

Feeding the Hungry Billions

Synopsis: There is population boom worldwide and natural resources are decreasing fast. There is addition of 40 million persons to the world population annually. The present population trends indicate alarming food situation which is likely to grow worse by the passage of time. The gap between demand and supply of food grains is increasing fast. The development countries, are the worst affected. The consumption of food grains has out-paced the production. The availability of cultivated and irrigated land is also decreasing. The greater use of chemical fertilizers, pesticides etc. has destroyed the health of the land. Even if there is surplus food grain in a few countries the lack of entitlement because of applying poverty in many other countries will make it difficult for them to have adequate food-supplies.

The world population growth shows an alarming trend in relation to world food production. About 250,000 new mouths to feed are being added every day while the agricultural production and natural resources required to feed them are decreasing fast. It is estimated that about 3,000 sq. Meters of forest land and 1,000 tonnes of top soil are being lost every second. The arable land has been decreasing by 20,000 hectares every year. The World Resources Institute (WRI) has reported that since World War 2. About 1.2 million hectares of agricultural land, equivalent to 10.5 per cent of the world's total agricultural land or the combined area of India and China, have been made useless as a result of human activities. Soil erosion alone has caused immense damage as a billion of hectares of land has already become unsuitable for agricultural use.

The world population was 5.6 billion in 1994 which is likely to grow to 7 billion by 2010 and 8.4 billion in 2025. Thus, about 90 million new mouths are being added to the world population every year. 95 per cent of the new born are in the developing countries of Asia, Africa and South America. Today China is the most populous country but it is projected to be replaced by India in coming years. All these trends are projected to be replaced by India in coming years. All these trends indicate an alarming food situation and security which may grow still worse day by day. The effects of the green revolution have tapered off and there is recession in the productivity.

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The food security is in danger and slums in cities and towns are increasing by leaps and bounds. The urban population has been increasing dangerously which will grow from present 1.6 billion to nearly 4 billion by the year 2025 the world-over. Now, today's 400 million or so subsistence farmers of the world find it difficult to feed the 1.6 billion of urban population. What shall happen in 2025 when the urban population will swell into 4 billion? Only the time will tell. Will the Malthusian theory prove true or the technological advancement takes the problem into its strides?

The yields in the 1970s and early 1980s increased per hectare dramatically but after that it tapered off and there is no sign of its picking up. Consequently, the gap between demand and supply has been increasing. In 1995 the world grain production was down by 4 per cent to 1,680 Million Tonnes (MT) from 1,745 MT of 1994. In per capita terms it was 293 kg, the lowest since 1965 because of unfavorable weather conditions, decline in use of fertilizers and pressure in agricultural land etc.

In 1991 there was increase in food-grain production in Asia and South America by 2.3 per cent but it was out-paced by the high population growth and so the per capita availability of food-grain actually decreased. In Asian countries the rate of undernourished population has decreased over the years from 40 per cent to 19 per cent and yet Asia has the largest population of undernourished and hungry men, women and children. For example, in India, the per capita consumption of food-grains has declined from 511 gms per person per day in 1991 to 464gms in 1996. The agricultural yields are under great pressure and there are no chances of immediate improvement. The world stock of food-grains for the year 1996 had dropped down to 229 MT from 296 MT in 1995 which was hardly sufficient to feed the world population even for 50 days. This was the lowest level of stock on record.

The consumption of food-grains has out-paced the production for the third successive year and there has been extraordinary increase in demand of food-grains in countries like China etc. It is becoming difficult day by day to make the world stock of food-grains to a secure level. Moreover, in many countries the farmers are shifting to cash crops. The decrees in cultivated land from 675 m hectares in 1994 to 666 m hectares in 1995, and the decrease in irrigated area by more than 5 per cent alone are some of the factors to make the planners have sleepless nights and anxious days.

The growing imbalance between food production and population is dangerous. There will be incidence of hunger and starvation in near future if adequate measures are not taken to address the problem of feeding hungry billions of the world. The diminishing water and land resources and increasing population make the situation hopeless. All these factors have compounded the problem and endangered the world food security.

The earlier increase in food-grain production in seventies and early eighties was on account of the expansion of the cultivated land, increased use of fertilizers, pesticides, biocides, the use of high yielding variety of seeds and increase in the irrigated extent can you flog the earth? The increased use of fertilizers, pesticides and biocides bring the earth? The increased use of fertilizers, pesticides and biocides bring new problems along with them. The use of high yielding varieties (HYVs) of seeds require high inputs of fertilizers and pesticides. Initially the output went up but later on more quantities of input were used to get the same result and output. And the greater use of these inputs has destroyed the health and quality of the land. The sooner this fact is realized the world-over, the better.

The solution of the problem seems to lie in an integrated approach based on better management of resources and increased use of technologies. For attaining sustainable food security, it is imperative that multi-pronged strategies are adopted. New technologies should be developed and available technologies used extensively to bridge the gap between positional and actual yields. Soil-erosion and desertification should be effectively checked and the health of the land be improves. The vast wasteland should be changed into arable land by using modern farm and field technologies and researches. Vast areas of agricultural and forest land are being lost every year because of soil erosion. As a result of this nearly a billion hectares of land every year becomes unfit for agriculture. Even if there were surplus of food-grains in a few countries, the lack of entitlement because of poverty in other countries will make it difficult for them to have adequate supplies.