

Population Growth and Development Relationship: A Critique by Singh, D.N.; Singh, S.P. In: Strategies in Development Planning. Edited by Alok Kumar Singh; Vinay Kumar Rai; Anand Prasad Mishra. Deep and Deep. 1997. P. 368-388. ISBN: 81-7100-905-0.

Population Growth and Development Relationships: A Critique

D.N. Singh & S.P. Singh

Introduction

Population growth and development relationships have been focus of debate in various contexts but more often than not receiving an arbitrary deal. The mushroomed views expressed in this regard, no doubt, acknowledge the complexities and magnitude of the population growth related issues, these appear to be inconsistent and difficult to be linked in a systematic manner. The present paper attempts to put precisely the diverse arguments advanced by noted scholars of this field, as far as possible, in a coherent way underlining the problem, dual facets (dilemma) of population-development relationships, imperatives and ironies of situations, relevant issues and pertinent questions, etc. Prior to summing up, sonic explanations and certain suggestive measures have been succinctly discussed. Although illustrative in nature with examples drawn from developing countries, particularly India, this paper's significance lies in its being related to the population factor which has bearing on practically all the inputs of development planning.

At the out set, it can be observed that the menacing rise of population on the one hand and miserable failure of population control measures on the other has rather led many to believe that rapid population growth is the single most important factor impeding variety of development efforts and causing deterioration in environmental quality. Surprising is its use as a good excuse to explain inadequate provision of basic social facilities, low rate of child survival, slow rate of economic growth and, above all, poor performance of any policy or programme. Though no serious attempt has been made to investigate into real causes, some scholars have questioned the tenability of the aforesaid views as such and have tried to seek explanation in factors other than population. Their main plank remains improvement in socio-economic conditions reflecting in substantial increase in rural income, reduction in child death rates, enhancement in life expectancy and general fall in average family size in spite of so-called alarming population growth. To them, not less important is the rising expectation and demand for equitable international economic order necessitating a model around population-development syndrome. However, it should not be

inferred from the foregoing that population growth is a desired proposition. Rather, the need of the hour is a balanced view and an honest assessment of the situation.

The Problem: Dimensions and Magnitude

The dimensions of the population-related problems refer to its rapid increase and multi-faceted consequences, such as resource depletion, rising unemployment, fast urbanization and attendant problems, deterioration in environmental quality, etc. To cite example of India, currently its population is increasing at a very high rate of 2.1 percent a year. Naturally, at this rate it will double itself every 35 years, thus, reaching 174 crores by 2027 and 384 crores by 2062. The situation may become unsustainable even in less than 25 years from now.

The trend of growth, as based on the past performance and the current position, suggests that Indian population (presently above 89 crores) will continue to rise for another 100 years and more than double (1.8 billion) by then. Here, nearly 4 out of every 10 citizens are less than 15 years old, which means that the potential for future growth is extremely high (only 4 percent people being older than 65). On the global level too the growth profile has been very intricate. There, the addition of first billion took 75 years (1850-25), whereas the second billion was added in 37 years (1925-62) and the third one merely in 10 years (1962-72). All this led to such predictions as 'in a six and half century there would be one human being standing on every square meter of land on earth a fantasy of horror that even the inferno will not match. Such projections and statistics manipulations have been labelled by many as deliberate unreal, hypothetical and almost incomprehensible. All that apart, things are not expected to move so straight forward. The foregoing, however, indicates the probability of the consequences that may have to be reaped if potential of population growth is allowed to be realized.

Population Growth-Development Relationship Dilemma

An examination of the host of observations and statements made by different scholars, political leaders and the government agencies regarding the said dilemma brings to the fore diverse perceptions which may be categorized as positive and negative.

Population as a Positive Factor: The advocates of this idea argue that in the form of human capital (equipped with variety of skills) population is a great asset, and an appropriate investment in it may bring high returns. Contextually, Swamy (1971), an economist observes, 'wherever there is possibility of increase in production through a demand-pull effect due to increase in size of labour

force, the large population is rather a requirement. Advancing another logic the politician-cum-ideologue Mao-Tse-Tung describes population as blessing under the shadow of nuclear war apart from its being a greatest wealth and an stimulant to innovation and development. Thus, to him, a country, with small population will be in disadvantageous position. In view of Sahai (1993), 'Financial capital will have to chase human capital and not the other way round. That makes skilled workforce a more reliable asset than financial capital. In fact, the skills, the training and knowledge commanded by workers are more relevant to economic future.

The positive side of population is focussed although with some 'ifs' and 'buts' by Boserup (1965) who postulated that population growth rather than being a hinderance to economic growth is actually a prerequisite for development, the population-resource ratio being modified by out migration. Similar are the ideas of Findlay (1982). He pleaded that over-population and population-resource imbalances are something that can be alleviated if there is permitted international flow of goods, ideas and technologies. Also, the problem of ageing (increase in number of old people) and in long-term irrational reduction in number accounting for shortage of manpower in turn causing damage to economy has been evidenced by several countries (e.g. U.S.S.R., Sweden) some of which had to launch 'birth incentive programmes'. Doubtless, manpower shortage can be tackled in advanced countries by introducing automation or robots but that is not possible in developing countries due to lack of necessary ability and technical skill in the relevant area. To many, positive explanations appear to be depending on ambitious thinking

Population as a Negative Factor: In this context one can underline the views particularly of the rich and powerful nations, political leaders and their lackeys, bureaucrats, policy-makers and above all, also a group of intellectuals who grudgingly hold the large size of population and more so its fast growth as rather the sole culprit for resource depletion, ecological degradation and variety of other problems. Also, such problems have been brought into sharper focus by some international organisations, e.g. World Development Report (1990) which identifies the population growth as a factor responsible for reinforcing poverty in a number of ways. According to it, prospects for improving quality of life are brighter in most regions except where rapid population growth is expected to offset the beneficial effect of economic growth. There the scarce resources and social services spread over a much larger proportion of population, as a rule, are not available to poor, last in line. It is further stated that fast population growth, characteristic of poor nations, poor economics, and particularly the poor people therein does not allow any incremental gains (World Development Report, 1990, p. 81). Over population in most developing countries is one of the main consequences of, and simultaneously a fundamental prerequisite for their

economic underdevelopment (Progress Publication, 19, p. 23). Similar are the expressions of Coale Hoover (1985) and D. Souza (1990).

In the opinion of Coale and Hoover, rapid population growth hinders development by raising the dependency ratio, reducing the amount of national income that might otherwise be available for saving and investment, and diverting a large proportion of new investment into replicating existing economic and social facilities for the benefit of large number rather than deepening and broadening the capital stock for the creation of higher per capita income. The situations are more pathetic where population growth rates have outstripped the abilities of the countries to provide basic necessities to their people. D. Souza observed, 'overpopulation and rapid multiplication of people are ultimately connected with most aspects of current human predicament including rapid depletion of non-renewable resources, deterioration of the environment, ecological disasters, rising tensions and violence's in the world'.

It is generally believed that population growth causes hunger and that in the Third World the current population growth rates will outstrip not only their own but the entire world's capacity to provide food and other resources and it will impede economic development in the less developed countries (Ram Prasad, 1992). To top it all, the enormous loss of the resource base apart from stagnating, rather hampering, the economic growth may account for ecological crisis in the form of large scale siltation, soil erosion, flash floods, salination of agricultural lands and in the ultimate course global warming, ocean level rise etc. These arguments and issues are further discussed in different perspectives. In the ensuing pages some arguments and counter arguments of population-resource debate are succinctly perused.

Population- Resource Debate

The mismatch between population and resources at different levels and in different forms has been considered to be a matter of grave concern, especially because of its varied implications. Host of social evils, famines and wars, perpetuation of vicious circle of poverty and accordant problems are wore often than not ascribed to inequilibrium in population-resource situation. However, the explanations on this aspect are subjected to debate and one may notice two distinct streams of considerations, one emphasizing pessimism while other being rather optimistic.

The pessimist group advocates the concept of 'spaceship' which implies definite extent to which population growth is possible. According to it, given specific level of knowledge and form of social organisation there is limit to the number of people who can be supported directly by the resource available within a limited

geographical region. So, if the growth is beyond the proportion, it may overwhelm the existing system and prevent positive that population growth has reduced world food stocks to their lowest levels since the Second World War, and mass starvation could be avoided only through radical changes in population growth rate. Similar, but more strongly worded warning appeared in *Population Bomb*, 'Human race would breed itself into catastrophic crisis situation in which the finite resources of the earth would no longer be able to support the world's overgrowing human population'. Adishesiah (1990) has illustrated the problem in case of India. In his opinion, by 2000 A.D. if each one consumes 215 kg of foodgrains, the annual requirement changes being effected. On this issue the *Club of Rome* observes which is not possible without serious damage to environment. Here the population is galloping forward and the sizes of landholdings are shrinking with only marginal increase in total cropped area as well as in net area sown. At the same time, due to fast increase in population, the demands of land for providing social priorities are escalating causing diversion of good agricultural land to other uses. Naturally, India with very high population potential (by turn of century touching around 1 billion) and fast urbanisation (urban population amounting to a third of the total in near future) is likely to have higher per capita consumption which would place tremendous pressure on natural resources and employment situation. The picture is poetically put in Kenneth Boulding's work as follows: 'the world is finite; resources are scarce; things are bad and will be worse; man is far too enterprising, soon we will have plundered planet.... People will breed like fertile rabbits'.

On the optimistic side of resource-population relationship there, are advanced different explanations. For example, against the general perception, the world production of cereals and other key food items is more than what is needed to feed the population. As observed by Moore and Lappe and FAO, right now there is really good enough food and world's grain production can give each human being a daily intake of more than 1600 calories and 59 grams of protein or equivalent to that of the average North American. The fallacy is also exposed by the data provided by *Third World Guide* (1989-90) which reveals that annual median population growth in developing countries during 1973-84 was only 2.6 percent against annual median growth in food production and that in agricultural production to the tune of 3.2 percent and 3.0 percent respectively. This type of situation has been described by Lord Plum as 'paradoxical problem of plenty'. In India, a third of population consumes less than 75 percent of the calories it needs and there co-exists widespread undernourishment with sufficiency of good food supply. Such irony at global level is quite glaring in the fact that one-third of the world's population consumes half of the world's food and developed countries devote as much grains to animal-feed as is consumed by India and China together. No wonder, each American child absorbs 50 times

as many resources as Indian (Ehrlich, 1972). All this led Indira Gandhi (1972) to state loudly at UN Conference that the world suffers much from excessive resource use by the West rather than excessive population in India and elsewhere.

Many researchers explain the resource scarcity, especially with reference to food, in terms of political manoeuvring. To them, increase in food supply may not necessarily improve conditions of the impoverished people, particularly where food is considered as a political commodity with key people in the government controlling export of agricultural production and thereby determining the extent of dependency on foreign aid. In such cases, usually cash crop production is promoted for export to help pay the food imports rather than improvement in domestic productions. Thus emerge many problems like rise in cost of cultivation, dependence on expensive resources, enhancements of regional imbalances, erratic crop yield, worsening shortage of fodder and fuel along with deterioration in soil quality and water table all contributing to miseries of the poor. And 'poverty anywhere is danger everywhere' (Frenda, 1972).

Needless to mention that much of the above described problems can be eased out if a comprehensive agricultural strategy is formulated taking care of micro-environment of respective regions supplemented with provision of appropriate infrastructural facilities. Also, important is access of all this to masses, proper distribution system and political will of the government to make the food available to the entire population in time through intra-and inter-regional exchange of produce.

It is worth underlining here that our very assessments of population and resource situation are vague and biased being based on linear equation. Hence sweeping generalisations. Recent discoveries of vast resources in pioneer areas all the world over give us hope. There is enormous scope for betterment of the situation if there is made cyclic and circular utilization of the resources and adoption of more egalitarian approach in sharing of resources as well as production at local, regional and global levels. One cannot ignore the role of technological and managerial revolution in direction of solving the problems of population explosion. It is relevant to quote here technologists arguments contained in Kenneth Boulding's latter part of the poem, that is, 'Man's potential is quite terrific; the cream is there for us to skim it; knowledge is power; the sky is limit; food is found where people need it ... ?'. They believe that with coaxing of nature, advent of more resources and their artificial manipulation, it will be possible to support more population with higher standard of living.

Ecological View

Ecological view of population growth is important because large number of people are treated synonym of poverty and pollution. What strikes here is man's enormous cultural outfit which shapes, manipulates and changes natural as well as his own environment. Of late, there have been noted with concern many ecological problems in developing world. Special mention may be made of degradation and depletion of physical resources, accumulating earth warming, thinning of ozone, increase in 'green house gases', chloro fluorocarbons, nitrous oxide, methane and carbon dioxide, etc. (Abraham, 1990). In India, unlike the developed countries, large population and associated phenomena are construed to be the major cause of our environmental decay. Mitra (1990) while considering this aspect observed that the continued rising rate of human activities on the ground and in the atmosphere is posing unprecedented perils which would ultimately lead to disturbing imbalance in the chemical contents responsible for sustaining life on the earth. Contextually, he referred to emerging scenario of the changes in climate, and ozone depletion and its impact on habitability of the earth.

Obviously, the telling effect of population growth is reflected in emergence of slums and blighted areas and spurt in water, air and noise pollution with attendant problems in large towns and cities whose population has increased twice or thrice during a short span of time.

There are two logical questions: (i) Who are really responsible for all sorts of deterioration in environment? and (ii) Can we afford to stop application of so-called anti-conservation technologies, which have proved their utility in solving many problems of rapidly, growing population? Although both the issues are debatable, the first one is more glaring and interesting. As precisely observed, it is the human greed, rapist tendency (Capra, 1985) and destructive appetite and life style of the First World's inhabitants (Panandikar, 1990) that carries out degradation and deterioration in environmental quality and not the teeming millions of the poor South Asia and China. This view is also supported by Report (1990), 'the major responsibility for production of greenhouse gases lies with the industrial rich countries which account for as much as five-sixths of world's chlorofluorocarbon's use and three-quarters of fossil fuel use. It may further be noted that developed world's residents each add 3.2 tonnes of carbon each year to the atmosphere, almost four times the amount added by their developing world's counterpart. Needless to mention that it is not the people as such but their alienation, which generates wasted resources, degraded land, an unproductive bureaucracy and the waste of man-power. Thus, precisely, these are not the masses but very few vested interests and elites who do share greater responsibility for the present state of affairs.

One can hardly deny the fact that over the centuries human beings have learnt to live in harmony with nature and in this context their self-regulating mechanism such as customs, traditions, religions and beliefs and other forms of social control remained quite effective. Through judicious utilisation of natural resources the appropriate equilibrium between resource availability and human needs was maintained. However, the situation got changed with colonisation by the West which resulted in a lifestyle that set in motion an overwhelming desire to appropriate natural resources as centres of profit. To this was added the adverse affects of industrial policy which was dependent on reckless use of natural (e.g. forest) resources. The country's need for foreign exchange put further constraints. In case of forests, timber export also made way for ranches and plantation geared to further export trade. As FAO Report indicates, merely with 30 percent of population the developed countries consume 80 percent of all wood processed for industrial purpose against 12 percent that by Third World. Hence no justification in putting brunt of the blame on the poor whose life system was dependent on these very resources. Obviously, the ecological consequences owe to the commercial, industrial and revenue interests of the few who are affluent and influential in variety of ways.

Commenting on the general belief that the population pressure exacerbates poverty and the two together contribute to environmental degradation, Barry Commoner in his book *Making Peace with the Earth* has described the situation as one of painful global ironies. In his view, the poor countries while deprived of an equitable share of the world's wealth, suffer the environmental hazards generated by the creation of that wealth in nations. The same way, adoption of modern technology (e.g. mechanisation, intensified use of chemical fertilizers and pesticides, etc.) in the name of fighting hunger has far from contributing to elimination of malnutrition stimulated the concentration of rural poverty, increasing hunger and malnutrition.

Some Imperatives and Ironies

There are some imperatives and ironical situations which account for doubt over many explanations given by scholars with regard to population growth-development syndrome. To illustrate, the blatant charge that the staggering number and lack of responsible attitude on the part of poor solely account for the pitiable state they are living in is by no means convincing. Similarly, the politicians, intellectuals and economic power wielding sections' expectation for population control, self-discipline in consumption and hard toil from the masses without themselves adopting self-discipline in resource-ownership, conspicuous consumerism, possession of wealth and power and other levers of elitism is also ridiculous. Not less ironical is the slogan-'growth for justice' without permitting the trickle down process (Plum, 1977, p. 196) to operate. The same way biased is

the statement of Malthus (1826) that 'the principal and most permanent cause of poverty has little or no direct relation to forms of government or unequal division of property' and for the greatest part of the sufferings of the lower classes of society they are themselves exclusively responsible.

The imperatives are best exemplified by the case of developing countries which are not in position to spend as much on human resources as on agriculture, industry, power, transports, communication and the like because they do not have enough money to go around. Obviously, their cutting back expenditure on infrastructure of development involves risk of their economies stagnating which in turn will mean that less money is available for human resource development. Thus if they accord low priority to human resource, as they are doing, most of their economic gains are likely be neutralised by disproportionate population growth, low levels of literacy, poor health care, low women's status, scarcity of valuable skills and so on (Population Report, 1983). Ironically, as the UNICEF Report indicates, only 10% of the national budget as well as that of the Foreign Aid in these countries are allocated for basic social services with resultant high rate of under five deaths and malnutrition children, India topping the list.

The developing countries are faced with difficult choice: either to lay emphasis on the growth rate of their gross national product (G.N.P) disregarding the growth of employment or to spend the scanty national resources on expanding employment to the detriment of its economic development. In fact, economic development has distinctly disproportionate nature and is accompanied by aggravated social contradictions even in the countries marked by extreme relative over-population (Progress Publication, p. 24).

There are also a few other mutually inconsistent pulls, which elicit careful consideration as a prelude to formulation of rational strategies and policies. For example, there is prevalent feeling among the masses that the large number of thriving children is a great good on many counts, e.g. increase in pooled income, old age security, whereas the government and the rich section of the society harp on limiting the family as the only option to keep the national interest. The fertility control measures meant for the masses are being adopted basically by the economically and socially better off people. Austerity measures and check on consumerism are deemed to be effective means to maintain an egalitarian system, yet the 6% of world population (U.S.A.) is being allowed to consume as much as one-third of the global resources. In spite of explosion in the number of unemployed, there is shortage of specific size of man-power (Premi, 1990) and despite availability of a large number of people in working age-group, there is dearth of job opportunities to keep them engaged in productive activities as well as imbalance between producers and consumers (Rao, 1990).

Most shocking is living of approximately three-quarters of population as virtually slaves in terms of their being handicapped by thriving illiteracy, malnutrition, lack of hygiene, shelter, employment, high infant and maternal mortality, low productivity due to poor health and nutrition, knowledge and skills (Mitra, 1990) - all this in a democratic set-up of independent India.

Pertinent Questions

There may be raised scores of pertinent questions which run, counter to the general belief that the rapid population growth is the major if not the sole cause of low level of development and poor quality of life. Some of such questions may precisely be put as follows:

- (a) Is it conceptually proved that growth in population leads to a proportionate decline or retardation in the process of development?, (b) is there established correlation between the rate of growth and decline in population and increase and decrease in the rate of development?, (c) is there any yardstick or barometer by which the, minimum-optimum population-development equation can be measured?, (d) can there be a correlation between the total landmass of a country and the population-development syndrome?, (e) is linking of growth in population with the adverse impacts on the variables of development universally true?, (f) can it be possible to close the gap between the private gains of poor and national losses accruing from large families especially when the poor section of society treat the extra hands their asset?, (g) who is guilty for the demographic and environmental mess in which the world finds itself -First World or Third World?, (h) can population control be deemed as a panacea for solving practically most of the problems of the developing world?, (i) should there be State intervention limiting the size of family or a policy of persuasion and incentive?,(j) what should be our basic approach-planning a population or plan for a population?, (k) is it advisable for the developing countries like India to close big projects to reassign priorities to human resources over technology?, (l) should we accept the present system of development in which growth of poverty has outpaced its alleviation and there has emerged a new variety of rural poverty?, (m) is it worthwhile to continue with the existing type of development which generates poverty in certain areas and for certain group of people?

There is another set of questions which focus on the culprits, other than population. To elaborate, why not to blame the India's politicians who split the country into warring groups preventing vast majority of children from having modern education and skill; the bureaucrats who command and control rather than serve and have managed to acquire stronghold on economic processes and multiplied themselves in a cancerous fashion; the Indian technocrats who always

resist innovation that involves change and, entails the acquisition of new skills pleading for bought technology at great expense to the neglect of indigenous development; the trade union leaders who resist modernisation and upgradation of labour skills making India a high labour cost economy pandering to a labour aristocracy leaving the vast majority of poor destitute (Indiresan, 1993).

In the above list may be added some more questions: why not to blame the host of non-demographic factors which have been by no means less responsible for undesirable state of affairs. For example, disparity in distributional pattern and allocation of resources, inequality in access to various facilities and services, inadequate and *ad hoc* provision of infrastructures, breakdown of traditional resource system, mismatch between the cost of inputs and price of agricultural produce, lack of size-neutral effectively transferable technology, conspicuous absence of desired priority in our spending, disorganisation of space, possessive use of public facilities, rampant corruption associated with operation of nexus at different levels and, above all, unbridled human greed causing more and more deprivation and marginalisation of the poor masses, etc. have contributed to adverse developmental situations that are patently ascribed to population growth.

Some Explanations

The incidence of rapid population growth in developing countries including India is unlikely to decline due to existing demographic potential (burden of past) and contemporary reproductive behaviour (reflecting the stride for change possessing its own inertia). The pity is that towards the middle of the twenty-first century India's hypothetical stationery population will be 1.69 billion and there will remain 'population momentum' to continue to exert pressure even after 2010 when the net reproduction rate will reach unity. Our age profile being radically different from that of others with preponderance of people below 15 years of age and small proportion of those above 65 reinforced by birth rate of 30 per thousand is quite unfavourable. Further, high infant mortality rate associated with lack of basic health and medical services as well as other social welfare activities; poor's looking for safety in the number of offspring, particularly male children, because of hope for care of aged parents, generation of pooled income, greater force of ballot power, etc.; and above all, more concern about their own family's future as compared to that of nation's interest -all conspire to create a situation wherein it is practically impossible to restrain the rate of multiplication of population. To this also adds the greater childbearing capacity of illiterate and health poor women; in India it is 4.3, twice as many as required to achieve a 'Zero population growth'.

The relationship of the population growth process with the development process, if analyzed in context of India, brings out that the birth rate has dropped where per capita income is higher (e.g. Goa: reduced from 33 to 18 per thousand) or literacy rate is relatively better (e.g. Kerala: low child-bearing capacity of women). But this cannot be a generalisation, as in the developing countries as a whole; hardly 15% population is above critical standard of living. For the remaining 85%, the large family is an asset or atleast no problem. For this class every additional mouth brings with it two extra hands. The ideas expressed above get support also from the observations of World Development Report wherein it is stated that the decision to have many children can be sensible response to poverty, especially due to high mortality for children in destitute families which rather makes it essential to ensure that some children survive to support households in the parent's old age, if not soon.

Poverty, inequality and population growth are intimately interrelated in a variety of ways. Several scholars assert that there cannot be over population in a society based on principles of justice, equality and reason, because in such a society there must exist factors, which counteract excessive population increase. But the present development pattern can hardly ensure justice, as it continuously spews injustice. The efforts made are towards 'growth for justice' whereas what is required is 'growth with social justice'. Generally, with growth in population, once family size becomes unmanageable and fragmented and its land reduced to a certain minimum (2-3 acres), then members are on slippery slope towards losing more or all of their land. Here circle of poverty starts. The possibility of such a situation is greater when there are 2 or 3 bad monsoons, lengthy illness, deaths and some expensive marriages.

The explanation of the problem can also be obtained in Marx's observation that capitalism in a way encourages population growth. The surplus unemployed population does not arise because natural increase outstrips resource, but because the accumulation of capital which this very population makes possible allows investment in such things as automated machinery which makes the people superfluous. This superfluous number serves to drive downwages, thus further increasing profit of the rich. The rich may reinvest capital and get richer while the poor in effort to have more income through increase in number of labourers per household can get only children.

How the population growth is linked with drain on natural resources and environmental degradation; how the life style of elites affects that process; what contextual role is played by government policies as well as international organisations; how all these account for multi-faceted problems of poverty and unemployment, etc.; and how the population control measures are devised-is a subject of deep analysis. In fact, the problem does not relate only to growing

pressure of population but also to the pressure on population in terms of various constraints caused by different forces.

Suggestive Measures: Need For Change In Thrust

A perusal of strategies adopted to deal with population-related problems brings to focus that these have most often been framed largely in partisan terms, which in many cases instead of solving exacerbates the issues. This, naturally calls for, first, understanding the population problems in their total developmental context and, then, seeking solutions that could take care of all the parts in that context. So if the size of the family is to be limited through effective motivation in keeping with the notion that 'development is the best contraception' a confidence has to be induced among the masses as to their better future associated with improvement in situation of well-being and rise in standard of living. Also, the masses have to be convinced that small family will ensure their children respectable jobs and status in the society. In the aforesaid perspective, human resource is to be viewed in a different manner which involves tendency to formulate policies that will obtain the maximum returns from this resource for the benefit of the organisation.

There may be visualised some viable strategies whose goals of controlling the rapid population growth can partly be realised by: (a) reducing infant as well as maternal mortality, (b) promoting literacy among women, (c) raising the age of marriage, (d) treating the girls and boys equally useful for family, (e) discouraging frequent pregnancy harmful to mother as well as child, (f) convincing that small family is a happy family and rapid increase in population offsets all benefits of development, (g) making easy availability of all family planning aids, (h) giving incentives to people opting sterilisation, etc., (i) providing employment, and (j) giving social security. It goes without saying that the above are sufficient but not necessary conditions for success of family planning programme.

In a wider perspective, to meet the challenge the resource base has to be strengthened and economic growth has to be accelerated. True, economic growth in itself is good for it may automatically lead to greater social equity between different groups of society; the larger the cake, the larger the piece, that can be allotted without taking to the poor without taking from the rich. Here is desired a caution that the spirit of the basic need approach is maintained and aspect of equality in income distribution is emphasized so that wealthy do not grow richer and the gap between them and poorest section of the population does not increase. What is needed is poverty-eradicating growth and not poverty creating growth as growth for justice has turned out to be.

Resource control and efficiency, a prerequisite of the strategy, can be induced by reducing consumption of resources and making the machinery and people to produce a given quantum of output. Application of available techniques of social engineering may also prove helpful in this direction.

Integrated development of small and medium towns can be of immense help in solving the population-growth related problems of urban centres. Towns originally meant for 20 to 50 thousand population are now accommodating 1-3 lakh people. So the enormity of situation. There is need to arrest rural-urban migration which may otherwise cause influx of poor rural job seekers in cities. Upgradation of infrastructural framework, provision of community level social facilities, greater community participation and better reciprocal relationship between service consumers and providers are some of other remedial measures.

An introspection into the causes of failure of strategies in operation reveals that in the prevailing type, of growth-oriented development planning exercised through present bureaucratic structure under non-committal political leadership, the disparities and inequalities are more likely to be accentuated with such consequences as 'the more the Plans, the more poor' (Singh, 1981). In fact, a large part of mass poverty in the villages may be explained as an outcome of (defective) development, wherein advantages are cornered by resource (wealth) owners who have developed a octopus like tentacles and capacities to hoard most of what is budget-wise designed for the poor, the backwards and the ruralities. In such a system, the trickle down process cannot operate, nor the growth can induce social justice and benefit for the poor who would have otherwise taken care of themselves had the minimum need facilities been allowed to reach them, had the skill formation technologies and requisite educational opportunities been given to them, had the adequate prices of their produce and wages of their labour been paid to them (Kurien, 1978). Here, the wrong priorities of government policies reflecting in its deliberate and systematically decimated investment in education and infrastructure and thereby devolution of skills and talent in favour of political favourites do contribute in negative manner.

It is observed that our population policies in general are formulated in *ad hoc* manner and are subject to experimentation being conceived rather independently. The result, in words of D'Souza (1990), is that 'India's population control programmes are dogged by deficiencies of policy, plan strategy and implementation'. However, under the existing situation characterised with variations in parameters of population growth in different parts (States) of the country, it is desired that the policies be tailored according to specific conditions prevailing in the region in question. There is needed a shift from population to people, from a number game of targets and achievements to a more realistic and

human approach in implementing the population programmes (Bose, 1990). If there is a lesson to be drawn from the records of the last four decades, the critical issue is not the presence or absence of state intervention but the extent and quality of that intervention. Population policy needs to be comprehensive and as such it cannot be isolated from development policy. Obviously, a family planning programme with a human face embodying radical improvements in social welfare education, literacy and employment would make for a between population and economic growth (D'Souza, 1990). It may enable social well-being and economic prosperity to go hand in hand making family planning programme much more effective (Indiresan, 1993).

Summing Up

The population growth-development syndrome requires a multi-dimensional approach involving a comprehensive analysis of a number of interrelated economic and social variables. Else, there is greater probability of biased perception as more often than not happens in holding population factor solely responsible for variety of complex problems (Singh, 1992).

It has been observed that the number *per se* are not the measure of over population; it is the `rising expectation's and impact of rapist and centrist tendencies, i.e., craze of consumerism aped by emerging affluent classes that really matters causing drain on ecosystem and non-renewable resources. The birth of a baby in United States imposing more than 100 times the stress on world resources and environment as compared to the birth of a baby in poor developing countries is just a pointer towards this fact. Thus a blind quest for material affluence may prove self-destructive, as resources of nature are not sufficient to make every one rich. True, nature can satisfy the human needs but not the greed. So, the need of the hour is austerity measures, i.e. cut on consumerism and fixation of priority, which is no doubt a very difficult tasks. For this, those advance most in the mastery over nature need to have mastery over their inner nature, i.e. self-mastery, self-discipline (Plum, 1977); we are still part of greater balance of nature (Leaky and Lewis, 1982). There is desired change from mechanistic to holistic conception of reality in view of global interconnection and interdependence among biological, social and environmental phenomena (Capra, 1985). Here, in a wider perspective the solutions to the problem of population and development should be concerned as much with resource development issues for more developed countries as with family planning programmes in Third World (Ehrlich, 1972) and thus simultaneous adoption of family planning devices and balancing of consumption, trade of raw materials, manufactured goods, finance and technology at international level is a necessity.

Our family planning programmes which have failed for a number of reasons, e.g. ignorance, poverty, poor health, religious customs and, above all, lack of political will, vision and people's involvement, etc. should have more human face. The greatest impact may be achieved when social well-being and economic prosperity go hand in hand. For this is required provision in advance of adequate and efficient infrastructural facilities for balanced development on the one hand and greater investment in human resource development, on the other. Further, along with age-old imperatives of population control (mentioned under section of 'strategies'), there is desired an expanding vista of improving skills, technology, rising incomes (Mitra, 1990) which could help sustain the revolution of rising expectations. All said, our legal system being rather vulnerable and lacking in egalitarian approach, needs to be strengthened and made more stringent particularly in matters related to rapid population growth, but without any scope for short-cut and coercion. It is to be underlined here that solutions ought to be well thrashed out so that they do not turn out to be worse than problems themselves.

Much of the success of efforts is linked with the efficiency to manage various socio-economic and political problems and initiate a growth process taking due care of all, especially poor sections of the society. So is desired attitudinal change among the rich, the elites and powerful group at different levels and at the same time international cooperation keeping in view, 'it is as much our world as of developed countries - certainly, in numbers, more ours than that of others'. Needless to say that either demographic or developmental solutions are not enough as evidenced by numerous examples. Hence, the remedy lies only in a comprehensive approach.

There is good case for establishment of *National Population Commission* staffed with qualified persons (Sahay, 1993) which could help evolving an appropriate policy system to operate under wide range of conditions. Better, if population factor is integrated into development-planning coordinating all population influencing activities carried out by government. This does require authentic and detailed knowledge of socio-economic and demographic relationships which is possible only through arrangement of institutions and population unit that could regularly review the role of population variables in the formulation, implementation and evaluation of development projects and prepare inventories of the demographic data, variables and policies used in the development planning process. There cannot be worked out a single organisational model to fit all countries because of variation in national objectives and priorities. However, a serious attempt must be made to construct a more rational model around population growth-development syndrome in Indian context wherein the philosophy of 'Bahujan Hitay, Bahujan Sukhay' and 'Daridranarayana' is to be given due weight age in right perspective.

References

Abraham, A.S. (1990), 'The State of the World in 2000 A.D.: Grim Prospects', Times of India, 4 July, 1990.

Adisheshiab, M.S. (1990), 'Demography and Development: Some Facets', Yojna (Special Issue): Development and Population, pp. 32-33.

Basu, A.M. (1990), 'A kinder Gentler, Population Policy', Times of India, March 8.

Bose, Ashish (1990), Quoted by S. M. Shah in 'A Report on International Population Conference (Sept. 20-27, 1989), Yojna (Special Issue): Development and Population, Jan. 1990, p. 73.

Boserup, E. (1980), Population and Technology, Oxford, Blackwell.

Capra, F. (1985), The Turning Point, Flamings, Collins Publishing Group, London.

Coale, Ansley J., E.M. Hoover (1985), Population Growth and Economic Development in Low Income Countries. A Case Study of India's Prospects, Princeton.

D'Souza, Tyrone(1990), 'Need to Reorient Population Policies', Times of India, 11 July.

Ehrlich, P. and Ehrlich, A. (1972), Population, Resource, Environment, San Francisco, Freeman

Findlay, Allan and Findlay, Anne (1987), Population and Development in the Third World, Methuen & Co. Ltd., New York.

Frenda, Marcus F. (1972), 'Mrs. Gandhi Goes to Stockolm: A Survey of India's Policies and Non-Policies on Population and Environment', American Universities Fieldstaff Reports, South Asia Series 16.

Frenda, Marcus F. (1975), Responses to Population Growth in India, Praeger Publishers, New York.

Horlacher, D. et al. (1986), Population and Socio-economic Development, Progress Publishers, Moscow.

Indiresan (1993),'Who is Ours', The Hindu, October, 16.

Kurien, C.T. (1978), *Poverty, Planning and Social Transformation*, Allied Publishers Private Ltd., New Delhi.

Leaky, R.E. and R. Lewin (1982), *Origins, Future*, Mcdonald Pub., London.

Malthus, Thomas R. (1826), *An Essay on the Principles of Population Vol. 1*, John Murray, London.

Mitra, Ashok (1990), 'Revolution of Expectations', *Yojna (Special Issue): Development and Population*, Jan. 1990, p. 40.

Plum, Warner (1977), *Industrialisation and Mass Poverty* (Translated from German by L.F. Millner), Godesberg, Germany.

Premi, M.K. (1990), 'Population-A Parameter in Economic Development', *Yojna (Special Issue): Development and Population*, Jan., 1990.

Rao, V.K.R.V. (1990), 'Population Contributing to Production or Consumption', *Yojna (Special Issue): Development and Population*, Jan., 1990.

Report (1990) of Planning Commission, 'Unemployment Level Worsening', *Times of India*, 11 May 1990.

Report (1990) of the United Nations Population Fund (UNFPA), 'The State of World Population 1990 (Experts given In Times of India)', 4 July 1990.

Sahay, K.B. (1993), 'A Population Commission to Wage the War', *The Hindu*, March 23.

Sahay, K.B. (1992), 'Why is Population Control Not a Success', *The Hindu*, Sept. 8.

Singh, D.N. (1992), 'Population Growth and Economic Development', *Annals, NAGI*, Vol. XII, Nos. 1 & 2, June- December, pp. 55- 68.

Singh, D.N. (Ed.) (1991), *Population Growth, Environment and Development*, Environment & Development Study Center, Varanasi.

Singh, D.N.D. (1993), 'Human Resource Development or Utilization', *The Hindu*, July 1.

Singh, S.P. (1981), 'The Face of Poverty', *Indian Express*, Feb. 26, p. 6.

Ram Prasad, V. (1992), 'Is it Population Pressure or Pressure on Population', The Hindu, Sunday, May 31.

Swamy Subramaniam (1971), Indian Economic Planning: An Alternative Approach, Vikas Publications, Delhi.

World Bank (1985), Population Change and Economic Development, Oxford, OUP.

World Bank (1990), World Development Report on Poverty, Oxford.