CHAPTER II

REVIEW OF LITERATURE

2.1 INTRODUCTION

A number of research studies at micro and macro levels have been conducted on different aspects of demographic transition and economic development in India and abroad. Numerous research studies on the inter relations between demographic variables and economic development were conducted in the past to provide basic input for formulating population policies integrating demographic factors into development planning. Therefore, an attempt has been made to review and present in this chapter the relevant aspects of demographic transition and economic development.

2.2 ECONOMIC GROWTH AND DEVELOPMENT

In the large part of third world excessive population growth has become real threat to development. Many of these countries are predominant by rural peasant based societies in which fertility is and has been high and relatively stable. It is, therefore, surprising that in spite of the concern and the repeated attempts to promote population control programmes, a more coherent and unfixed theory of peasant reproductive behaviour has not emerged. It is found that the co-household will continue to reproduce until the optimal number of children is reached. Macintosh (1983) support these underlying hypothesis based upon household data collected in Bangladesh from 1971 to 1978. To control population growth and improve the income growth, old age security, future family benefits, pension funds model and institutional reforms are emphasised. Thus, it is believed that income determines the population growth.

Deaton and Paxson (1998) pointed out that health status alongwith income and consumption is an important determinant of welfare so that our interest in the health inequality stems from more general interest in the distribution of welfare. Further more, health is not independent of income and income status. There is well documented but

poorly understood “gradient” linking socio-economic status to wide range of health outcomes.

Development focuses on the role of changes in health and nutrition in the process of economic development (Foster, 1995). Most of the studies support the motion that nutrition has effects on productivity, but remain circumspect about nature and magnitudes of these effects. There is evidence that calorie increase with income, although, the effects are smaller that might be expected in the presence of substantial unrealised returns to expenditures on health and nutrition. Studies have also analysed the relationship between nutrition and productivity. Recent literature suggests that the nutrition and productivity relationships have other important effects and result into widespread poverty. Poverty does not ensure sufficient nutritional intake which effect efficiency resulting to low wages, low productivity, unemployment, low income and economic backwardness. However, these many poorly understood aspect of health and productivity relationship that is likely to effect the returns to health and nutritional investment including the shape of relationship.

Das Gupta (1993), observed that nutritional intake affects productivity and the extent to which the body operate as storage mechanism, and seasonality of income for cultivating households. These areas need further investigation and analysis. While, it is well recognised that low level of health and nutrition measured by caloric intake, body-size, illness, and mortality, which are prominent features of many developing countries. There has been substantial debate on three questions:

i) Are health and nutrition at sufficiently low levels to have an important effect on workers productivity?

ii) Do health and nutrition respond to increase in income?

iii) Are resources allocated in such a way as to capture efficient potential returns to productivity? These questions call for empirical verification.

---


Reproductive behaviour has come to different observation in Bangladesh. Chaudhary, Khan and Chen (1976)\(^5\) using birth interval data found no replacement effects. In a society where 5 children are required before reproduction stops, it would be rather surprising if death of parties had any behavioural effects as the spacing of parties 4, 5 or 6. As result replacement effects can arise because of stopping rule and these need not show up in the spacing of early births.

A survey on population and development in Bangladesh (Arthur and Nicoll 1978)\(^6\) noted that fertility was pushing against biological constraints. Family system in third world countries also determine the fertility behaviour, however, fertility decision making process in static model of consumer choice rests on economic, biological and non-economic factors. Thus higher rates of population growth can be expected to continue although this process itself may had to lower birth rates.

Vaupel (1998)\(^7\) analysed demography of ageing and longevity. He made it clear that the population of old people will grow as the baby boomer’s and health care expenditures and bio-medical research should be directed towards improving the average well-being of population rather than extending the average life span.

Fuchs (1974)\(^8\) observed that at any given time in developed countries the effect of additional medical care on health are usually small, but, over a times advances in medical science have had significant effect on health and income at any given time is good predictor of infant mortality especially post neo-natal mortality. The income elasticity of post neo-natal mortality was -0.53 (0.11) and -0.49 (0.12) respectively (figures in parenthesis denote standard error of regression co-efficient in log-regression across the 48 states of U.S.A., the period around thirty year ending 1970). At the same time, however, in post neo-natal mortality was with an elasticity of 2.00 due to advances in medical science. In 1991, the elasticity was -0.73(0.12) but the change from earlier period was consistent with an elasticity of 1.08, suggesting further shift in the function.

Therefore, economic analysis of health related problems and the role of economist could play a vital role in directing future health policies and safe future with sustainable development. However, to make the health sector more meaningful, health economists, theoretist, practising physicians and policy planners, administrators and managers are required to closely interact.

The rapid growth of health spending that doubled its GDP share to one-seventh of the economy and the 1996 "Medicare and Medical Aid Programmes" that have made federal health care spending exceed the combined total of all domestic discretionary federal outlays have attracted the attention of researchers that has been largely neglected by economist before 1960’s (Feldstein, 1995, P.28). Further, there was no rational management and no research aimed at achieving optimal use of health care resources. It is also attempted to show how economic analysis and econometric methods could be used to reduce hospital costs and to provide Government planners with information as how charges on availability of services would effect the pattern of care. Therefore, the task for future researches on the economics of health and health care to increase the information that can help to meet the challenge of economic development and prosperity.

Fuchs (1997), however, pointed out that the value differences amongst economist as well as public are the major barrier to effective research and policy making far health care reforms. Uncertainty about health status and consequences of care was the key to understanding the health sector both in positive and normative perspective.

Arrow (1963) wrote that recovery from disease is as unpredictable as its incidence. He discussed risk aversion, moral hazard, asymmetrical information, philanthropic externalities and numerous other topics that have since played major role in health economics research. At the same time, quantitative method such as two stage least squares method, principal component analysis and linear programming to the estimation of production functions and other important economic aspect of medical care becomes important for future research and policy inferences. In recent decades, economist have

---

addressed theoretically, empirically, and policy questions in various aspect of health research. Health economists along-with other specialists in the field of industrial organisations, labour, finance and public economists need to undertake the task of research and management of health sector.

Filmer et al. (2000)\(^\text{12}\) studied primary health care programmers in developing countries. They focussed on evidence to show two weak links in the chain between government spending for services to improve health and actual improvement in health status. Institutional capacity is a vital ingredient in providing effective services. The inadequate spending in health sector may lead to little actual provision of services. Further, the net effect of government health services depends upon severity of market failures and the greater the potential of government services to have an impact. Evidence suggests that market failure is least severe for relatively inexpensive curative services which often absorb the bulk of primary health care budget.

Filmer and Prichett (1999)\(^\text{13}\) found that public expenditure on health as share of GDP is small and statistically insignificant determinant of child mortality. It is reported that doubling public expenditure from 3 to 6 % of GDP would improve mortality by only 9 to 13 percent. It has great and significant impact on the health status of poor, but the effect of public expenditure on aggregate health status (of the poor and non-poor taken together) is found to be quite small. The availability of primary health facilities or community health workers had a demonstrative impact on local health status of individuals and communities. Unfortunately, the empirical result about the effect on health status of proximity to the hospital, doctors and in particular public clinics, health centres and rural health workers are least mixed. Similarly, the effect of health care programmers on child mortality was not encouraging. The change in progress villages resulted from 10 percent point increase in parental mortality, a four percent increase in neo-natal mortality and 16% decrease in post neo-natal mortality. In the control villages, pre-natal mortality rose only one percent point, and neo-natal mortality fell by 21 percent.


points and post neo-natal mortality increased by 49 percent points. These suggest that enhancing health outcomes is not simply a matter of providing additional funds or increasing access to primary health care and facilities. It implied that the impact of primary health provision depends upon effectiveness of the service provided. If this is the problem then solution is an improvement in the quality services. Secondly, the impact of service depends on individual choice and market health, that is, private demand may vary by disease conditions and response by private supplier and to public interventions. The administrative and control mechanism are found to be weak or non-existent, however, professionalism is not very powerful inducement. At the same time, proper mix of public and private providers could be another initiative.

Health service in public sector should come up qualitatively better and in competition with that of private sector. The degree to which the public spending affects overall health service depends on factors: (1) the smaller the over all elasticity of demand for health services, the smaller the impact of public spending. (i) larger the private sector, the smaller the impact public spending. Governmental spending accounted for about 60 percent of health spending in nearly all poor countries and almost 75 percent in South-East Asia during 1990-2000. It was also noted that in rural areas of Indian states (Gujrat, Maharastra, Tamilnadu, Uttar Pradesh and West Bengal), 82 percent of treated illness episodes were treated in private sector health institutions and that expenditure for non-hospital treatment were nearly two third (65%) of all out of pocket expenditures (World Bank,1995).

The private providers receive large percent of these non-hospital expenditure (86%) than expenditure as a whole because (ii) people can pay out of their pocket for relatively minor illness but are less able to cover hospital expenses. (iii) the greater the extent to which people see the private sector as substitution for public sector, the smaller the impact of public spending. (iv) the larger the private sectors response to public intervention, the smaller the impact of public spending. Changes in price or availability of government interventions may induce a private supply response that can mitigate an actual impact on health outcomes.

---

2.3 EFFECT OF POPULATION GROWTH ON ECONOMIC GROWTH

The effect of population growth on economic growth varies with the stages and level of development. Population growth affects the economic growth and as long as each person contributes something, those effects are generally correlated. As long as their marginal product is positive, additional people mean additional output. The output per capita is, thus, determined by the share of labour force in the total population and output per worker. Each of these two facts provides a channel through which population growth affects the economic growth.

The most direct effect of population growth on the share of population employed, the age structure effects results from induced charges in the distribution. The region where population growth is high world contain a much larger percentage of younger persons (14 years of age or younger) as compared to the region having slow growth of population. Similarly the percentage of population with 65 years of age or older would be comparatively high in the region of low population growth than that of under developed region having rapid population growth (Tietenberg 1988). Those differences in age structure have mixed effects on percentage of labour force. There is excess supply of work force in the rapidly growing population. Further, such region creates large supply of people who are young to work and allowed as “youth effect”. The region with few population growth have large percentage of person about 105 and it is called as a “retirement effect”. Some developing regions, however, experience both effects simultaneously as better health policies reduce death rates while birth rates remain high. It is experienced that the extent of work force in developed region is much higher than underdeveloped reason where “youth effect” eliminates. Therefore, high population growth relates to per capita economic growth by decreasing the share of labour force in total population.

Rapid growth of population also affect the percentage to be employed through “female available effect” with slower growth rate and fewer children to care for and more women are available to join the labour force. Therefore, dominance of “youth effect” over the “retirement effect” and the “female availability effect” suggest that rapid growth...
population growth reduces the percentage of population in the labour force which in return, has depressing effect on economic growth per capita.

Effect of population growth on economic growth can further be studied by the relationship between population growth and the amount of output for average worker or productivity or capital formation. A group of economists considered human resource as asset promoting capital formation. Capital increases by investment and more investment necessitates more savings or foreign assistance involving sacrifice in consumption. Therefore, way out to break the vicious cycle of poverty, the under developed countries may design an appropriate plan of the quantitative aspects of saving and investment and their effects or production and consumption\(^\text{16}\).

The available savings determine the level of additions to the capital stock. Saving, in-turn, is affected by the age structure of population where older people save more and spend less directly on the care and nurturing of children. Therefore, low saving in poor countries lead to low capital accumulation and low productivity by worker. Economists have also suggested that population growth not only adversely affects the level of saving, it also affects composition of saving. Savings that do occur are channelised to less productive investment causing a larger augmentation of consumer durable, such as housing and automobiles, rather than producer durable.

At the same time, a negative effect of population growth on economic growth involves the presence of some fixed essential factors (land, raw material) for which limited substitution possibilities exist. In this, the law of diminishing marginal productivity applies. This states that the deployment of labour as a variable factor along with the fixed factor (land) will eventually lead to a decline in the marginal productivity of the variable factor. It suggests that in the presence of the fixed factors successive increase in labour will drive the marginal product down. When it falls below the average product, per capita income will decline with further increases in the factor (labour) allocation and increase in the population. However, it is not always that the growth in output per capita will be restrained by population growth. The population growth enhances per capita growth by involving technological progress and economies of scale.

The general theory of under development emphasis that in the under developed countries, the initial favourable impact of industrial investment was swamped by population growth in a way which did not occur in currently advanced countries. In those countries, an initial increase in population growth seems to have followed the first wave of rapid industrialization. In advanced countries, the rise of per capita income was sustained long enough to bring subsequent drops in fertility rates and to permit economic growth to be sustained. Industrialization and urbanization generate demand for labour due to higher productivity and wage rates that improve the level of income and living conditions. Better income due to better wages caused by technological breakthrough lead to low death rate. Without controlling the birth rate, the population increases rapidly. This make life costlier in urban areas and migrant labour control birth rate which lead to bridge the gap between death and birth rate and caused low population growth and better increase per capita.

The second source of increase in output per worker is economies of scale. It occurs when increases in inputs lead to a more than proportionate increase in output. Population growth by increasing demand for output allows these economies of scale to be exploited. This apply to a situation of developed regions with larger scale of production which bring down the input cost and higher returns to factors in chasing labour. It is said to account for over 10 percent of growth in the total potential national income. Further, lower growth in per capita income in countries with higher population growth rates is observed.

Lam (1986) analyzed and found that additional powerful motivation for controlling population and slower population growth reduces income inequalities. If rapid population growth does not adversely affect output per capita, it may increase the inequality of income. The high population growth increases the degree of inequality for a variety of reasons including the effect on the earning capacity of children and wages. Another link between population growth and income inequality results from the effect of

---

population on the labour supply. High population growth could increase the supply of labour faster than otherwise, depressing wage rates vis-a-viz profit rates. Since low-income groups have a higher relative reliance on wages for their income than do the rich, this effect would also increase the degree of inequality. On the whole, population growth lead to economic growth with varying degrees depending on youth effect, retirement effect, labour force effect, female available effect, technological break-through including health services, industrialisation, urbanization, migration promoted by saving, investment and capital accumulation, following the law of factor proportion and economies of scale.

2.4 EFFECT OF ECONOMIC GROWTH ON POPULATION GROWTH

The converse relationship of the effect of economic growth on population growth is also examined. Studies have shown that higher income countries have lower population growth rates. In this context, the most industrialised countries have passed through three stages of population growth, which is conceptually called the theory of demographic transition. It suggests that as countries develop, they eventually reach a point where birth rates fall, is stage-I, the period immediately prior to industrialisation, birth rates are stable and slightly higher than death rates which results in no population growth. During stage-II, the period immediately following the initiation of industrialisation, death rates fall dramatically with no accompanying change in birth rates. This decline in mortality leads to a marked increase in life expectancy and a rise in the population growth rate. Stage-III, the period of demographic transition, involves large declined in the birth rate which exceed the continued declines in the death rates. Therefore, the period of demographic transition involves further increases in life expectancy, but rather smaller population growth rates than observed in the second stage of demographic transition. This theory is useful as it suggests that reductions in population growth might accompany industrialisation and economic growth. However, this is not automatic and the countries experiences population transition may not be industrialised. Similarly, industrialisation and higher economic growth may not be the only solution to the population problem.

Malthusian population trap model implies that low-income countries are caught in a trap which condemns them to perpetual poverty. Their per capita income level is stable and any movement away from this equilibrium results into changes in population that
restore the equilibrium. Temporary increase in income may be assumed to increase population growth to such an extent that population growth outstrips economic growth dividing per capita income back to the subsistence level. Conditions reducing per capita income eventually result in higher death rates until the equilibrium is once again restored. It implied that less developed countries would never reach the point where birth rates would fall. But, Simon (1980)^19 refuted this and finds the long run elasticity of fertility with respect to income to be negative. In other words, as income rises, fertility eventually falls. Due to better health conditions as income increases, the short-run elasticity may be provided which indicate the immediate response on fertility to increase, but it is too weak to counterbalance the long-run negative elasticity. At the same time, population growth may exacerbate income inequality, which follow social tension and may lead to childbearing decisions and finally population growth.

Fildbrugge (2000)^20 observed that World has become more vulnerable to disastrous and violent conflicts especially in developing countries. Studies have shown that total number of disastrous increased during the last decade, while at the same time, the number of people killed by disastrous decreased. Human and economic costs are not only high, but also cost on human resource spread into the future and also adversely effect the development and the cost accounted for is almost 10 percent of the total amount of external development assistance. Further, an analysis of the co-relation between the occurrence of conflict and nutrition programme is 1972 and 1997 showed that each at 10 lowest ranking countries experience conflict and disastrous.

It is also true that the history of economic growth has been most closely associated with rapid technological progress in the form of continuous series of scientific, technological and social inventions and innovations. Thus, there appears to be no clear co-relation between population growth rates and levels of per capita income among third world nations^21. It is against that modern medicines and public health

---

programmes, death rates have fallen rapidly and have become less dependent on the levels of per capita income in most developing countries. Economist over time viewed development as the process through which technological differences followed by differences in productivity, wages and income result into transfer of labour from rural to urban sectors. In the initial stages of structural changes, the death rate is controlled with unchanged birth rate, which result into population explosion. Rapid increase in population growth make living costlier and hence, both rates are controlled which lead to slow down the population growth rate depending upon level of development.

It is in the fitness of things that International Union for Scientific Study of Population (IUSSP) has brought out two volumes on the subject. The united nation world Population Conference held in Bucharest in 1974 adopted a world plan of action to support programme relating to population policy is development such a plan of action was readily endorsed by the third Asian and Pacific Population conference in Sri Lanka in 1982. Similar other efforts were made in the past paid special attention towards the relationship between population growth and economic development in the theory of demographic transition.

Developments on population growth, structure and composition seem to have inspired all through history by underlining demographic situation as well as the changing socio-economic structures. Western experience at higher and sustained growth in output compared to population in the course of its development research interest towards the relationship in most of the develop countries between 19th and 20th centuries encouraged scientists to formulate a theory of demographic transition in industrial countries. Beginning in 1940 and especially in 1950s and 1960s, demographic transition start accruing in most of the third world countries.

The theory describe different phases of demographic development varying from primitive phase (high mortality and high fertility) to modern phase (low mortality and high fertility). Blacker (1947) formulated the process in term of five phases of

---


The claim to the validity of this theory of demographic transition rests on live proposition, viz (1) that the pattern of demographic transition was characteristic of developed countries, particularly those in Western Europe during the first decade of the industrial revolution and (2) that the experience of these countries is applicable to the present and future developments of the present developing countries of Africa, Asia and Latin America. The validity of second proposition rests on validity of first.25

The first proposition was widely accepted by economic historian.26 The evidence from developing countries tend to negate the universal validity as rising birth or fertility rates as has been experienced in certain Latin American and Asian countries. Rare in his study on 34 under developed countries, in which quasi-stable population model has been used, recent trend of rising birth rates found in 27 countries what is happening in developing countries is not "Transition". It is as, Kingsley said, an “explosion”27.

The basic characteristic of United Nations activities in economic and social field has been its humanitarian approach and particularly with regard to the problem of population and environment, the United Nations contribution to the international community has not been negligible. According to the United Nations, between 1980 and 2025, the population in Africa is expected to triple, those in Latin America and Asia is to almost double, that of East Asia to increase by 43 percent, those of North America and Russia to grow by 43 % and to that of Europe by a percent.28

Some of the recent studies on the theory of Demographic transition show that even if this theory was applicable during the industrial revaluation period in Europe and North America, it does not mean that it is not applicable to developing countries.

---

27 K. Davis, “Family planning: Will Current Programme will succeed” in Ashish Bose (ed.) in Demography India.
Easterlin\textsuperscript{29} in his paper in the Bucharest World Population Conference (1974) analysed the nature and cause of the change in family reproductive behaviour associated with modernisation and argued that acceptance of family planning programmes itself can also be an indicator of modernisation. A number of other scholars have also argued that modernisation result in fundamental change in mechanism determining fertility. Sirinivasan\textsuperscript{30} argued that fertility regulation while experiencing demographic transition and attempt is made in this study to find out relationship between economic development and population growth along with contribution of infrastructure and family planning programme in population stabilisation.

Population growth in our country today is outstripping the growth of material resources and our capacity to provide a minimal acceptable quality of life for majority of our people. Unregulated population growth has been increasingly straining our fragile economy, public services and institutions, it has been progressively magnifying the total quantum of ill health, under-nutrition and under development in the country. The population problem, therefore, has to be viewed of not in isolation, but in total context of socio-economic under-development, poverty, illiteracy and under nutrition on one hand, and population growth on other hand. Population growth aggravates poverty, under-nutrition and illiteracy and these later in turn create a situation, which favours unregulated population growth. The socio-economic imperatives which underlie the current population growth among the poorer section of our society who constitute the vast majority must be understood and adequately addressed.

There are important differences with respect to the process of demographic transition as it took place in Europe several years ago, and, as it is unfolding in our country now. An understanding of these basic differences is necessary for the formulation of our family planning strategies. Socio-economic development had preceded the discovery of modern health technologies in developed countries. Decline of death rates in Europe were achieved through better standards of living brought out by socio-economic development and progressive elimination of poverty and under nutrition and not so much


\textsuperscript{30} K. Sirinivasan, "Need for studies on Transition of Fertility Regulation", SEADAG Reports Population Panel Seminar 6-8, Elleridge, Mayland, April, 1972.
as a result of health technology which has not then reached its present level of efficacy and sophistication. Decline in death rates in Europe were never as steep and precipitous as those being now witnessed in developing countries. At no time of its development phase did the annual rate of population growth in Europe exceed 1.5 percent. Socio-economic development did bring about a nearly three fold increase in Europe's population; but this was spread over nearly 150 years and during the same period there was more than a four fold increase in economic production. Emigration to colonies and empires outside Europe took care of nearly 20 percent of annual population growth.

Decline in birth rate in European countries were achieved not through aggressive and deliberate promotion of contraceptive technology or through national family planning programmes, but through changes in life style and value system brought about through socio-economic development. Demographic transition in Europe was thus induced not through direct attack on high death rates and high birth rates, but indirectly through socio-economic developments.

As for as India and developing countries of today are concerned, the decline in death rates largely through the vigorous application of health technology even in face of continuing under development and poverty. The technological short cuts which have preceded socio-economic development in case of developing countries have brought out distortion in population dynamics leading to current “population explosion”.

There is yet another unfortunate feature of our development process that deserves major attention. Such health technology as we have been able to invoke what may be called as death control strategies which have served to reduce death rates in our population and ensure better survival. But, between point of survival as escape from death on one hand and point of optimal health and nutrition on the other, there is distance to be covered. Unfortunately our investments in the field of human resources development have not been adequate to enable us to traverse this crucial distance expeditiously. We are, therefore, caught up now in dangerous twilight phase of development, where in, large number of poor who might, have otherwise died without the benefit of modern health technology are now being saved, but these survivors continues to live in the state of sub-standard health, poor nutrition and poor educational attainment.
It is also this large pool of survivors and because of its poverty, illiteracy and under development, that is most resistant to family planning programmes.

The poor who earn their livelihood through manual labour do not find much 'economic sense' in rearing small families. Child rearing under condition of poverty in our rural homes does not, at present, demand any major investment on education or vocational training. On the other hand, every child is an additional pair of hand, which can bring some added income to the family. Denied the security of sound health, freedom from disease, assured jobs and steady income which today only the skilled and educated have access to, the poor seek security in number.

2.5 DEMOGRAPHIC TRANSITION IN DIFFERENT COUNTRIES

The factors responsible for demographic transition found to be different in different countries of the world in different periods of time.

In Sri Lanka, while the level of economic development is very low, the government continuous policy of the improving the welfare of the masses of rural people, has also been responsible for study decline of countries fertility since 1950 (Fernado, 1974). Sri Lanka has successfully raised economic welfare through a more equitable distribution income and socio-economic facilities. The main programme started in this direction in Sri Lanka for poor man's welfare by providing food subsidies, free and universal education, free health care facilities, security for wage earners and protection of tenure of small farmers. The higher status of women, the increase in average age at marriage, decrease in marital fertility, trend for few children in younger generation are main factors responsible for decline in fertility in Sri Lanka.

The fertility reduction in China depends upon wide range of variables, but it owes much to government sponsored family planning programmes. China further has very successfully ensured a widespread and equitable distribution of food supplies, health care and education, family planning services and improvement of status women to its people. The intensive programme of birth control adopted by China brought down birth rates substantially. The case study of China appears to support the view that what appears to support the belief to control the pace of demographic modernisation is not so much of

over all level of economic development attained by country but the wide spread participation of population in development (Findlay, 1987)\textsuperscript{32}.

Indonesia has the lowest fertility rate among Islamic countries owning to its strong governmental policy aimed at reducing the size of population and promoting high level of family planing services (United Nations, 1990)\textsuperscript{33}.

Freedman (1979)\textsuperscript{34} observed that communication system capable of reaching the villages, some limited aspect of development and strong political pressure in combination have presumably led to family planning acceptance among rural and not well educated poor people, even though health conditions are not developed even from the standard of developing countries.

The decline in Birth rate in Cuba following the baby-boom immediately after Cuban revolution, starting in late 1960, was caused by deteriorating economic conditions and wide public perception of unmet aspirations. (Diaz Briquets Sergic and Perez, 1982)\textsuperscript{35}.

Brazil presents a classical case of demographic transition theory where fertility declined in response to economic development, urbanisation, industrialisation and reduction in mortality.

2.6 POPULATION AND FOOD SUPPLIES

The relationship between population and food supplies has been debated for long. In 1789 Malthus, responded to the work of Adam Smith (1776), David Recardo and J.S.Mill were much influenced by Malthus and his stress on the restrictive influence of diminishing returns. The classical theory of development as exemplified by Malthus was summarized as (i) increased population caused parallel increase in the demand for food, (ii) the increased demand of food can be met either by bringing new land into cultivation or by practising intensive cultivation by using more of labour. (iii) marginal productivity of labour would fall at the intensive cultivation, (iv) marginal productivity of labour will

\textsuperscript{32} Allan Findlays and Anne Findlay, Population and Development in the Third World, Methuen, London 1987.


further decline day diminishing returns, (v) Food production will always tend to grow less rapidly than population. Temporarily, however, the food supply may exceed population growth. In contrast, the contra-Malthusian hypothesis that food supplies increase in response to population growth rates on the assumption that a stock of improved technology is accumulated but adoption depends upon population pressure (Boserup, 1985). Boserup's contra-Malthusian theory that, even in poor countries, the response of food supplies to population growth is elastic. Boserup believes that in primitive agriculture farmers do not actually adopt more productive technologies will forced to do so by population pressure.

2.7 HUMAN ACTIVITY, ENVIRONMENT AND DISEASES

Cooper (2000) provided an excellent survey on economic and social implication of human activities in general and climatic changes in particular. Population and human pressure witnessed diverse human activities, which resulted in the emission of great volumes of gaseous materials into the atmosphere. Some of these gases absorb Earth's radiation leading potentially to warming of Earth's surface, which in-turns alter the world climate. Atmospheric concentration of carbon dioxide accumulated overtime has reached 360 parts of per million (PPM) in 2000 compared to 280 PPM in 1900. This has increased the threat of contagious diseases particularly the endemic malaria. This may cause much more medical and pharmacological research efforts and investments to control temperate disease and health problems than to tropical disease. Advances in genetic engineering give added confidence that most disease can be overcome or at least kept under control.

Moreover, human interference and world economy continue to grow which is key assumption underlying the projection of carbon dioxide emission. Even a modest growth of one percent a year in per capita income will result in a 170 percent increase in income over a century, a most likely a growth rate of 1.5 percent would increase global per capita

---


income by a factor of 4.4 with even more rapid growth in many region that are currently relatively poor. Increase in income enlarges the possible and likely human reaction to all aspect of the environment including threat from diseases. However, studies emphasised that human activities and accumulation of wealth improve the capacity of both individual and societies to control their environment.

However, Nicholls and others (1995) estimated that only 5 percent of the world population would be affected with one percent seriously at risk due to climate change and rise in sea level. Further the preventive measures would reduce the population risk by 88 percent to 0.14 percent of the world population. Adaptation measures are estimated to cost 0.56 percent of gross world product annually.

Simon (1980) maintained that this statement was over stated and fail to recognise that population growth in many of developing countries is desirable and studies, thus, revealed that there is no consensus on the seriousness of the problem. Therefore, it is important to examine the macro-economic issues relating to population and economic growth as well as the macro-economic issues dealing with economic determinates of fertility.

At the beginning of the Christian era, the world population was growing at an annual rate of around 2.0 percent per year. In recent year with the exception of Africa, the average rate of population growth has declined both in developed countries (0.4) and less developed countries (1.8) percent annually, although the rate remain higher in less developed countries of the world (1.6).

Tietenberg (1988) observed that the reasons were significant downward trend in infertility and birth rates which were, in-turn, due to increased use of contraceptives, preference for few children and couples marrying at later age. However, about 90 percent of the population growth during the last decade ending 2k was expected to occur in the poor countries. Therefore, efforts mostly in poor countries are required to stationery population.

---

A stationery population is one in which age and sex specific fertility rates yield a birth rate which is constant and equal to death rate so that growth rate is zero. The level of the total fertility rates, which is compatible with stationary population, is called the replacement rate. The rate higher than the replacement rate would lead to population growth while rate lower would lead to population decline. It is established that once the replacement fertility rate is achieved, it takes about 25 years before population stabilises due to large number of families in the child bearing years (World Bank Development Report 1985). As the age structure reaches its older equilibrium, the growth rate declines until a stationery population is attained.

This background of population seems to raise the question (i) what is the relationship between population growth and economic growth? (ii) How can the rate of population growth be altered? The former question lays the background for considering the effect of population growth leading to stationery population growth on living conditions, quality of life and other indicators of development. The second question pertains to public policies geared towards manipulating the rate of population and economic growth and development on one hand and methods, approaches, strategies, programme and policies on other hand becomes relevant to deal with these questions.

Lloyd Demetrius (1989), studies distinction between rates of selection and environmental factors by study of demographic transition in Sweden (1978-1965) and observed that demographic changes during pre and post transitional phases are determined mainly by environmental factors where as the changes during transitional phase are due to cultural selection. The high intensely of environmental action on survivorship in this period is in accordance with historical fact: epidemics exerted a great effect on mortality up to 1820, when compulsory vaccination for all children was instituted.

Kasturi (1990) observed that India, burgeoning population is imposing an increasing burden on country’s limited and continually degrading natural resource base.

---

and equitable land reforms, and increased access to and control over common lands will mitigate. The impact of population on the environment and once the local inhabitants have right to natural resources, they will seek to nurture the environment and its product rather than depleting it. This would also present commercial interest from degrading the common. The environment is exploited most rapidly by people who fear they will lose access to it and it should always be kept in mind that women are the prime care taker of environment as the tasks of water, fuel and fodder collection as well as cultivation fall largely on them.

Sonali Banerjee, et.al (1992) study has indicated, in a modest way, the relation between population growth, energy utilisation pattern and environment in a hilly region and typical dependency on fuel wood is severely affected thereby creating a negative link with development of the Block. The improvement in situation involves demand and supply adjustment, enhancing purchasing power through poverty eradication programmes and employment generation programmes.

Mahadevan (1989) observed that environmental factors such as slums and non slums residence, the type of houses (quality of material used for house construction), house sanitation, housing facilities, toilet facilities and domestication of animal influence the mortality of infants and children in different ways and in varying degrees. The intensity of the influences of these environmental factors on infant mortality depends upon the extent of exposure of infants to unhealthy environmental conditions.

2.8 FERTILITY BEHAVIOUR

Fertility behaviour forms one of major components of demographic transition. The major determinants of fertility behaviour are (1) cultural factors-religion, casts, value of children and social obligation, (2) status of women-education, occupation, autonomy, modernization, (3) economic status-family income and land holding, (4) linkage between IMR and fertility (5) proximate determinants viz. as (a) age at marriage (b) breast feeding (c) abortion (d) birth intervals and (e) contraception.

Footnotes:


Zachariah (1983) revealed that fertility decline in Kerala was not confined to any particular socio-economic group, but was prevalent amongst all socio-economic as well as cultural groups. The rate of decline was highest amongst those women whose years of schooling and income were at intermediate level. The study further shows that educated women are in favour of small families.

Jain and Nag (1986) reported on the basis of secondary data that the net effect of education on fertility is mostly negative because the positive effect of education that operates through fecundating variable is compensated by the negative effect that operates through the use of contraception and age at marriage.

Mahadevan (1989) study of three major regions viz Uttar Pradesh, Andhra Pradesh and Kerala found that community wise, the birth rate significantly varies in all the above three states. There is no uniform trend showing any single community manifestation the highest fertility. However, in Uttar Pradesh, the Muslims (CBR:37.7) followed by Harizan have highest birth rates where as caste Hindus have lowest birth rates. The Christian has highest birth (CBR:35) and caste Hindus (CBR:27). In Kerala, surprisingly, the fisherman Christian have the highest CVBR of 38.7, though Kerala has generally low birth rate in 1984 (CBR:24.6).

Sumangla (1993) study on economics of child labour and fertility shows that the total fertility of the parents of child labour population does not differ much as compared to live births in Tamilnadu general population during the same period. However, a comparison between living children and the desired ideal family size of 2.1 children through their living children constitute 3.4 at the time of survey. On determinant of fertility behaviour, a path analysis showed that out of six variables studied, the number of working children in the family per se ranks only as the one fifth as major factor in relation to fertility and the value of children found to be number one determinant of fertility behaviour.

---

Goldscheider (1971)\textsuperscript{50} stated that on both theoretical and empirical grounds, it is clear that fertility reduction does not result automatically and mechanically by shifting an agriculture economy to commercial economy and he contented that large scale urbanisation is not precondition for fertility transition. It is disintegration of kinship domination, improvement in standard of living, and the rising aspiration for socio-economic mobility that creates pressure on individual to control fertility. More over, several macro-developmental factors such as urbanisation, industrial developments, labour force participation of women and universal education also contribute towards institutional charges, thereby generating pressure on couple to control their fertility. Modernisation, which is generally equalled with socio-economic development, has both positive and negative effects on fertility. At the initial stages of modernisation, traditional norms and values may change quickly in one area, but remain similar in others. One component of modernisation is urbanisation and it is observed that over people move to urban centres they quickly adopt modern behaviours such as charges in breast feeding patterns, change in postpartum sexual abstinence etc. and on the other hand, social norms may prohibit couples from adopting contraception, so fertility may rise at the initial stage of modernisation.

2.9 DETERMINANTS OF FERTILITY

Most of Macro studies have more or less concentrated on explaining the consequences of population growth in general or fertility in particular, however basis of these analysis is expected relationships between demographic and socio-economic variables.

Coale and Hoover(1958)\textsuperscript{51} study on “Population Growth and Economic Development in Low Income Countries” brings out clearly the situation resulting in comparatively high birth rates in low income countries. High fertility yield large population in the working age group and labour force would not necessarily provide larger useful workforce due to difficulties in finding useful employment for rapidly increasing labour force and necessity for devoting much more time to child care which


would limit the participation of women in labour force. The substantial economic improvement may be sufficient condition for a decline in mortality, but it is not a necessary condition.

Hoover and Pearlman (1966) observed in study on Pakistan projects demographic variables basing on certain assumption on economic variables that changes in economic variable like GNP will have impact on demographic variables. The study observes the fertility change due to changes in marginal saving ratio and investment factor and impact of these changes in 12.9 to 16 percent.

The World Bank Study (1974) based on regression analysis for nineteen countries shows that programme users rate is least explained by the socio-economic and input variables. Family planning services points alone accounted for 62 percent of total variance. Inputs variables appeared to be more important explanation of acceptor rates.

The input variables were dominant compared to the socio-economic variables in explaining variation in programme user rates, however, socio-economic variables appeared to have greater explanatory power than input variables although the difference was marginal.

Hick (1974) studied relationship between fertility changes and economic development of Mexico during 1950-70. The conclusions of studies are that at a state level, the income variable was insignificant at 10 percent level. The coefficient of land variable was positive and statistically significant at 5 percent level in rural areas. The coefficient of mortality is not statistically significant even at 10 percent level and its magnitude was small. The coefficient of indigenous population, an index of backward people is found to be significant at 1 percent level and was negative. The coefficient of share of the economically active population engaged in agriculture was statistically significant at 5 percent level and was positive.

---

Chatterjee (1972)\textsuperscript{55} study with the proposition that larger families tend to concentrate at lower income levels, which is confirmed by Dandekar and Rath study, "poverty in India." The study explain four reason for the proposition: (1) the mother's contribution for paid work in smaller since her domestic responsibilities are much greater. (2) communication gap between rich and poor with regards to knowledge of family planning methods. (3) the indifference and responsibility with regard to family size and the acceptance of old custom and (4) the children are considered as an assets rather than a burden for poor peasant worker. The study also points out that the larger family size affects adversely the physical and mental growth of a child and height and weight tend to decrease as family sizes increases.

2.10 MORTALITY

Mortality studies carried out in India were mostly dependent on data generated through census, sample registration scheme, hospital-based data, National Sample Survey etc and very little on exclusive mortality surveys. Though these studies are valuable in may respect but they have certain serious limitation.

Chandra Sekhar, (1972)\textsuperscript{56} observes that most important causes of infant mortality in India are poor nutritional states of the infants and their ever exposure to large dozes of pathogenic micro-organises and community's excessive fertility and these three basic courses interact, supplement, and reinforce each other. Nutritional privation and high infant and childhood mortality leads to excessive fertility which results, in view of limited family resources, in high infant mortality.

Kohli, (1977)\textsuperscript{57} studies the mortality levels and pattern for period 1951-61 in states of Indian Union and concluded that in spite of revolutionary control of mortality from major communicable diseases such as malaria, tuberculosis control of mortality from major communicable diseases such as malaria, tuberculosis, plague, cholera, the current level of India's death rate (1951) is still high, when compared not only with Western Countries, but also with many Asian Countries and death rate is was mainly due

\textsuperscript{57}
to poor environmental hygiene, inadequate nutrition, insufficient preventive and curative health services and low standard of housing.

Padamanabha (1972) observed in a detailed study of mortality trends in India that in age group 0-4, the rural death rate is almost twice that of urban death rate and nearly 47 percent of death rate in age group 0-4 years. The study also brings out that mortality amongst female infants is more than that of male infants especially in rural areas and conducted that infant mortality is associated with literacy, age at marriage, infrastructural facilities like good drinking water and lighting etc.

Bhattacharjee (1981) observed that females suffer bad mortality conditions as compared to males, though, the level of mortality for both sexes has declined to a great extent. The female mortality rates start declining after the period of reproduction and male.

Mortality is high after 50 or above. The medical facilities are as good as in developed countries in urban and metropolitan areas and have lower crude death rates.

A demographic survey, popularly known as the "Mysore Population Survey" was conducted under joint auspices of the Govt. of India and United Nations yielded an infant mortality rate of 168.1 per thousand live birth for rural and 110.9 for urban areas. The study also revealed that infant mortality rate decreased with rise in economic status. The infant mortality rate for family in poor class housing in urban areas was 100 per 1000 live birth, but the rate dropped to 58 when housing conditions improved.

Sinha (1984), conducted mortality survey among schedule tribe families. The results of survey are interesting among tribal population where sex composition are balanced and death rate in tribal female is lower than males which lead to conclusion that tribal society though facing many ills, female are well looked after and enjoyed longer longevity than males.

---

Karvdal (1944) observed that young women's occupational and educational activities are very important determinates of timing of first birth and women who are attending educational institutions are much less likely to become mothers at that time than those who are in gainful employment. The study also points out that there is strong relationship between cumulative labour market experience and first birth rates. At a given age and education level, first birth rate of women who have had at least few years of work experience are much higher than those of other women and accumulated economic and material resources are of considerable importance in decision regarding the timing of first birth where as economic potential has little difference.

Gulati (1991) studied the relative significance of different demographic and development factors in influencing the district level pattern of population growth in India during 1981-91 and conclude that the relative significance of effective contraception, higher age pattern of marriage, control of infant and child mortality seem to be much higher in contesting the growth of population compared to the development indicators and, therefore, for effective control of population, emphasis has to be laid on literacy and education, spread of effective contraception, higher age pattern of marriage, control of infant and child mortality and enhancement of employment opportunity in non-agricultural sectors.

2.11 DEMOGRAPHIC TRANSITION IN INDIA

No serious efforts have been made so far to study demographic transition in India on holistic basis and also in context of diversity of demographic transition taking place in different states. However, some attempts have been made to study Indian demographic transition including well-known Kerala's demographic transition. Mahadevan (1993) studied on-going demographic transition in India based upon available data on determinants of socio-demographic change of Indian society for period 1970-90. The CBR and CDR in 1970 were 41.2 and 19.0 respectively and were declined to 31.5 and

---

64 K. Mahadevan, et. al., "Demographic Transition and Development Perspective in India", 1993 (Mimeo).
The variable considered were: surface road length per square kilometre, female literacy, percent of agricultural workers, population below poverty line, doctor population ratio, couple protection rate, female age at marriage, crude birth rate and crude death rate. These variables cover wide range of social developments, economic development and family planning policies and programmes. The path analysis was used as method for conducting the study. Infrastructural facilities, social developments variable like health facilities and female education followed by population variables showed significant influence. Economic variables, however, like population below poverty line, percentage of agricultural worker could not explain the changing trend of population growth. The order of importance of nine independent variable were as follow: (1) road length (2) doctor population ratio (3) female literacy (4) CPR (5) CBR (6) age at marriage (7) CDR (8) population below poverty line (9) percentage of agricultural.

T.N. Krishnan (1976) observed in his study on demographic transition in Kerala that Kerala took a short duration almost half a century period to stabilise her population growth and attained the last phase of demographic transition as compare to other states in the country who are almost following natural process of demographic transition growth in Europe was proceeded by urbanisation, industrialisation, technological advancement, infrastructural, development and a great degree of modernisation and economic development. Kerala’s high birth rate (CBR:40) that existed in 1930-40 period reduced to 19.8 by 199. Similarly CDR and IMR also declined to 5.9 and 27 respectively by 1987 and all this resulted in overall decline in population growth. Economic development was not major determinate of demographic transition, but several other factors effected the demographic transition like wide spread efficient medical facilities including allopathic, ayurvedic and homeopathy rendered both through private and government institution and their utilization by the enlightened population of Kerala reduced mortality and fertility fast.

---

Krishnan (1992) has studied major determinants of Kerala’s demographic transition and found that female literacy rate directly reduced the fertility rates and also indirectly influenced the birth rates through its role in raising the age at marriage and in reducing the infant and child mortality rates because better educated mothers paid greater attention to health and well-being of children. The status of women improved in general through education raised the age at marriage, adoption of family planning methods, occupational mobility and various reform movements of community leaders and though political consciousness. The overall progressive change which Kerala witnessed in recent half a century and such steps undertaken by enlightened rulers together with role played by several voluntary agencies and social movement by community leaders and interaction with foreigners made Kerala as a state with progressive and modern outlook.

Rachiffee (1978) observed that political expediency in Kerala led to transfer of property from absentee landlordism to owner cultivation. This led to equitable distribution of land and attainment of social justice and this contribution provided several social security measures which in return reduced the traditional social security by means of more children. The matrilineal legacy and child survival programmes reduced attached value to Keralites sons. The position of girls further improved in family due to female literacy, migration and employment of girls. The social value like brothers to get their sister educated, employed and married made women respectable in Kerala society and delayed their marriages besides postponing and limiting family formation patterns.

Mahadeven, et.al, (1994) attributed Tamilnadu pattern of demographic transition to several social welfare programmes initiated to eradicate poverty, the successful family planning programmes and developed infrastructure, facilitated by social reforms and politically committed leaders and bureaucrats. The welfare measures like nutrition mid-day meal programmes and all round emancipation-cum-empowerment of women also contributed to last phase of demographic transition.

---

Kidane (1989)^{69} analysed demographic response to the 1984-1985 Ethiopian famine and compared them with Bangaarts and Cain's 1982. The findings show that mortality rate in the 1984-1985 Ethiopian famine was seven times higher than the mortality rate in the 1972-1973 in Bangladesh famine and that fertility rate in Ethiopia dropped 26 percent between 1981 and 1984-1985. Their results are astounding when compared with the results of similarly conducted studies in other countries. Since 1970s, drought and famine have been regular phenomena in Ethiopia. It seems that the delicate balance between population and resources in Northern Ethiopia has been disturbed and that Malthusian checks have begun to operate.

The most crucial segment of our population from the point of view of the quality of our future generation are our young adolescent girls who are on thrash hold of marriage and motherhood. It is precisely this segment of our population that in today sadly neglected in our developmental and educational programmes. A good percentage of poor girls in our rural areas never enter schools; of those who enter, a high proportion drop out well before reaching the fifth standard. Thus a great majority of our girls reach their adolescence as illiterates or semi-literate with no skills and no practical knowledge which would equip them for motherhood or citizenship. According to 1981 census data, age at marriage in over 80 percent of rural girls was well below 18 years and the proportion of girls marrying between the 12th and 15th years being specially high in poorest section of the community which are also least adducted. The early age marriage and early age pregnancies appear to be the rule rather than the exception in our country. According to Registrar General's report of 1984, 43.1 percent of all birth in this country ever accounted for by birth in women less than 24 years of age and nearly 70 percent in women less than 24 years of age and nearly 70 percent in women less than 29 years old. Our family planning programmes, which generally capture women over 30 years of age, Thus in effect address less than a third of the problem.

Yet another fall out of development and population pressure in the phenomenon of increasing urbanisation. The process of migration of rural labour to urban areas will gather further momentum in decades ahead. The urban stems are already growing at

distressingly rapid rate in our country. The urban population in our country will rise rapidly in coming decades and even with most efficient management of urban influx, if may be expected that at least one third of this urban population will be living in slums. The nutritional problems in urban slums in developing countries will have to receive for greater attention in future than in past.

The feature of urban under nutrition will sharply differ from those of rural under nutrition in many important aspect including seasonality. The advantage of easier access to health centres in urban areas will be negatived by the disadvantage of crowding, instantiation and industrial pollution. Since, the urban under-nutrition is more visible, the expanding slums could be source of increasing political unrest; political unrest could compel disproportionately higher allocation of development budget for urban sector to the neglect of still large rural sector.

2.12 GENDER DIMENSION EMPOWERMENT

It is challenges to measure the intangible concept of endowment, studies have attempted this by using statistical methods. The present section, however presents some gender related demographic issues.

Half the population of the world is female and when we talk of the benefit of the development, we may expect that half of these benefits should go to women. Women equally with men are expected to be beneficiaries of development. The process of making benefits of development available to women is not, in itself, women's development, but merely a normal expectation of gender development.

On the other hand, women have special needs due to their different sexual and reproductive roles. With UNICEF's focus on the survival and well being of children, there is related focus on the special needs of women as mothers, especially during pregnancy and childbirth. To arrive at a useful working definition of women's development, there is need to combine the concept of gender equality with that of empowerment for women in the development process. Women's status very often is considered as an important indicator of level of development of particular society. There has been a significant shift in approach towards well being of women from welfare during fifties to “Development during Seventies and to Empowerment during Nineties”.

Human resource development being one of the major thrust area in the Eighth five year plan, all development efforts were directed to empower women for national development on equal footing alongwith their counter parts and to make them economically independent and self-reliant.

Ninth plan also aims at expeditious adoption of the “National Policy for Empowering Women” alongwith Gender Development Index to monitor the impact of its implementation in raising the status of women from time to time. The concept of human development has urged to make the development has urged to make the development more people oriented and thus women has become as much central to it as men. The role of women in socio-economic development of a nation can socio-economic development of a nation can hardly be ignored especially from the point of view of the growth of population which in turns effects the economic development. The involvement of women in economic activities is significant because several recant studies have revealed that participation of women in economically productive labour outside home and ensuring the equal pay, would besides conferring positive benefits like raising home old income, also achieve the prima demographic goal of reducing birth rates as there is positive co-relation between increase in women’s employment and decrease in birth rates

2.12.1 GENDER RELATED DEMOGRAPHIC ISSUES

The issues concerning women and their part in the development process have been increasingly attracting attention over the years. However, the ways of addressing these issues have varied as understanding of women’s position in development, and of gender roles themselves has grown. Although the principle of equality of men and women was recognised in both UN Charter in 1945 and the UN Declaration in human rights in 1948, the majority of development planners and workers did not fully address women’s position in development process.

The roles that women play are different in any given society and their situation is determined by the legislation, religious norms, economic status or class, cultural values, ethnicity and type of productive activity of their country household and community. Women are usually responsible for domestic work, care of children, family health, cooking and providing food and other house hold services. In most societies, they also
play a major role in the productive activities of the family, in farming, paid domestic labour, services, industries and income generation activities. In some communities they also have dear community roles.

In each of these areas, reproduction, production and the community women have oftenly been adversely affected by development process. There is wide gap between women high, yet unrecognised, economic participation and their low political and social power, and development strategies have usually taken the needs of the most vocal and political active as their starting point; to understand gender, the activities of men and women need to be addressed separately. The reproductive, productive and social or community roles women are playing, must be looked at or as well as roles played economically and socially by men. By examining the men’s and women’s roles a greater understanding of their needs and involvement in power and decision making around specific tasks and issues will be reached.

2.12.2 HOW TO APPROACH GENDER IN DEVELOPMENT

It is of vital importance in development work not to use imported notions of gender, nor regard “the community” and “the house old” as same basic unit. One must go beyond the house old and break it down into its component parts. The primary practical requirement for incorporating a gender analysis into development in to consult with and listen to women so that their roles and resulting needs are better understood. How the issue of gender are actually addressed depends upon policy direction envisaged. One approach is to design projects and programmes to make life “easier” for women and help them in their given gender tasks.

An alternative but complimentary approach is to challenge the status quo or address the perceived inequalities between men and women. This could involve for example, working the change in laws that discriminated against women, increasing women access to land, giving women decision making power within projects etc. the aim is social change and the empowerment of women. For agencies such as OXFAM, which espouse social change, justice and empowerment in their rhetoric, meeting women needs for more radical change should be within the adopted policy approach to gender. When the traditions and cultural attitudes to gender are clarified, then the actual gender relations
can be assessed and addressed within a programme or project. Development of a society to the same extent according to their individual needs.

Social justice is the keystone of Indian Constitution. Traditionally, women in India have experienced subordinate position in family and society. There is enough evidence to their sub-ordination, which is expressed in the day to day family life and supported by the personal family laws. They lack education and general awareness to enjoy the rights offered to the by the Indian Constitution. Parliament and the state play very important role in changing the status of women. However, women still remain the secondary citizens of the country. The universal Declaration of Human rights (1948) affirms the ideals of equal rights of men and women. The UN conventions on Elimination of All Forms of Discrimination Against Women (1979) observed that discrimination against women violates the principles of equality of rights and respect for human dignity, is an obstacles to the participation of women on equal terms with men in the political, social, economic and cultural life of their countries, hampers the growth and prosperity of the society and the family and makes more difficult the full development of the potentialities of women in the service of their countries and the humanity.

Development of women in India- who represent 48.2 percent of country’s total population and in absolute figures 406.5 million as per 1991 census- has been receiving the attention of both planners and policy makers since independence. The need to bring them into the mainstream of national development has now become a major concern of the State. In the earlier phase of developmental planning, women’s concerns held a low profile. It was only in 1980s that women were recognised as a separate target group and given their rightful place in the developmental planning by including a separate chapter on women’s development for the first time in the Plan Document of the Sixth Five Year Plan (1980-85). Since then, all the efforts of the Government were directed towards mainstreaming women into the national development by raising their overall status-social, economic, legal and political-on par with men.

2.12.3 RIGHTS AND PRIVILEGES

The constitution of India through Article 14 guarantees to men and women equality of status and opportunities- political, social and economic. Article 15 pronounces
that the State shall not discriminate against any citizen on the grounds of religion, race, caste, sex, etc. Similarly, Article 16 provides for equality of opportunities in matters of public appointments for all citizens. The Article further provides that no citizen shall, on grounds of religion, race, caste, sex, etc. be discriminated against in respect of any employment or office under the State. Article 39 further mentions that the State shall direct its policy towards securing all citizens, men and women, equally, the right to an equal means of livelihood and equal pay for equal work. Moreover, Article 15(A)(e) imposes a fundamental duty on every citizen to renounce the practices derogatory to the dignity of women.

2.12.4 LEGISLATIVE MEASURES

Inspired these constitutional safeguards, the State has enacted various legislative measures to provide protection to women against social discrimination, violence and atrocities and to prevent child marriages, dowry, rape and practice of Sati, etc. The Equal Remuneration Act of 1976 provides for equal pay to men and women for equal work. The Hindu Marriage Act of 1955 has been amended by the Marriage Laws Amendment Act 1976 to provide for the right of a girl to repudiate a child marriage before attaining maturity whether the marriage has been consummated or not. The Act 1956 for suppression of Immoral Traffic amongst Women and Girls was amended in 1986 to make the sexual exploitation of male or female, a cognisable offence. It was renamed as “The Immoral Traffic (Prevention) Act of 1986”. An amendment brought in 1984 to the Dowry Prohibition Act 1961 made women’s subject to cruelty a cognisable offence. A second amendment to the Act in 1986 makes the husband or in-laws punishable, if a woman commits suicide within 7 years of her marriage and it has been proved that she has been subject to cruelty. The Child Marriage and Restraint Act raises the age for marriage of a girl to 18 years from 15 years and that of a boy to 21 years. The offences under this Act are made cognisable. The Factories Act of 1948 (amended upto 1976) provides for establishment of a creche where 30 women are employed (including casual and contract labourers). The Medical Termination of Pregnancy Act of 1971 legalised abortion by qualified professional on humanitarian or medical ground. Amendments of Criminal Laws 1983 provide for a punishment of 7 years in ordinary cases of rape and 10 years for
custodial rape cases. The maximum punishment may go up to life imprisonment. A new enactment “Indecent Representation of Women (Prohibition) Act 1986” and the “Commission of Sati (Prevention) Act, 1987” have also been passed to protect the dignity of women and prevent violence against them as well as their exploitation.

2.12.5 EVOLUTION OF WOMEN’S DEVELOPMENT AND ITS REVIEW UNDER FIVE YEAR PLANS (1951-91)

The hierarchical structure of Indian society with its diverse and complex socio-economic institutions, organisational patterns and cultural values make it difficult for uniform policies and programmes to be equally effective with different groups. Therefore, the planned interventions launched through five Year Plans also could not bring about much significant changes in the socio-economic development of women in the context of changing socio-economic milieu in the country and problems relating to the advancement of women.

The recommendations of the Committee have encouraged the Government to initiate a comprehensive programme of legislative and administrative measures aimed at removing the economic and social injustices, disabilities and discrimination to which women continued to be subjected. Followed by this were the two important events, viz. The International Year of the Women (IYW) in 1975 and the International Women’s Decade 1976-85. Participation of India in these two international events has given an opportunity to the State and its people to make a self-assessment of their efforts and failures in fulfilling their commitments towards the betterment of women.

The International Women’s Decade which ended in 1985, left a lasting impact on the member countries to take up both long-term and short term measures in achieving the “Forward Looking Strategies for the Advancement of Women up to the Year 2000”. The first step taken in this direction by the Government of India was to revitalise the governmental machinery at the national level by setting up of a separate Department of Women and Child Development under the then newly created Ministry of Human Resource Development. The Women’s Welfare and Development (WWD) Bureau under the erstwhile Ministry of Social and Women’s Welfare has become part of the new Department continued to be the Nodal Agency/Focal Point at the national level to guide,
co-ordinate and review the efforts of both governmental and non-governmental organisations working for the development of women.

Although, no separate policy exists for women’s development, the National Perspective Plan for Women: 1988-2000 AD prepared by a Core Group in 1987, provides necessary guidelines for formulation of policies and programmes besides advocating a holistic approach for the development of women. Women’s development which continued as part of social welfare sector till 1985 never received its due share and importance till it was made as a component of human resource development. A brief account of the development women, during the last four developmental decades is given in the following paragraphs.

Programmes for the development of women in the First Five-Year Plan (1951-56) were mainly welfare oriented. The Central Social Welfare Board, set up in 1953, undertook a number of welfare measures through the voluntary sector. In the Second five Year Plan (1956-61) women were organised into Mahila Mandals to act as focal points at the grassroots levels for the development of women. The Third, Fourth and other Interim Plans (1961-74) accorded high priority to education of women. Measures to improve maternal and child health services, supplementary feeding for children and nursing and expectant mothers were also introduced.

In the Fifth Plan (1974-78), there was a shift in the approach for women’s development as part of social welfare was enlarged and considered to be as an organised function designed to cope with several problems arising out of changing social conditions, particularly in regard to the structure of the family and the role of women. The new approach aimed at a proper integration of welfare and developmental services. Thus the Fifth Plan supported economic development, employment and training for women as the principal focus for their socio-economic development.

The Sixth Five Year Plan (1980-86), as stated earlier, was a landmark in the history of women’s development as women’s development was recognised as one of the developmental sectors and included as a separate chapter for the first time in the Sixth Plan document. The Sixth Plan, taking into consideration, the report of the Committee on the Status of Women, adopted a multi-disciplinary approach with a three pronged thrust viz. education, employment and health, with a view to inculcating confidence and
generating awareness of their own potential among women. The family was recognised as a unit of development and women, being an important member of the unit, was given special attention. Priority was given to women in the implementation of programmes under different sectors of development.

In the Seventh Plan (1985-90), the development programmes for women continued with the major objective of raising their economic and social status and to bring them into the mainstream of national development. Accordingly, the multidisciplinary approach evolved during the Sixth Five-Year Plan continued in the Seventh Plan also. In addition, efforts were augmented to inculcate confidence among women and to bring about an awareness of their own potential for development and also their rights and privileges. A significant step in the direction of providing a thrust to development for women was the identification of the ‘beneficiary-oriented programmes’ in different developmental sectors, which provide direct benefit to women.

2.12.6 REVIEW OF THE EFFORTS MADE TO RAISE THE STATUS OF WOMEN

The impact of various developmental decades (1951-91) has brought about perceptible improvement in the socio-economic status of women in the country. Achievements in the major thrust areas are described in following subsections:

2.12.6.1 HEALTH AND FAMILY WELFARE

In the field of health and family welfare, programmes of maternal and child health services like immunisation and prophylaxis against nutritional anaemia received high priority under ‘Health for all by 2000 AD’. Programmes in action includes-one sub-centre for a population of 5000; training of ANMs with an admission capacity of 21,000 per year; Orientation of dais in rural areas with a target coverage of one lakh Dais by the end of the Seventh Plan; health education through multi-media activities and interpersonal communication by medical and paramedical personnel; health messages through media division and health and nutrition education campaigns exclusively for women and expectant and nursing mothers to create health consciousness etc. Mass
education and media activities were also geared up to promote and create awareness about the age of marriage, child survival, delayed and safe motherhood, etc.

As a result of these efforts, significant gains in respect of women's health status, have been achieved. Expectancy of life for females at birth which was 31.7 years in 1951 has risen to 59.1 years in 1986-91. Number of females for every 1,000 males having consistently declined from 1972 in 1901 to 930 in 1971, increased slightly in 1981 to 934 but has dipped again to 929 in 1991. The infant mortality rate declined from 129 in 1970 to 80 in 1990 and more importantly, the sex differential, which was quite high in the seventies has now been bridged. However, the 0-4 age specific death rate, even though it has significantly declined from 53.0 in 1970 to 33.3 in 1988, continues to show higher female mortality. The maternal mortality rate in rural India still continues to be uncomfortable and as high as 324 per 1,00,000 live births although it showed a declining trend from 468 in 1980 to 324 in 1989 (Source: Office of the Registrar General and Census Commissioner, New Delhi, 1991). Age specific death rates for 1988 indicate higher death rate for females upto the age of 35 years. This differential is indicative of the continued neglect of the female child's health and nutrition needs, her early marriage, high fertility, poverty and inadequate access to health care.

Though there has been an increase in the age at marriage of girls, the proportion of married girls in the age group 15-19 years is till very high according to the 1981 census. Teenage mothers face higher risks in pregnancy and related health problems compared to those above 20 years of age. The marital fertility rate in the age group 20-29 years is very high, adversely affecting the women's health and nutrition status. Most pregnant women from the poorer sections of society continued to suffer from anaemia. Underweight, toxaemia, bleeding during pregnancy, puerperal senses and under-nourishment are widely prevalent. Birth of low weight babies and high infant and maternal mortality are consequences of these factors.

2.12.6.2 EDUCATION

A number of steps were taken for promoting 'Education for Women's Equality' as laid down in the National Policy of Education, 1986. The revised National Plan of Action (1992) strongly advocates education for women's equality and Empowerment.
Motivation-centred programmes with special inputs to promote self-confidence and self-sufficiency among women have been stressed under the new education policy. Accessibility to the schools in rural areas has become a priority concern. Appointment of women teachers and starting of schools exclusively for girls is also receiving high priority; special attention is being paid to promote universal primary education amongst special groups like socially disabled groups and in the 89 educationally backward districts identified by the government. The school textbooks were being reviewed to remove sex bias and teachers were also given reorientation to promote gender equality. Continuing education of instructors and participation of adult women learners in vocational and other training programmes was given special emphasis. Special women’s cells were being set up in the State Directorates of Adult Education and State Resource Centres to plan and administer women’s programmes and to encourage their participation in condensed courses organised by the Central Social Welfare Board.

As per 1991 census, the female literacy rate has shown considerable improvement as it came up to 39.42 percent from 7.9 in 1951. But the large gap continued to exist between the two genders as the males could record their literacy rate as 63.86 in 1991. Similarly, the enrolment rate of girls in primary schools has also improved from 64.1 in 1980-81 to 85.97 in 1990-91. While the drop-out rate amongst girls at primary level during 1987-88 was 49.42, the same for the boys was 43.28. However, the higher decadal growth rate of female literacy (66 percent) as compared to male literacy (43 percent) provides some consolation. On the other side, the large demographics base with 197 million illiterate females among 7+ age group is a clear indication of the massive dimension of the problem of female illiteracy. This limits their achievements in the field of employment, training, utilisation of health facilities and exercise of their legal rights and is a cause of their continuing exploitation, illiteracy among women is also negatively correlated with fertility rates and infant and child mortality rates.

2.12.6.3 EMPLOYMENT AND TRAINING

The work participation rate of women (main worker) has increased from 13.99 in 1981 to 16.43 in 1991, while there was a decline in respect of men from 51.62 in 1981 to 50.54 in 1991. Employment of women in the organised sector has gone up from 19.30

Despite these positive trends, women have still not been recognised as producers in their own right. A large number of women employed as casual labourers in construction and other industries do not get the prescribed minimum wages, nor the stipulated minimum hours of work adhered to. The traditional economic activities, which provide employment to women have suffered in competition with the more advanced technologies. Home based women workers hardly ever get the protective coverage of Labour laws and virtually no access to credit, training, technology and other facilities. The present crisis of fuel and water has increased the burden on women. There are about 30 percent rural households headed by women who bear all burden of earning and caring for the families and suffer on account of lack of access to means of production and ownership of land and other property.

2.13 INITIATIVES OF THE NODAL DEPARTMENT OF WOMEN AND CHILD DEVELOPMENT

Interventions of the Nodal Department, such as the programmes of training, employment and income generation; awareness generation and welfare and support services, play the role of both supplementary and complementary to the other general development programmes such as health, education, labour and employment, rural and urban development etc. Of these, highest priority is accorded to employment and income generation activities with support services, as they would contribute to raise the economic status of women in the country.

2.13.1 TRAINING, EMPLOYMENT AND INCOME

Some of the on-going interventions of the Department in the area of employment and income generation include (i) Support to Training and Employment Programme for Women (STEP) to strengthen and improve women’s work and employment in the areas
of agriculture, animal husbandry, dairying, fisheries, handlooms, handicrafts, khadi and village industries and sericulture; (ii) Employment-cum-income Generating Production Units to extend training for women belonging to weaker sections in the non-traditional trades and employing them on a sustained basis; (iii) Socio-economic Programme to provide ‘wage and work’ to needy women in a wide variety of income generating activities both in traditional and non-traditional areas; (iv) Condensed Courses of Education for Adult Women and Vocational Training Programme to extend opportunities for adult women to continue their educational and acquire vocational and employment; (v) Rehabilitation Women in Distress to provide vocational training-cum-employment and residential care to destitute women; and (vi) Women’s Development Corporations to work as catalytic agents to create sustained income generating activities for women besides helping them to overcome the major obstacles of employment/self employment through providing technical constancy, credit and marketing services.

From the inception of these schemes till the end of March, 1992, they have extended training-cum-employment services to 5.95 lakh women besides other support services like hostels for 0.42 working women; crèche facilities to 3.12 lakh children of working women; and integrated child development services to 148.19 lakh children upto 6 years and 28.61 lakh expectant and nursing mothers. In the Eighth Plan (1992-97), the target under various employment and income generating activities is to benefit about 3.44 lakh women with an outlay or Rs. 144.59 crores as against the Seventh Plan investment of Rs. 108.50 crores to benefit 2.22 lakh women. The physical and financial targets and achievements under these programmes during the VII and VIII Five-Year Plans are annexed.

2.13.2 NATIONAL COMMISSION FOR WOMEN

The most significant national level achievement in the course of last one-year is setting up of the long desired National Commission for Women through an Act. The Commission has the responsibility to ensure that the safeguards provided to women under the Constitution and the special Laws enacted by the Parliament for their protection and benefits are actually given effect to.
2.13.3 LEGAL LITERACY MANUAL FOR WOMEN

Women’s legal literacy programme has taken a new dimension through the project of bringing out a Legal Literacy Manual for Women. ‘Our Laws’ is a series of 10 illustrated manuals presented in a most simple language so that the weakest sections of society for whom these laws are most important, can understand and the absorb the information relevant to them. The major objective of this project is to create awareness about the existing laws that concern women viz. Working Women; Contract Labour; Bonded Labour; Hindu Adoption and Maintenance Act, 1856; Marriage and Divorce; Property; Dowry and Rape, Kidnapping and Abduction.

Another important achievement in the line of action towards the betterment of the Girl Child in India is the formulation of a National Plan of Action for the SAARC Decade of the Girl Child (1991-2000 AD). The Plan of Action advocates policies and programmes of both ‘Advocacy’ and Action’ with the ultimate objective of building up of a better future to the Girl Child with a positive image.

Further, as part of the advocacy programmes of the SAARC Year of the Girl Child (SYGC)-1990, the Department has brought out a Data Sheet entitled “The Girl Child in India: A Comparative Data Sheet on the Developmental Indicators of the Girl Child along with her Counterpart”

Efforts are also in progress to set up a National Credit Fund for Women. The Fund, as visualized, aims to reach the poorest of poor and assetless women who are in need to credit but cannot reach the formal banking or credit system. This would help develop a national network of credit services for women in the informal sector and expect to boost the self-employment ventures. Operational details are being finalized.

2.14 GENDER SENSITIZATION

For the first time in the history of demographic records, an attempt was made to capture women’s work in the informal sector in 1991 census. The provisional data of 1991 Census on ‘Workers and their Distribution’ has shown that there was a substantial increase in the female work participation during 1991 when compared to that of 1981. The female work participation in respect to total workers has increased from 19.77 percent in 1981 to 22.69 percent in 1991, registering an increase of 14.77 percent. The
attempt was a joint effort of the nodal Department of Women and Child Development, Office of the Registrar General of India and of the United National Fund for Women (NIFEM).

To sensitize planners, policy makers and the enforcement machinery, a countrywide gender sensitization programme was launched during 1991-92. So far, 20 training camps to sensitize the police personnel and functionaries of various voluntary organizations in the States of Deli, Uttar Pradesh, Karnataka, Maharashtra, Bihar, Haryana, Himachal Pradesh, Madhya Pradesh, Andhra Pradesh, Tamil Nadu and Punjab have been organised.

Efforts to get the data on the Maternal Mortality Rate (MMR) on regular basis through the office of the Registrar General of India (RGI) are moving favourably as the Vital Statistics Division of RGI's Office is trying to test the feasibility of getting these data either through the Sample Registration System (SRS) or through the Survey of Causes of Deaths (SDCD). A feasibility study was undertaken in the rural areas of Orissa by the control of Directorate of Health Services. Similar studies are also being conducted in a few more states.

2.15 COMBAT ATROCITIES AGAINST WOMEN.

Special efforts in collaboration with the Home Departments both at the Central and State level are being made to combat the problem of growing incidents of Crime against Women. The Minister of State for Women and Child Development and the Member of the National Commission for Women have already visited the states of Madhya Pradesh, Orissa, Rajasthan, Tripura and Delhi and held discussions with the concerned State Department and Offices of the Inspector General of Police and with the voluntary organizations working out various ways and means to fight this distressing phenomenon.

2.16 STRATEGIES FOR WOMEN DEVELOPMENT

During the Nineties, the strategy of the Eighth Plan will be to ensure that the benefits of development from different sectors do not bypass women and special programmes with greater gender sensitivity are implemented to complement the general
development programmes. The flow of benefits to women in the three core sectors of education, health and employment are kept under close vigil and surveillance as this would contribute a great lot towards mainstreaming women into the national development. Employment and income generation activities including self-employment with training for upgradation of skills will be provided as major interventions in raising the status of women.

As stated earlier, a number of programmes and projects for the welfare and development of women have been evolved during the last four developmental decades—both in the “women specific” and “women related” sectors of development planning such as—Women and child Development, health and Family Welfare, Rural Development, Labour, Industrial Development, Science and Technology etc. Women’s development, being intrinsically linked in system of inter-dependency, demands an “integrated approach” in place of the existing “sectoral” approach so that all the necessary basic services for the development of women could be provided in a package through a co-ordinated single delivery system for optimal results. To bring this into action, the Department is working out detailed strategies.

The Nineteen Eighties, with the strength and support of the strategies laid down in the Sixth and Seventh Five Year Plans (1980-90), have witnessed a significant change in the status of women in India; Women are not more the passive recipients of various welfare services but are now the partakers and shareholders along with men in the process of national development. Therefore, the government of India is directing all its efforts towards developing the potential of women through skill development and providing income generating activities which can help to achieve the desired economic independence and improvement in the quality of life. One of the most important steps in this direction has already discussed above, was the formulation of a National Perspective Plan for Women 12988-2000 AD.

To this end, a large number of interventions for women are expected to be initiated in the priority sectors of development. During the Eighth Five Year Plan (1992-97), a special thrust will be given to provide more training-cum-employment opportunities for women to make them economically independent and this raise their status towards achieving the equality on par with men. In support of this, simultaneous
efforts will also be put into action to provide adequate welfare and support services to reduce the day to day drudgeries of life and allow greater involvement of women in the economic development of the country. All these efforts will, however, continue till the women who represent half of the country’s total population are brought in to the mainstream of national development and given a status on par with men.