

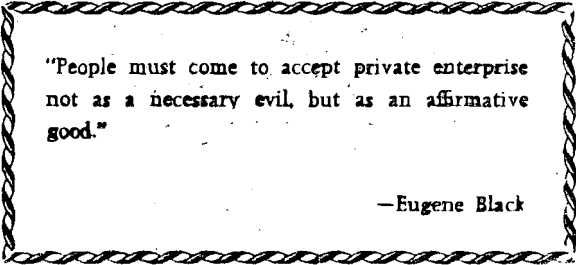
THE POPULATION PROBLEM

Dr. B. K. TANDON



FORUM OF FREE ENTERPRISE

SOHRAB HOUSE, 235, DR. D. N. ROAD, BOMBAY-1



"People must come to accept private enterprise
not as a necessary evil, but as an affirmative
good."

—Eugene Black

THE POPULATION PROBLEM

By

Dr. B. K. TANDON*

The problem of excessive population growth is a delicate and difficult one; it is overlaid with emotion; it is controversial and complex. "If the problem is not dealt with reasonably, it will in fact explode; explode in suffering, explode in violence and explode in inhumanity," says Robert McNamara, the President of the World Bank. Rafael Salas, who heads the United Nations Fund for Population Activities (UNFPA), rightly observes, "The population problem is all about poverty and survival. Whatever we do now the World's population will double in the next 30-35 years. There will be another World on top of this World by the time our children have their own. This doubling is inevitable—unless catastrophe intervenes."

Population increase is simply the excess of births over deaths. For most of man's history, the two have been in relative equilibrium. It is only in the last century that the balance was disturbed. In the first century A.D. the World Population stood at 250 million. It took about 1,600 years to double itself. Today it is more than 3,700 million or 3.7 billion. By 2,006 A.D. in less than 31 years, there will be twice as many people as they are today, i.e. 7 billion. By that time, the population of India will be well over 1,000 million or 1 billion.

* Dr. Tandon is Professor and Head of the Department of Economics at the University of Udaipur.

Robert McNamara very aptly says, "To project the total beyond the year 2,000 A.D. becomes so demanding on the imagination as to make the statistics almost incomprehensible. A child born today, living on into his 70's would know a world of 15,000 million; his grandson would share the planet with 60,000 million. In six and a half centuries from now there would be one human being standing on every square foot of land on earth." To state the same proposition in simple terms, it could be said that a population growing at 1% doubles itself in 70 years, at 2% it doubles in 35 years and at $3\frac{1}{2}\%$ it doubles itself in only 20 years.

Such projections are, of course, unreal. They will not come to pass because events will not permit them to come to pass. Of that we can be certain. What is not so certain is precisely what those events will be. They can be mass starvation, political chaos, or population planning. Whatever may happen after the year 2,000, what is occurring right now is enough to jolt one into action.

With the advent of the Industrial Revolution about two centuries ago, the knowledge explosion also set in. The industrial revolution brought in its wake numerous machines, which greatly expanded the supplies of resources within reach of man; it also enhanced the productivity of labour. The subsequent agricultural revolution brought in increasing yields from the land. The global application of modern technology generated new ideas and beliefs amongst the people and made them unduly optimistic in their attitudes about the unlimited power of the human mind to conquer and prevail over the natural system. A large array of other factors such as religious teachings and attitudes, a desire in some societies for larger populations to support an economy of scale, a premium on cheap labour and on the survival of children to provide support for their parents in old age, an assortment of traditions, myths and superstitions with respect to the virtues of high fertility, social pressures placing a stigma upon couples who were not prolific and the role of women being largely restricted to child-bearing, reinforced

this mood of optimism about the unlimited power of human mind. Many governments favoured steadily increasing populations among their national objectives. A declining birth rate came to be frowned upon as a way to national suicide. Public discussions of population as a problem was tabooed and the question of restraining population growth through family planning was not even raised.

The population explosion was further augmented by break-throughs in medical science and the spread of public health techniques. These brought many once-fatal diseases under control and, in the process, opened a large and widening gap between the numbers being born and the numbers dying from one year to another. In the 10 years following the Second World War, according to Thomas W. Wilson Jr., penicillin alone is estimated to have saved more lives than had been lost in all the wars in history.

Hence, by 1960 the world's population was growing at a rate that would double the number of people on earth within a single generation and multiply it by 8 times in a hundred years.

Some experts like E. Brown and D. Wray have questioned the widespread belief that medical advances have been the major cause of a falling world death rate and therefore of the current population explosion. According to them, there is little evidence to support the thesis that the development of immunization techniques, antibiotics and anti-tuberculosis drugs, the eradication of malaria and improved public sanitation have resulted in declining death rates. If anything in many parts of the world such public health measures have made a negligible contribution. There were, no doubt, larger hospitals, more clinics and more health practitioners, but the 18th century physician in England and Wales had little technology to offer to his patients. The so-called wonder drugs, penicillin and broad spectrum antibiotics became available only in 1944 and 1948 respectively, but the decline in death rates in England and

Wales had been experienced in the late 18th century, while from 1920 to 1949, death rates in 18 developing countries fell about 35%, indicating no causal relationship between the development of antibiotics and lower mortality. So also improvements in sanitation affect both morbidity and mortality in early childhood. As of 1968, however, the W.H.O. concluded that "safe adequate water was not available to 90% of the population of the developing world," which strongly indicates that such improvements have not been important in the declining global death rates.

How is the decline to be explained? Prof. Brown and Wray say. "Probably the single most important factor is improvement in the standard of living, particularly nutritional levels. Over and over in a given population, we find that when death rates start to decline and the number of people increases, there has been a change in the quality and availability of food. It is important to remember that although a given country may be poor, with thousands of its children suffering from malnutrition, the citizenry, overall, may still be better nourished than 50 or 100 years ago." It is also estimated that out of 60 million annual deaths, 30 million occur in children under the age of 5 years, and approximately one-half or 15 million, of these deaths result from the combination of malnutrition and infection. Another expert, Dr. H. Frederiksen, who studied data from 21 generally well-developed countries for the period 1950 to 1960, found that infant and early childhood mortality rates declined markedly as animal protein and caloric consumption rose, but only slightly as the number of physicians increased. Similarly a five-year study of two Guatemalan villages showed that moderate improvements in the nutrition of pre-school children produced improvements in health and longevity equal to or better than, those produced by an extensive and expensive medical care and public health programme that did not alter the children's nutritional situation.

Improvements in nutrition can only be achieved in association with other changes, i.e., stable government adminis-

tration, food production, development of roads and railways, irrigation programmes, new trade and routes, intensive economic and community development, social reform and educational expansion. As elementary education was expanded, literacy increased; not surprisingly, recent studies show that there is significantly less malnutrition among the children of literate mothers. During 1900 to 1930, infant mortality fell dramatically in New York city from 140 per 1000 to slightly more than 50. This was prior to discovery of any significant antibiotic drugs or specific vaccines for diphtheria, whooping cough, and tetanus, among others. The period, however, was characterised by intensive economic and community development, social reform, and educational expansion.

Inadequate food distribution plays a significant role in malnutrition and hence a high death rate. If new roads are constructed, the political boundaries are redrawn or a substantial increase in yearly crops takes place, improved nutritional benefits may follow. The introduction of new food source can also be crucial, and historically, food changes have been associated with rapid population growth, e.g., the introduction of white potato in 1750 in Ireland tripled its population, so also the introduction of enriched flour in Scandinavia was followed by a decrease in childhood mortality, and the Chinese population explosion in the 16th century was related to the expanded use of corn, sweet-potatoes and peanuts.

The invention of agriculture, centuries ago, ended the Stone Age. A hundred times more people could live on a square mile of cultivated land than in hunting and gathering societies. The industrial and agricultural revolutions of the last 300 years again increased the possible numbers of people. In both cases—invention of agriculture and industrial and agricultural revolutions—human populations grew in proportion to the potentialities of the new environment they themselves had created.

The population explosion gained currency in the public discourse. Demographers and others sounded the alarm. Efforts were made to explain the meaning of exponential growth. A population expanding at a rate of 2% annually would mean twice as many people in 35 years, four times as many in 70 years, eight times as many in a bit over a century and so on—until the projections showed a period when there would be only standing room on Earth. This seemingly inexorable growth in our own numbers have revived the ideas of an eighteenth century English clergyman, Thomas Robert Malthus, who said, "The passion between the sexes is so great that human beings will produce more and more children, until there is not enough food for all." In our times, new refinements have been added to Malthusian ideas. It is said that natural resources of metals, fuels, water and land are insufficient to enable most of the earth's present inhabitants, let alone the foreseeable number of people in the year 2,000, to even approach the living standards of the rich countries. And even if they could, the resulting pollution and environmental decay would make the earth uninhabitable. It is also argued that the rapid population growth is already causing living conditions in the poor countries to become worse and worse.

A declining birth rate prior to 1950 was looked upon as a way to national suicide, but after 1950, it became the desideratum and an ideal most sought after. In the 1950s, a few governments, notably in Asia, began to adopt policies favouring population limitation. The U.N. sponsored world census in 1960 was an eye opener. It gave a lie to the projections of the demographers who had under-estimated the rate of population increase. With the Asian States in the forefront, government leaders came to see rapid population growth as a serious threat to their hopes for an escape from poverty. In 1967, 30 heads of State addressed a declaration to the United Nations stating that because of "too rapid

population growth . . . the human aspiration, common to man everywhere, to live a better life is being frustrated and jeopardized." The awakening amongst the people of the world about the menace of rising population is simply incredible. In some countries, citizens have dragged their governments into an active recognition of the seriousness of their population problems. In some other parts of the world, the public opinion, especially opinions held by women and by those in the medical and associated professions, frequently outruns governmental policy. The most articulate evidence of public interest in the solution of the population problem is the incidence of injuries and deaths from amateur and often illegal abortions—estimated at somewhere between 30 to 50 million each year. In a number of countries, non-professional abortions have become a leading cause of death among women in their child-bearing years. In five countries of Western Europe, it is estimated that there are as many illegal abortions as live births. In Latin America, illegal abortion rates are among the highest in the world. And even where abortion is legal, surveys have shown that large percentages of all births still are the result of unintentional pregnancies.

By 1973, the awakening to the dangers of population growth had progressed to a point at which countries with at least four-fifth of the population of the developing world had adopted official policies designed to turn down the rate of population growth. The awakening had gone far enough too, to permit the United Nations to designate 1974 as World's Population Year and to call the first world population conference at the government level in Bucharest in August to draw a world population Plan of Action. National Population Commissions have been appointed in 54 countries and the U.N. Fund for Population Activities has announced that it has launched 900 "Population Projects" in 60 countries.

There are certain myths that befog the already complex issue of population planning. The essentials of the problem

are thus obscured and certain barriers to constructive action are raised.

(1) To begin with, there is the generalised assumption that somehow more people mean more wealth. A man comes in this world not only with a mouth to feed but also two hands to work with. He is not to be regarded as a burden or a liability but as an asset. That is why there was a wave of enthusiasm in the newly independent countries in Asia and Africa to regard rapid population as a symbol of national vigour. Even in the West the earlier rise of nationalism witnessed the foundations of a more powerful military establishment which drew its main strength from its populace. It was also thought that a numerous population provided an economically advantageous internal market, and a fund of cheap labour. It was also a symbol of political prestige. All the military regimes in the West like Germany and Italy, Japan in the East and Russia in Europe had adopted such a policy in the past. But today the scene is changed and none of the above assumptions is true. High fertility in a nation diminishes its economic vigour and retards growth in **per capita** income. The vast internal market becomes a mere mass of discontented indigents without any purchasing power. Such a market becomes an arena of frustration of potential consumers whose expectations cannot be met.

The plea for cheap labour is also untenable. Cheap labour in such countries does not turn out to be cheap at all, in fact, it proves to be very dear. It is now a well established fact that sound economic growth today requires technological improvements, and these in turn demand higher levels of training which the meagre resources of the government can scarcely supply. The local labour may be paid low wages but their efficiency and productiveness are so low that the goods produced by them are priced out of the competitive export market.

The military plea of high population has also been knocked down because the modern defence forces today require an increasing ratio of educated recruits rather than mere masses of illiterate troops. The military strategy today is very sophisticated requiring skilled and trained soldiers. The recruits are not to be used as cannon fodder.

So also the political prestige of a nation based on large and numerous numbers sounds hollow today. An uncontrolled population growth does not enhance its position in the comity of nations. On the contrary, optimistic plans for progress turn inevitably to the politics of confrontation and extremism.

(2) It is also erroneously assumed that countries with large tracts of uninhabited open land have no need to worry about their birth rates, since they have ample room for expansion. This is misleading because the open land does not, in itself, support a high rate of population growth. It needs heavy investment in roads, housing, sanitation, agricultural and industrial development. It needs surplus funds for investment which a thickly populated developing country can hardly afford. Some large areas of the world remain uncultivated as in Sub-Saharan Africa or Brazil. These soils are not necessarily economically feasible to cultivate and that even if we did, under pressure, destroy the protective forest cover in Brazil that forms a fragile ecological system, the new soils available may harden under the tropical sun or may require such heavy continuous applications of chemical fertilizers and use of farm equipment that the cost of producing grain would be prohibitive. Much of the sub-Saharan cultivable areas have resisted human encroachment because of deadly Tsetse flies.

Nothing could be more true than the statement made by the Finance Minister of Ghana (West Africa) in 1970 while launching the family planning programme :

“There are those in the grip of the dangerous illusion that the vast expanses of underdeveloped land invalidate

the argument for the regulation of population growth in Ghana. They fail to realise that invariably the land remains undeveloped because of the lack of capital and technical skills required for its development Our rate of population growth, 5,000 people every week, thus poses a serious threat to our ability both as individuals and as a government to provide the reasonable needs of our people” According to an I.L.O. Survey, the rich countries spend 42% of their production on better living, whereas the poor developing nations can barely afford 20% because 70 to 80% of what they produce is eaten up by the population growth. Thus this myth is akin to the first myth that more people mean more wealth.

(3) A very common and widely prevalent myth is that the process of development automatically leads to lowered birth rates and thus controls the rise in population. The example of Europe is cited as persuasive proof of this theory. But it is forgotten that the parallel is wrong because today's conditions in the underdeveloped or Third World are totally different from those of Europe in the early period of modernization. There are no comparable circumstances between what happened in Europe then and what is happening in the developing world today. The conditions during the initial developmental period in Europe were very favourable to lower rates of population growth :

- (a) The birth rates in Europe were much lower than those in the underdeveloped world today.
- (b) The infrastructure of industrialisation was already in place before the public health measures drastically cut down the death rates.
- (c) Late marriages in the 19th century Europe were more popular than in the underdeveloped world today.
- (d) The level of literacy, always an important factor affecting population growth, was considerably higher in Europe than in the poor nations today.

- (e) The capital formation in the then Europe was very much encouraged by fiscal policies than in the underdeveloped World today.
- (f) The standard of nutrition leading to lower birth rates in Europe was much higher than what it is in the Third World today.

Even with all these favourable circumstances, Europe took 70 years to reduce its birth rates to present levels. Today the average birth rate for developing countries is 40 to 50 per 1,000 of population. To reduce this down to 17 to 20 per 1,000 that is common in contemporary Europe world requires a reduction in the developing world of some 50 million births a year. To suppose that economic development by itself could accomplish this in any feasible timeframe of the future is naive. Even with family planning, no such promising results are feasible in less than two or three decades. This is because 50% of the people in developing world are less than 16 years of age and have not yet formed families and begun their own child-bearing. This gross distortion in the age structures of these countries is due to extreme imbalances between births and deaths over the past few decades. This radical imbalance provides the major built-in momentum for future population growth. For several decades, therefore, the population would expand even though the newly formed families, on account of family planning orientation, may have fewer children than their parents. For many years, there would be more couples entering than leaving their child-bearing periods of life. Thomas Wilson Jr., an expert in programme on environment and the quality of life, in Washington D. C., rightly observes, "If this built-in momentum is to be checked and the population of the world is to be stabilized by human decisions and humane means at about twice the present level by around the middle of the next century, fertility rates must start falling sharply in the immediate future."

(4) There is another myth in the field of population control. It smacks of age old prejudices between the whites and the non-whites which gives a wrong slant even to a good deed done in good faith. The myth is that the assistance given by the western world in family planning efforts of the non-white nations of the developing areas is a plot to keep the whites in a racial ascendancy. This on the very face of it is fantastic because the non-whites on the planet massively outnumber the whites and would always do so. No conceivable degree of family planning could possibly alter that mathematical fact. In fact if the whites want to plot against the non-whites, one of the most effective ways to do so would be to deny these nations any assistance in family planning. The progressive future of the non-whites is directly related to their indigenous economic development which is dependent upon their efforts to bring birth rates down to a level that will allow a significant increase in **per capita** income.

(5) Another myth also prevails in the field of population programming. It is that poor countries and high birth-rates go together. The experience of Europe and America during the past century — a general reduction in birth rates after incomes became relatively high — was long thought to be the norm, in the absence of family programmes, for other countries as well. However, there is now striking evidence that in an increasing number of poor countries, as well as in some regions within countries, birth rates have dropped sharply despite relatively low **per capita** income and despite the absence or relative newness of family planning programmes. Although in a general way prosperity seems ultimately to bring about a reduction in birth rates, it may not be just higher incomes that make the difference but some of the things associated with material advance; in particular improved education and health, better prospects for female employment, and greater security in old age. This is certainly a new experience worth pushing through the poor and developing nations where the increase

in **per capita** income is a real tough job due to various bottlenecks and constraints. This became a reality when a large portion of the population in countries like China, Barbados, Sri Lanka, Uruguay, Taiwan, Cuba, South Korea and Indian Punjab gained access to modern social and economic services — such as education, social and health services, employment and credit systems — to a far greater degree than in most poor countries or in most Western countries during their comparable periods of development. Birth rates in such countries have dropped even before an increase in the **per capita** income as well as the introduction of a major family planning programme because of high priority assigned to such services in their development programmes.

There is a positive relationship between education levels and fertility. In most developing countries, the majority of the population has little education and as a sequel has high-birth rates. Those who are relatively more educated than others in such countries have already a lower birth rate, but the larger segment of the population in such countries is uneducated and have higher fertility. A broad educational strategy of such a country extending itself to larger numbers has proved to be very effective in lowering the birth rate of the population. South Korea, for example, allocates 52% of its education funds to elementary schools and only 14% to Universities. In contrast, Brazil allocates 29% of such funds to elementary schools and 40% to Universities. These different emphases may serve to explain, in part, why South Korea's birth rate dropped from 3% in 1958 to 2% in 1971, while in that same period Brazil's birth rate dropped from 3% to 2.8%.

It could be safely generalised that there is a correlation between small family size and education, particularly female education. As women get educated, they are averse to a big-size family. When they get economically employed, they are likely to postpone having children or decide to have only one or two. When they gain an independent

social status and become increasingly active outside the home, they are inclined to limit family size as a result. Moreover, extended education tends to delay marriage. It also makes information about birth control techniques more accessible. It brings a change in the attitudes of the people who learn to question traditional practices of their parents and frown upon a large-size family. As education becomes available many parents will have to decide whether to have fewer children with, or without an education.

Another effective factor that has exploded this myth is health services, accompanied by improvements in nutrition, sanitation and education. It is also certain that expanded health services have contributed, albeit more slowly, to birth rate reduction. Families are not likely to limit births unless they can be sure of high survival rates. Many persons in poor countries still perceive — often rightly so — that having numerous children is advantageous, both for immediate social and economic reasons and also because of the persisting risk that off-spring will not survive to adulthood. In India, for instance, where social, economic and religious factors virtually require having a son alive at the time of the father's death, it has been necessary to bear six children to be relatively certain that one male will survive. Only when a large portion of a national population gains access to modern social and economic services such as education, social and health services, that reductions in family size are likely to follow. "Effective support should be provided for programmes giving all women and men access to at least a primary level of education and to rudimentary health service. The contrast in health systems between Sri Lanka and Turkey demonstrates differences in the delivery of medical services. Both devote about the same level of **per capita** public funds to health services. In Sri Lanka, however, the emphasis has been on training paramedics, who have delivered basic modern health care to the entire rural and urban population. The improvements in national health in the last two decades have been

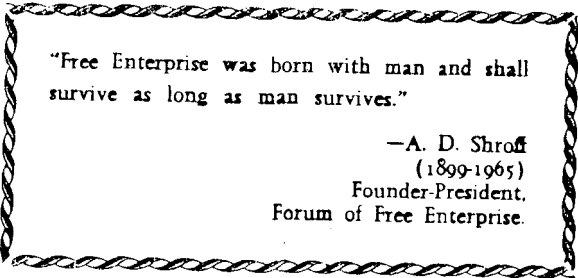
dramatic. In Turkey, on the other hand, efforts have been made to copy Western health systems. While affluent urban families obtained readier access to a modern hospital and a well-trained doctor, in most rural areas there still were more than 10,000 residents per doctor, and few paramedics were available to supply minimum health services. The infant mortality rate remained over twice as high, and life expectancy much less than, the comparable figures for Sri Lanka, despite Turkey's far higher **per capita** income. Turkey's birth rate remains at a high level.

Availability of employment and expansion of interests and satisfactions beyond the family unit are some other factors over and above the high **per capita** income which influence the birth-rate. When full-time employment is available both to men and women, they would have economic and social aspirations and also a sense that they can contribute to the progress of the society. When only marginal employment is available, such as peddling in the cities or harvest work in rural areas, families may consider it necessary to have as many children as possible to contribute to family support. Similarly a couple living in poverty, without fully productive jobs and without any aspirations, economic or social and with the family as their centre of attraction, may well find childbearing and rearing the most rewarding experience in life. If there are additional routes to human satisfaction, such as social service of the community, or diverse activities and programmes for projecting one's own image, the motivation for having smaller families will be greatly strengthened.

Such factors and services do the most to create an environment favouring smaller families. It is thus a half-truth to say that high **per capita** income alone is the **sine qua non** for a low birth rate. This description of some of the factors associated with fertility indicates the complex inter-relationship of socio-economic factors with the birth

rate. Every family faces its own set of perceived social or economic alternatives as well as a wide range of fertility decisions. It is not possible to define the relationship between development and population growth in precise mathematical terms. Modern research has only made it possible, however, to identify the ingredients in this relationship. It has also gone a long way in dispelling some of the vague concepts that befog the population issue.

The views expressed in this booklet are not necessarily the views of the Forum of Free Enterprise.



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survive as long as man survives."

—A. D. Shroff
(1899-1965)
Founder-President,
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