. The employment guarantee scheme should be implemented in a planned manner. PRIs should be empowered and they should be devolved with more political, administrative & financial powers. The working of the NGOs should be encouraged. Both PRIs and the NGOs can continue to work for better food accessibility, absorption and rural development. They can monitor the working of the PDS & the poverty alleviating & employment generating programmes, help in improving the working of the health system, assure safe drinking water & sanitation facilities, create awareness about nutrition, promote primary education etc. It is not only the state but also the non-governmental organizations that can play a crucial role by partnering the efforts of the state. As V.S. Vyas states 'it is only when the civil society institutions, markets & state policies converge that we will come closer to the ideal of food security for all.'

Cooperatives need to be strengthened. Cooperative banks should get priority in the future. Farmers organizations & associations should also be encouraged. Sustainability of food security needs to be stressed & care should be taken specially to regulate soil, water and land use. There should be convergence among numerous schemes on wasteland development and watershed management. Steps should also be

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taken towards afforestation. Sustainable agricultural practices can lead to better productivity, production & work security, better incomes & lesser poverty. M.S. Swaminathan comments ‘think nationally but plan and act locally’ are the only relevant method of promoting sustainability in farming.\(^7\)

Farmers in each local area, village should come together & along with PRIs & local level community organizations try to adopt practices in both farm and nonfarm (keeping the local conditions in mind) for sustainable livelihood. Nira Ramachandran comments that ‘a sustainable livelihood approach to food security is necessarily people centred & must begin with an investigation of the assets, which people have, the objectives that they hope to achieve, and the livelihood strategies that they adopt to achieve them.’ \(^8\)

A knowledge revolution is needed among farm men and women – which would be combining education on sustainable agrarian practices & technology & throwing options to the farmers to invent their own ideas regarding agricultural transformation which will increase agricultural productivity & rural development, improve incomes, reduce poverty & help in movement from farm to nonfarm sector. The fact that the budget 2005-2006 recognized and supported the need of the role of the Rural Knowledge Centres in each village means that we as a country are taking the right steps. The Draft of the Fifth and Final Report of the National Commission on Farmers has also pointed out the growing gap between scientific know-how and field level do-how. This knowledge deficit needs to be overcome in order to enhance the productivity and profitability of small farmers and improve the efficiency and economics of small scale agriculture.

Finally steps should be taken for population stabilization as an uncontrolled increase in population can lead to unnecessary pressure on both the farm and the

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nonfarm sector & lead to over-use of our assets of land, soil & water. Food security for a country is important and it needs to be improved by improving on its various parameters and as Yoginder Alagh says 'Food security should be closely tied to human security.'\(^9\) The self help groups which are currently operating should be strengthened by providing them with credit & linking them up with the markets. The Draft of the Fifth and Final Report of the National Commission on Farmers has recommended firstly the setting up of a Agriculture Risk Fund, a multi stakeholder National Food Security and Sovereignty Board and a State Farmers' Commission for developing and implementing a socially and economically sustainable food security programme catering to all sections of the population. It also talks about the need for enacting a Food Guarantee Act and has urged the Central and State governments to include agriculture under the concurrent list.

As far as Punjab is concerned, the Punjab Agricultural University should be backed up by proper funds and competent people and technical knowledge can be used. The Budget 2006-2007 has taken a step in this direction by proposing a special grant of Rs.100 crore for it. The entire process of contract farming needs to be streamlined to ensure that the interests of the farmers/producers are properly taken care of. Farmers need to be made equal partners in such agribusiness projects. Rural industrialization should be given priority. PRIs & NGOs should be strengthened specially in Punjab and farmers associations should be encouraged and special emphasis should be laid on controlling the ecological exploitation of natural resources. MSPs and subsidies should also be rationalized.

The decentralized procurement & distribution system in West Bengal should be monitored carefully & the politicization of the PRIs need to be controlled. They should be made accountable and function not as party panchayats but as people’s panchayats.

In the larger food security context, good governance should continue to be emphasized with legislations & civil society organizations helping the process. The Right to Food Campaign, the Right to Information etc has already started the process & this should be taken forward by more fruitful & meaningful participation. The Government needs to take specific steps to protect the agricultural interests at the WTO since it has a direct link to the food security situation in the country. Proposals to democratize Centre-State relations, like ratification of international treaties specially which affect states by Parliament & National Development Council, increasing policy reviewing powers of National Development Council over areas like food pricing & tariff policy etc should be taken up seriously. The Centre and the states need to work harmoniously in the areas of agriculture and rural development. The states in turn need to have the same link with the grassroot institutions. Cooperation is needed at all the levels when it comes to allocation of resources, implementation of programmes & chalking plans for the future.