

## GLOBAL SCENARIO OF FOOD INSECURITY: AN ANALYSIS

Jagdev Singh<sup>1</sup>

### Abstract

*The present study is an attempt to analyse the various dimensions of food security at global level. The world is facing tremendous challenge of providing nutritious, healthy and stable diet to feed its growing population. Despite of technological advances that have modernised the conditions of production and distribution of food, hunger and malnutrition still threaten the health as well as well-being of the millions of people around the world. The number of people, who are undernourished, has continued to grow. In the developed countries undernourished population has increased from 16.7 millions in 1990-92 to 19 millions in 2010. About one in four children under the age of five are underweight, mainly due to lack of food, inadequate water, sanitation and health services as well as poor care and feeding practices. In Latin America and Caribbean countries, half of the population was undernourished. The situation is much worse in Sub Sahara Africa and Asia and Pacific region. South Asia still has the highest number of people (423 millions) living on less than one dollar a day. The region has the highest concentration of undernourished (299 millions) and poor people with about 40 per cent of the world's hungry. Despite of an annual 1.7 per cent reduction in the prevalence of undernourishment in the region in the past decade, the failure to reduce the absolute number of the undernourished remains a major cause for concern. Thus, there is an urgent need to implement an integrated nutrition and health strategies for solving the problem of food and nutritional security among poor in general and women and children in particular. So, this requires collective efforts to achieve food security at the global level in general and in developing countries in particular.*

---

<sup>1</sup> Research Scholar, Department of Economics, Punjabi University, Patiala

## Introduction

At present the problem of food security is emerging as an important issue at global level. At the global level the number of undernourished people has increased from 843 million in 1990 to 1.02 billion in 2009 (Kattumuri, 2011). Most of these people are in South Asia and Sub-Saharan Africa. They are food insecure because they are poor. The basic causes of chronic undernourishment include a shortage of purchasing power because of low income, high food prices, highly skewed income distribution as well as lack of access to productive resources by the poor.

Food security which was considered a problem of developing countries till now, it has also become a problem of developed countries. It is not surprising that Western European nations' agricultural policies are threatened by surplus food but poverty, malnutrition and hunger have become serious issue for these nations. In the developed countries, proportion of undernourished population has increased from 16.7 million in 1990-92 to 19 million in 2010 (United Nation, 2010).

In developing nations, there has been real progress in improving the living standard among people during the last twenty five years. The proportion of the poor has declined, average income per person has doubled, infant mortality rate has fallen by half and people can expect to live ten years longer than in 1970s. In addition global agricultural productivity has risen sharply and per capita calories have been raised by nearly 30 percent. This has improved their diets both in terms of calories consumed as well as variety of food eaten. Despite these impressive achievements, rising population and unequal participation in growth have left 920 million people to survive on less than one dollar a day (United Nation, 2010). Across Asia and the Pacific, millions of people are still food insecure and children are dying every minute of every day due to malnutrition.

Ensuring food security (physical availability and economic access to food) continues to be a major challenge for South Asia region. These economies have managed to keep their food

production ahead of population growth. Despite of this marginal advantage in food production, there is wide nutritional gap which has led to hunger. Agriculture in SAR (South Asia Region) is caught in a low equilibrium trap with low productivity of staples, shortfalls of supply, high prices, low return to the farmers and area diversification. All these factors are threat to food security in South Asian economies. South Asia still has a highest numbers of people (423 million) living on less than one dollar a day. The region has highest concentration of undernourished, i. e., 331.1 millions (Human Development in South Asia, 2010-11). Despite an annual 1.7 percent of reduction in prevalence of undernourished in the region in the last decade, absolute number of undernourished has not declined and undernourishment remains a major cause of concern (Mittal et al., 2009). Agricultural Development Report (2008) ranked Asia as a second most undernourished, malnourished and food insecure region in the world. Asia still accounts for about one-half of the worlds' undernourished population, of which two third is from south Asia (FAO, 2010). The huge cost of running food programmes, poverty and malnutrition and its associated problems are biggest stumbling block in the socio-economic development process and these are posing serious challenges to these economies.

The world is facing tremendous challenge of providing nutritious, healthy and stable diet to feed its growing population. In recent decades, demographic as well as economic growth has challenged the limits of economic, social and ecological sustainability, which has given rise to the questions about food security at the global level. Despite of technological advances that have modernised the conditions of production and distribution of food, hunger and malnutrition still threaten the health as well as well-being of the millions of people around the world. Regional and global economic crises and chronic problems of underdevelopment have made the situation much worse, particularly in the developing world (Bora, 2010). The number of people, who are undernourished, has continued to grow. About one in four children under the age of five are underweight, mainly due to lack of food, inadequate water, sanitation and health services as well as poor care and feeding practices (Millennium Development Goals Report, 2010).

The collective efforts in the agricultural sector has increased the food production and made the world self-sufficient in food availability but the challenge of unevenness of access to food is remain there. Recent trends in food and agriculture are increasing stress on food security, socio-economic development and sustainable peace. Thus food security is rising to the center of

global discourse and has become an issue of national policy as well as public concern. This paper deals with the various issues related with the problem of food security at global level.

### **Objectives of the Present Study**

The main objective of this paper is to analyse the various issues of food security such as availability, accessibility and absorption of food at Global, Asia and South Asia level.

### **Methodology**

The present study is based on secondary data. Secondary data has been collected from various International Reports like Report of World Health Organisation, Human Development Report, FAOs Yearly Book, Reports of World Food Programme, Report of IFPRI, Report of ICRIER, as well as various working/discussing papers on food security have been used at global and local level.

### **World Food Scenario**

In the past, food security was generally concerned with the least developed countries; particularly those were in conflict and facing uncertain weather conditions. But now concerns about sustainable food security have spread to developed countries which have not generally considered themselves exposed to food insecurity. For example, the United Kingdom has historically relied on the depth of international markets to ensure food supplies at a reasonable price, but this criterion has now under stress. In 2007, food and drink prices rose at their fastest rate in 14 years, at 4.7 percent. The severity of problem can be seen from the fact that food prices based on the International Monetary Fund, food price index increased by 9.5 percent in April 2006. This increase was particularly very sharp for staple foods. Rice and maize prices doubled in five months between November 2007 and March 2008, whereas wheat prices increased more than twofold during same period of time (Kalamkar, 2011).

The efforts to achieve the MDGs have made capable to many regions and put them on the track to achieve the goal of elimination of hunger. The agricultural policy throughout the world in the 20th century focused on increasing productivity. Subsidies and grants supported intensive farming during late 1950s into the 1970s. Food commodities have been accumulated quickly through greater expenditure on the production and storage facilities.

Due to these improvements, in 2010, the earth was producing enough food for all the 6.9 billion people in the world. About 3.05 billion tonnes of food had been produced in the first 7 months. However distribution of food continues to be problematic and at least 25,000 people were recorded to be dying of hunger each day. On the other hand, hunger may have increased in 2009 as a consequence of global food and financial crises (Ruth, 2011).

### Global Hunger Index

The Global Hunger Index (GHI) developed by International Food Policy Research Institute (IFPRI) measure the progress and failures at the global level to fight against hunger. Global hunger index consists of three indicators, i.e., proportion of undernourished population, prevalence of underweight children under five and proportion of children dying before the age of five. On the basis of these indicators, status of hunger is determined for different countries.

The Index ranks countries on a 100 point scale, with 0 being the best score ("no hunger") and 100 being the worst. Higher the score means the worse the food situation of a country. Values less than 4.9 reflect "low hunger", values between 5 and 9.9 reflect "moderate hunger", values between 10 and 19.9 indicate a "serious", values between 20 and 29.9 are "alarming", and values exceeding 30 are "extremely alarming" hunger problem.

The Global Hunger Index has been presented in table 1. This table shows that Congo D.R. was in the category of severe hunger in the world with 39.0 Global Hunger Index. India's food security situation continues to rank as "alarming" according to the

**Table 1 Hunger Situation in the World**

Rank	Country	Global Hunger Index			
		1990	1996	2001	2011
1	Goban	8.4	6.8	7.3	5.2
4	China	11.7	9.1	6.8	5.5
13	South-Africa	7.0	6.5	7.4	6.4
22	Armenia	-	14.4	11.3	9.5
23	Dominican Republic	14.2	11.7	10.9	10.2
26	Mongolia	16.3	17.7	14.8	11.4
29	Indonesia	18.5	15.5	14.3	12.2
36	Sri Lanka	20.2	17.8	14.9	14.0
54	Nepal	27.1	24.6	23.0	19.9
59	Pakistan	25.7	22.0	21.9	20.7

67	India	30.4	22.9	24.1	23.7
70	Bangladesh	38.1	36.3	27.6	24.5
80	Burundi	31.4	36.3	38.5	37.9
81	Congo D.R.	24.0	35.2	41.2	39.0

Source: - Global Hunger Index Report, 2011

International Food Policy Research Institute's Global Hunger Index, 2011. It ranked 67 of the 81 countries of the world with the worst food security status. The analysis also reveals that large proportion of food insecure people live in South-Asian countries because these countries were in the list of alarming condition. Increasing hunger index points out that the condition is becoming much worse because increment in the index means that a particular country is becoming more food insecure.

### Prevalence of Undernourishment in the World

The target to halve the number of undernourished people by 2015 was affirmed at the World Food Summit in 2009. The existence of malnutrition is related to problems of food distribution and purchasing power rather than food shortage because there has been sufficient food to feed the entire population of the world. Even in Africa and South Asia where hunger is most severe, there is enough food to feed all the people in the country. The proportion of hungry people in the world is declining as the global economy develops and food prices remain below their peak levels, but hunger remains higher than before, making it more difficult to meet the internationally agreed hunger-reduction targets (FAO, 2010).

The number of undernourished people in the world has been presented in the table 2. Owing to high food prices and the global economic crisis, the numbers of undernourished people in the world have increased over the period of time with minor

**Table 2 Proportion of Undernourished Population in the World**

Region	Undernourished Population in the World (millions)				
	1990-92	1995-97	2005-07	2009	2010
Developed Countries	16.7	19.4	12.3	15	19
Near East and North Africa	19.6	29.5	32.4	42	37
Latin America and the Caribbean	54.3	53.3	47.1	53	53
Sub-Saharan Africa	164.9	187.2	201.2	265	239
Asia and Pacific	587.9	498.1	554.5	642	578
Total	843	787.5	847.5	102.3	926

Source: - The State of Food Insecurity in the World, WFP, 2010

fluctuations in between. The total number of undernourished people in the world was 1023 millions in 2009 which declined to 926 millions in 2010. In the developed countries undernourished population has increased from 16.7 millions in 1990-92 to 19 millions in 2010. The countries near East and North Africa, undernourished people has increased from 19.6 millions in 1990-92 to 42 millions in 2009 whereas, it has been come down to 37 millions in 2010. In Latin America and Caribbean countries, half of the population was undernourished. The situation is much worse in Sub Sahara Africa and Asia and Pacific region. The number of undernourished people increased from 164.9 millions in 1990-92 to 265 millions in 2009 and declined to 239 millions in Sub-Sahara Africa. Whereas in Asia, it increased from 587.9 millions in 1990-92 to 642 millions in 2009 and declined to 578 millions in 2010. Thus analysis reveals that majority of undernourished people were in Asia and Pacific as well as Sub Saharan Africa regions.

### **Undernourishment among Children in the World**

Undernourishment among children under five years of age, continues to be widely prevalent, due to lack of food, inadequate water, sanitation and health services as well as less than optimal caring and feeding practices. Until improvements have been made in all these areas, progress is limited. In Southern Asia, feeding practices are often poor and shortages of quality food are common.

South-Eastern Asia, sub-Saharan Africa and Northern Africa have succeeded in reducing child malnutrition more rapidly in the rural areas and narrowing the gap with the urban population. Across the developing world, children from the poorest households are twice as likely to be underweight as children from the richest households. In Eastern Asia, there was a striking increase in the rural/urban ratio (from 2.1 to 4.8), indicating that, in 2008, children in the rural areas were almost five times as likely to be underweight as children in the urban areas. This was the situation in Southern Asia, where as many as 60 percent of children in the poorest families were underweight as compared to about 25 per cent in the richest households. The substantial progress has been made in reducing the child deaths. Since 1990, the mortality rate for children under age five in developing countries dropped by 28 per cent from 100 deaths per 1,000 live births to 72 in 2008 (MDG, 2010).

Globally, the total number of under-five deaths declined from 12.5 millions in 1990 to 8.8 millions in 2008. An encouraging sign was the acceleration of progress after the year 2000; the average annual rate of decline increased to 2.3 per cent for the period 2000 to 2008 as compared to 1.4 per cent in the 1990s. The greatest advances were made in Northern Africa, Eastern Asia, Western Asia, Latin America and the Caribbean. Despite these achievement, the fact that most child deaths are preventable or treatable, many countries still have unacceptably high levels of child mortality and have made little or no progress in recent years. The highest rates of child mortality continue to be found in sub-Saharan Africa. In 2008, one in seven children, died before his fifth birthday. The highest levels were in Western and Central Africa, where one in six children died before age five (169 deaths per 1,000 live births). Furthermore, high levels of fertility, combined with a still large percentage of under-five deaths, have resulted in an increase in the absolute number of children who have died from 4.0 millions in 1990 to 4.4 millions in 2008. Sub-Saharan Africa accounted for half of the 8.8 millions deaths in 2008 children under five (United Nation, 2010).

**Table 3 Proportion of Underweight Children in the World**

Region	Proportion of Underweight Children Under Five (percent)	
	1990	2008
Southern Asia	51	46
Sub-Saharan Africa	31	27
South-Eastern Asia	37	25
Western Asia	14	14
Eastern Asia	17	7
Northern Africa	11	7
Latin America and Caribbean	11	6
Developing Region	31	26

Source: - The Millennium Development Goals Report, United Nation, 2010

Table 3 shows the proportion of underweight children in the world. From 1990 to 2008, the proportion of children under five in the developing regions who are underweight has declined from 31 per cent to 26 per cent. Many of these children are never able to catch up in terms of their nutritional status. The percentage of underweight children in Southern Asia has declined from 57 percent in 1990 to 46 percent in 2008. Progress in reducing underweight prevalence among children has been made in all regions except Western Asia. In western Asia, 14 percent of children were underweight. In parts of Asia and in Latin America and the Caribbean, the relative

disparity actually decreased between 1990 and 2008. this analysis points out that highest percentage of underweight children was in Southern Asia followed by the Sub-Sahara Africa and South-Eastern Asia. Thus halving the prevalence of underweight children by 2015 will require accelerated and concerted action to improve the nutritional status of children in both rural as well as urban areas.

### Food Security in Asia

Asia and the Pacific is one of the world's most dynamic regions. Across the region, rapid economic growth has contributed steadily to improving levels of human development. The South and East Asian countries have made a creditable progress on the food front during the recent decades started with considerable handicaps after the Second World War. The ability of these countries to feed itself has improved dramatically over the last three decades. Intensive agriculture and new crop varieties have increased per capita food production. In 1975, approximately one in three people in developing countries was underfed; today, the number of underfed has dropped to one in five. Between 1990 and 2004, more than 350 millions people escaped from poverty (United nation, 2010).

In Asia and the Pacific between 1990 and 2008, the number of people living on less than \$1.25 a day declined from 1.5 billion to 947 millions, and the region is on track for the poverty goal. However, the region is still lagging in some major areas. It has been slow in reducing the extent of hunger, in ensuring that girls and boys reach the last grade of primary education, in reducing child mortality, in improving maternal health provision and in providing basic sanitation. About one person in six suffers from malnourishment and one child in three is underweight. India alone has more food insecure people i.e. 231 millions than the whole of sub-Saharan Africa (Buck, 2011).

It seems surprising that a region that has been so successful in many ways still have serious problem of food security. In spite of enormous economic progress recorded by the developing countries during the last four decades and a notable reduction in the

**Table 4 Proportion of Undernourished and Underweight Children in Asia**

Region	Proportion of Undernourished Population (percent)			Proportion of Underweight Children Under Five (percent)	
	1990-92	1995-97	2003-05	1990-92	2003-05
East and	15	12	10	19.8	7.2

North East Asia					
South-East Asia	24	18	16	34.1	25.7
South and South-West Asia	25	22	21	49.7	42.1
North and Central Asia	8	9	11	13.9	4.8

Source: - Sustainable Agriculture and Food Security in Asia and Pacific, United Nation, 2009

incidence of poverty, an estimated 58 millions people were still living in poverty in these countries.

Table 4 shows the proportion of undernourishment and proportion of underweight children under five years in Asia and Pacific. The table shows that in South and South-West Asia, about 21 per cent of the population was undernourished and 42.1 percent children were underweight. Indeed, South Asia alone is thought to have more than one third of the food insecure people in the developing countries of the world. In east and north-east part; proportion of undernourished population has declined from 15 percent in 1990-92 to 10 percent in 2003-05. In this region, in 1990-92 19.8 percent children under five was underweight which declined to 7.2 percent in 2003-05. In south-east Asia, 16 percent of population was undernourished and 25.7 percent of children were underweight. This ratio was very high as compare to developed economies. In northern and central part of Asia, 13 percent of population was undernourished and 4.8 percent of children were underweight which was lowest ratio in Asian continent. Thus it is clear from the analysis that despite rapid economic growth and poverty reduction, South-West Asia is suffering most from widespread hunger and malnutrition.

### **Status of Food Security in South-Asian Countries**

Achieving food security continues to be a major challenge for South Asian countries. In this region, problem of food security is serious and multidimensional. The various studies reveal that the greatest problems of food security exist in South and South-West Asia where twenty one per cent of the population was undernourished. The country with the most acute problems was Afghanistan where the proportion was more than one third. Poor nutrition is a serious problem

for adults, undermining their health and reducing their capacity to live and work to their full potential. For children, the consequences are even more serious. This is because poorly nourished children are far more susceptible to the many health dangers that assault them in the first few years of life and have less resistance to infection and disease.

### **Agricultural Performance in South Asian Countries**

South Asia, comprising Bangladesh, Bhutan, India, Nepal, Pakistan and Sri Lanka has high pressure on land and other natural resources to produce food and other needs. South-Asia hold 22 percent of world's population on 3 percent of land area. Half of the land area of this region is under permanent crops whereas in the world as a whole, only 11 percent of the total area is under permanent crops (Kalamkar, 2011).

Agriculture is the predominant sector of all the South-Asian countries and poverty and hunger are the most serious problems faced by this region. South Asian countries have seen high annual economic growth rate during 1993-06, but agricultural performance is relatively low in these economies. Due to high population growth rate these countries have witnessed an increased high level of growth in food consumption. India has passed through green revolution and has become self sufficient in food production. Bangladesh, Nepal and Sri Lanka also has high agricultural growth rate. In these economies where declining share of agriculture in GDP is a sign of development, increasing population and demand-supply gap of food shows deterioration in the agricultural sector. This has added to the pressure on food supply. Declining productivity of cereals and diversion of land for non cereals commodities are other compounding problems on the food security front.

Table 5 shows the agricultural status in South Asian countries. This table shows that agricultural growth rate is very low in these economies and it is just equal to population growth rate. Afghanistan had very worse situation, where cereal productivity was negative i.e. -2.71 percent. A big share of agriculture in employment and GDP shows that these economies are underdeveloped. In these economies more than half of population is dependent on agriculture. This table further shows that in Afghanistan, 40.61 percent of income was generated from agriculture. In India share of agriculture in GDP is declining but in India 52 percent of population is dependent on agriculture. Thus analysis shows that in South-Asian countries' agriculture is caught in a low equilibrium trap with low productivity, supply shortfalls, high

prices, low returns to the farmers and area diversification. Despite a high concentration on agriculture,

**Table 5 Agricultural Status in South-Asia (2003-05)**

Countries	Agriculture growth rate (percent)	Average annual yield of cereal (percent)	Share of agri. in GDP (percent)	Share of agri. In employment (percent)
Bangladesh	3.54	2.28	20.98	51.70
Bhutan	1.67	-	24.93	-
Afghanistan	-	-2.71	40.61	-
India	2.78	0.63	19.34	52.00
Maldives	1.19	-	-	17.30
Nepal	3.58	1.91	36.36	66.40
Pakistan	3.31	3.98	22.34	43.00
Sri Lanka	1.30	0.70	18.04	33.50

Source: - ICRIER, Food Security in South Asia: Issues and opportunities, 2009

increased production has not been fully translated into household and individual food and nutritional security.

### **Incidence of Hunger in South-Asian Countries**

However, these economies have recorded high growth rate in past but despite this high growth in food production and consumption, the region has the highest concentration of food insecure people. South Asia still has the highest number of people (423 millions) living on less than one dollar a day. The region has the highest concentration of undernourished (299 millions) and poor people with about 40 per cent of the world's hungry. Despite of an annual 1.7 per cent reduction in the prevalence of undernourishment in the region in the past decade, the failure to reduce the absolute number of the undernourished remains a major cause for concern.

Table 6 shows the numbers of undernourished people in South Asia. The table point out that Bangladesh had highest proportion of undernourished people, i. e., 38 percent in 1990-92 and this has decreased to 27 percent in 2005- 07. In India, proportion of undernourished population increased from 20 percent in 1990-92 to 21 percent in 2005-07. Only in India and Pakistan, proportion of undernourished population has increased in South-Asia. Total number of undernourished population in South-Asia increased from 286.1 millions in 1990-92 to 331.1 millions in 2005-07. By the way prevalence of food insecurity has declined over the period of

time but this is the highest at global level. Thus problem of food insecurity has become much worse in South-Asian countries.

**Table 6 Proportion of Undernourished population in South-Asian Countries**

Country	Undernourished Population (millions)	
	1990-92	2005-07
India	172.4 (20)	237.7 (21)
Pakistan	29.6 (25)	43.4 (26)
Bangladesh	44.4 (38)	41.7 (27)
Nepal	4.2 (21)	4.5 (16)
Sri-Lanka	4.8 (28)	3.8 (19)
Maldives	0.0191 (9)	0.0198 (7)
South-Asia	286.1 (100)	331.1 (100)

Source: - Human Development in South-Asia, 2010-11

### Nutritional Status of Children and Women in South-Asia

Food insecurity has adversely affected particularly children and women. Nutritional status of children and women has great importance to the society as well as nation. But at present decreasing nutritional status of children and women is becoming a serious problem for South-Asian economies. The condition of children and women is much worse in these economies. In India, 43.5 percent of children were underweight and this ratio is highest in the world. In all South Asian countries status of child health is much degraded.

**Table 7 Malnutrition among Children and Women in South-Asia**

Country	Percent in 2006-08			Prevalence of Anaemia (2000-06)	
	Underweight	Wasting	Stunting	% of children under five	% of pregnant women
India	43.5	20.0	47.9	74	50
Pakistan	31.3	14.2	41.5	51	39
Bangladesh	41.3	17.5	43.2	47	47
Nepal	38.8	12.7	49.3	48	42
Sri-Lanka	21.1	14.7	17.3	30	29
Bhutan	14.1	2.5	47.7	-	-
Maldives	25.7	13.4	31.9	-	-

Source: - Human Development in South-Asia, 2010-11

Malnutrition among children and women in South-Asia has been presented in table 7. The table reveals that in India and Pakistan there were highest percent of underweight children

during 2006-08, i. e., 43.5 percent and 41.3 percent respectively. The percent of wasting (low weight for height) was highest in India, i. e., 20 percent and lowest in Bhutan, i. e., 2.5 percent. The problem of children who are too short for their age (stunted) is very serious in these economies. Near about half of the children were recorded stunted during 2006-08. Due to lack of adequate food anaemia is wide prevalence in South-Asia. in these economies more than fifty percent of children and women were affected by anaemia during 2000-06.

To sum up, food security which was problem of underdeveloped countries in the past now has become a serious problem at global level also. Rapidly increasing population, increasing prices and decreasing productivity are some relevant factors which are affecting food as well as nutritional security. No doubt, agricultural production has increased at very large scale, but in spite of this, the numbers of poor and undernourished people have increased over the period of time. The health status of women and children is very bad at the global level in general and Africa and Asian continent in particular. Food problem of the world cannot be solved in isolation and without considering their relationships with other factors. Therefore, population change, economic development, availability of adequate energy, development of new techniques, high inflation rate and shortage of investment capital has significant impact on the problem of food security. There is an urgent need to implement an integrated nutrition and health strategies for solving the problem of food and nutritional security among poor in general and women and children in particular. So, this requires collective efforts to achieve food security at the global level in general and in developing countries in particular.

## References

- Bora, Saswati et. al. (2010), "Food Security and Conflict", Agricultural and Rural Development, *World Bank*, pp. 4.
- Buck, Louise et al. (2011), "Agricultural Innovations for Food Security and Poverty Reduction in 21<sup>st</sup> Century: Issues for Africa and the World", *Eco-Agriculture Partners* 730, Washington, USA, pp. 3-5.
- Chen, S. and Martin Ravallion (2008), "The Developing World is Poorer than We Thought, But No Less Successful in the Fight against Poverty", Policy Research *Working Paper* 4703, *The World Bank Group*, Washington.
- FAO, (2010), "Food Standard and their Contribution to Food Security", *2nd International Moniqa Conference "Emerging and Persisting Food Hazards: Analytical Challenges and Socio-Economic Impact"* Krakow, 8-10 June 2010.
- Food and Agricultural Organisation (2010), A State of Food Insecurity in the World, United Nation, Rome, pp. 4-11.
- Food and Agricultural Organisation (2010), A State of Food Insecurity in the World, *United Nation*, Rome, pp. 4-11.
- International Food Policy Institute (2011), *Global Hunger Index*, Bonn, Washington, DC, Dublin, pp. 17.
- Jose, S. and K. Navaneetham (2010), "Social Infrastructure and Women's Undernutrition", *Economic and Political Weekly*, Vol. 45, No.13, pp. 83-89.
- Kalamkar, Shrikant K. (2011), "Food Security in South Asia with Special Reference to India", *Millennial Asia- An International Journal of Asian Studies*, Vol. 2, No. 1, pp. 93-121.
- Kattumuri, Ruth (2011), "Food Security and the Targeted Public Distribution System in India", *Asia Research Centre*, London School of Economics and Political Science, Houghton Street, London, pp. 3-10.

- Kattumuri, Ruth (2011), Food Security and the Targeted Public Distribution System in India, *Asia Research Centre*, London School of Economics & Political Science, Houghton Street, London, p. 3.
- Koc, Mustafa et al. (1999), "For Hunger Proof Cities: Sustainable Urban Food System", *International Development Research Centre*, Canada, pp. 1-7.
- Mahbub Ul Haq (2011), *Human Development in South Asia: Food Security in South Asia*, Human Development Centre Lahore, Oxford University Press, Pakistan, pp. 11-128.
- Marsh et al. (2008), "Global Risks 2008", *New Economic Forum*, Geneva, Switzerland, pp. 12-19.
- Mathur, Arpita (2011), "Women and Food Security: A Comparison of South Asia and South East Asia", *S. Rajaratnam School of International Studies*, Nanyang Technological University, Singapore, pp. 7.
- Ministry of Consumer Affair and Public Distribution (2010), *Annual Report 2010-11*, Department of Food and Public Distribution, Government of India, New Delhi, pp. 24.
- Ministry of Environment and Forest (2009), *State of Environment Report: India 2009* Government of India, New Delhi, pp. 90-101.
- Mittal, Surabhi et al. (2009), Food Security in South Asia: Issues and Opportunities, *Indian Council for Research on International Economic Relation (ICRIER)*, p. 2.
- Mittal, Surabhi et. al (2009), "Food Security in South Asia: Issues and Opportunities", *Working Paper No. 240*, Indian Council for Research on International Economic Relation (ICRIER), pp. 1-6.
- Titumir, Rashed Al Mahmud (2010), "Agriculture and Food Security in South Asia: A Historical Analysis and Long Run Perspective", *Unnayan Onnestan*, Center for Research and Action on Development, pp. 7-8.
- United Nation (2010), *The Millennium Development Goal Report 2010*, United Nation, New York, pp. 1-13.
- United Nation (2010), *The Millennium Development Goal Report 2010*, United Nation, New York, p. 11.

United Nations (2010), “Sustainable Agriculture and Food Security in Asia and Pacific”, *The United Nations Economic and Social Commission for Asia and Pacific*, Bangkok, pp. 19-25.