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POPULATION, FOOD AND NUTRITION

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Human nutrition is an economic, educational as well as a scientific problem which becomes more involved due to population explosion. Developing countries such as Pakistan are evidently in the grip of population explosion and malnutrition. Since the inception of Pakistan, about 46 years ago, its population has increased nearly 4-fold which, of course, is not a good omen. Improving nutritional level of food depends mainly upon the improvement of socio-economic and physical factors such as poverty, ignorance, unhealthy environment, low literacy level, rapid population growth and a desirable change in the existing food habits.

Significance of relationship between population, food and nutrition cannot be overemphasized as food is the basic requirement for human survival. A large majority of the people around the world are unable to get food. Consequently, they are under-nourished and fail to fulfill their energy requirements essential for healthy and productive living. Non-availability and scarcity of food causes undernutrition and malnutrition which lead to higher incidence of sickness, starvation and premature deaths. Studies show that below certain income level, diet of most of the people is deficient. Human nutrition is an economic, educational as well as scientific problem.

Malnutrition leads to high infant morbidity and mortality rates which in turn cause population explosion. In fact, population explosion seems the cause of all the troubles. A number of problems such as high fertility rates, poverty, ignorance, diseases and illiteracy are interlinked. These problems have a high incidence especially in developing countries. Leaving aside nutritious food items required for a healthy body, one may not even think of meeting minimum requirement of food for the continuation of life with such a rapidly growing population as in Pakistan. Since Pakistan is experiencing a very high population growth rate, the policy makers are, therefore, afraid that food and nutrition requirements of the country would be difficult to meet after a few years unless hectic efforts are made to enhance food production.

We all know that Pakistan is categorised among the countries having the highest population growth (more than 3% per annum) and with one of the lowest per capita incomes. It has a high fertility rate while the literacy rate is 35%. At the time of independence, its population was 32.5 million and today, there are more than 120 million people in Pakistan. It means that population has increased nearly 4-fold over a period of 46 years. If population growth continues at this rate, it will exceed 150 mil lion at the turn of the century (NIPS, 1988). The situation demands attention and concerted efforts of population experts and other policy makers as in future its economic, social and political repercussions can be very explosive.

With increasing population, food and nutrition requirements are increasing at an immense rate. Let us have a look at the existing situation of food in Pakistan. About

three-fourth of the total population is directly or indirectly involved in agricultural activities. A major portion of the national income and most of the exports are contributed by agriculture. Agriculture has been continually facing a number of problems such as uneven distribution of agricultural land, traditional methods, less use of chemical fertilisers, waterlogging and salinity, weather fluctuations, etc. Inspite of all these difficulties, the government has continuously been exerting to enhance agricultural production and to overcome the related problems. The government encouraged the introduction of mechanization in agriculture with the result that mechanized agriculture is now gaining ground in this country. But inspite of all these efforts, agricultural production is not keeping pace with the rising population.

Since the inception of Pakistan, it was only for a few years that it appeared to attain self-sufficiency in food grains particularly wheat otherwise for most of the time the government had to import food grains to meet food shortages in the country. The significance of the situation of agricultural production can be observed in relation to population growth in the form of per capita availability of food. During the last 37 years, per capita wheat production increased by only 32% while population increased almost three times during this period. On per capita basis rice production increased by 60-70%. It may be said that though growth of food production (especially wheat and rice) increased but this increase was not commensurate with population growth (NIPS, 1988). Per capita availability of food items experienced the same type of fluctuations. Although, there is a positive correlation between growth of food production and growth of per capita availability of food, the magnitude of growth in terms of per capita availability seems to be much lower compared to the growth in agriculture. This is because of higher growth of population.

The largest part of income of the people in low income bracket is spent on food. This is true elsewhere as well as in Pakistan where population is increasing at a higher rate than production of food. Thus, an appropriate policy would be to control the rising population and to increase food production. Consequently, per capita availability of food may rise. Simultaneously, the nutrient level of population would rise which may lead to better health of the masses. Adequacy of nutritional intake is an indicator of sufficiency of food supply and its consumption. Malnutrition is mostly an outcome of poverty and poor distribution of food. This situation also prevails in this country. It may, therefore, be stated that a sizeable part of the population is undernourished. Poor nutritional status due to lack of sufficient energy and proteins in the diet of poor people is one of major nutritional problem and the major cause of many severe ailments among the masses. Various researchers indicate that daily per capita calorie intake in rural area is 1898 and 83% of it is derived from cereals. The food situation becomes a matter of serious concern when it is seen in the light of optimum requirements. According to FAO/WHO (1973), man and woman require 3000 and 2000 calories and 37 and 29 g of milk or egg proteins, respectively. The recommendations are much above the actual intake of the rural poor population indicating an apparent nutritional deficiency.

Researchers indicate that one out of every 10 children born, dies before reaching his first birth day. Eight of 10 children under 5 suffer from diarrhoea and respiratory infections. High incidence of infection and parasitic diseases are aggravated by nutritionally detrimental weaning and child care practices and the cereal based Pakistani diet

(Aslam *et al.*, 1982). The report indicates that malnutrition is widely prevalent in Pakistan especially in preschool children. Mostly, these children are under-weight as the weight-growth curve for children between 5-15 years of age falls well below the third percentile of the Harvard Standard (Aslam *et al.*, 1982).

Another report indicates that protein energy malnutrition is the world's principal public health problem and if it is not timely checked, will leave many children permanently handicapped both physically and mentally (Cameron and Hofvander, 1981).

Khan and Khan (1980) indicated widespread growth retardation especially among the pre-school children in Pakistan. The study revealed that Pakistani children at 4 years of age are lighter in weight and shorter in height than their European counterparts. The causes of severe malnutrition among infants are inadequate food intake, quantitatively and qualitatively and infectious diseases. Protein calorie malnutrition is estimated to affect one-third of the population while infants, children and pregnant and/or lactating women are the worst hit. It may be said that frequent pregnancies, maternal illness and food habits constitute the major factors adversely affecting the health of mothers/children.

Improving nutritional level of food depends mostly upon the improvement of socio-economic and physical factors. These factors mainly include: poverty, rapid population growth rate, ignorance, unhealthy environment and low literacy level. In Pakistan, improvement in literacy rate (especially female literacy rate which presently is 26%) may motivate the poor to utilize the available health facilities and to take available food in a way which increases its nutritional value. There is no doubt that high nutritional value of diet helps in providing resistance in body against certain infectious diseases.

Therefore, the problem of bringing a desirable change in the existing food habits is a must. Mothers can play important role by teaching their children to use a simple, balanced diet and to accept new foods. Books, pamphlets, newspaper articles, TV and radio broadcasts designed for adults as well as children can play a very useful role in providing continuous education in respect of desirable dietary habits. More attention should be paid to recipes for attractive and enjoyable dishes that may provide cheaper, nutritional and protective foods. It is suggested, therefore, that the government not only should cover the food shortage in the country but also improve the health, nutritional and educational status of mother and child through health, hygiene and nutritional education. N.G.O.'s should also be made conscious of their role in this respect.

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