SESSION 2

COMBATING POVERTY

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POVERTY ALLEVIATION PROGRAMMES IN INDIA

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Abstract

One of the objectives of planned economic development in India has been the removal of poverty and improving the quality of life of its people. Generation of income and wealth through rapid economic growth coupled with equity and social justice have been the key instruments for achieving this aim. Over the last five decades there has been a progressive reduction in poverty. In an attempt to accelerate the economic growth, India in 1991 initiated reforms in macro economic management, industrial deregulation, trade and fiscal policy. Simultaneously efforts were made to strengthen existing poverty alleviation programmes and devise new programmes to protect the poor in the wake of the reforms. The Tenth Plan envisages four main components to poverty reduction programmes. Agricultural development is viewed as a core element of the Plan since growth in this sector is likely to lead to the widest spread of benefits especially to the rural poor. Tenth Plan aims to ensure rapid growth of those sectors which are most likely to create high quality employment opportunities and to supplement the impact of growth with specific programmes aimed at special target groups which may not benefit sufficiently from the normal growth process. Specific efforts for reducing inter-regional disparities through greater focus on growth in backward states and regions are receiving focused attention during the Tenth Plan. The progress achieved in the implementation of the poverty alleviation programmes and some suggestions regarding the way forward are indicated in this manuscript.

Introduction

One of the objectives of planned economic development in India has been the removal of poverty and improving the quality of life of its people. Generation of income and wealth through rapid economic growth is one of the key components for achieving this aim. Successive plans have recognized the integral link between rapid economic growth and the quality of life of the mass of the people. They have also emphasised the need to combine high growth policies with policies, which are pro-poor. Thus the focus has been on “Growth with Social Justice and Equity”.

Economic reforms were initiated in the country in 1991; macro economic management, industrial deregulation, trade and fiscal policy reforms were major components of the reform process. The need to strengthen existing poverty alleviation programmes and devise new programmes to protect the poor in the wake of the reforms was also clearly recognized.

The impact of reforms on the poor was two fold. First, though there was fiscal compression and movement towards reduction in government expenditures, it was ensured that spending for social sectors, which had an important bearing on the question of poverty, was not only protected but enhanced. Focus was laid on the sectors of Rural Development, Health, Education and Programmes for Scheduled Castes, Scheduled Tribes and other weaker sections. Education and Health were given enhanced allocations in recognition of their impact on building human capabilities and consequent impact on poverty. Secondly, macro economic stabilization, which led to reduction in inflation, has contributed significantly to the protection of consumption of the poor. In an era of rising prices, they are hit the hardest and their only asset is their labour. The wages paid to them in cash loose value in times of rising prices. Control of inflation protects earnings and consumption levels of the poor.

The reform period also witnessed major changes in the edifice of anti-poverty programmes. They were revamped and refocused to enhance targeting of the poor. In addition, social security programmes, schemes
for food and nutrition security and schemes that address other dimensions of human poverty were strengthened during the period. The strategy for poverty alleviation includes acceleration of economic growth with a focus on employment intensive sectors, access to basic minimum services for improving the quality of life of the people, and direct State intervention in the form of targeted anti poverty programmes, including provision of subsidized foodgrains.

**Progress towards poverty alleviation**

The estimates of incidence of poverty in the country expressed as the percentage of population and the number of poor at the All India level and at the rural and urban levels is given in Table 1.

There has been a decline in the poverty ratio since 1973-74, the earliest year for which the comparable estimates of poverty are available. The decline was modest until 1993-94, by about one percent annually. However, this reduction was unable to effect a reduction in the number of poor during this period (1973-74 to 1993-94) due to higher rate of population growth. The number of poor during this period remained stable at around 320 million. The decline between 1993-94 and 1999-2000 is, however, sharp. There has been a 10 percent point reduction in the poverty ratio during this period (1993-94 to 1999-2000) along with significant reduction in population growth and as a result the number of poor has drastically reduced by 60 million.

Further, rural poverty during the period has also come down from 56.4 percent in 1973-74 to 37.3 percent in 1993-94 and further to 27.1 percent in 1999-2000. Similarly, urban poverty has declined from 49 percent in 1973-74 to 32.4 percent in 1993-94 and further to 23.6 percent in 1999-2000. However, there is still high concentration of the poor in the rural areas as 193 million poor live in the rural areas which is about three fourth of the total poor in the country (estimated at 260 million for 1999-2000).

### Approach to poverty reduction in the Tenth Five Year Plan

During the Tenth Plan India’s anti-poverty strategy for urban and rural areas has three broad strands; promotion of economic growth; human development and targeted programmes to address the multi-dimensional nature of poverty. The Tenth Five Year Plan recognizes that economic growth cannot be the only objective of national planning, and development objectives need to be defined not just in terms of increases in Gross Domestic Product (GDP) or per capita income but in more broader terms of enhancement of human well being. Although the Plan aims at a growth target of 8 per cent per annum, in order to reflect the importance of these dimensions it also identifies specific and monitorable targets for a few key indicators of human development:

- reduction of poverty ratio by 5 percent by 2007 and by 15 percent by 2012;
- all children in school by 2003; and all children to complete 5 years of schooling by 2007;
- reduction in gender gaps in literacy and wage rates by at least 50 percent by 2007;
- reduction in infant mortality rate to 45 per

### Table 1: Incidence of poverty (% of population)

<table>
<thead>
<tr>
<th>Year</th>
<th>All India</th>
<th>Rural</th>
<th>Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>1973-74</td>
<td>321</td>
<td>261</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>54.9</td>
<td>56.4</td>
<td>49.0</td>
</tr>
<tr>
<td>1977-78</td>
<td>329</td>
<td>264</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>51.3</td>
<td>53.1</td>
<td>45.2</td>
</tr>
<tr>
<td>1983</td>
<td>323</td>
<td>252</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>44.5</td>
<td>45.7</td>
<td>40.8</td>
</tr>
<tr>
<td>1987-88</td>
<td>307</td>
<td>232</td>
<td>75</td>
</tr>
<tr>
<td></td>
<td>38.9</td>
<td>39.1</td>
<td>38.2</td>
</tr>
<tr>
<td>1993-94</td>
<td>320</td>
<td>244</td>
<td>76</td>
</tr>
<tr>
<td></td>
<td>36.0</td>
<td>37.3</td>
<td>32.4</td>
</tr>
<tr>
<td>1999-2000</td>
<td>260</td>
<td>193</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td>26.1</td>
<td>27.1</td>
<td>23.6</td>
</tr>
</tbody>
</table>

*Source: Reference 1*
1000 live births by 2007; and to 28 by 2012;  
- reduction in maternal mortality ratio to 2 per 
1000 live births by 2007; and 1 by 2012.

Setting such specific targets and emphasizing that their attainment is as important as the growth target, sets the Tenth Plan apart from the earlier plans. It views the social and equity-related objective as being intimately linked to the growth objective; and recognizes that attainment of one may not be possible without the attainment of the others.

High rates of growth are essential to provide a sufficient expansion of sustainable employment opportunities to the expanding labour force and to ensure a sufficient increase in incomes of the poor and the disadvantaged. However, the relationship is not just a one-way relationship. It is also true that high growth rates may not be sustainable if they are not accompanied by a dispersion of purchasing power which can provide the demand needed to support the increase in output without having to rely excessively on external markets. Similarly, improvements in the social indicators require, on the one hand, sufficient investments, which can occur only with high growth rates; and are, on the other hand, essential for the productivity improvement that underlies the growth target. Thus, the growth and social development targets are not only internally consistent, they are also mutually reinforcing.

Poverty reduction programmes in the Tenth Plan

There are four main components to poverty reduction programmes in the Tenth Plan. First, agricultural development is viewed as a core element of the Plan since growth in this sector is likely to lead to the widest spread of benefits especially to the rural poor. The first generation of reforms concentrated on reforms in the industrial economy and reforms in the agricultural sector were neglected. This lacuna is sought to be changed in the Tenth Plan.

Second, the growth strategy of the Tenth Plan aims to ensure rapid growth of those sectors which are most likely to create high quality employment opportunities. Particular attention is paid to the policy environment influencing a wide range of sectors which have a large employment potential. These include sectors such as construction, tourism, transport, small scale industry, modern retailing, IT-enabled services and a range of other new services which need to be promoted through supportive policies.

Third, to supplement the impact of growth with specific programmes aimed at special target groups who may not benefit sufficiently from the normal growth process. Such programmes have long been part of Indian development strategy and they will have to continue in the Tenth Plan. However, it is important to ensure that they are effective in achieving their objectives.

Fourth, reducing inter-regional disparities through greater focus on growth in backward states and regions.

Broadly, the ongoing programmes can be classified into direct and indirect poverty alleviation programmes. In both, there are urban and rural components.

**Direct poverty alleviation programmes**

Major programmes for rural areas include employment oriented efforts such as Swarnjayanti Gram Swarozgar Yojana (SGSY), Sampoorna Grameen Rozgar Yojana (SGRY) and Rural Housing – Indira Awaas Yojana (IAY)

Major urban poverty alleviation programmes include Swarn Jayanti Shahri Rozgar Yojana (SJSRY), National Slum Development Programme (NSDP), Night Shelters, Two Million Housing Scheme, Accelerated Urban Water Supply Programme (AUWSP), Low-Cost Sanitation – which provide for a wide range of services to the urban poor including slum-dwellers and Valmiki-Ambedkar Awas Yojana (VAMBAY).

**Indirect poverty alleviation programmes**

Indirect poverty alleviation programmes are those programmes which provide better access
to essential requirements and services at affordable cost to the poor. These include

- Public Distribution System (PDS) which provides food grains at subsidized rates
- Providing health, family welfare, nutrition, social welfare services and education to the poor and disadvantaged segments of the population as a part of human resource development. These include focused efforts to empower women and socially disadvantaged sections of the population so that they access the available services
- Pradhan Manthri Gramodya Yojana which provides funding for health, drinking water supply, nutrition, rural electrification
- Pradhan Manthri Gramin Sadak Yojana providing rural connectivity

Some of the sectoral programmes that have a focus on poverty alleviation through infrastructure development are agriculture, irrigation and watershed development. Specific efforts are made to develop areas which have disadvantages, under programmes like area development programmes, drought prone area development programmes, desert development programmes. Possession of land is one of the critical factors that help in poverty alleviation in rural areas. Land is still a major source of employment and income in rural areas. Land reforms aimed at improving access to land by landless labourers enabling them to attain higher levels of agricultural production and income in the rural areas is an important component of rural poverty alleviation.

**Issues of governance**

The governance question has become increasingly important in the poverty discourse. There is a general consensus that unless issues of governance are put upfront and resolved, it would be difficult to address poverty effectively. Poverty alleviation programmes have been designed to address different facets of poverty. Micro-credit linked programmes provide a package of services including credit and subsidy to undertake micro finance activities and enterprises. Employment oriented programmes address the issue of transient poverty. In addition, scheme for infrastructure and provision of basic services contribute to well being of the people.

Successful implementation of these programmes require appropriate policy framework, adequate funds, and effective delivery mechanism. Past experience shows that mere availability of funds is no panacea for poverty. Nor is the design of the development programmes, no matter how refined, sufficient in itself. The success of these programmes ultimately depends on the capability of the delivery system to absorb and utilise the funds in a cost-effective manner. An effective and responsive district level field machinery with a high degree of commitment, motivation, professional competence and, above all, integrity has been recognized as one of the prerequisites for successful implementation of an anti poverty strategy.

An effective governance system has to ensure people’s participation at various stages of formulation and implementation of the programmes, transparency in the operation of the schemes and adequate monitoring. International experience shows that greater functional and financial devolution to local governments results in higher allocation of resources for social sectors which are accompanied by efficiency gains in resource use. Such trends in social spending have been witnessed in many Indian States as well.

Panchayati Raj Institutions (PRIs) have been given a constitutional role in the governance of the country. Functional responsibilities for subjects that are central to the well being of the communities have been devolved on the PRIs by the Constitution. Truly empowered PRIs can play an important role in improving the efficiency and effectiveness of the schemes and reducing leakages. Though the guidelines on implementation of schemes provide for close coordination between the governmental agencies and the PRIs, such coordination is sporadic. One of the reasons for lack of coordination is the fact that barring a few exceptions, States have not empowered the PRIs in consonance with the spirit of the 73rd Constitutional Amendment Act. Subjects listed in the XIth and XIIth Schedule encompass sectors that are crucial to the living conditions
of the people. Transfer of functional and administrative responsibility along with resources for these subjects, mandated by the Constitution introduce an element of participative democracy, transparency in decision-making and accountability.

The Non Governmental Organisations (NGOs) and Community Based Organizations (CBOs) have been playing an active role in building up people’s awareness and providing support to the governmental agencies and the Panchayati Raj Institutions in executing projects for development in rural areas. The NGOs can play an important role in capacity building, access to information, organisation of rural poor in self-help groups and increasing their awareness and capabilities. All these initiatives have good governance as their ultimate goal.

Role of women in natural resource management

The participation of women in the conservation of natural resources has proved to be more effective and sustainable in the long run. The burden of land degradation and water scarcity falls disproportionately on women as arrangements for fuel, fodder and drinking water are largely their responsibilities. Women take greater interest in preservation of these resources as their dependence on them is significantly higher. The guidelines for watershed development recognise this reality and have specifically provided for representation of women on Watershed Committees and Watershed Development Teams. Since 33 per cent seats in panchayats – which have also been given a greater role in Watershed Development Programmes – are reserved for women, platforms for their participation in watershed projects exist. However, the availability of these platforms has not translated into transfer of decision-making powers to the women in most projects. The capacity building exercises in the coming years need to be specifically targeted at women in watershed projects.

Livelihoods

Evaluation reports point out that in spite of detailed guidelines for holistic watershed development, projects are implemented as a single line activity with greater focus on construction activities. In areas with a concentration of tribal population, the issues of livelihood and their integration with watershed approach has not really been thought through. For example, in states like Jharkhand, Chhattisgarh and the tribal belts of Orissa, tribals grow paddy under extremely primitive conditions. All efforts by the government and NGOs for crop diversification and infusion of technology have failed due to lack of input and output marketing linkages. The question of livelihoods and the role of land and water in the provision of that livelihood should be brought to the centre stage in watershed development. The strategy should be one of pro-active resource management, i.e. land and water, to improve and stabilise production opportunities in the area.

Efficient water use

Efforts to properly utilise harvested water also need to be taken up. Promotion of sprinkler and drip irrigation in water-scarce areas has not been taken up on the scale that is required. Water storage structures recharge ground water aquifers. Landholders construct bore-wells to extract ground water. This violates the equity principle. There is a need to develop a comprehensive frame work for conjunctive use of surface and ground water. Many state governments have resorted to regulatory mechanisms to control extraction of ground water. Given the large number of bore wells in the country, control through administrative or legal measures may not be effective. A better alternative would be to integrate water policies in the land revenue code and empower the community to exercise control over the water resources in the same manner as revenue departments managed land in the past.

The way forward

During the Midterm Appraisal of the Tenth Five Year Plan, detailed review of all the poverty alleviation programmes are under way. Some of the major recommendations that are emerging during the process of appraisal are indicated in the following paragraphs.
Rural anti-poverty programmes

Self-employment
- There are a plethora of organisations that support SHGs and the processes of social mobilisation, financing norms and other related activities differ from organisation to organisation. A comprehensive review is needed to evolve a commonality in the approach of different SHG programmes.
- The SHGs movement must focus on women. At least 50 percent of the SHGs groups should be of women and a minimum of 25 percent of the women in a village/habitation must be covered under SHGs programmes.
- The success of SHGs depends on bank lending for economic activities, but credit support has been a major constraint. A 'micro finance equity fund' should be created with contributions from commercial banks, which could be treated as a part of their priority sector lending programme.

Wage employment
- Merge the SGRY with the NFFWP. These programmes may be subsumed in the National Rural Employment Guarantee Act as and when it becomes operational.
- Consider the question of paying wages under SGRY and NFFWP only in cash. At present wages under these programmes are paid partly in cash and partly in the form of food grains valued at BPL rates. It is felt that there is an excess flow of foodgrains for the poor through the wage employment schemes as also TPDS, Antyodaya Anna Yojana and other food based programmes.

Rural housing
- Change the allocation criteria for IAY and base it on 75 percent weightage for housing shortage and 25 percent weightage for poverty ratio instead of the present 50:50 weightage.
- Priority should be given to landless SC/STs including primitive tribes in provision of free houses. Other BPL families could be covered on the basis of relative deprivation index of shelter i.e households who do not have land/plot to construct IAY houses and also households who have received minimum score in the overall poverty ranking, once the BPL Census, 2002 results are ready.
- Explore the possibility of credit linked housing programme through institutions like HUDCO, National Housing Bank and State Housing Boards etc. Also consider the possibilities of linking the housing credit with income generated under the SGSY and Wage Employment programme after the NREGA is enacted as is being done by NGOs like SEWA.

Urban anti-poverty programmes
- Strengthen the micro-credit financing institutions to provide finance to encourage self-employment among the urban poor.
- Link training for skill upgradation under SJSRY to employability to establish a positive correlation between the number of persons trained and the number of persons employed or who set up micro-enterprises.
- Evolve a strategy to utilise the services of employment exchanges in the urban areas which can act as the focal point for the placement of unemployed youth trained under SJSRY in organised or unorganised sectors.

Public distribution system (PDS)
- Examine the rationale and structure of PDS, especially in the context of the several food-based schemes which have been introduced / expanded recently.
- Set up a Food and Nutrition Security Watch for monitoring outcomes of specific interventions and overall food availability in the country and to ensure that pockets of food insecurity and hunger receive adequate supplies of foodgrains.

Land reforms and watershed development
- Revisit the issue of tenancy, as access to land is still a major source of livelihood for the poor.
Work towards convergence of watershed programmes implemented by Ministry of Rural Development, Ministry of Agriculture and Planning Commission under the Department of Land Resources.

- Develop a framework for conjunctive use of surface and ground water in watershed development projects.
- Prepare guidelines on technical inputs, social process and accounting and auditing manuals for watershed programmes.

Conclusion

In India the last decade of the Twentieth century has seen a visible shift in the focus of development planning from the mere expansion of production of goods and services, and the consequent growth of per capita income, to planning for enhancement of human well being. The notion of human well being itself is more broadly conceived to include not only consumption of goods and services in general, but more specifically to ensuring that the basic material requirements of all sections of the population, especially those below the poverty line, are met and that they have access to basic services such as health and education. This approach has resulted in the reduction in poverty along with overall improvement in the quality of life.

References

Abstract
The development experience suggests a strong link between nutrition and poverty. Malnutrition remains the most significant and single most common denominator that plays a pivotal role in socio-economic development. It is one of several manifestations of poverty. Through inherent linkages to the human capital formation, improved gender equity, reduced risk of child mortality, improved maternal health, and an improved ability to combat disease, it influences future earnings of individuals and the growth in gross national product. Pakistan’s growth performance, in recent years, compares well with regional peers. The high growth in Pakistan has significant impact in reducing poverty and malnutrition. Recent estimates indicate that poverty in Pakistan is reduced and severity of malnutrition is minimized. Child and maternal mortality rates are gradually coming down. A significant progress has been made in the social indicators, adult literacy rate increased, and proportion of children, especially girls, increased in primary school. Fertility rates are reduced, and use of modern contraceptives increased. Tackling poverty requires an integrated approach to eradicate income and non-income poverty. Malnutrition manifests itself throughout the life cycle, with serious repercussions on economic development, productivity, sustainable household income and quality of human capital and is one the major factors responsible for poverty in Pakistan. This paper is structured in five parts. The part one presents an overview on nutritional development and its impact on poverty. Part two discusses poverty trends and nutrition situation in Pakistan. It then presents an analytical framework for understanding poverty reduction strategy and poverty and nutrition nexus. Part four examines policies and programme to address the problem of poverty and reduce macronutrient and micronutrient deficiencies. The paper emphasizes that there is considerable scope for policy interventions aimed at harnessing development potential and improving livelihood opportunities of millions of people living in poverty and human deprivation by reducing nutritional deficiencies. Part five concludes the paper with recommendations to reduce poverty and malnutrition in Pakistan.

Introduction
Poverty is a complex and multidimensional phenomenon that extends beyond the notion of income and encompasses social, economic and political exclusion. Extreme poverty can be defined as “poverty that kills,” depriving individuals of the means to stay alive in the face of hunger, disease, and environmental hazards. Nutrition as a prerequisite for development has been recognized in many key conventions and international agreements, from the UN’s Declaration of Human Rights to the Convention on the Rights of the Child. In the majority of cases malnutrition is a consequence of poverty. It affects individual’s capabilities and thereby overall socio-economic development. The persistence of malnutrition is a waste of human potential or capital and reducing it represents a great opportunity for bringing resources to bear on people centred development, alleviating poverty, and increasing productivity as an investment, in other words.

Macro and micronutrients are absolutely essential for fulfilling human physiological for needs and its deficiencies cause serious ailments. Both these forms of malnutrition can be closely related when food deficit is acute, depth of hunger is high, and diets are deficient in calories, minerals, and vitamins. The consequences of both forms of malnutrition are severe and long lasting. Vitamin A, iodine, and...
Iron deficiencies adversely affect the physical and mental abilities of humans. Iron deficiency, which leads to anaemia, is well recognized as affecting mostly children and women of productive age. It is estimated that more than half of all pregnant women in the world and at least one-third preschoolers suffer from anaemia, and many more are iron deficient. Iron deficiency in young children impairs physical growth, cognitive development, and immunity; at school age it affects school performance; at adulthood it causes fatigue and reduced work capacity; and among pregnant women, anaemia may cause foetal growth retardation or low birth weight, and is responsible for a large proportion of maternal deaths. Importance of nutrition has been recognized and empirically tested as a fundamental pillar of human life, health and development across the entire life span. From the earliest stages of foetal development, at birth, through infancy, childhood, adolescence, and on into adulthood and old age, macro and micronutrients are essential for survival, physical growth, mental development, performance and productivity, health and well-being. It is an essential foundation of human and national development.

The immediate causes of malnutrition are poor diet and infectious disease and underlying these are inadequacies of food security and basic health services. Text box 2 provides conceptual framework for understanding the causes of nutrition problems in society stemming from the UNICEF (1990) framework and adopted by the International Conference on Nutrition. Many of these are now seen to involve care of children and women. For example, under nourishment results in high infant, child and maternal mortality rates, while one percent deficit in adult height was found to be associated with a 1.38 percent reduction in agricultural wages in the Philippines. Studies suggest that iron deficiency anaemia is associated with a 17 percent loss of productivity in heavy manual labour, and five percent in light blue-collar work. A number of studies also found that eliminating malnutrition would cut child mortality by more than 50 percent and reduce the burden of disease in developing countries by about 20 percent. Much of malnutrition stems from poverty-related under consumption of protein and energy, but equally important are deficiencies of key micronutrients - iodine, vitamin A, and iron - from which children and women suffer disproportionately.

Long-term investment in nutrition is analogous to other investments in people, like education. Over the past two decades an increasing body of empirical research has established that investment in early nutritional improvements can have powerful positive effects on people’s health, and enhance human capital. Improved
health and nutritional status reduces production losses caused by worker-illness, permits the use of natural resources that had been otherwise inaccessible for alternate uses because of diseases. Early childhood interventions to improve health and nutrition, especially in the first three or four years of a child’s life can have lasting positive effects, and lead to substantial increase in life time wealth. The prospects that better early nutrition can contribute to the development of human capital and economic growth have convinced the planners and policymakers that malnutrition is a serious impediment to national socio-economic development as well as a major cause of pain and suffering; its control and prevention cannot be accomplished by provision of food alone; problems related to poverty, discrimination, and disease must also be overcome.

Among many factors influencing level of poverty in Pakistan, a positive correlation has been found between malnutrition and poverty. In the country about 40 percent (or 8 million) of children under 5 years of age are malnourished; 50 percent deaths in children are related to undernutrition16 (Figure 1). Over 31 percent of children less than five years of age are short for their age, over 11 percent are under weight for their height, and over 50 percent are anaemic. Local studies indicate that in poor families 25-30 percent of babies are born with a weight less than 2.5 kg, while in better off families only 10 percent of babies are underweight, indicating the association between nutritional status of mother and birth weight of child. Similarly, one third of pregnant women (or 10 million) are malnourished and anaemic and as a result give birth to low birth weight babies, who are 10 times more likely to die as infants and even those who survive, continue to be at a high risk of illness and death due to vicious cycle of infectious diseases and malnutrition. Maternal malnutrition affected 34 percent of pregnant women; 30 million women of child bearing age in 2003 were severely underweight, wasted, or stunted;17 48 percent of lactating women have a caloric intake less than 70 percent of the recommended level. Iodine deficiency in women results in stillbirths, birth defects, mental retardation, and still birth, in addition to generally reduced intelligence10.

### Poverty in Pakistan - trends

The profile of poverty in Pakistan is affected by inherent differences in natural and economic resources, which limit access to income and employment opportunities, empowerment and security of poor household18. A number of studies suggest that poverty in Pakistan increased rapidly in the 1960s, then declined sharply in the 1970s up to mid-1980s and began to increase again from the late 1980s19-24 . In the 1990s Pakistan witnessed rising poverty trends. In recent years, however, prudent macroeconomic policies and implementation of the poverty reduction agenda have had positive
impact in the form of high real GDP growth and increase in per capita income from US$ 380 in 1995 to US$ 638 in 2003-04. The Poverty Reduction Strategic Plan (PRSP), as a programmed approach, prioritizes national expenditure in favour of poverty reduction activities. The budgetary allocation for anti-poverty programs rose significantly from less than 2 percent of the GDP in 1995 to 4.6 percent of the GDP in 2003-04. Major expenditure shift towards the social sector has been made to reduce the “social gap” through enhanced social sector expenditure especially in education, health, nutrition, and rural development. A recent survey in 2004 showed a decline in the poverty rate.

Pakistan for a considerable long period has enjoyed notable economic progress in terms of both growth in gross domestic product (GDP) and structural changes in the composition of output. Pakistan’s experience in macroeconomic management spans 57 years. During the period 1961-2000 real Gross Domestic Product (GDP) at an annual average rate 5.8 percent. Performance in the key sectors, in the same period, has generally been satisfactory. Manufacturing value-added has grown about 7.0 percent per annum. The service sector has achieved an annual average growth rate of 6.0 percent. The agricultural growth was high by South Asian standards. Agricultural value-added averaged 4.5 percent per annum. In the subsequent periods, 1991-2000 and 2001-02 GDP growth and value-addition in all sectors declined to 4.6 percent and 3.1 percent per annum. The agricultural value added experienced rapid decline to 4.4 percent and 0.1 percent in the same period.

Since 2002-03 economy is again on growth path. Growth has rebounded to 6.4 percent, driven by large-scale manufacturing (Table 1).

There is an encouraging pickup in private and public investment, as well as, consumption. Fiscal adjustment has led to a substantial improvement in public and external debt indicators. Reflecting strong export growth and remittances, the balance of payments has turned around and international reserves now cover six months of imports. Per capita GDP has grown significantly. Social and poverty related expenditures have been raised from less than 2 percent of GDP in 1995 to 4.7 percent of GDP in 2003-04. The banking sector in 2004 is more competitive and efficient. Foreign exchange transactions have been further liberalized. The trade regime has been liberalized substantially in recent years; removing tariffs and removing non-tariff barriers. The revenue system has been strengthened through administrative reforms, the introduction of universal self-assessment, as well as, reductions and rationalization of customs tariffs and tax rates.

The gains in terms of growth of the national economy, however, have not been fully shared equally amongst various economic groups. The “trickle down” theory failed to reach to the lower income groups, the disadvantage and marginalized segments of population, majority of which living in rural areas. The belief that the individual greed of the ‘robber barons’ of industry would lead to a larger national cake and eventually benefit the entire society did not materialize. As a result social inequalities widened. A large number of Pakistani population continues to live in abject poverty and there are alarming gaps in social attainments. Pakistan experience suggests that development must be defined not just in terms of increased GDP, but also more broadly in terms of human well being, i.e., reduction in ‘income poverty’ as well as ‘human poverty.’

**Income Poverty**

There is a clear relationship between poverty, food insecurity and malnutrition in Pakistan. Using consistent time series data and 2350-calorie average per adult equivalence calories

| Table 1: Gross domestic product 1990-2004 (Growth rates: % annual average) |
|---------------------------------|--------|--------|--------|--------|--------|
| GDP (FC)                        | 5.8     | 6.5     | 4.6     | 3.1     | 6.4     |
| Agriculture                     | 3.8     | 5.4     | 4.4     | 0.1     | 2.6     |
| Manufacturing                   | 7.7     | 8.2     | 4.8     | 4.5     | 13.4    |
| Commodity                       |         |         |         |         |         |
| Producing Sector                | 5.4     | 6.5     | 4.6     | 1.3     | 7.7     |
| Services Sector                 | 6.5     | 6.7     | 4.6     | 4.8     | 5.2     |

*Source: Reference 29,30*
requirements, it has been observed that between 1992-93 and 2000-01 poverty has increased from 26.1 percent in 1995 to 32.1 percent in 2000-01—38.9 percent in rural areas and 22.7 percent in urban areas\textsuperscript{10} (Table 2). On this basis poverty line for 2000-01 was estimated as an expenditure level of Rs. 748.56 (US$ 13) per capita per month. The rural poverty during the period 1998-99 and 2000-01 increased by 4.3 percentage points, while increase in urban poverty during the same period was 1.8 percentage points. In the same period the incidence of food poverty increased from 25 percent in 1995 to 27 percent in 2004 — indicating that about one-third of the households were living below the poverty line and they were not meeting their nutritional requirements. The incidence of food poverty was higher in rural areas than in the urban areas. It must also be realized that while overall households might be food secure in terms of overall access to calories but inequality of food distribution within members of the household, especially towards women and children, can be a major determinant of malnutrition. A government survey conducted in early 2004 suggests that poverty has fallen since 2000-01. The survey showed a decline by 4 percentage points in the poverty rate, to 23 percent. However, the results of this survey are not fully comparable with those from earlier household surveys, as its sample size was much smaller and the poverty line may have been underestimated. But even taking this into account, the recent survey does seem to indicate a positive trend. Nevertheless, a firm assessment of poverty trends cannot be made until the results of a comprehensive survey is made available in the second half of 2005.

**Non-income poverty**

The term non-income poverty is used to describe deprivation in quality of life and social well being. The majority of human development indicators have shown visible improvement in the coverage and the quality of services delivered especially for the poor. The adult literacy rate shows a significant increase from 38 percent in 1995 to 56 percent in 2003-04. The primary school participation rate has witnessed a visible improvement from 47 percent in 1995 to 92 percent in 2003-04; in particular the female participation rate has increased from 32 percent in 1995 to 82 percent in 2003-04. Health, nutrition and education indicators witnessed significant improvement. Life expectancy rose from 58 years to nearly 63 years. An additional 9 percent population gained access to improved drinking water supply, and 8 percent more to basic sanitation services. Seats in Parliament held by women increased manifold \textsuperscript{35}(Table 3). Nevertheless, Pakistan is still ranked low in 2004 UNDP Human Development Index.

**Nature of malnutrition in Pakistan**

An empirical investigation of the determinants of nutritional status based on IFPRI (1979) data indicates a strong association between poverty and nutritional status in Pakistan. Incidence of malnutrition was observed high among landless households compared to those with access to land. Further, controlling for the effect of various other factors, a large family size was found to exercise a negative influence on the nutritional status and increased chances of malnutrition, both acute and chronic. Early marriages and lack of contraceptive use result in early pregnancies and over a period of time numerous pregnancies contribute to maternal depletion syndrome. In the majority of poor households malnourished mothers give birth to low-birth weight babies and those who survive

<table>
<thead>
<tr>
<th>Table 2: Poverty indices during 1992-93 and 2000-01 (%)</th>
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<td><strong>Indicators</strong></td>
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<tr>
<td>---------------------------------------------------------</td>
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<tr>
<td>Proportion of population below the calorie based food</td>
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<td>plus non-food poverty line</td>
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<tr>
<td>Proportion of population below minimum level of dietary</td>
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<td>energy consumption</td>
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</table>

Source: Reference 10
become under nourished adolescents. These malnourished adolescents and young adult women in turn give birth to low-birth weight infants and the cycle gets repeated. Poor maternal health adversely affects the welfare of entire family and increases the hardship of the household.

Education, particularly mother’s education was found to be a critical determinant of malnutrition. Mother’s education reduces considerably likelihood of malnutrition. Malnutrition was also higher in children prone to diarrhoea. These findings suggest a greater influence of mother’s education and better health status (measured in terms of days of diarrhoea) than of income in improving nutritional status of under five children. It was estimated that raising the mother’s education to primary level would reduce wasting in children by 8 percent, reducing duration of diarrhoea by one day would lower child wasting by 6 percent, while a 20 percent increase in per capita income would lead to a decline of only two percent in wasting in children.

The nutritional surveys conducted to evaluate the nutritional status of the population found macro and micronutrient deficiencies. Nutritional Survey of West Pakistan 1965-67 found wide spread nutritional disorders among

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<th>Table 3: Progress on Social Indicators from 1995 to 2004</th>
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<td>Indicators</td>
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<tr>
<td>Adult literacy rate</td>
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<td>• Female</td>
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<tr>
<td>Gross Primary Enrolment (%)</td>
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<td>Ratio of girls to boys in primary and secondary education</td>
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<tr>
<td>Infant mortality rate</td>
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<tr>
<td>Under-five mortality rate</td>
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<td>Maternal mortality rate</td>
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<tr>
<td>Prevalence of under weight (under 5 years of age)</td>
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<tr>
<td>Proportion of births attended by skilled birth attendants</td>
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<td>Lady Health Worker’s coverage of target population</td>
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<tr>
<td>Contraceptive prevalence rate</td>
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<tr>
<td>Total fertility rate</td>
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<tr>
<td>Population growth rate</td>
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<td>Life expectancy at birth</td>
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<td>Access to improved drinking water supply (proportion of urban and rural population)</td>
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<td>Access to improved sanitation facilities (proportion of urban and rural population)</td>
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<td>Seat in Parliament held by women</td>
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<td>• Senate</td>
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<tr>
<td>• National Assembly</td>
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<tr>
<td>• Local Government</td>
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<td>Source: Reference 35</td>
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Figure 2: Nutrition trends in children under 5

Source: Reference 27
infants and pre-school children. The National Micronutrient Survey conducted in 1976-77 showed anaemia among lactating and pregnant women besides the adolescents and the elderly. It found that Vitamin A intake was low at 62 percent to 76 percent of the RDA. Goitre was visible among rural population commonly in pregnant and lactating women. The National Nutritional Survey 1985-87 revealed that 65 percent of young children and 45 percent of pregnant and lactating women suffered from anaemia. Prevalence of malnutrition among children under five years of age was high; 52 percent children were underweight, 42 percent stunted and 11 percent wasted.

There was low consumption of nutrients in children under 5, with 10-20 percent receiving less than 70 percent of the RDA for protein and 30 percent of receiving less than 70 percent of RDA for calories. The last National Nutrition Survey conducted in 2001-02 focused mainly on the under five children and a limited sample of mothers found noticeable improvements in the nutritional status of pre-school children. Prevalence of underweight children reduced from 52 percent in 1986 to 41.5 percent 2002. While rates of stunting reduced somewhat to 31 percent, wasting remained static at 11.6 percent. Indirect estimates of vitamin A deficiency were seen in 1.2 percent of children as Bitot's spot, and 9.4 percent mothers had night blindness. Iron deficiency was found in 45 percent of the women, with 29.4 percent having anaemia. Zinc deficiency was 41 percent in women and among children.

In Pakistan, over 40 percent of the children under 5 years are moderately underweight for age. Though prevalence of underweight has continued to decline, from 53.3 percent in 1977 to 40.1 percent in 1994, but still major proportions of the pre-school children suffer from general malnutrition (Figure 2). The average heights show some increase over the same period. However, there was no significant difference in prevalence of underweight among boys and girls. The incidence of PEM among rural children was higher than urban in the country irrespective of gender differences (41.6 percent vs. 34.5 percent). Cross section analysis of underweight prevalence further reveals that, the chances of being moderately malnourished doubles as child completes six months of age.

**Stunting and wasting**

Though there is evidence of improvements in the prevalence of stunting or chronic malnutrition among pre-schoolers in the country, with a persistent decline observed over the last two decades, i.e., from 43.3 percent in 1976 to 36.3 percent in 1994, but prevalence of wasting or acute malnutrition among children under five shows a 37 percent increase over the same period, i.e., from 8.6 percent in 1976 to 11.8 percent in 1994. High rates of stunting suggest bad environmental conditions and/or early malnutrition. Wasting, on the other hand, often reflects higher prevalence of disease among children under five.

The pattern of prevalence of malnutrition by age-groups shows that both acute (wasting) and chronic (stunting) malnutrition start early in childhood among Pakistani children, and increases with age up to 36 months. However, stunting peaks earlier than wasting, with higher prevalence in the age group in 12-24 months (42.8 percent). What is seen in case of Pakistan is that stunting and underweight show a continued decline, despite increase in the prevalence of wasting among very young children.

**Low birth weight (LBW)**

Birth weight has long been recognized as the single most important factor affecting perinatal and neonatal mortality in all population groups and as a significant determinant of infant and child survival. LBW indicates that the neonate suffered from malnutrition in the womb, which resulted in intrauterine growth retardation.
(IUGR), and/or was born premature, i.e., before 37 weeks of gestational age. Low birth weight infants use health services extensively, increase cost of family health care, and disrupt the normal functioning of the family.

Like other developing countries, national estimates of LBW in Pakistan are currently reported from a few major urban hospital based studies, not necessarily representative of the national population. These suggest a prevalence rate of about 25-30 percent, a figure that has remained virtually unchanged since the 1980s, and is one of the highest reported in the world. The recent National Health Survey of Pakistan reports mothers' perception of birth weight gives similar figures of 25.0 percent (Figure 3).

Malnutrition in women

Malnutrition in women remains a major problem in Pakistan, where the majority of women are in a continuing state of nutritional stress, beginning in childhood, then in adolescence, and continuing through the child bearing period which consists of continuous cycle of pregnancy and lactation. On average, a pregnant woman should gain about 10-12 kg in weight during pregnancy. Though no national data is available on the level of weight gain by mothers during pregnancy in Pakistan, evidence based on hospital data suggest that average weight gain among pregnant women of childbearing age is 5-6 kg. Data from NNS40, and NIISP (1996) on women's anthropometry, iron-status and dietary intake suggest that chronic energy deficiency, iron deficiency anaemia, deficiencies of iodine and vitamin-A are the common nutrition problems in women of child bearing age in the country.

Micronutrient malnutrition

It has been empirically established that high incidence of many diseases is associated with inadequate intake or absorption of micronutrients (vitamins and minerals). Deficiencies of even small amounts of micronutrients in daily diet cause learning disability, impair working and reproductive capacity, and bring on illness and death. Micronutrient malnutrition is most devastating for pre-school children and pregnant women, but it is debilitating for all ages.

Iron deficiency anaemia (IDA)

Iron deficiency anaemia (IDA) is the most common micronutrient problem in Pakistan. The high level of anaemia (over 45 percent) in pregnant and lactating women is one of the leading causes of Pakistan’s tragically high maternal mortality rate estimated at between 350-400 deaths per 100,000 live births. More than 25 percent of maternal deaths are believed to be directly or indirectly related to IDA. Iron deficiency affects up to three million new-borns per year in Pakistan. IDA amongst these children is responsible for increasing morbidity, and could prevent them from attaining an additional 5-10 IQ points10. Finally, high iron deficiency rates for women in the child bearing age and in adult men lower their work output and productivity. Preliminary data from the NHSP (1996) reports similar high prevalence of anaemia in children under 5 (42 percent) and pregnant women27 (55 percent) (Figure 4).

Iodine deficiency disorder (IDD)

Approximately 50 percent of the people nationwide, and virtually all the people in the Northern Areas and much of the Northwest Frontier Province (NWFP) plus parts of Punjab are iodine deficient with one of the highest reported rates of IDD in the world. The prevalence of IDD in Pakistan has been estimated at 30 percent of the population aged 6-12 years27. However, the prevalence in the total population is likely to be much greater, considering the 10
million are known at high risk. There was no change in the prevalence of iodine deficiency till recently. Over the last few years, some areas have reported a reduction after an intensive programme for production of iodized salt.

**Vitamin A deficiency (VAD)**

Vitamin A Deficiency (VAD) is the most common cause for childhood blindness and also affects growth and development among children. Even moderate deficiency of vitamin A can lead to stunted growth, increased infection and mortality. Global estimates indicate that there are about 200 million children living in areas where vitamin A intake is low. The extent of clinical VAD at a national level remains unclear. About 50 percent of the child deaths are estimated to occur annually in Pakistan as a consequence of diarrhoea and respiratory tract infections, and these problems are highly associated with VAD.

In a recent publication, WHO/UNICEF have included Pakistan in the list of countries with severe sub-clinical VAD. A study by the Aga Khan University in 1990 demonstrated Vitamin A deficiency in 50 per cent of sampled children from a squatter settlement, where both morbidity and mortality are high. Fortification of Banaspati ghee and oils to overcome the problem of VAD has been legislated since the 1970’s, but the law is neither being enforced nor understood by the manufacturers of oil and ghee.

Child mortality rate (CMR) and infant mortality rate (IMR) are also very high; currently under-five child mortality is 103 per 1,000 live births. Poor infant and feeding and coring practices due to ignorance and illiteracy and the overwhelming burden of poverty have hampered achievement of a significant reduction in CMR. The largest contributor to under five mortality is the IMR—the latest figure being 75 per 1,000 live births27 (Figure 5).

**Efforts to reduce poverty and lower malnutrition**

The key to overcoming the poverty problem is to raise the economy’s capital stock – in infrastructure, human capital, and public administration – to the point where the downward spiral ends and self-sustaining economic growth takes over. This requires a “big push” of basic investments. Pakistan, in the last 10 years has made major efforts to reduce poverty, promote human development, improve health and nutritional facilities and close social and gender gaps. A comprehensive and integrated approach to poverty reduction has been adopted by developing a Poverty Reduction Strategy Paper (PRSP). The national PRSP that has incorporated the provincial PRSPs, outlined a well-structured strategy for poverty reduction. It proposes fundamental changes in the model of development so that human capabilities are built up and human opportunities enlarged. In the new framework people become the real agents and beneficiaries of economic growth. The focus of the poverty reduction strategy is on:

- directing public policy debate on the needs of the poor;
- bringing about an effective transformation of society, by forging partnerships and alliances with civil society and the private sector;
- understanding the nature of poverty, and using that as a guide for all public actions;
- empowering the people, especially the most deprived, by increasing access to factors of production, particularly land and credit.

Pakistan’s poverty reduction strategy combines high growth with equitable distribution and social development. In order to be consistent with the
regional and world goals efforts to reduce income and human poverty, the poverty reduction efforts have been aligned with Millennium Development Goals (MDGs), PRSP and SAARC Social Charter. A set of specific monitorable targets for key indicators of human development has been proposed to achieve synergy between growth and social development. The strategy assumes that the role of government in the provision of public services should be enhanced substantially to reduce poverty and bridge social gap. It is based on five major elements:

- **economic reforms**: Promotion of economic growth and creation of employment opportunities;
- **physical asset creation**: Programmes of land allocation, credit, Zakat and Ushr (Islamic instruments for support for capital) formation and creation of physical assets for the poor;
- **social asset creation**: Creation of social asset by ensuring cost-effective provisions (public or private) of basic needs of the poor i.e. access to education, health; nutrition; water supply and sanitation;
- **social safety nets**: For the chronic or transitionally vulnerable groups, adequate supplementary transfers to ensure satisfaction of basic need i.e. food and shelter;
- **governance**: Improved efficiency in the Public and Corporate sectors to ensure the Rule of Law and inter alia, improve the efficiency of service delivery.

The poverty reduction framework focuses on fire strategies. First, target a rise in rural productivity through farm diversification to high-value livestock, vegetables, and fruits and access to microcredit services. This would accomplish several important objectives and trigger a structural change in the economy. Besides its positive impact on growth and employment, it would enable farmers to feed their families. It would provide low cost food for the rest of the economy. It would accelerate the transition to commercial agriculture. The development of non-agriculture productive sector would diversify the economy and the export base.

Second, the strategy would help foster internationally competitive industries and services, and promote small and medium enterprises (SMEs), while meeting the basic needs of all urban residents. Industrial parks, export processing zones, special economic zones, science parks, and like would be developed. Infrastructure support services (port, electricity, transport and roads) would be upgraded to support industrialization. Exports of the country would be diversifying from dependence on primary commodities towards manufactures and services.

Third, these changes would be supported by massive investments in nutrition, healthcare, education, and family planning. Efforts to reduce malnutrition would address the problem of nutrition of infants, pregnant women, and nursing mothers. Policies and programmes would promote mother and baby-friendly initiatives, including exclusive breast-feeding for first 6 months and complementary feeding with continuing breastfeeding for infants of 7-24 months. These programs would aim for provision of sufficient calories, protein, and micronutrients to pregnant women and nursing mothers, supported by nutrition extension workers. The impact of these initiatives would be that human capital would rise over time. The adult labour force would become literate and healthy and through sustainable employment and income opportunities poor households are likely to get out from the poverty trap.

Fourth, investments in human capital and rural and urban productivity would be supported by three more overarching areas of investment. Upgradation of public management systems, through training and retention of skilled managers and greatly expanded use of information technology. Extensive capacity building at the local level would permit effective decentralization of public investments, down to the city, town, and village. Scientific capacity would be expanded through investments in the major universities, national laboratories, and national science advisory units.

Fifth, poverty in Pakistan is mainly the problem of powerlessness and voicelessness. The devolution of power at the grassroots level
would increase poor peoples’ ability to realise their full potential through empowering people living in poverty.

**Policies and programmes**

With a view to eradicating poverty and improving physical and social services for the poor and reducing vulnerability of marginalized segment of Pakistani population, the government has taken many initiatives to build consensus with all relevant stake holders at all levels on policies and strategies to reduce the proportion of people living in extreme poverty and hunger by one half by the year 2015. Policies and programs include elements of a pro-poor growth strategy that combines the dynamic features of the market, development of agriculture sector, where most of the poor live, provision of institutional loans and micro credit to small farmers, better seeds, better agricultural marketing facilities and higher allocation to research and development, access to productive resources, active employment, including self-employment policies, encouragement of small and medium-sized enterprises and cooperatives, ensuring access to basic social services for all, developing pro-poor health systems, reducing malnutrition and strengthening food security, among other measures. Although emphasis is placed on national efforts and strategies to eradicate poverty, the linkage between national efforts and an enabling international environment is evident in the reference to building consensus with all relevant actors at all levels to achieve the target of reducing the proportion of people living in poverty by one half by 2015 and the need to promote coherence between national and international strategies and programmes to combat poverty at all levels. The subsequent paragraphs discuss policies and programs for nutritional development in Pakistan.

**Nutrition policies and programmes**

The main objective of the **Nutrition Improvement Programme** is to prevent malnutrition in the most vulnerable groups, reduce micronutrient deficiencies, create awareness and improve household food security and accessibility to a safe and balanced diet. The programme includes improving the nutritional status of pregnant women, promoting good nutritional practices through provision of health education by Lady Health Workers (LHWs) and promotion of iodized salt. LHWs and Lady Health Visitors (LHVs) were recruited in 122 districts across the country for providing family planning services, maternal and child immunization services as well as ORS, Vitamin A, and iron supplementation and treatment for minor ailments. They provide primary health services like prenatal care, postnatal care, education regarding sexually transmitted diseases (STDs), child health care and family planning services as part of reproductive health care, treatment of minor ailments and referral of high-risk cases to health facilities.

**Women health project**

The problem of iron deficiency and anemia among the women of childbearing age can be easily detected and treated during the pre-natal care period. In Pakistan, however, only 31 percent of the female population seeks antenatal care. In recent years some improvements in antenatal care have been witnessed but there are wide urban-rural disparities. Women Health Project envisages strengthening of pre-natal and post-natal care services through health education, nursing component, maternal and neonatal tetanus special immunization activities, extension of comprehensive emergency obstetric care services and community awareness and participation. The Programme aims to promote the concept of women friendly districts (20 districts) by the year 2006 and to significantly reduce the high MMR.

**Child nutrition support**

Government of Pakistan (GOP) has recently enacted legislation to produce a child friendly code of marketing breast milk substitutes. Programmes targeted at problems of child mortality, low birth weight, better health care, promotion of breast-feeding, prevention of night blindness, iron deficiency anemia and iodine deficiency disease have been undertaken.

Micronutrient supplementation: Vitamin A deficiency is a major cause of child mortality and morbidity in Pakistan with 10 percent children showing clinical signs of vitamin A deficiency. The
government has linked Vitamin A supplementation with vaccination, resulting in coverage of almost 98 percent of eligible child.

**Tawana Pakistan project**

The project is an important intervention for malnourished girls and mothers in poor districts. It envisages school nutrition services, nutrition education and other needs of women in reproductive age.

**General objectives are:**

- improve nutritional status of in primary schools and the community;
- increase enrolment and sustain attendance of girls in primary schools;
- access girls in community who do not attend school by inviting them to join school nutrition programme which provides one meal every day, periodic de-worming and micronutrient supplementation for them eventually;
- create awareness of better living concept in the community particularly for public health and nutrition;
- introduce through participatory process and capacity building whereby a nexus is created between human development and community empowerment;
- devolve responsibility to the beneficiary for ownership and sustainability of programme;
- to develop linkage with Education Department for Education Sector Reforms (ERS), incentives for girls and teacher training;
- to develop linkage with Health Department.

**Specific objectives**

Against the defined benchmark for girls covered under the project, the project seeks to target girl children for:

- 18 percent greater weight gain for age;
- 10 percent height gain for age;
- increased enrolment of girls in primary schools up to 100 percent in target districts;
- decreased student drop out by 30 percent.

**Project components are:**

- **feeding:** Provision of daily noon feeding to around about 530,000 children in 5300 schools located in 29 high poverty ranking districts of Pakistan for a period of two years;
- **micronutrients:** Micronutrients tablets to be administered twice a week to about for 530,000 children of 5300 primary girls’ schools located in 29 high poverty ranking districts of Pakistan for a period of two years;
- **de-worming:** Albendazole, a de-worming medicine, to be administered bi-annually to about 530,000 children of 5300 primary girls’ schools in 29 high poverty ranking districts;
- **training:** Training of community organizations, schoolteachers etc by groups of NGOs field teams for creating awareness about the project in the community;
- **monitoring and evaluation:** Monitoring and evaluation of the project by public, private institutes and NGOs.

Although Tawana Pakistan project has been underway for almost 2 years, multiple micronutrients and de-worming has yet to be introduced at scale. Also the impact of the programme on the principal programme targets remains to be determined. However, this is an important nutrition and health intervention that has the potential of impacting vulnerable primary school girls in some of the poorest districts of Pakistan.

**Food fortification**

One of the most cost-effective ways of delivering iron to the target population is fortification of commonly eaten foods. The fortification programmes include iodine, iron, zinc and vitamin A through appropriate vehicles e.g. wheat flour, vegetable oil or salt.

**Wheat flour fortification**

According to the "World Bank Pakistan: Nutrition Project Paper", iron deficiency affects up to 3 million newborns per year and millions more by
the age of 60 months\textsuperscript{44} (World Bank, 1993). More than 20 percent of maternal deaths are believed to be directly related to iron deficiency anaemia (IDA), while almost 50 percent are indirectly related to IDA. Since Pakistan has the highest per capita consumption of wheat in the world and almost every household consumes traditional bread, wheat flour serves as an ideal food vehicle to deliver iron to the people.

Wheat flour fortification through cultivating a viable and mutually conclusive public-private partnership will be undertaken in two phases. In the first phase 600 functional flourmills in the formal sector will start wheat flour fortification with iron and folic acid during the Mid-Term Development Framework (MTDF) period (2005-10), with the assistance of Global Alliance for Improved Nutrition (GAIN). In the second phase informal flour establishments (Chakkies) would also be bought in the net of flour fortification.

**Vegetable oil and edible ghee**

The problem of vitamin A deficiency in Pakistan is not clear. However, several studies indicate that there are sub clinical cases and biochemical evidence of VAD among the children. Pakistan is perhaps one of the few countries that have definite legislation to fortify ghee and oils with vitamin A, since early 1960’s. The recently modified version of the Pure Food Act 2000 demands that all vegetable oils, like refined palm oil, refined soybean oil, refined sunflower oil, refined corn oil & ghee, and margarine be fortified with 33000 IU/kg of vitamin A. Currently, more than two third of the oil and ghee processing plants located all over the country are operating with almost none or inadequate vitamin A fortification programmes.

**Universal salt iodization**

Iodine deficiency disorder (IDD) are a nationwide problem. It is the cause of goitre, irreversible brain damage in the foetus and infant, affecting both mental and physical development of a child, including learning ability etc. Over half of the population in Pakistan is estimated to be at risk of IDD, particularly in the hyper endemic regions of the Northern Areas. Nationwide, the prevalence of sub-clinical iodine deficiency is 59.1 percent among school-aged children (6-12 years) and 73.8 percent among women of reproductive age (16-49 years). The sub-clinical IDD, with the resultant reduction in thyroid hormones necessary for normal brain and neurological development, often go untreated since they are not visible. Iodized salt, which can be consumed by all households, has the potential to eliminate iodine deficiency disorders in the country. The IDD Prevention and Control Programme (IDDPCP), was initiated in 1994 as the initial localized efforts to address problems of goitre in hyper-endemic areas with iodized oil injections and iodine capsules. A special IDD cell in the Planning Commission was charged with the task of monitoring the programme, which involved more than 600 salt processors in the country, by using highly labour intensive and low level of technology. Through this programme, a number of important social marketing and training initiatives have been undertaken over the past decade. Nonetheless, programme coverage and product quality have been inadequate.

**Micronutrient supplementation**

Micronutrient supplementation is a viable and ongoing nutritional strategy employed to overcome the deficiencies in the normal daily diet, with special focus on targeting vulnerable population groups with impaired and/or less than optimal dietary intake/absorption. These strategies specifically target population groups where intervention through standard fortification strategies may not be effective. The primary focus on women and children in the program has been the major means of delivering micronutrient supplements to date and will need to be so for the foreseeable future. Supplementation activities within this micronutrient strategy heavily depend on continuous scaling up and qualitative refinement. The main focus of supplementation remains on deficiencies in vitamin A, iron, folic acid, vitamin D and zinc.

**Breast feeding**

Breast feeding is a natural and logical nutritional intervention, which addresses malnutrition from the very first day of life and forms the most
natural component of the overall lactation management package. In Pakistan, almost 96 percent of women with a child aged less than 2 years breastfeed their child at some time. The time period from 12-15 months of breastfeeding is common. In the second year of life, the prevalence of breastfeeding reduces to 75 percent. The decline is greater in urban area as compared with rural areas. About 30 percent of infants were bottle-fed. The complementary feeding rate of infants aged 6-9 months is 25 percent (urban 30 percent, rural 22 percent), which indicates that most children of this age group receive no added foods to ensure adequate nutrition. This has been a neglected area in Pakistan with no concerted national programs for complementary feeding education or micronutrient supplementation in ‘at-risk’ populations.

Food security

Poverty, food insecurity and diseases are closely interlinked. Better nutrition is dependent on equitable food security to the population of different regions in the country. According to the report on food insecurity in rural Pakistan published by World Food Programme, out of 120 districts in Pakistan, 74 (62 percent) are food deficit in terms of net food availability. Presently some initiatives have been started by the Government in shape of food stamps, supply of wheat flour on subsidized rates to the poor, supply of food items by World Food Programme and feeding the girls students of primary schools in some districts under Tawana Pakistan Project. These arrangements are not sufficient. The efforts should be made for food security of larger population on the basis of market driven mechanism and social security net for the most poor population.

Conclusion

Pakistan has achieved an impressive macroeconomic turn around during the last couple of years, with above 6 percent growth rate, lower fiscal deficit, strong reserves and stable exchange rate. The trend of rising poverty has been arrested and latest indications are that poverty in Pakistan is declining. However, poverty remains widespread, vast segment of the population still lives below the poverty line and cannot afford basic social services. Many factors contribute to this situation. Malnutrition is one of the major factors contributing to the rise of poverty. Long-term poverty reduction requires sustained economic growth, which in turn depends on technological advance and capital accumulation and on reducing hunger, gender equality, improved health and nutrition and education and broader access to safe water and sanitation. A healthier worker is more productive, as is a better educated worker. Improved nutritional status raises output per capita through various channels.

Pakistan’s poverty reduction strategy subscribes strongly to the belief that economic development to be really meaningful and sustained must take into account the economic, social, and governance dimensions. It emphasizes that the benefit of development must accrue proportionately to all citizens, including the poor, the unemployed, the marginalized and the disadvantaged. The poverty reduction strategy proposes fundamental changes in the model of development so that human capabilities are built up and human opportunities enlarged. In the new framework people become the real agents and beneficiaries of economic growth.

Pakistan’s nutrition problem is not a problem of food supply, at least not on an overall national level. It is more of a problem of food distribution within families, areas of the country, and between socio-economic groups. In spite of substantial improvement in the total food supply situation, malnutrition continues to be one of the serious problems in Pakistan. National per capita food intake in the country is higher than the recommended average dietary allowance. Still, both protein-energy malnutrition and micronutrient deficiency disorders continue to be major public health problems. Its magnitude and implications for child mortality, either by itself or in combination with various diseases, as well as its impact on human capital formation, labour productivity, and general social well-being is significant. The progress of nutritional indicators is very slow. Thus, improving nutrition in Pakistan requires a strategy, which goes beyond food security. It is, therefore, important that policies and programmes developed for reducing malnutritions should ensure:
root causes of the problem of undernutrition and poverty should be addressed;

viable sustainable and acceptable ways and means for addressing countrywide prevailing malnutrition in a coordinated, comprehensive and cross sectoral manner with specific focus on the more vulnerable population groups especially mothers and children are designed;

the nutritional standard of women and children by building relevant capacity of national, provincial and district level in terms of infrastructure, resource allocation/utilization and human resource development are improved;

key targets include increased presence of skilled birth attendants, pre and post natal care, and a rapid decline in total fertility rate. Also, universal practice of breast feeding and strengthening of programs of provision of nutritious mid-day school meals at the primary school level across the country;

establishment of a partnership among public and private sector and civil societies to promote good nutrition;

systematic incorporation of knowledge of food and nutrition in information and education programmes;

enhanced awareness of nutrition problems and healthy nutritional practices in professional education, public policy forums, non-governmental bodies.

Pakistan in the last few years has achieved considerable progress in terms of poverty curve reduction and human development. Poverty is flattening and beginning to decline. It, however, remains a big challenge for the government. There is no other way to address this problem but through the achievement of high rates of economic growth and ensuring that the growth emanates from sources that have potential to create income and employment opportunities for the poor households. The PRSP and MDGs reaffirm the government commitment to accelerating economic growth and maintaining macroeconomic stability, investing in human capital, augmenting targeted interventions, improving governance and devolution, and expanding social safety nets. The anti-poverty reduction expenditure is increasing. As the absorptive capacity of local governments improves, there would be even greater increases in these expenditures. Emphasis is placed on achieving the full potential of the people of Pakistan.

The policies, programmes and actions discussed above are all necessary to achieve the eradication of poverty and malnutrition. Pakistan needs combination of pickup in economic growth, large primary surpluses, and enhanced public and private expenditure to address the problem of poverty and social sectors development, including malnutrition. Pakistan with the current rate of economic growth and anti-poverty expenditure is expected to achieve the target of reducing poverty by half by 2015 and achieve the education, health and nutrition goals set in PRSP and MDGs.

The findings, interpretation and conclusions expressed in this paper are entirely of those of the author and should not be attributable in any manner to SHRDC.

References

regional consultation, Geneva (February 3-5) 1999.


POVERTY ALLEVIATION EFFORTS AND FOOD SECURITY IN NEPAL

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Abstract
In Nepal the incidence of poverty has declined but the numbers of absolute poor are increasing. Government interventions have not been successful to reduce wide variation between rural and urban poverty because of the absence of rural-urban economic linkages, inaccessibility, and inadequate investment in the underdeveloped areas. The incidence of poverty is higher for occupational caste groups such as Damai, Sarki and other untouchables. Institutional constraints have deprived poor to get access to resources making it a major cause for Maoist insurgency. The paper therefore, attempts to provide an overview of poverty alleviation initiatives including the impact of targeted programmes. It also briefly analyses the agriculture sector reform and its implications on food security and poverty.

The government deregulated fertilizer trade and removed support to farmer-managed irrigation systems and shallow tube-wells. Although agriculture sector liberalization encouraged private sector involvement in the distribution of food grain, which offered food at relatively competitive price, the absence of storage facility, the existing practice of higher share of credit sales and preference of barter trade, private sector’s food supply in the inaccessible food deficit areas has been negligible. The conflict has further disrupted food supply system by increasing the vulnerability of the poor.

Various studies reveal that real wages and employment opportunities have declined after liberalization in Nepal. The per capita agricultural growth rate and productivity increased partly because the farmers unofficially imported cheaper fertilizer taking advantages of open-border with India. Imports of food grains from India have increased because the prices are lower than in Nepal. The absence of agriculture/rural road, safe and adequate storage facilities has limited the market access to the farmers. The average food deficit is alarming in the mountain region. A commitment to design definite policy for taking available services to the under-resourced regions for increasing production and productivity in agriculture is necessary. A special policy for capacity building to promote high value agricultural commodities should be initiated. Since contribution of small farmers in agriculture sector plan is not adequately reflected, it is crucial to switch the focus from commodity planning to planning for farmers, and from larger to smaller farmers.

The targeted poverty alleviation programmes could not make significant impact because of the inadequate access, discriminatory public distribution system, poor implementation, excessive centralization and inadequate operating funds in the programmes designed for deprived communities. Even the sustainability of some of the successful programmes such as the World Food Programme and Micro-Enterprise Development Programme are under threat because of the rising insurgency problems. Rethinking on the modality for collaborative work with the representatives of the insurgents may therefore be necessary to ensure the delivery of basic services.

Malnutrition and food insecurity is a vital problem in South Asia contributing to high mortality rates among mothers and infants. It therefore, necessitates policies for increasing efficiency of food markets, promotion of small-holder agriculture, efficient targeting of subsidies, strengthening input and output markets and the development of long-term sustainable food systems.

Introduction
Poverty was only acknowledged as a
developmental objective at the Seventh Plan (1986-1990), where an ambitious Basic Needs Program for alleviating poverty over a 15-year period was identified. This initiative was abandoned after the political change in 1990. The Eighth Plan (1993-1997) made poverty alleviation one of its major objectives. The Ninth Plan (1998-2002) had poverty alleviation as its sole objective (Table 1). Since the Ninth Plan identified “human poverty” (literacy, infant mortality, maternal mortality, and average life expectancy at birth) separate from “income poverty”, it adopted a two-pronged strategy to address poverty alleviation programmes for the “moderately poor” constituting about 60 percent of the poor and other targeted assistance to remaining 40 percent of the “extremely poor” who do not possess assets and are excluded from mainstream economic activities due to geography, ethnicity, or cultural factors. This is measured in terms of required income to meet predetermined food and non-food requirements to sustain minimum level of livelihood. In Nepal this comes to the income level to meet 2124-calorie requirement and assuming food expenses as 2/3rd of total expenses required. The Tenth Plan (2002-2007) is the country’s poverty reduction strategy paper (PRSP) whose sole objective is poverty reduction. The development strategies in the plan are:

- broad-based, high and sustained growth rates;
- social sector and rural infrastructure development;
- targeted programmes and social inclusion;
- good governance.

This background paper attempts to provide an overview of the poverty alleviation initiatives in the government’s policy document. Secondly, a brief analysis of agriculture reform and its implications on food security is presented to build a definite perspective on domestic market reform and food security. A quick review of the impact of targeted poverty alleviation programmes have also been made to take some lessons from country’s past mistakes and provide implementable policy recommendations.

### Poverty and income inequality

As revealed in the Table 1, the Nepal Living Standard Survey (NLSS) of 1996 shows the incidence of poverty at 42 percent. About 40 percent of the population is estimated to live below the national poverty line, which is approximately NRs 4,400 ($77) per capita per annum and based on calorie intake, housing, and various other nonfood standards. There are wide variations in the poverty incidence ranging from 41 percent in the hills to as high as 56 percent in the mountains, with an overall poverty rate of 44 percent in the rural and 23 percent in the urban areas. For ecological zone, the data shows that poverty is more severe in the mountains and more or less same in the hills and the terai. However, it is less intense in the terai than in the hills. The preliminary findings of the NLSS II (2004) has not yet been officially announced, but the incidence of poverty is shown to be at 30 percent. The household survey in 2001 shows improvement in consumption level in the rural areas, ever-increasing remittances, and good agriculture performance.

There have been satisfactory improvements in the economic and social indicators in the last decade. Poverty, however, is still widespread as the incidence of poverty has not declined significantly in the last two decades (1981-2001). The NLSS 1996 reveals that the share of the national income of the bottom 40 percent of the population declined from 23 percent in 1985 to 11 percent in 1996, while the share in the national income by the wealthiest 10 percent of the population has increased from 23 percent

### Table 1: Population Below The Poverty Line: 1995/96

<table>
<thead>
<tr>
<th>Region</th>
<th>Population Below Poverty Line (%)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Poor</td>
</tr>
<tr>
<td>A. Geographical Region</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Himal (Mountain)</td>
<td>56.0</td>
<td>29.3</td>
</tr>
<tr>
<td>Hill</td>
<td>41.0</td>
<td>21.3</td>
</tr>
<tr>
<td>Terai</td>
<td>42.0</td>
<td>28.7</td>
</tr>
<tr>
<td>B. Urban/Rural Area</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>23.0</td>
<td>13.2</td>
</tr>
<tr>
<td>Rural</td>
<td>44.0</td>
<td>26.4</td>
</tr>
<tr>
<td>C. National Average</td>
<td>42.0</td>
<td>24.9</td>
</tr>
</tbody>
</table>

Source: Reference 1
in 1985 to 52 percent in 1996. Government interventions have not been successful in reducing wide variations in rural and urban poverty because of the absence of rural-urban economic linkages, inaccessibility, and inadequate investment in the underdeveloped areas. Data inadequacy in the NLSS does not allow a caste-wise analysis of the poverty incidence. It is observed that though poverty incidence is higher for the occupational caste groups such as Damai, Sarki and other untouchables. As people in the high per capita bracket have better access to agriculture inputs and other productive assets, it necessitates emphasizing on improving the poor’s access to resources by removing institutional constraints.

The challenge South Asia faces is to bring a shift of labor and other resources from the low-productivity primary sector to high-productivity manufacturing for achieving higher living standards. However, over emphasis on macroeconomic reforms without properly addressing other important issues such as weak entrepreneurship, poor technology, untrained managerial and technical personnel have made reform measures ineffective. This is the reason why macroeconomic stability has contributed largely to urban growth. In Nepal, urban poverty declined at twice the rate of poverty in rural areas, indicating higher degree of inequality. The lesson learnt is that structural reforms are inadequate to alleviate poverty, and moderate growth could not trickle down to the poor masses in reducing the gap between the poor and the rich. It necessitates investigation of the effects of domestic policies which relate to agricultural liberalization and market reforms on food security and poverty.

Agriculture liberalization and food distribution

Poverty and food insecurity are interdependent. There is a lack of research on the characteristics of households below the poverty line. Food insecurity has prevailed for reasons like the limited access to resources, poor ecological setting, harsh environmental conditions, rugged topography, illiteracy, lack of marketing opportunities, underdevelopment of common property resources, larger family size, and ethnicity that restricts occupational caste (dalit) in adopting occupations of their choice. The poor have additional problems of falling wage rates in relation to food prices. Minimum wage rates in industries and services are below the inflation rates.

Available data show that agriculture, the backbone of the poverty reduction strategy has grown by only 2.6 percent per annum in the last two decades compared to the population growth of 2.5 percent per annum. Therefore, as a new agricultural policy, public expenditure was increased in the priority rural sectors for alleviating poverty with an aim to increasing production, productivity and income distribution through reform programmes in agriculture, forestry and the unorganised sectors. The target was to avail employment and income opportunities to the poor and disadvantaged people by emphasizing on social security, physical infrastructures and human resource development. In the agricultural sector, the following policies were adopted as a part of the liberalization policy:

- removing subsidies in the agricultural sector for both inputs and outputs;
- privatising the Agriculture Inputs Corporation (AIC) and deregulating the price for agricultural inputs and products. Price determination was left to the market force. Nepal Food Corporation (NFC) was to be privatized, and subsidies were removed in the distribution of food and food products;
- limiting the government’s role and involving the private sector in the production and distribution of agricultural products and their marketing;
- reducing the tariff rates on food product imports, and to open the agricultural sector to foreign direct investment.

The government deregulated the fertilizer trade in November 1999 and removed support to farmer-managed irrigation systems and shallow tube-wells. The involvement of the private sector in the distribution of food grain offered an opportunity to get foods at a relatively competitive price. The withdrawal of subsidy to
urban and accessible area also reduced the budgetary deficit. However, NFC’s discriminatory subsidy operation on the basis of political influence is often questioned in terms of policy compatibility. It is suspected that NFC’s food distribution does not reach the needy people in food deficit area. Similarly, because of the absence of storage facilities, the existing practice of higher share of credit sales and preference to barter trade, private sector’s food supply in the inaccessible food deficit areas is negligible, except in some tourist trekking routes.

Due to inaccessibility, the food prices are much higher in remote areas. The normal marketing channel is non-existent and transportation is extremely difficult in the conflict-prone districts. Thus, conflict has further disrupted the food supply system by increasing the vulnerability of the poor.

Policy impact on income and productivity

The impact of liberalization on agriculture is mixed in terms of productivity and income growth. The study reveals that real wages and employment opportunities have declined after the liberalization. A carried out by Institute of Integrated Development Studies reveals that in real terms, only marginal improvements have been noticed. It reported that employment opportunities have improved in the non-farm sectors due to expansion in industries and service sectors.

It is widely accepted that the per capita agricultural growth rate and productivity increased partly because farmers unofficially imported fertilizers taking advantage of an open border with India. However, the government claims that the use of sub-standard chemical fertilizers have hindered efforts for productivity gains. It is estimated that 20 percent of fertilizer enter Nepal through illegal ways.

The imports of food grains from India have increased because the prices of rice in India are lower (it was about 12 percent lower than in Nepal during 2002) than in Nepal. Whatever is produced, the absence of rural road, safe and adequate storage facilities including the cold storage, has limited the market access to the farmers. In a country where agriculture continues to be dependent on the monsoon, the lack of improvement of irrigation system has made agriculture productivity stagnant.

The household income of villagers and their employment opportunities have improved not through improvement in agriculture but by labour migration especially to Gulf countries and through their remittances. Various studies have shown that about half of the households in villages have participated in migration to cities, towns and other countries. The Population Census 2001 shows that about 762 thousand Nepalese have gone to other countries for work. Many more people have gone abroad through illegal channels, which do not get formally recorded. The preliminary findings of NLSS II shows an increase in the percent of households receiving remittances in during 2003/04. It was 23.40 percent during 1995/96 and reached to 31.90 percent during 2003/04. The share of the remittances from India has declined (from 32.87 percent in 1995/96 to 23.20 percent in 2003/04) but its share from other countries (including the Gulf) has increased (from 22.46 percent to 53.31 percent) in the same period.

The per capita growth rate in agriculture has increased from 0.5 percent in the first part of the 1990s to 0.7 percent in the second part of the 1990s. Since agricultural productivity improved in the 1990s, the country had surplus food grain. But food production achieved a negative growth in 2002 because of unfavorable climatic conditions coupled with insurgency. The restriction imposed by the Maoists in the movement of goods and services in various regions of the country made it difficult to make exact estimates of the food grain production in the future.

One of the main reasons for the increase in productivity was the increased availability and use of fertilizer due to the private sector’s involvement. However, considering the decline in the sales of fertilizers from 47 to 24 thousand metric tonnes during 1998-2001 one may reiterate that Nepali farmers are using the illegally smuggled fertilizers through Nepal-India border. It is generally estimated that as much as 20 percent of fertilizer may enter Nepal
illegally. The extent of decline in the use of fertilizer due to the current political and insurgency problems is difficult to assess.

The dependency on government food is growing, and so has the food insecurity because the food grain production has not kept up with the population growth rate. There is price disincentive effect because the government’s food supply is cheaper than the cost of producing food. The subsidy programme requires measures to balance the negative impact on food production and welfare gains of needy people in future.

From the livelihood perspective, the government’s major mission should be the eradication of hunger poverty. Reduction in not only the percentage but also in the absolute number of poor is desirable. Reform may have crossed the hunger barrier but the challenge of poor diets is still to be faced. To ensure adequate safety net measures for the poor, the budgetary allocation goal should be more realistic.

**Impact on targeted programmes**

The existing food, fertilizer, interest and capital subsidies had little impact since they were unavailable and unreliable. The needy were deprived of the benefit and the subsidies were not encouraged for productive investments in agriculture. Integrated rural development programme became a high-cost activity where over-reliance on special project implementation groups made the initiative unsuccessful. Food distribution programme such as nutritious food programme were diverted towards those households who were not actually food-insecure. Therefore, there was no positive impact on the food security of the people. Although the targeted credit programme addressed community development, income-generation and provision for credit group participation and the promotion of self-help, it did not become effective because of the poor implementation. Most of the credits under small farmer’s development programme were used for working capital and livestock. Credit, under intensive banking programme went to larger cottage-industry projects. Under the employment programme, the Food-for-Work Programme and Special Public Works Programme was limited to a small number of beneficiaries. Similarly, a significant impact on capacity building was limited since training for rural gainful activities was administered for a limited number of beneficiaries and post-training status of skilled women was also not known to help them find the market for their products. Other equally important targeted poverty alleviation programmes, such as the Special Program for Backward Ethnic Communities aimed at income-generating activities for backward ethnic groups and Kamaiya Development Programme aimed at uplifting the socio-economic status of bonded labour by abolishing the bonded labour system. These programmes suffered from institutional weaknesses. Excessive centralization and inadequate operating funds obstructed the functioning of such programmes.

Targeted programmes have suffered more in recent years because of the Maoist insurgency. Since Maoists want to impose some conditionality in the working of the NGO/INGs, confusion about the sustainability of poverty-related programmes has been created. Some programmes such as the villager- run income-generating programmes like beekeeping, cattle-raising, off-season vegetable farming and small businesses have already stopped in remote regions, adversely affecting the livelihoods of the poor people. The World Food Programme (WFP) has temporarily suspended its programme in Dailekh district, 400 miles west of Kathmandu after one of its workers was killed.

The sustainability of the UNDP supported Micro-Enterprise Development Programme, which delivers various services to the poor, including entrepreneurial development, skill training, marketing support and small loans to developing enterprises, may determine the livelihood and security of poor masses. Increased conflict and the absence of partnership modalities with the insurgents for developmental activities in under-resourced regions, have raised a question mark about the sustainability of poverty alleviation programmes.

The mechanism to update the incidence, intensity and severity of poverty has not been
fully developed. Therefore, the tracking and monitoring of the poverty trend to judiciously allocate scarce resources in priority areas had always been a problem. The National Planning Commission has developed a Poverty Monitoring and Analysis System (PMAS) as an integrated set of instruments for effectively monitoring poverty together with intermediate and final indicators. The NPC intends to monitor intermediate indicators through the Management Information System (MIS) of sectoral ministries and the final indicators through periodic surveys.

The government has also established the Poverty Alleviation Fund (PAF) as a new-targeted instrument to implement poverty-related developmental works by reaching the poor and unreached communities based gender, ethnicity and caste. It also addresses the poorest groups in rural communities. The impact of the execution of such policies is yet to be seen.

Malnutrition and food insecurity

Malnutrition and food insecurity are vital problems in South Asia. They are the cause for high mortality rates in mothers and infants. The recently completed report by the Independent South Asian Commission on Poverty Alleviation reveals that in 1999, over 48 percent of children under 5 suffered from malnutrition in the region while 24 percent of the population as a whole were below the minimum level of dietary energy consumption. It necessitates policies for increasing the efficiency of food markets, promotion of small-holder agriculture, efficient targeting of subsidies, strengthening input and output markets and the development of long-term sustainable food systems.

Nepal's trade policy is inextricably linked with India, first because of the higher per cent of total trade arrangement with India and second, because a significant quantity of Nepali goods are exported through the Kolkata port. The gateway port of Kolkata and Haldia share 98 percent of Nepal's third country traffic in terms of volume. Transportation and logistic impediments have significantly increased the cost of doing business and had an adverse effect on growth, employment and poverty reduction. The major concern in Nepal therefore, is to solve the transit and transport-related hurdles to reduce pilferage, loss/damages and transit time by developing simplified cargo-customs procedures, including transit to reduce transaction costs.

Conclusions

A recent ADB study identified a number of causal factors underlying poverty in Nepal. These include, slow overall economic growth in the face of relatively rapid population growth; weak redistributive and institutional capacity of the government; non-agricultural growth lacking any significant spill over effects on the rural poor; low productivity and slow growth of output in the agriculture sector, and weak social and economic infrastructure (education, health, drinking water, transport, and energy) leading to inadequate access of the poor to the means for escaping poverty.

Nepal is basically an agrarian economy, which engages about 78 percent of the total population. Agriculture provides nearly two-thirds of all household income. Unfortunately, the per capita food grain production has decreased and the average food deficit is currently estimated to be 47 kg per capita compared mountain regions and 32 kg per capita in the hills. Crop yields have fallen relative to the South Asian average (157 to 61 percent) making Nepalese agriculture least competitive. Poverty alleviation is not possible without an increase in production and productivity in the agricultural sector. Since the tertiary sector such as trade, transport, communication, finance and real estate is urban-centric, it poses a challenge in spreading the effects of the tertiary sector to rural areas. A commitment to design a definite policy for taking these services to the under-resourced regions is important.

There are opportunities for value addition through agro-processing and packaging to increase the competitiveness of products in international markets for high value agricultural commodities. To fully exploit these opportunities there is need to have a policy for capacity building to commercialize, improve farm
productivity, conduct value-added services and expand markets for the farmers and entrepreneurs.

The contribution of small farmers to agricultural production is not adequately reflected in the agriculture sector plans and budgets because government strategies seem to be geared towards the larger farmers, and the sustainance of food security of the urban people. It is therefore crucial to switch the focus from commodity planning to planning for farmers, and from larger to smaller farmers.

As land productivity is quite low, small farms (with holdings of less than 0.5 hectares) are below the poverty line. A study has shown however that a dynamic farm sector with a growth of 4 to 5 percent per annum has the potential to generate adequate income among farms of up to 0.2 hectares to cross the poverty line\(^1\). Such a growth pattern can have a direct impact on the non-farm sector because of the expanded demand for non-farm products. This is the reason why strategies involving small farmers in national development programmes to increase their incomes should be promoted for poverty alleviation. Such strategies will raise the demand for locally produced goods and services by strengthening the links between agricultural households and non-farm economies in rural areas, and as observed in many cases, slows down out-migration to urban areas. It also increases the opportunities for return-migration. Such a strategy has helped low-income areas accelerate growth, enhance efficiency and promote equity. This strategy is more important in Nepal at a time when the majority of small farmers have migrated from rural areas to urban centers creating supply side constraints due to the ongoing conflict.

Building organizations for the poor by forming groups with similar socioeconomic background has proved important in the SAARC region to empower the poor and creating awareness and gaining access to resources. The empowerment of women through the accumulation of both financial assets such as savings and credit and social assets such as capacity building, social connectedness and social networks have been crucial for poverty alleviation\(^1\).

References

10. (http://www.adb.org/Documents /Reports/Poverty_Reduction_NEP/Poverty_analysis.pdf)
Abstract

Food security is defined as “access by all people at all times to enough food needed for an active and healthy life. Its essential elements are the availability of food and the ability to acquire it”. Bangladesh experienced famine in 1974 following the civil war with Pakistan in 1971 and consecutive natural disasters leading to substantial reduction in rice production. In view of that experience, for long periods, food security was synonymous with achieving self-sufficiency in rice production and stabilization in rice prices. A doubling of rice production from the mid-1970s to the turn of the last century, improvements in road and communication infrastructures and increased real incomes made possible by general economic development have transformed the Bangladesh food economy. Yet food security has not been achieved. Whatever progress has been made would be difficult to sustain in view of the growing pressure of population on extremely scarce natural resources. Domestic food grain production remains susceptible to floods and droughts thereby perpetuating the threat of major production shortfalls and inadequate food availability. Moreover, increases in cereals production have not been accompanied by significant increases in availability of other foods. Nearly 40 percent of the population lives below the food consumption-based poverty line, lacking sufficient resources to afford diet of 2,122 kilocalories (kcal) per person per day, along with other basic necessities. Apart from the prevailing deficit in total calorie intake, the normal diet of Bangladeshi people is seriously imbalanced, with inadequate consumption of fat, oil and protein, and with more than 80 percent of calories derived from cereals. This dietary imbalance reflects insufficient domestic production of non-cereal foods (vegetables, pulses, oilseeds, fruits, meat, milk and eggs), low incomes, food preferences and lack of nutrition education. This paper aims to assess the trends in factors that affect food production, availability of food and their impact on nutrition outcomes. It also probes into the trends in poverty and distribution of income, and endowment of land that affects people’s access to food.

Introduction

Food security is defined as “access by all people at all times to enough food needed for an active and healthy life. Its essential elements are the availability of food and the ability to acquire it”. It is important to view food security from both national and individual angles. At the national level, food security means the availability in the country of sufficient stocks of food to meet domestic demand until such time as stocks can be replenished from harvests or imports. At the individual level, it means that all members of the society have access to the food they need, either from their own production, from market and/or from the government’s transfer mechanism. Experiences from India and other countries have shown that even when the national food security is achieved, individuals and groups in the country can still go hungry because they do not have the means to access food.

The purpose of this paper is to assess the trends in food production and consumption and their impact on nutrition outcomes. It also lists factors that affect the access to food at the household level, i.e., the endowment of land, the level and distribution of income, and the effect of market forces on entitlement of staple food. Major findings are recapitulated in the concluding section.

Trends in food production and consumption

Domestic production

Major items in the food basket in Bangladesh are rice, wheat, pulses, potato, vegetables and
fish. These food items account for almost 85 percent of the total calorie and protein intake. Rice and wheat alone contribute to 74 percent and 57 percent of the total per capita calorie and protein intake respectively².

Rice occupies 71 percent of the gross cropped area and accounts for 94 percent of the food grain production. The net cultivated area in Bangladesh is about 8.0 million hectares, but the total cropped area of rice is about 11.0 million hectares; such is the importance of rice in agriculture in Bangladesh. The long-term trend in the production of rice vis-à-vis the population growth can be seen from Figure 1³. Rice production declined in absolute terms immediately after the Independence in 1971 due to the destruction of infrastructure by the civil war and the consecutive natural disasters. Indeed, the country faced severe food insecurity and famine in 1974-75 due to the shortfall in domestic production caused by floods, the government’s incapacity to import, and mismanagement in distribution⁴, which led to a skyrocketing of rice prices ⁵,⁶,⁷. However the growth of cereal production resumed from 1976 and had almost an unhindered growth since then (except for a short period in the early 1990s). The growth in rice production kept pace with population growth in the 1980s, and surpassed population growth by a significant margin in the 1990s.

The respectable growth in rice production was propelled by adoption of high-yielding modern varieties of rice, facilitated by an expansion of irrigation infrastructure. More than 60 percent of the cultivated land now has access to irrigation facilities, developed mostly by private investment on small-scale shallow tubewells and power pumps, after deregulation of markets and other policy changes introduced since the early 1980s⁷. The adoption of modern rice varieties has reached 70 percent of rice cropped area. Only in the deep-flooded areas in the depressed basins, and in the salinity affected coastal areas farmers still grow low-yielding traditional varieties. It can be seen from Figure 1 that almost 90 percent of the growth in rice production came from the increase in yields made possible by the technological progress in rice cultivation.

Wheat, a less important food in Bangladeshi diet, is grown mostly in the north-western region of the country which has a relatively longer winter period. The area under wheat expanded exponentially from 126,000 hectare in 1976 to 676,000 hectare in 1985, while the production increased from 117,000 tonnes to 1.46 million tonnes. The expansion was halted over the next decade with the expansion of boro rice in the dry season, but picked up again since 1996 due to a favourable trend in price relative to rice.
Over the last three decades wheat production increased at a rate of 10 percent per year but wheat still accounts for only 7 percent of the total cereal production.

The rapid expansion in the production of cereals was achieved partly through reduction of area and production of pulses and oilseeds. These two crops were important sources of protein and micronutrients, particularly for the poor. The production of sugarcane and fruits has also remained stagnant. Among other food crops, the growth was respectable only for potatoes and vegetables (Table 1), because of higher productivity and profitability compared to rice and wheat.

In terms of nutrition, fish occupies a significant position in the dietary habits of the people. The growth in fish production was sluggish in the 1970s. The growth picked up in the 1980s, and was very rapid (7 percent per year) in the 1990s (Table 1). The growth in the production of meat and milk has been unsatisfactory, while their demand has been growing fast.

**Table 1: Long-term trend in the production of major food crops; 1970-2001.**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Cereals</td>
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<td>19223</td>
<td>26002</td>
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<tr>
<td>Rice</td>
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<td>13916</td>
<td>18157</td>
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<td>961</td>
<td>986</td>
<td>1807</td>
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<tr>
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<td>1715</td>
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<td>Fruits</td>
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<td>282</td>
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<td>588</td>
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<td>1082</td>
<td>1182</td>
<td>1649</td>
<td>2116</td>
<td>2.34</td>
</tr>
</tbody>
</table>

Source: Reference 3

Bangladesh imported over 2.0 million tonnes of rice during 1973-75, 1988-89, and 1998-99; all these years followed years of disastrous floods or droughts. In a few odd years following bumper harvests, the government declared achieving self-sufficiency in rice production, only to find that it slipped back to import dependence due to increasing demand from growing population. Rice imports were negligible during 1991-94, and most recently during 2000-2001.

Bangladesh receives substantial amount of wheat from outside the country, mostly in the form of food aid. Wheat imports increased consistently over time despite the rapid growth in domestic production and the reduction in food aid in recent years. The volume of imports increased from 1.0 million tonnes in the early 1970s, to 1.4 million tonnes in the early 1990s, and further to 2.0 million tonnes during 2000-02. Wheat is an inferior table food in the Bangladeshi diet, but the demand has been growing due to urbanization and the practice of eating away from home by the urban middle class.

The other food items for which imports have been growing very fast are oils, pulses, sugar, milk and fruits (Table 2). The rapidly rising imports of these food items are becoming a major drain on the limited foreign exchange earnings of the country. The government has adopted a policy of promoting crop diversification to reduce the dependence on imports, but without much success.

**Trend in imports of food**

Despite the favorable trend in the domestic production over the last three decades, Bangladesh is not yet self-sufficient in cereal grains. The imports of rice remained stagnant at around 0.5 million tonnes per year, with substantial increase in imports in years following poor harvests due to floods and droughts.
Adequacy of food consumption

The level of consumption of different food items reached in 1990s as estimated in the Household Income and Expenditure Surveys (HIES) of the Bangladesh Bureau of Statistics (BBS) can be reviewed from Table 3. The table also compares the level of food consumption with the normative food requirement prescribed by the National Nutrition Council for the average Bangladeshis for having a balanced nutrition and living a healthy productive life. It can be noted that for rural areas the consumption of rice, the dominant staple food for Bangladeshis, reached a level much higher than the minimum requirement; there is a marginal deficit for tubers and vegetables and fish; and substantial deficits for pulses, oils and livestock products that are major sources of protein and micro-nutrients.

The picture is almost the same for urban areas, except that the consumption of cereals is lower compared to rural areas while the consumption of most other food items is higher. It appears from the composition of the diet that the quality of the food basket is better for urban areas compared for rural areas.

The total consumption of food continues to increase in rural areas, but the total intake is still about 11 percent lower than the minimum requirement, and the deficit is mostly on account of non-cereal food. For urban areas, total intake has declined in the 1990s and the present level of intake is still about 13 percent lower than the minimum requirement. Over time, there has been substantial decline in the consumption of wheat and pulses but respectable increases in the consumption of vegetables (including potatoes), fruits and fish.

A look at prices of pulses and fish relative to rice (Table 4) show that the prices of these two commodities have soared over the years - an indication of relative scarcity. During the mid-

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rice</td>
<td>511</td>
<td>295</td>
<td>140</td>
<td>872</td>
<td></td>
</tr>
<tr>
<td>Wheat</td>
<td>971</td>
<td>1366</td>
<td>1413</td>
<td>1969</td>
<td></td>
</tr>
<tr>
<td>Maize</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>221</td>
<td></td>
</tr>
<tr>
<td>Sugar</td>
<td>23</td>
<td>56</td>
<td>65</td>
<td>230</td>
<td></td>
</tr>
<tr>
<td>Pulses</td>
<td>-</td>
<td>3</td>
<td>113</td>
<td>245</td>
<td></td>
</tr>
<tr>
<td>Soybean oil</td>
<td>51</td>
<td>38</td>
<td>234</td>
<td>662</td>
<td></td>
</tr>
<tr>
<td>Palm oil</td>
<td>-</td>
<td>66</td>
<td>63</td>
<td>242</td>
<td></td>
</tr>
<tr>
<td>Animal fat</td>
<td>26</td>
<td>33</td>
<td>20</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Milk</td>
<td>56</td>
<td>211</td>
<td>291</td>
<td>334</td>
<td></td>
</tr>
<tr>
<td>Fruits</td>
<td>-</td>
<td>18</td>
<td>28</td>
<td>108</td>
<td></td>
</tr>
<tr>
<td>Vegetables</td>
<td>-</td>
<td>95</td>
<td>43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cassava</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>59</td>
<td></td>
</tr>
</tbody>
</table>

Source: Reference 3
70s, price of pulses was around one and half times that of rice while fish was valued at four times the rice price. By the end of the 1990s, these price ratios had soared to 2.6 and 8.8. Another food item for which the growth of production was relatively stagnant was oilseeds, but the consumption has increased at a respectable rate for poor and the rich alike due to the rising imports of cheap soybean and palm oil. The price of oils relative to rice has in fact declined over time, indicating the relative abundance of this food item (Table 4).

**Nutritional Status**

The long-term trend in the calorie and protein intake estimated from the food balance sheet data can be seen from Figure 2. The data shows a decline in the intake of the major nutrients in the 1970s, and moderate recovery since the early 1980s. The upward trend is quite pronounced since the mid-1990s. But the present level of the intake is almost the same before the independence in the 1960s. During the 1999-2001 period, the energy intake was 2,284 kcal, and the protein intake 48.7 grams per capita per day, very low levels by international standards.

An alternative picture of the trend in energy and protein intake can be drawn from the national nutrition surveys, and the derived estimates from the HIES conducted by the BBS. Since the estimates are based on small samples, the data should be taken with a grain of salt. The National Nutrition Surveys report a consistent decline in the energy intake over the last four decades. The per capita energy intake for rural people reportedly has declined from 2251 Kcal during 1962-64 to 2094 Kcal in 1975-76, 1943 Kcal during 1981-82, and further to 1892 Kcal in 1995-96 (Table 5). The decline in the protein intake was even sharper. In contrast, the HIES data show that during the early 1980s and 1990s, per capita calorie intake went up steadily for the rural population but declined for the urban population due to the reduction in per capita cereal consumption. Between 1991-92 and 2000, urban per capita calorie intake fell by about 5 percent from 2258 kcal to 2150 kcal. Thus the picture on the trend in nutritional status obtained from different sources is confusing. It remains an issue of great controversy among the elites in Bangladesh.

During the last decade, Bangladesh has made significant progress in several areas such as higher child immunization rates, augmented life expectancy, lower infant mortality, declining total fertility rates and greater people having access to safe water (UNDP 2002). Despite these gains, the public health status is dismal in Bangladesh. Access to adequate healthcare still eludes many. More than 50 percent of all
children between 6 and 71 months are underweight or low weight-for-age, while nearly 50 percent of them are stunted or low height-for-age (Table 6)\textsuperscript{11}

Acute and chronic malnutrition is unusually high in Bangladesh with about 20 percent of both boys and girls severely stunted and about 12 to 14 percent boys and girls severely underweight. Though the commonness of malnutrition is almost the same for boys and girls, its severity is higher amongst girls. Rural-urban disparity in child malnutrition is quite stark with the percentage of rural malnourished children being significantly higher than that of urban areas (Table 6). More than 50 percent of the rural children are stunted or underweight with about 20 percent severely stunted and about 13 percent severely underweight.

Despite these alarming figures, it is of some pacification to note that child malnutrition has declined somewhat since the early 1990s (Table 7)\textsuperscript{12}. Between 1992 and 2000, stunting and wasting figures have declined at a rate of 3.3 percent and 4.3 percent respectively per annum. Since wasting results from acute food shortage in recent times, its faster decline vis-à-vis that of stunting is indicative of improving food security which will consequently impact the long term malnutrition measure i.e. reduce the numbers of stunted. The nutrition surveillance project run by the Helen Keller Institute (HKI) observed that moderately malnourished women as measured by BMI index of less than 18.5 has gone down from 52 percent in 1996-97 to 36 percent in 2002. Similarly, the moderately malnourished children, as measured by their weight for height index, have declined from 62 percent in 1998 to 53 percent in 2002.

**Factors influencing household food security**

According to Sen\textsuperscript{4} in a private ownership market economy, food entitlement at the household level depends on four elements:

- production-based elements which depends on ownership of productive assets;
- trade-based entitlement which depends on market prices of food;
- own-labour entitlement which depends on the productivity and the opportunity cost of labour power owned by an individual; and
- inheritance and transfer entitlements which includes relief and subsidies obtained from

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### Table 5. Changes in nutrient intake in Bangladesh: estimates from national nutrition surveys

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>Rural areas</th>
<th>Urban areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calorie (Kcal)</td>
<td>2251.0</td>
<td>2094.0</td>
</tr>
<tr>
<td>Protein (gm)</td>
<td>57.5</td>
<td>58.5</td>
</tr>
<tr>
<td>Fat (gm)</td>
<td>17.7</td>
<td>12.2</td>
</tr>
<tr>
<td>Carbohydrate (gm)</td>
<td>476.0</td>
<td>439.0</td>
</tr>
<tr>
<td>Calcium (mg)</td>
<td>304.0</td>
<td>305.0</td>
</tr>
<tr>
<td>Iron (mg)</td>
<td>9.7</td>
<td>22.2</td>
</tr>
<tr>
<td>Vitamin A (I.U)</td>
<td>1590.0</td>
<td>730.0</td>
</tr>
<tr>
<td>No. of sample households</td>
<td>1752.0</td>
<td>674.0</td>
</tr>
</tbody>
</table>

Source: Reference 12

### Table 6: Rural - urban difference in child malnutrition (6 - 71 months), Bangladesh, 2000.

<table>
<thead>
<tr>
<th>State of malnourishment</th>
<th>Wasted (%)</th>
<th>Stunted (%)</th>
<th>Underweight (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moderate / severe</td>
<td>Rural</td>
<td>Urban</td>
<td>Rural</td>
</tr>
<tr>
<td>Rural</td>
<td>11.9</td>
<td>50.7</td>
<td>52.8</td>
</tr>
<tr>
<td>Urban</td>
<td>10.8</td>
<td>38.3</td>
<td>42.2</td>
</tr>
<tr>
<td>Severe</td>
<td>Rural</td>
<td>Urban</td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>1.0</td>
<td>19.7</td>
<td>13.2</td>
</tr>
<tr>
<td>Urban</td>
<td>1.8</td>
<td>15.1</td>
<td>9.6</td>
</tr>
</tbody>
</table>

Source: Reference 11

### Table 7. Trends in child malnutrition, Bangladesh, 1985–2000

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Stunting</td>
<td>68.7</td>
<td>65.5</td>
<td>64.2</td>
<td>51.4</td>
<td>48.8</td>
</tr>
<tr>
<td>Wasting</td>
<td>14.8</td>
<td>14.7</td>
<td>16.7</td>
<td>16.6</td>
<td>11.7</td>
</tr>
<tr>
<td>Underweight</td>
<td>71.5</td>
<td>66.5</td>
<td>68.3</td>
<td>57.4</td>
<td>51.1</td>
</tr>
</tbody>
</table>

Source: Reference 12
the government.

The distribution of income and an individual’s ability to access food is the outcome of the complex operation and interactions of all those elements. In this section we report some information on the entitlement of land, the dominant factor of food production, the behaviour of food prices, and the distribution of income and incidence of poverty to understand the forces affecting the distribution of food and its access to the households and individuals.

**Entitlement of land**

The entitlement of food based on household’s own production, which is relevant for the farm population would depend on the access to land. In Bangladesh, the land resources are extremely scarce and have been shrinking under pressure of growing population. The average size of farm holding has declined from 1.70 hectare in 1960 to 0.91 hectare in 1983-84, and further to 0.68 hectare in 1996 (GOB, 1987, 1999). The changes in the structure of landownership can be seen from Table 8.9. The picture depicted here is that of growing pauperisation rather than concentration of landholdings. Only 28,000 households owned land in sizes of over 10.0 hectares in 1983-84; the number declined to 19,000 by 1996. At the other end, in 1983-84 nearly 5.4 million households (46 percent of all rural households) owned land in sizes of less than 0.2 hectare, which cannot be a significant source of food production or income. By 1996, the number of these “functionally landless” households increased to 10.0 million (56 percent of all households). Only about 8 percent of the households owned land in sizes of over 2.0 hectares, just enough to produce food needed by a six-member family and stocks of a few months’ requirements to tide over temporary crisis.

Large farms are very few, only 2.3 percent operating more than 3.0 hectares in 1996. The medium and large holdings are getting subdivided under population pressure, leading to an increase in the number of small and medium farms. In 1996, small and marginal farms with holdings of less than 1.0 hectare accounted for 81 percent of farms, operating 41 percent of the cultivated area.

The total number of farms operating some land was 12.7 million, compared to the total of 17.8 million rural households. Thus, 5.1 million rural households did not have access to land for producing food for the family. Besides another 10.3 million households operated land in sizes of below one hectares, who would need to purchase food from the market to cover deficits from household-based production. For this segment of the population, income avenues are extremely limited. They depend heavily on selling labour in both agricultural and non-agricultural labour markets for their livelihoods. The seasonal nature of agricultural employment and limited opportunities for non-farm employment cause millions to suffer from chronic and transitory food insecurity. The access to food for these people depends on the trade-based entitlement relationships, i.e. on the wage rate and food prices and their fluctuations in the market.

<table>
<thead>
<tr>
<th>Size of land-ownership (ha)</th>
<th>1983-84</th>
<th>1996</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of households (000)</td>
<td>Percent of households</td>
<td>No. of households (000)</td>
</tr>
<tr>
<td>Nil</td>
<td>1,198</td>
<td>8.7</td>
</tr>
<tr>
<td>0.01 to 0.20</td>
<td>5,200</td>
<td>37.6</td>
</tr>
<tr>
<td>0.20 to 1.00</td>
<td>4,639</td>
<td>33.6</td>
</tr>
<tr>
<td>1.00 to 2.00</td>
<td>1,598</td>
<td>11.6</td>
</tr>
<tr>
<td>2.00 to 3.00</td>
<td>650</td>
<td>4.7</td>
</tr>
<tr>
<td>3.00 to 10.00</td>
<td>504</td>
<td>3.6</td>
</tr>
<tr>
<td>10.00 &amp; above</td>
<td>28</td>
<td>0.2</td>
</tr>
<tr>
<td>Total</td>
<td>13,818</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Source: Reference 8,9*
Growth and distribution of income

The dominant determinant of food entitlement of a household is obviously the level of income which is earned from land, as well as from the endowment and utilization of other assets—physical and human capital. The estimate of income separately for rural and urban areas is only available from the reports of the HIES. The estimates are reported in Table 9.13,14. As can be noted from the table, the per capita expenditure (often used as a measure of permanent income) is very low in Bangladesh, at US$189 for rural households, and US$329 for urban households. For rural areas, the per capita expenditure remained almost stagnant in the 1980s but increased at a moderate rate of 2.5 percent per year in the 1990s. The growth of income for urban areas was much faster, at 1.9 percent per year in the 1980s, and 3.5 percent in the 1990s. The data indicate growing urban-rural disparity in incomes. The ratio of the expenditure for the urban households relative to rural households increased from 1.40 in 1983 to 1.74 in 2000. The incomes are also highly unequally distributed and have been continuously worsening. The concentration of income as measured by Gini index was estimated at 0.30 for rural areas and 0.38 for urban areas. The increase in income inequality was moderate in the 1980s, but was very fast in the 1990s, both for rural and urban areas. So, not only the growth of income was slower in the 1990s compared to the 1980s, the distribution of that growth was more unequal.

The level and the change in the level of living of the low-income sections of the population are reflected by the measures of poverty. The measurement of poverty involves:

- specification of the income level below which a person is considered poor (poverty line); and
- construction of an index to measure the incidence, the intensity and the severity of poverty.

For Bangladesh, the poverty line is measured with reference to the cost of basic needs method. This method takes a normative consumption bundle of food items recommended for the average Bangladeshi population that gives a per capita daily energy intake of 2,112 kcal and protein intake of 58 gm. The required minimum expenditure of food items is estimated by valuing them at prices prevailing in the reference year. An additional 40 percent allowance is then made for income needed to satisfy non-food basic needs. The estimates of poverty line, and the various measures of poverty for selected years of HIES conducted by the BBS are presented in Table 10. The results show considerable progress in poverty reduction in Bangladesh over the last two decades. The progress was greater during the 1990s than during the 1980s. Between 1991-92 and 2000 the incidence of poverty declined from 53 percent to 44 percent for rural areas and from 34 percent to 26 percent for the urban areas, indicating a reduction rate of one percent per year. The reduction in poverty is

<table>
<thead>
<tr>
<th>Year of survey</th>
<th>Annual per capita expenditure</th>
<th>Gini Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rural</td>
<td>Urban</td>
</tr>
<tr>
<td>1983-84</td>
<td>137</td>
<td>189</td>
</tr>
<tr>
<td>1988-89</td>
<td>163</td>
<td>261</td>
</tr>
<tr>
<td>1991-92</td>
<td>162</td>
<td>260</td>
</tr>
<tr>
<td>2000</td>
<td>189</td>
<td>329</td>
</tr>
</tbody>
</table>

Source: Reference 13,14

Table 9: Growth and distribution of per capita income, Bangladesh, 1983-2000

<table>
<thead>
<tr>
<th>Year of survey</th>
<th>Annual per capita expenditure</th>
<th>Gini Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rural</td>
<td>Urban</td>
</tr>
<tr>
<td>1983-84</td>
<td>129</td>
<td>145</td>
</tr>
<tr>
<td>1988-89</td>
<td>142</td>
<td>170</td>
</tr>
<tr>
<td>1991-92</td>
<td>149</td>
<td>170</td>
</tr>
<tr>
<td>2000</td>
<td>146</td>
<td>167</td>
</tr>
</tbody>
</table>

Source: Reference 15,16

Table 10. Trend in poverty in Bangladesh, 1983-2000
insensitive to the choice of the poverty measure (Table 10). An alternative indicator often used to assess the changes in the living conditions of the landless is the trend in the real wage rate of the agricultural labour. Table 11 presents the estimated real wages using two alternative deflators:

- the cost of the normative food consumption bundle used for estimation of poverty, and
- the index of rice prices. It can be seen that the rice prices increased at a much slower rate than the prices of the food bundle, indicating a favourable trend in prices for those who spend a larger fraction of their income on staple grains (the poorer among the poor). Both measures show a sustained increase in real wages over the last two decades. The increase in real wages was faster in the 1990s than in the 1980s. The trend in real wages is consistent with the trend in the reduction of poverty.

<table>
<thead>
<tr>
<th>Year</th>
<th>Nominal wage rate (Tk/day)</th>
<th>Poverty line deflator (2003=100)</th>
<th>Rice price deflator (2003=100)</th>
<th>Real wage (Tk/day) With poverty line deflator</th>
<th>Real wage (Tk/day) With rice price deflator</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983-84</td>
<td>19.58</td>
<td>38.7</td>
<td>54.5</td>
<td>50.59</td>
<td>35.92</td>
</tr>
<tr>
<td>1988-89</td>
<td>32.71</td>
<td>55.7</td>
<td>72.6</td>
<td>58.73</td>
<td>45.05</td>
</tr>
<tr>
<td>1991-92</td>
<td>41.77</td>
<td>67.8</td>
<td>82.8</td>
<td>61.6</td>
<td>50.45</td>
</tr>
<tr>
<td>1995-96</td>
<td>45.58</td>
<td>78.2</td>
<td>103</td>
<td>58.29</td>
<td>44.25</td>
</tr>
<tr>
<td>2000</td>
<td>63.6</td>
<td>91.5</td>
<td>96.8</td>
<td>69.51</td>
<td>65.7</td>
</tr>
<tr>
<td>2003</td>
<td>72.23</td>
<td>100</td>
<td>100</td>
<td>72.73</td>
<td>72.73</td>
</tr>
</tbody>
</table>

Source: Reference 15

Table 11. Trend in real agricultural wages, Bangladesh, 1983-84 to 2003

Trend and seasonal fluctuations in food grain prices

Given the level of income, the lower is the price the higher the purchasing capacity of that income. Sharp increase in food grain prices significantly lower the real income of poor households, a large proportion of whose income is spent on staple food. Since meeting the energy requirement is the most basic human need, people cannot cut the consumption of staple food in response to higher prices. So when prices go up, the expenditure on food takes a larger share of the limited budget, leaving less income for acquisition of other food items that contributes to unbalanced nutrition. Figure 3 shows the long-term trend in the

---

Source: Reference 15

Trend and seasonal fluctuations in food grain prices

Given the level of income, the lower is the price the higher the purchasing capacity of that income. Sharp increase in food grain prices significantly lower the real income of poor households, a large proportion of whose income is spent on staple food. Since meeting the energy requirement is the most basic human need, people cannot cut the consumption of staple food in response to higher prices. So when prices go up, the expenditure on food takes a larger share of the limited budget, leaving less income for acquisition of other food items that contributes to unbalanced nutrition.
producer price of paddy and wheat deflated by the wholesale price index.

There was a substantial downward trend in prices of rice and a moderate decline in the price of wheat, indicating an adverse terms of trade for the farmer but a favourable price regime for the consumer. The downward trend in prices of both crops is partly the result of the technological progress that helped reduce the unit cost of production. There was also a large temporal fluctuation in prices indicating risks in cultivation of these crops that subsistence farmers cannot afford.

Prior to the liberalisation of food grain trade in the early 1990s, the government influenced prices through its “food grain stock maintenance policy” that involved procurement, import and distribution through markets. During this period, the domestic market was largely insulated from the world market. As a result, the domestic prices were often divergent from the world market prices. The opening up of the economy saw a gush of imports into the country that have brought about a structural change in the determination of food grain prices in Bangladesh. During times of production shortages, timely imports of rice by private sector helped avoid transitory food insecurity. This has prevented wild price fluctuations in the economy and has resulted in a more stable price regime.

**Safety nets**

Bangladesh is a disaster prone country. By virtue of its geographical location, the country is often at the mercy of natural calamities such as floods and cyclones. Riverine Bangladesh also witnesses frequent land erosion causing thousands to lose their land every year. Against such a backdrop, despite the gains achieved by Bangladesh in augmenting food availability, safety net programs are a must to insulate the poor from systematic and idiosyncratic shocks and help them to be food secure.

There are a number of food assistance programs in operation, each with its own specific objectives and target population. Some are relief programs that aim primarily at relieving immediate distress, generally due to natural disasters – these interventions are typically mobilized for a limited period and are targeted at the directly affected households. Other programs have explicit development objectives such as rural infrastructure development, boosting primary school enrolment rates and human capital development. Although relief provision remains an important objective, most targeted programs have gradually shifted in emphasis from relief to development. These include the Food-for-Work, Food-for-Education and Vulnerable Group Development\(^\text{17,18,19}\) (Table 12).

<table>
<thead>
<tr>
<th>Program</th>
<th>Functions</th>
<th>1999-2000 Program Off-take (000 M. Tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food for Work (FFW)</td>
<td>Employment generation for the poor, mainly in the dry season. Development and maintenance of rural infrastructure.</td>
<td>755</td>
</tr>
<tr>
<td>Food for Education (FFE)</td>
<td>Promote primary school enrolments and attendance, reduce dropouts and improve quality of education.</td>
<td>286</td>
</tr>
<tr>
<td>Vulnerable Group Development (VGD)</td>
<td>Assistance to disadvantaged women in rural areas; training in market-based income generating activities, functional education.</td>
<td>217</td>
</tr>
<tr>
<td>Vulnerable Group Feeding (VGF)</td>
<td>Disaster relief: food grain distribution to needy families in periods of distress.</td>
<td>149</td>
</tr>
<tr>
<td>Test Relief7</td>
<td>Employment generation for the poor, mainly in the rainy season (similar to FFW except with lighter labour requirements).</td>
<td>25</td>
</tr>
<tr>
<td>Gratuitous Relief</td>
<td>Disaster relief: food grain distribution according to perceived need.</td>
<td>20</td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td>58</td>
</tr>
<tr>
<td>Total: 1999-2000</td>
<td></td>
<td>1,609</td>
</tr>
</tbody>
</table>

*Source: Reference 17-19*
Since 1993-94, about 1 million metric tonnes of food grains are being allocated every year to the various food-assisted programs. Two of the largest safety net programs have expanded substantially since the early 1980s. During 1982-83 food grain distribution under FFW and VGD were 422,000 and 67,000 metric tonnes respectively. During 1999-2000, the figure had almost doubled for FFW while for VGD the increase was more than four-fold. The share of resources allocated to targeted food-assistance programs has increased through the nineties; almost 80 percent of the total food grains channelled through the PFDS is now directed towards these programs. The remaining 20 percent passes through the so-called untargeted, “monetized” channels of the PFDS: essential priorities (subsidized food grain sales to defence and paramilitary forces, hospital and jail inmates), other priorities (subsidized sales to workers of government institutions, fire and civil defence departments) and open market sales (to stabilize domestic prices).

The quantum of public expenditure on safety net programs in Bangladesh have more than doubled over the last decade. In 2001-02 this was about 1 percent of the GDP and 5.7 percent of the total government expenditures. Ninety five percent of the total safety net program expenditure is on targeted food transfer while the remaining 5 percent is towards assistance to specific vulnerable groups such as the elderly, distressed, widowed or divorced female household heads, orphans and freedom fighters. Figure 5 shows the share of spending for targeted programs in the total government expenditure over the past decade. Though a clear trend is not discernible, it is worth mentioning that the public sector expenditure for targeted programs have expanded vis-à-vis the hardcore poor.

Conclusion

Despite impressive achievements in increasing food grain and reducing instability in prices, long-term food and nutrition problems remain. Bangladesh has yet to achieve comprehensive food security that resolves the problems of inadequate food intake and chronic malnutrition among poor people.

A better understanding of poverty dynamics and linkages between adverse shocks (such as massive floods and droughts), rural income, credit markets and nutrition is important. Appropriately targeted income transfers, credit programs and insurance mechanisms in times of crisis may have very high payoffs in reducing poverty and improving food security in the medium terms through minimizing debt and the effects of large decline in income in both the short and the medium term. These interventions should be part of a broader social protection strategy of safely nets that is both cost-efficient and achieves maximum coverage.

Agriculture continues to occupy a dominant position in Bangladesh economy and is likely to remain so during early decades of the 21st century. A basic limitation of the agricultural sector in Bangladesh remains in terms of its lack of diversification. Recent studies have shown that Bangladesh enjoys comparative advantage in the production of wide-ranging crops. To achieve the desired diversification along the lines suggested by the comparative advantage, there is a need for critical public support measures. Among crops, the research strategy must accord higher priority to high-valued, non-food grain products. Continued facilitation of the import of new seeds and production technologies will be necessary for Bangladesh to capitalize on technological advancement made in international research centers. Public investment in agricultural research in Bangladesh has remained low compared to India, Pakistan, Sri Lanka and other East Asian countries. Increased spending on agricultural research appears to be necessary given the importance of agriculture to income growth and poverty reduction.

Major efforts are still needed to address
nutritional issues more directly. Coordinated programs involving nutrition education, food fortification, improvements in water quality and public health are needed. Increases in food availability and household access to food alone will not be adequate to address the malnutrition problems in Bangladesh.

References

1. Reutlinger, S.: Food Security and Poverty in LDCs. Finance and Development 22 (4); 7-11, 1985
3. FAO, Food Balance Sheet, 2004
19. World Food Programme, Bangladesh Food Grain Digest, Dhaka 2000
Abstract

Although Sri Lanka is a lower middle-income country in the world, its achievements in the area of social development are an exception for a developing country. Due to its long standing commitment to social welfare and an expensive social welfare package implemented continuously since independence in 1948, the country gained substantial achievements in the area such as universal primary enrolment, gender equity, infant and maternal mortality. In addition housing conditions have substantially improved since 1980s in particular in respect of access to electricity, safe drinking water and sanitation facilities. However despite such efforts there are still significant regional disparities in terms of indicators such as malnutrition and poverty.

Successive Governments since independence have adopted varying nature of programmes to improve the access to food by all people at all times. The income enhancement programmes of the poor though household cash transfers (Samurdhi), promoting income generating activities of the poor (micro credit), adopting policies which are conducive to generate employment opportunities, encouraging the domestic food producers by providing input incentives (water, land, fertilizer) and guaranteed prices for their outputs are some such programmes initiated and supported by the Government. Fiscal policies such as granting tax exceptions for the profits gained from domestic agriculture, imposed low tariff rates on essential food items and tariff and non tariff barriers imposed on some imported food items, were introduced with a view to keep the food prices at affordable level. In addition selected budgetary interventions are being used to cushion the consumer from the vagaries of price fluctuations of major imported food items, such as wheat flour. A legal instrument such as the Consumer Protection Law is in place to protect the interests of the consumer.

Introduction

In the public policy agenda of Sri Lanka, social protection and development has placed prominently. Successive Governments since independence have relied on two broad strategies to achieve the dual priority objectives of human resource development and poverty alleviation. Policy of free and equitable access to health care has been the conduit used to promote the qualitative aspects of human capital. By providing free and equal access to education, the quality of human capital was improved. Healthy populations, with augmented skills are expected to generate incremental growth in the economy and by inference are capable of reducing human deprivation. Progresses achieved by implementing those policies were further consolidated through provision of safety nets for the needy. Continuation of social development policies over the last five decades has placed the country in higher echelons of social development and Sri Lanka’s achievements has been described as exemplary for a country with relatively low per capita income. It is often stated that Ceylon (Sri Lanka) has tasted the fruit before she has planted the tree. In spite of the commendable achievements in social development indicators, such as high rates of life expectancy, literacy and low rate of infant mortality, Sri Lanka is currently confronted with extremely serious political and economic problems resulting in ethnic conflict and high incidence of poverty.

By the latter part of 1960s the country had to face a looming economic crisis owing to mismanagement of the economy where the major portion of production sectors had brought under the control of the State, and the deterioration of the terms of trade due to global economic downturn. Compounding effects led to a slow growth in the economy, increasing poverty and rising unemployment to an unparalleled levels. Unemployment has risen to a level of 17 percent of the labour force. The crisis turned into social
turmoil and exploded in a form of a violent youth uprising, which brought most of the economic activities in the country to a standstill. In an attempt to diffuse the social tension the government was quick to announce a land reform programme in early 1974, where the ownership of economically productive lands were vested with the state. Private ownership of land was limited to a maximum of 50 acres per person. Economic crisis forced the state to take remedial action to rectify the weaker areas of the economy. The government, faced with the inevitable challenge of resurrecting the ailing economy was committed to implement a time bound economic adjustment programme. While committing to restructure the economy, the government was mindful of the fallout of such an adjustment on living standards of the poor and continued to honour its commitment to social welfare. Thus, in restructuring the economy, a concerted attempt was made to maintain a balance between the objectives of growth and equity.

In achieving these dual objectives, the policy encourages the peoples’ participation in the productive economic activities by harnessing the new economic opportunities made available through trade liberalization and open market operations. Those who failed to benefit from these policies in the short run are provided with welfare safety nets. In the overall development strategy, a concerted attempt is being made to consolidate the social gains achieved so far, and to improve further the quality of life of the people. Of the two extreme development strategies - growth now and re-distribution later and re-distribution now and growth later - Sri Lanka opted for the latter. Bardhan argued that this issue of the relative importance of market driven growth and its trickle down to the poor as opposed to a programme of massive and direct intervention to help the poor was a running policy debate in poverty alleviation over the last twenty years. In dealing with the issue of public policy and hunger, Dreze and Sen shows that improvement of quality of life may be achieved through implementing one of the two policy sets, i.e. “growth-mediated security” and “support led security”. Sri Lanka’s long-term commitment to implement support led security policies had led to better achievements of social development indicators and has become a test case.

Food security

Food security is a recurring problem for the poor and the underprivileged. It is generally defined as access by all people at all times to enough food for an active, healthy life. Food insecurity is defined as the limited or uncertain availability of nutritionally adequate and safe food or limited or uncertain ability to acquire foods in socially accepted ways. Those two terms however, are used interchangeably. The general perception following the new development in production technologies and plant breeding is that the world will produce sufficient food to meet the demand of people who can afford it. However, if the global trend of food acquirement by individuals remain unchanged, prospects of food security will be grim for the poor. This will add additional pressure on poor segments in the society and exposed to the increased risk of malnutrition, particularly for those households where the food production is unlikely to keep in phase with growing demand. Though the concept of food security has undergone considerable changes in recent years, many policy makers in food deficit countries are of the view that increase in the domestic food production with a view to secure food self sufficiency is the way to resolve the issue of food insecurity. The available evidence however indicate that those countries which have succeeded in reaching the goal of self-sufficiency by increasing food production and improving their capacity to cope with fluctuations in food availability, have not been able to solve the problem of chronic food insecurity among the poor and the vulnerable.

The relationship between poverty, food security and nutritional well-being (consumption) however, is indirect and operates through prices, employment and income effects. Changes in household income and market prices of food may well influence the ability of household’s food procurement and thus indirectly affect the nutritional status of individuals in non-food producer families. Thereby, the food acquirement problem i.e, the problem of establishing effective command over food by a family or an individual is seen as central to the question of food insecurity and malnutrition. The complex linkages between
acquirement of food hunger and malnutrition has been described in terms of entitlement\textsuperscript{4}.

It has been well established that prevalence of hunger, malnutrition and ill health is concentrated among poor families with fewer resources. Food insecure families often live in environments where infectious and vector borne diseases are widespread. As observed the poor and the disadvantaged groups share some common characteristics. A case in point is that they tend to have large families with a higher number of dependents in young age category. As ownership of land or access to even small pieces of land for farming has a substantial effect on the food security status of rural households, even when income levels are controlled for; food insecurity tends to be higher among landless of quasi-landless dent on riskier sources of income than farm income. Women’s income has a significant influence on food security status of the household and female-controlled income is more likely to be spent on food than male-controlled income.

Effect of food insecurity at household level on human well being differs widely, depending on the nature, intensity and its duration. Seasonality increases the risk of food insecurity among smallholder farmers who subsist in marginal agricultural lands. Crop failures and food scarcities affect more on the vulnerable segments of the poor, particularly those in chronically food insecure households. Natural and manmade disasters affect the poor more than others and exacerbate their already acute problem of food insecurity. A number of studies have shown the synergistic relationship between food insecurity, health, nutrition and their ramifications to work and earning capacities of people in affected households\textsuperscript{5}. The web of activities relating to poverty, lower production, and lower consumption in chronically food insecure household in one year may lead to lower production, lower consumption, poverty to another year, resulting in the reduction of labour productivity, intensity of work, food insecurity, disease and malnutrition.

**Poverty**

Poverty means different things to different people. It is generally seen as the failure of some basic capabilities to function- a person lacking the opportunity to achieve some minimally acceptable levels of functions\textsuperscript{4}. Poverty is more common among families having lesser resources including physical and human capital. Lack of opportunities and some life related conditions such as old age, chronic sicknesses, disabilities and deformity, may trap people in poverty (absolute, relative/ chronic and transient) forever. There are some peculiarities observed in the incidence of poverty. For instance, there are more males than females among the poor whilst the sex composition is opposite among the non-poor\textsuperscript{6}. Chronic and transient poor have low incomes but also lack assets and access to social services; are especially vulnerable to risk of diseases, environmental degradation and natural or economic catastrophes. Some of the poor are victims of the side effects of development interventions.

Though, Sri Lanka to a greater extent has been able to reduce the worst forms of poverty and chronic hunger, measured using the consumption norm of US $ a day, (6 percent)\textsuperscript{7}, the relative consumption poverty remains high. National poverty headcount ratio of 22.7 (2002) is unacceptably high for a country such as Sri Lanka with US$ 1011 per capita GDP (2004) (Table1). A large majority of poor in Sri Lanka live in the rural and estate (plantation) sectors and for half of them small scale agriculture and wage labour on farms and plantations provides the main source of income. Majority of the poor are engaged in paddy production and in plantations, where the return for labour is low.

Introduction of the open market economic policy during the latter part of 1980 benefited the poor in urban areas where the overall incidence of poverty in urban sector declined by 51 percent.

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<tbody>
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<td>Urban</td>
<td>16.3</td>
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</table>

Source: Reference 8
Note: A negative number represents an improvement; it is a decline in poverty incidence.
during the period of 1991 to 2002\(^6\) (Table 1). However, the trickling down effect of development to the rural agricultural sector has been slow where the incidence of poverty, declined only by 13 percent during the corresponding period. Contrary to the observed trends in the other two sectors of the economy, in the plantation sector, incidence of poverty has increased by 46 percent during 1991-2002.

Promoters of the globalization and open economy agenda have convincingly argued that the more rapid the growth, the greater the increase in income. Rapid growth is usually necessary for poverty reduction in the medium and long term. The available evidence suggests that the poor in developing countries typically do share in the gains from raising aggregate affluence and in losses from aggregate contraction\(^6\). But there are large differences between countries in how much poor people share in growth, and there are diverse impacts among the poor in a given country. The policy of promoting economic growth to reduce poverty has shown mixed results. Observed results of economic growth to the change in income of the poorest 40 percent of the population during the last fifty years are inconclusive. As shown in Table 2, the annual change in income of the poorest 40 percent of the population increased by little more than two-fold over the observed annual percentage in GDP per capita change during the years 1963-73\(^10\).

Similarly, poor received substantial benefits from trickling down effect of economic growth during the decade 1987 to 1997. Benefits reaped by the poor during the two reference periods are attributed to the pro poor policies where the poor participated in labour intensive construction activities both in irrigation sector and in the construction industry.

In addition to the growth related activities, the poor benefited substantially from the household income transfer programmes of the government. Household transfers are currently carried out under a number of programmes. Some major ones are Samurdhi, dry rations for displaced persons, social service payments for chronic sickness and for disabled, deformed and the poor, and disaster relief for the victims of natural disasters. Annual allocations exceed Rs. 20 billion. Sri Lanka is one of the few countries in the world that increased the income of the poor through food subsidies and other income transfer programmes. Though the targeting was not particularly good, programmes were so massive that the poor benefited substantially.

### Safety net programmes

Sri Lanka, by implementing food subsidies and other targeted programmes over a considerable period of time has succeeded in improving the income of the poor. Social safety nets are targeted programmes specifically designed to protect the welfare of the poor. The basic objective of the safety net programme is to reduce the extremes in poverty and inequality either through cycles and shocks or through inequalities in the ownership of productive assets particularly human capital. Safety net programmes implemented in Sri Lanka include cash in kind transfers (rationed rice at no cost to the consumer) subsidies and labour intensive food for work programmes.

Some of these programmes operate interchangeably for shorter periods depending on the nature and duration of the requirement and others operate on long-term basis to cater for the needs of the poor.

Initiated in response to the needs of emerging food scarcities during the years of the World War, the policy of food rationing, continued even

<table>
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<tr>
<th>Table 2: The relationship between growth and poverty</th>
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<td><strong>Sri Lanka</strong></td>
</tr>
<tr>
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*Source: Reference 10*
after the war years. For a considerable period, since the inception of the programme, the generous food subsidy policy applied universally. Given the relatively low cost of imported food grains, particularly rice, such a comprehensive food subsidy did not appear as an unbearable burden to the government. However, with resource depletion and the ever-increasing costs of food commodities prohibited the continuation of the system of quantity rationing and was replaced by a value based food stamps. Later in 1989, a poverty alleviation programme was incorporated in the Food Stamps Programme. Janasaviya meaning strength of the people granted a consumption basket to the value of Rs 1458 per month and a saving component of Rs 1048 per month to a selected family for a total period of two years. The poverty alleviation programme named “Samurdhi” introduced by the incoming Government in 1994, replaced the Janasaviya programme and discontinued the operation of the food stamps. The new programme while acknowledging the initial principles of poverty alleviation, reduced the cash transfer component of the Janasaviya programme with a view to maintain the financial affordability and sustainability of the programme. A monthly payment of Rs. 1000 for a poor family with 5 members or more. Rs 600 for a poor family of 3 or more members, Rs.400 for a poor family of 2 members and Rs 250 for a family with one member. Those who are earning Rs 1500 or less per month are considered to be in poverty.

Although not well targeted, the poorest 40 percent received 60 percent of the benefits of Samurdhi Programme, with 40 percent going to the non-poor. The programme is so large (Rs. 14 billion or 1.5 percent GDP) that the poor still benefited. Currently, about 40 percent of all households in Sri Lanka, received benefits from Samurdhi programme. On an average a Samurdhi recipient family receives a monthly cash transfer of Rs 535 and this transfer contributes to 7.7 percent of the total monthly income of the family. The poorest 10 percent receives 20 percent of their monthly income from Samurdhi cash transfer.

Behavioral considerations of the consumer on when decisions are made to share the expenditure between food and non-food needs, depends much on social pressure and individual preferences. For instance, the household’s preference for private investment in children’s education and health care as a mean for futuristic investment and risk mitigation, households make every attempt to allocate resources for those concerns even though these services are provided freely by the state, in the expense of food. Therefore, it has now been observed that the food share of an average household continued to fall. On an average in 2002, a family spends 43.8 percent of their disposable income on food, while those households in the lowest decile spend 69.4 percent, and person in the highest income decile spends 24.1 percent on food. The corresponding all island food ratios for an average family in 1995/96 has been 54.4 percent while a household in the highest income decile spends 36.2 percent of income on food. Expenditure on education and healthcare remains at 10 percent or above.

A single noticeable feature of the food consumption among the poor in Sri Lanka has been the monotonous nature of their selection of food items. Considering the competing claims for money, the poor made every attempt to optimize their calorie intake by organizing the habitual food consumption around a few preferred commodities. The observed calorie consumption of the poor, for example, has not shown any significant change during the last thirty years. With the limited income they receive, poor families make every attempt to procure food that they do not produce or receive in kind from the market to maintain a reasonably good level of wellbeing.

The poor in Sri Lanka are defined as those who do not possess adequate resources to purchase a consumption bundle that is adequate to meet the nutritional requirements. The estimated nutritional intake to define poverty is set at 2030 kcals/per capita/per day. A noticeable feature in the food consumption of the average Sri Lankan consumer is that they receive 75 percent of their habitual calories from about five basic food commodities (Table 3). Amongst the selected foods, rice and rice preparations dominate; the starchy staples, contribute to about 90 percent of all cereal consumption. The balance comes
from other food commodities such as wheat flour, maize and locally grown coarse grains. Consumption of pulses remains low. Among pulses the most preferred type is red lentils (77 percent), which is fully imported. The other lentils consumed in small quantities are green gram, cowpea and soya. The expenditure concentration around five food commodities had been 74 percent of the total calorie requirement in 1979 and this has increased to 83 percent in 2002. The declining food share of the total income of poor indicates that they economise the food expenditure by limiting food consumption to a few essential commodities by which they managed to carry out other essential activities relating to nonfood expenditure.

### Trade and tariff policies

Food policy, in general, is more geared towards securing adequate quantities of food at all times either through encouraging the domestic production or by importing food to bridge the anticipated deficit in demand. Since the government is sensitive to the supply shortfalls of essential food items which are commonly consumed by the poor and marginal groups, extra precaution has been placed to assure the required quantities for affordable prices at all times. Therefore, granting input subsidies for agriculture with a large annual budgetary commitment and implementing a procurement support programme for paddy appeared to be a recurring issue even after the trade liberalization. Some contradictions in the food policy is, therefore apparent, while committed to providing consumer welfare for the poor through a number of expensive household cash transfer schemes, the Government is also enforcing higher taxes, for some major food items such as rice, big onions and potatoes which would increase the price to the consumer. Similarly, the arbitrary floor price scheme devised to procure excess paddy, invariably distorts the market price of rice.

Though food policy plays an increasingly important role on the determination of year round availability of food at affordable prices, taking conjoined initiatives are imperative to improve the consumption of food largely by the vulnerable segment of the population. Selection of food and social preferences and perceptions on diets among other things influence the nutrition and health status of an individual. As it has been well established that those households exposed to seasonal or habitual hunger, carry a greater risk of malnutrition and disease, thus public policy needs to be able to address those issues in an expeditious manner to prevent emerging human miseries. The fundamental aim of the policy is then to increase the availability of nutritious foods in all seasons, especially in food insecure areas and to increase affordability of foods for economically disadvantaged people.

## Conclusion

Sri Lanka, since political independence in 1948 has progressively developed into a social welfare state. Successive governments have made considerable investments on social welfare and human development activities and were successful in reducing and eliminating largely the chronic hunger in the country. Improvement of food availability at household level and effective reduction of chronic hunger are two distinct demonstrable effects of the progressive food policies and Sri Lanka is highly commended for its desire to maintain such policies in the midst of competing claims for budgetary funds for development activities.

The public food distribution system in Sri Lanka, at least in part has contributed to the exceptional progress achieved in the social sector. The food grain distribution system implemented prior to reforms in 1978, supplied a specified quantity of grain, rice in particular, to the household. Under this arrangement larger households, which fall in the bottom income deciles, benefited to a greater extent than those in the

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<td>Rice</td>
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*Source: Socio Economic and Household Income and expenditure Surveys - Department of Census and Statistics*
small households. As a result the incidence of inequality of income or expenditure declined, after imputation of the value of the free rice ration\textsuperscript{11}. A total of 39.1 percent of poor households were protected by providing income transfers through food security/poverty reduction programmes such as Food Stamps/Janasaviya/Samurdhi. The transfers under these programmes during 1995/96 amounted to 10.5 percent of average monthly household income. Household in the lowest income decile however received 25.1 percent of the total monthly income from those sources. By the middle of 1990s all major household transfer programmes was brought under the Samurdhi programme and by 2002, 26.7 percent of all households received benefits under the programme. The average monthly Samurdhi receipt of a recipient household accounts for 7.7 percent of total monthly income of such households while households in the lowest income decile receives 20.2 percent of their monthly income from Samurdhi transfers.

The food ration programme of the government implemented prior to 1978 had received a budgetary allocation equivalent to around 3 percent GDP\textsuperscript{12}. Frequent change in price of rice and other commodities in the market resulted in the government spending about 14 percent of the recurrent budget for food subsidies annually. These costs escalated further in 1975, to a level of 18 percent of the total recurrent budget of the government. It has been estimated that the subsidy budget was equivalent to 36 percent of the public sector capital expenditure during 1965-70 and in some years that has risen to 50 percent. The costs were contained below the 3 percent level since the introduction of the Food Stamp system and the total allocation reduced to a level below 2 percent of the GDP. All types of household transfers on the other hand remained at 13.4 percent of the recurrent budget of 2002.

By implementation of prohibitively expensive policies which are generally favourable for the poor and the under privileged and committing large budgetary resources annually for such programmes the country has been able to achieve considerable improvements in the livelihoods of its people.

References


