

BOOM OR BANG OF DEMOS

*Literacy, overpopulation and the Socio-economic
Development in Pakistan*

36

THESIS M.Sc.

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CERTIFICATE

This thesis by Sajid Mahmood Awan is accepted in this present form by the National Institute of Pakistan Studies as satisfying the thesis requirements for Master Degree in Pakistan Studies.

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*To my mother who devoted her life
for the wellbeing of her family*

&

*to Dr. Nafis Sadiq who devoted her life
for the welfare of whole humanity*

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INTRODUCTION

need to be emphasized

The diversity among under developed economies is perhaps nowhere to be seen as much in evidence as in respect of the facts of their population, in respect of its size, density and growth. While over-population or high population growth rate is in exerting enormous pressure on the developing economies of the world. That is why, it is emphasized through-out the world to minimise the effects of population increase by bringing into balance the population growth and the socio-economic development. The socio-economic development means to enrich the living standards of the people by creating a balance between human needs and aspirations and the resource mobilisation.¹ While an adequate resource mobilization can only be conducted effectively through a well organised and planned population programme. In order to understand this whole phenomenon, it is enevitable to study the current situation and trends in population growth.

Being a developing country, Pakistan is confronted with a has lack of resources malnutrition, illiterach, high birth rate, high mortality and fertility rates, unemployment, low income, and low standards of living. Having all these characterisitcs, Pakistan stands at very high ranking in respect of densely populated areas of the world. It is ranked as the 9th most populous country of the world. While its population is still increasing very rapidly with the growth rate of aournd (2.9%) per annum.¹ This high population growth rate tends to sweep out all the developmental gains of its social and economic sectors. And this hazardous situation is needed to be cured immediatelly. So present study aims at highlighting, first of all, the implications of overpopulation/high population growth rate for the socio-economic development of Pakistan. Seondly the study suggests a peculiar remedy to cure this ailing situation. For this purpose, present study is conducted into two parts. The first part deals with the overpopulation as a global problem and attempts to highlight its implications to the

¹ Economic Survey of Pakistan, 1993-94; finance Division, Economic Advisor's wing, Islamabad.

performance of social and economic sectors of Pakistan. While the second part examines and evaluates the population planning programme of Pakistan. It assesses the low literacy rate as the major cause of the failure of these programmes. In this respect, it develops an inverse relationship between literacy and fertility rates. In other words the study addresses; how the development of social and economic sectors is being hindered by the high population growth rate in Pakistan? What is the dominating factor that has mainly contributed to the failure of the programmes launched to control the high population growth rate in Pakistan? How is the literacy rate associated with the factors, contributing to determine the fertility rate of a country? A theoretical model has been used to address these questions, which is further supported by statistical data, and is proved by empirical findings. The deductive method has been intensively used through out the work to validate its authenticity.

CHAPTER 1

OVER POPULATION AS A GLOBAL PROBLEM

The intensity of overpopulation as a global problem, will be thoroughly explained after defining the term "overpopulation" to remove any confusion.

1.1 HISTORICAL BACKGROUND

From the earliest times when men first began to live together in groups, they were faced by problems of numbers. To ensure their own survival the most ancient people and civilizations fostered fertility cults and showed lively concern for the numbers of their descendants. Ancestors were honoured; sterility was considered a curse. The law of Manu in Hindu mythology, for instance stressed the holy duties of matrimony and paternity, just as did the Persian Zoroaster and his followers. On the other hand, Confucius was aware of overpopulation in northern China and may have been the first known writer to express the concept of an "optimum population". Various later Chinese writers expressed, alarmed over, or warned against, overpopulation. The legendary Spartan Lywrgus were concerned with population levels, as were the philosophers Hippodamus (second half of the 5th century BC) and particularly Plato (C428/47BC), who actually concerned of a republic whose members were to be kept at an optimum numbers by means of birth control.⁽¹⁾

1.2 THE CONCEPT OF OPTIMUM POPULATION:-

The concept of optimum population is directly concerned with the idea of

happy medium; it is assured that when we talk about overpopulation or underpopulation there should, of course, be an intermediate stage which may avoid either defect. And under the notion of "optimum population" we try to find out how many people may be desired to have if a given end is to be achieved. This end remains to be specified by itself and a number of such ends can be suggested which are as follows.

Full employment, that is, work for all persons of working age;

Power, that is, the full range of means that can be set to work to obtain a collective end, whatever the end may be;

Long life and good health;

Knowledge and culture;

Aggregate welfare, or, put in a slightly different way, the aggregate income of the population;

Number of years lived by the population as a whole;

Average standard of living;⁽²⁾

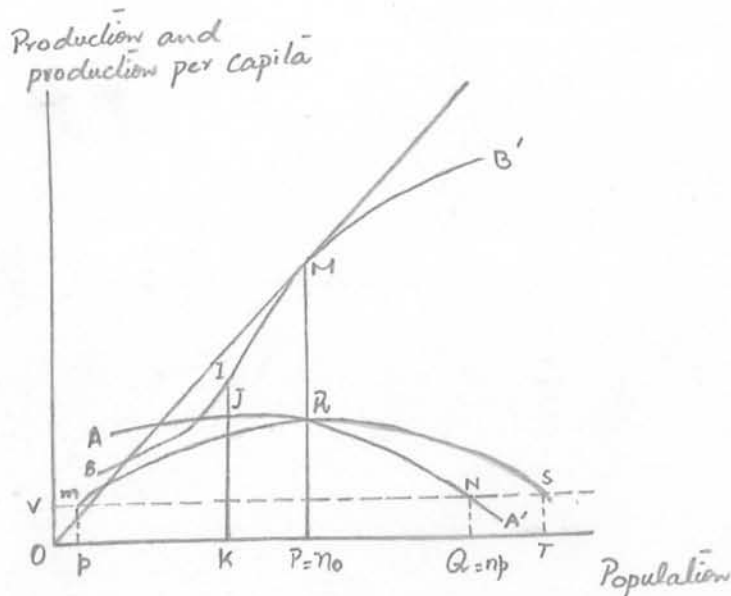
Still some other objects, like social harmony, family prosperity, and likewise, may also be conceived. Thus Plato has his own political view of optimum population and Engene Dupreel has his own, an aesthetic one. However in order to explain the state of optimum population, a general model can be used which is explained by a diagram.

1.2.1 THE GENERAL MODEL

In order to specify the position of the optimum population, a very simplified model has been used.

In Figure 1.1 population size is till measure on the horizontal axis. Curve AA' denotes marginal productivity, that is, the increase in total production resulting from the addition, one by one, of extra individuals to the population. Initially this curve rises, thanks to the division of labour and the sharing of overhead costs; the latter part of the curve slopes downward, reflecting saturation and diminishing returns. The curve's highest value (J) is reached at population size K. Curve BB' represents total production; it is the integral of curve AA'.

Figure 1.1:- Optimum Population, Standard of Living and Power



Point M is touched by a tangent from O, the origin. Production per capita (measured by the tangent of angle MOP) is highest for that point M; on the right of M, it decreases. Curve mRS , also indicates output per capita, but this time as measured on

the vertical axis. It is maximized at population size P , corresponding to curve BB' . Curves AA' and mRS cross at R , since marginal productivity and output per capita are equal at that point. On the production axis, OV , mp , or ST represents subsistence level. The way in which optimum population is derived can now be described as follows:

If n is population and $f(n)$, is total production, then curve AA' represents $F'(n)$, curve BB' represents $f(n)$, and curve mRS represents $f(n)/n$. The economically optimum population, n , is given by $f'(n) = f(n)/n$. Furthermore, V being the subsistence level, both n (the minimum population) and n (the maximum population) are given by $f(n)/n = f(n)/n = V$. A second kind of optimum population, n , is that which maximizes power, in a sense to be described below. This optimum population occurs where curve AA' intersects the horizontal at V , $f'(n) = V$.

Now we have at our disposal all the elements required to assess the state of population that is subject to environmental pressure. Going from left to right in Figure 1 that is, in the direction of population growth we find:

p =minimum population,

k =population with highest increase in production as a function of population size,

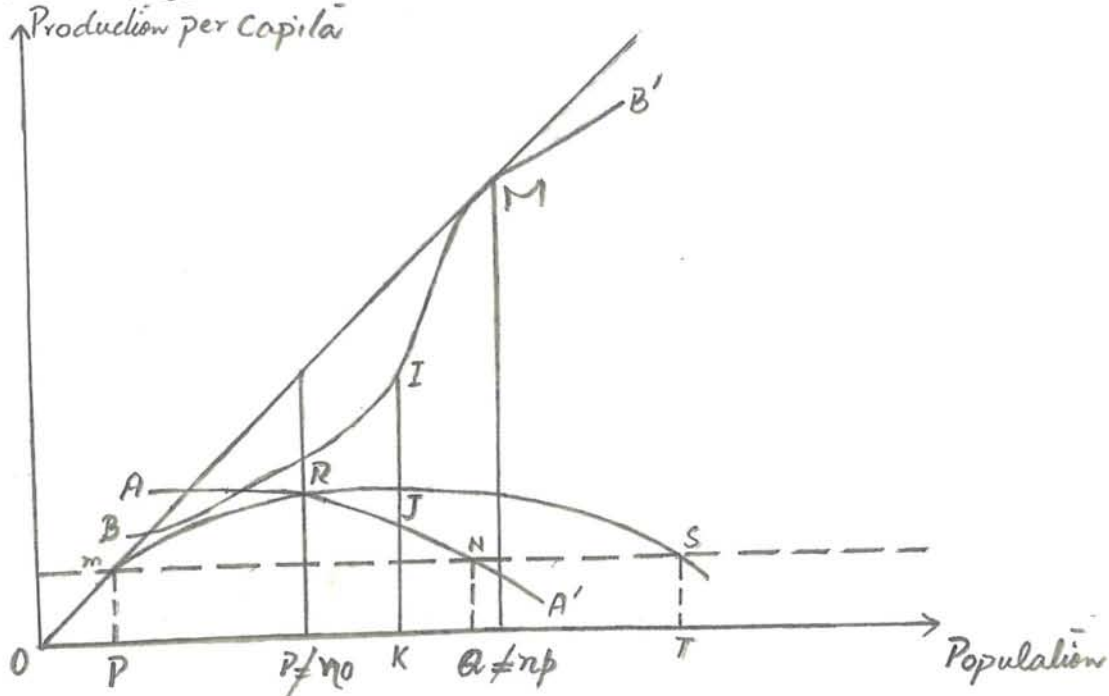
P =optimum population from an economic point of view,

Q =optimum population insofar as power is concerned,

T =maximum population.⁽³⁾

While keeping in view all the elements reflecting the the state of optimum population we may analyse the present world population situation which stands at

Figure 1.2:- Over population, standard of living and power.
Production and Production per Capita



the total number of 5607 million, having the per capita production of US \$ 4340 (population data sheet 1994). The present situation is shown in figure 1.2 (in approximation) which shows that the population overlaps the production per capita so stands at the state of overpopulation. As it is shown in figure 1.2 that at point, R, curve mRS and A' cross each other, which shows that marginal productivity and output per capita are equal at that point. But they do not match the total production, which is shown at point M so, $P = n_0$. It means that present population of the world is not standing at the stage of economically optimum population, rather it is the state of overpopulation.⁽⁴⁾

The intensity of this problem can be observed by observing the situation of rapidly growing population of the world. World population, which reached 5.4 billion in mid-1991, is growing faster than ever before: three people every second and more than

250,000 are added in existing population every day. In early 1990s the annual addition was 93 million; by the end it will approach 100 million. At this stage the world will have almost a billion more people (roughly the population of China) by the year 2001. Approximately ninety-five per cent of this population growth is occurring in the developing countries.⁽⁵⁾ This critical situation of the population growth is not expected to stop altogether for about another century, when world population may stabilize at approximately 10.2 billion nearly twice its present level. But if fertility declines more slowly, following the less optimistic "high variant" projection, the world might be heading towards a total of 14 billion or even more. Furthermore, increasing numbers and declining resources have contributed to increase migration from rural to urban areas. By the year 2000 over 40 per cent of Africa and Asia (excluding Japan) and 76 per cent of Latin America will be urbanized,⁽⁶⁾ Which, by itself is an enormous problem for the modern world.

Throughout the developing world these trends have spurred population policies aimed at balancing rural and urban populations and slowing rapid population growth. Increasingly, they are linked to economic and social development programmes, a linkage critical for the success of both. So the continued rapid growth in developing countries has brought human numbers in to collision with the resources to sustain them.⁽⁷⁾

Under these conditions it can be well observed that how the intensity of over population is alarming the socio-economic development throughout the world and is needed to be cured. For this reason economists, demographers and social scientists all over the world are trying their best to make the global society realize the

intensity of this threat and devise ways and means to face this challenge. So far, the observers have visualized the problem according to their own views.

1.3 DIFFERENT VIEWS TOWARDS THE PROBLEM:-

Faced with the challenge of over population observers are separated into two camps:-

The pessimists, with an unliking and even more tragic prognoses;

and the optimist, looking so confident that latest scientific technologies will definitely be successful in trapping this problem.⁽⁸⁾

On the other hand another conflict prevails between the scholars of "economic development" and the "birth control". The first group totally favors the technological development and is contended that it will eventually succeed in controlling the fertility rate. While later group only emphasises on the control of birth rate and argues that it will automatically bring the economy at such a stage that it will become developed and the living standards of people will increase by itself.⁽⁹⁾

But it is well known reality that the cost of measures only concentrating on economic and technological problems will be much higher than the cost of contraceptive measures. But only the contraceptive measures are also not fully reliable. However both these views are extremes. So there should be an intramedary way to adopt. It means both the contraceptive measures and the technological measures should be taken. So that without much burden this problem may be removed conveniently.

1.4 WORLDWIDE POPULATION GROWTH:-

The number of people on this planet constitute as both the present problem and a future calamity. At its current rate of growth the net addition to world population is 75 million yearly. This will likely rise to 90 million annually by the year 2000. Indeed most of the current growth is occurring in the underdeveloped nations of the Third World, where food, housing, health care, and employment are inadequate to meet present needs. The worldwide population growth has been essentially the same since 1975, at about 1.7 per cent a year. Fertility is actually going down slightly, from 3.8 in 1975-1980 to 3.3 in 1990-95. However, the number of people added each year is still rising. In 1975, the annual addition was about 72 million. In 1992 it was 93 million. It will peak between 1995 and 2000, at about 98 million annually.⁽¹⁰⁾

Rapid population growth is therefore still the dominant feature of global demographics, and will continue to be so for at least the next 30 years. The 1993 global population of 5.57 billion is projected to increase to 6.25 billion in 2000, 8.5 billion in 2025 and 10 billion in 2050; significant growth will probably continue until about 2150 and a level of about 11.6 billion.⁽¹¹⁾

1.5 CURRENT WORLD FERTILITY:-

The twentieth century has seen a massive change in the world's population. Between 1900 and 2000 the population will have quadrupled, from 1.6

billion to about 6.1 billion. Family size will have shifted from five children per family to three, and life expectancy will have increased from forty to sixty five years. In 1994 the current world population is estimated 5,607 million.⁽¹²⁾

Even if the population does stabilize in the forty-five years at 7 or 8 billion, these numbers will cause enormous problems. Three facts about the additional 3 or 4 billion (from the present 4.5 billion) who will be born by 2050 are especially important to consider first, almost all the increase will occur in the underdeveloped nations of Asia, Africa, and Latin America. In 1975 the population of these countries constituted 73 per cent of the world's population; by 2000 it will be 80 per cent. In short, four or five billions of the world's people will be living in countries where housing, food, health care, and employment are highly problematic. How will these additional people be fed? Where will they work? These questions are especially relevant when the facts about the *current* population are examined. The United Nation Fund for Population Activities (UNFPA) has estimated that:

- 500 million are malnourished.
- 100 million lack clean water.
- 800 million are illiterate.
- 350 million are unemployed or earn less than \$50a year 250 million live in slums.
- 1.6 billion lack basic health care.⁽¹³⁾

The volatility of this situation is increased by a second fact: the population growth since 1960 in the underdeveloped nations of Asia, Latin America, and Africa has meant that people of the age of fifteen to thirty have become the dominant age

category. People of this age are of the ones, most likely to be moving to the cities, looking for jobs and housing. Most often, they will be disappointed. The massive gap between expectation and reality for these many millions is likely to have international repercussions, with immigration, outbreaks of terrorism, and social movements seeking revolutionary change.

The third fact concerning recent and future population growth is that most of the growth has and will occur in the urban areas of the Third World. This means that the poor, the hungry, and the angry will be concentrated in limited space.

1.6 THE CONSEQUENCES OF OVERPOPULATION

1.6.1 DENSITY

It is apparent that most of the population growth is occurring only in the countries which are least able to provide the food and technology to uphold more people, but is also neutralised in cities of these countries. Whereas in every 25 years the population is doubling in Third World countries, becoming double in Third World cities after every 13.5 years. From 1950 to 1970, for example, the population of cities of 100,000 are more grew in the Third World countries at the incredible rate of 67 per cent per decade.⁽¹⁴⁾ If this growth rate remains the same, it will make a city of 100,000, approximately a city of 9,800,000 with in 100 years, which will create problems of food and services, disposal of water and sewage, increasingly polluted air and water and so on. This will also increase the chances of riots, rebilions and over all social unreset. Which will encourage social movements for changes in the social and polictical

structures, which in turn would lead to a situation of continuous disruptions as numerous groups persues for their narrow interest goal. unclear.

1.6.2 POVERTY

In 1980 an estimated 780 million people in the Third World (excluding China and other planned economies) lived in absolute poverty. "Absolute poverty" is defined as less income than is necessary to ensure a minimum daily diet of 2,150 calories per person. As much as half the population of some countries (India Bangladesh, Indonesia, Pakistan and several other countries in Africa) live in this condition. Poverty translates into inadequate diet, high infant mortality, low life expectancy, and high illiteracy rates.⁽¹⁵⁾

The most perplexing effect of poverty is that it causes to increase fertility rate along with its negative outcomes. The poor families opt to produce more children to ensure their security in old age. As in poor families more children die due to undernutrition so they produce more children to ensure more surviving children. Large families make good supportive sense to the poverty, since children are considered as the sole source of economic labor and income. As Marduch has put it: "that poor people are breeding themselves in to poverty out of ignorance, religious superstition, poor economic judgement or lack of handy contraception is a persistent, but a false, notion. Poor parents have large families because they are poor they are not poor because they have large families".⁽¹⁶⁾ So, any effective family planning programme in Third World countries would directly attack poverty.

1.6.3 FOOD

Hunger presents a paradox in the world: hunger amidst abundance. The annual food production of the world is sufficient for every dravidian of the earth, yet round about 1 billion are eventually undernourished. And according to the World Bank report, about fifty-seven children die every minute due to starvation and hunger related diseases. However, some of the Third World nations which are more impoverished, have adequate food production of potential to produce food to feed the people properly. Question arises why then the people are still undernourished.?

An obvious source of the problem is rapid population growth, which distorts the distribution system and strains the productive capacity of the various nations. The annual increase of 75 million people, for example, means that each year an additional 30 million tons of grain are needed just to keep up.

Most significant, of course, is that almost all of the population increase is occurring in regions and countries that are already poor. Because of low levels of economic development the various levels of government, farmers, and others in these countries lack adequate money and credit for the machinery, fertilizer, pesticides, and technology necessary to increase crop production to meet the always-increasing demand.⁽¹⁷⁾

Another way to explain the food problem is to view it as a poverty problem. Food supplies are adequate but people must have the resources to afford them. Since the poor cannot afford the available food, they go hungry. This view of poverty is correct, but if it is limited to viewing the poor as the problem, it has the effect of blaming the victims for their plight, ignoring the political and economic conditions that

keep prices too high, make jobs difficult to obtain and poorly paid, and force too many people to compete for too few resources.⁽¹⁸⁾

1.6.4 HEALTH

Malnutrition is directly related to the number of people, which adversely affects the life expectancy and the physical and mental ability to work. Which in turn affects the productivity of a country. Moreover, we know that protein deficiency may cause brain hamberger. And malnourishment during the year of physical growth may cause the probability of dwarfing. While reporting the finding of a number of studies Ehrlich's have stated that: a child's body grows to 10 per cent of its adult size in the first three years, while the brain grows to 80 per cent of its adult size. This rapid brain growth is primarily a result of protein synthesis (more than 50 percent of the dry weight of brain tissue is protein). When protein is not available in the diet to supply the amino acids for which brain proteins are synthesized, the brain stops growing. Apparently it can never regain the lost time. Not only is head size reduced in a malnourished youngster, but the brain does not fill the cranium.⁽¹⁹⁾

Vitamin deficiencies, of course, cause a number of diseases such as rickets, goiter, and anemia. Moreover, these deficiencies make the individual more susceptible to influence the other infectious diseases. Health in overpopulated areas is also affected by such problems as pollute water and air and inadequate sewage treatment. And a final health problem brought about by malnourishment, is a low level of energy. Not only lack of food, but intestinal disorders commonly associated with poverty cause general lassitude in the afflicted.⁽²⁰⁾

1.6.5 NATURAL RESOURCES

With a rapid increase in population growth the natural resources are being assaulted in two ways: by polluting the environment and by depleting the pace of resources. The World is facing problem now with the world population of 5607 million in 1994. What, than, will happen with the world of 9 billion in 2020.

The rapid depletion, uneven distribution, and disproportionate consumption of the world's finite resources create world instability. The resource rich countries will probably continue to raise prices, and high use countries (such as the United States) will have to curtail their usage, with resultant internal dislocations and dissatisfactions.⁽²¹⁾ International unrest will also be exacerbated by the increased gap between the resource or technology rich nations and the have not nations.

As the world population increases so do environmental problems, but at a faster rate. Air, water, radiation, and heat pollution and stockpiled solid waste are just some of current ecological problems that will be magnified as the number of people in the world increases.⁽²²⁾

After reviewing all these aspects of population growth, it is quit possible to roughly outline a theory influence on economic development and the living standards of people. After developing a lot of scientific and technological methods of production still there is a fear of population growth severely affect the development. Because the main aspect revealed by the intelligentsia of the world is that the socio-economic development of any country is inversely proportional to the growth of population i.e. that

higher the growth of population is lesser the socio-economic development will be. ⁽²³⁾
So in order to build a coherent theory to explain the relationship between the population growth and the socio-economic development has made the intelligentsia of the world to concentrate on this problem and develop a theory to tackle this problem. For the purpose United Nations population conference, International Conference on Population and Development (ICPD), Was arranged at Cairo, Egypt, 5-13 September 1994, which adopted a 20 year plan to curb birth rates despite a partial rejection by the Vatican and reservations from more than a dozen countries over abortion and sex. Conference Secretary General Dr. Nafis Sadik of Pakistan described the meeting as "an outstanding success". In the eight days, eight hours and 45 minutes of the UN population conference in Cairo, about 3,056,000 babies were born into the world with an average of about four babies every second. Over the same period about 1,167,000 people died, leaving a net increase of 1,889,000. ⁽²⁴⁾

The overall theme of the ICPD was to sketch the interrelationships between the population, sustained economic growth and sustainable development. Since the Program of Action has almost universal relevance, each chapter will have special meaning for different people and organizations. The participants were guided in their deliberations by a set of principles. On the basis of these principals a draft programme of action was passed by the conference. Which mainly concentrated on the equality of human rights, provision of fundamental rights, empowerment of women, gender equality, mutual cooperation among states and persons, and freedom of choice and action, to ensure human well-being through sustainable development.

While focusing on South Asia, it can be said that it is a very densely populated area of the world. It certainly has more people per unit of land than other tropical regions of Africa and Latin America. If, however, South Asia is compared with the non-tropical parts of the world, it cannot unqualifiedly be called a densely populated region. However the population density of the whole region is roughly the same as that of Europe. Thus in most of the countries of South Asia, the rate of population growth is high. This high growth rate prevent these countries from a long scale allocation of poverty and an overall improvement in the quality of life. Most of their resources are used to channelise in to the basic needs rather than the conservation and sustainable use the country's resources for development. Although an overall decline in growth rate has occurred from 2.3 per cent in 1970-75 to 2.1 per cent in 1980-85. ⁽²⁵⁾ But still it is very high when compared to the other developed regions of the world and requires more concentration to be controlled for a sustainable development.

While focussing it further down to Pakistan, it is observed that population of Pakistan is 2 per cent of the total world population, while its share of landmass is only 0.6%. This high population ranks it as the 9th biggest country of the world in respect of population. The existing population growth rate 3.1 per cent, is the highest in the world. Population density is 142 SKM and the total area of land is 796005 SKM. Three million people are added each year. Each family in Pakistan has on the average six children. (Economic Survey of Pakistan). High population growth rate places a burden on household and leads to the perpetuation of poverty of a large proportion of population.

For rational and informed decisions, the present and future generation must be provided with more knowledge about population change and its implications

than they possess now. The fast majority of illiterates in Pakistan has only a bleak idea of the population problem and its future implications. Population problem is clearly the priority of the government, and the government in Pakistan have given special attention to remove the problem and have launched a number of programmes for the purpose. But no fruitful results have come out till now. Indeed the low literacy rate is contributing to neutralise all the efforts by the government of Pakistan to curtail the fertility rate in the country.

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CHAPTER 2

ECONOMIC SECTOR AND THE GROWTH OF POPULATION IN PAKISTAN

2.1 Introduction:

Economic development of Pakistan is being hampered by its demographic situation. The population of Pakistan is growing with the rate of 2.9 per cent, which tends to sweep out the economic gains achieved at a very high cost to the nation. Consequently a huge segment of its population is leading her life below the poverty level. That is why, the target of achieving a high standard of living for an average Pakistani remains a distant dream.

The population of Pakistan at the time of independence was 32.5 million which now has grown up to about 126 million: almost four-fold increase since independence. Currently 3.6 million people are being added per year to the existing population. About 4.8 million births take place per year in the country this means that 9 babies are born every minute.

At present about 1.26 million people die every year which means that every minute 2 deaths occur. In other words it can be said that after every 7 seconds one birth and after every 30 seconds one death is taking place. Every day about 80 new born babies become motherless due to maternal deaths. It means every hour about three mothers die due to child birth.

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This annual population growth rate of 2.9 per cent in Pakistan is the highest when compared to the largest developing countries of the world like China (1.3%), India (2.1%), Indonesia (1.7%), and Bangladesh (1.8%). While Pakistan's per capita income is also very low (about 410 US dollars); as such Pakistan; is classified among the low income countries of the world. About (30%) or 37.8 million people live below the poverty line. And per capita availability of energy consumption in Pakistan is 243 units (kg. of equivalent) per year, which is very low as compare to the developed countries of the world. For example, it is 3646 in the United Kingdom, 5041 in Australia and 7822 in United States. Furthermore in Pakistan the nation is in the debt of 700 billion rupees. More than half of this is in foreign exchanges. This figure is very high considering its GDP. Pakistan imported about 1.2 billion metric tones of wheat during 1993-94, costing about Rs. 5 billion, which is direct consequence of over population. In 1947 the population of Japan was two and a half that times of the population of Pakistan. Today the population of Pakistan approaching the population of Japan in size. It is because Pakistans growth rate has been substantially higher than that of Japan.

All these statistics show very clearly that today after having a rapid increase in population from 32.5 million to 126 million Pakistan is standing at a population bomb ticking with its tremendous economic problems. And this bomb is soon to explode in the near future as the present population of 126.0 million would become 148 million in 2000, 229 million, in 2020 and 500 million by the year 2044. All these sombro figures reveal that if Pakistan fails in controlling its birth

rate it will go to press on frustration, poverty, hunger, backwardness and lawlessness to its future generations.

2.2 ECONOMIC DEVELOPMENT:-

Pakistan, basically is an agrarian country, having 70 per cent of its population dependent on land for their livelihood. Agriculture is the largest single sector of the economy employing 50 percent of the total labour force, contributing for 24 per cent of its share in Gross Demostic Product (GDP). And for 70 per cent of its share in the export earnings. While industry in the urban areas is seeming to regulate the economy of Pakistan and the country has started moving towards self-sufficiency in most of its basic requirements. ✓

TABLE 2.1: Share of Major Sources of Production in per cent of GDP, 1964-65, 83-84, 93-94.

Sources of Production	1964-65	1983-84	1993-94
Total	100	100	100
Agriculture	40	25.3	23.9
Industry	20	29.4	37.3
Services	40	45.3	38.3

Source: Government of Pakistan Economic Surveys, Finance Division
Economic Adviers's Wing, Islamabad.

The table 2.1 shows that the share of major sources of production in the Gross National Product (GNP) for the period 1965-84 and 1984-94. It shows that the share of agriculture declined to 36.75 per cent (from 40% to 25.3%) for the period 1965-84 and to 5.5 per cent (from 25.3% to 23.9%) for the period 1984-94. And during the period 1965-84 the share of services and industry increased, and resulted in a growth rate of GDP of 4.4 per cent. While during the period 1984-94 the share of industry declined to 7.8% (from 29.4% to 27.1%) and the share of services increased to 7.5% (from 45.3% to 49.0%) while resulting in a growth rate of per capita income of 12.3% in 1993-94. And this is only because of the proper use of population source.

2.3 GROSS DOMESTIC PRODUCT AND PER CAPITA INCOME:-

Pakistan had an average annual per capita income about Rs. 6336 in 1986-87, which ranked it the 116th country among 144 countries of the world in terms of per capita income and rated it among the low income countries. Having an average of 6.7 members in a family in which only 2.8 members earning, the average family income was estimated at Rs. 2,980 per month. So each earner had the average income of Rs. 1660 per month. Moreover, the average rural monthly income per thousand was about more than one-third lower than the per capita urban income (Federal Bureau of Statistic). While the ratio of urbanized income decline over the period 1970-79.

The population of Pakistan grew at an average annual rate of 3.1 per cent during the 1972-81 intercensal period, whereas, the average annual

Income?
growth rate of GDP (at constant factor cost increased by four per cent had during 1975-76 to 1982-83, it grew at an annual rate of 6.2 per cent. However, the steadily improving economic performance was interrupted by an unexpected lowering of agricultural production and declining foreign remittances during 1983-84. This resulted in a growth rate of GDP of 4.4 per cent in 1983-84.

Taking the 1984 and 1985 fiscal years together, the growth of GDP averaged 6.6 per cent per annum. During the 1985 fiscal year, the economic growth rate revived after the slow down of 1983.

However, the total per capita income at constant factor cost was Rs. 3984 in 1989-90 which rose to Rs. 4003 during the year 1990-91. While currently in 1993-94, it is estimated at Rs. 4146. (Economic Survey 1993-94). Thus, the monthly average household income was recorded 3701 in urban and 2931 in rural areas in 1991, which rose from 2642 in urban and 1929 in rural areas during the year 1987-88, having the annual growth rate of 12.05% in urban and 13.06% in rural areas (HIES of various years).

Table 2.2 shows that, on the whole income distribution has been better in rural as compared to the urban areas in all the years of HIES except 1990-91. And the share of the lowest 20 per cent in the rural area is consistently higher than in the urban area while reverse is the position in the case of the highest 20 per cent which claimed lower share in rural areas as compared to urban areas, which shows that still the rural areas need more concentration to counter the burden of overpopulation.

TABLE 2.2: Monthly Average Household Urban/Rural Income and Distribution on the basis of growth rate.

Year	Average Monthly Income per household (in Rs.)		
	Urban	Rural	Urban/Rural Ratio
1979-80	1346	835	161.00
1980-81	1464	928	158.75
1981-82	1593	1030	154.66
1982-83	1733	1143	151.61
1983-84	1886	1269	148.62
1984-85	2051	1409	145.56
1985-86	2232	1565	142.61
1986-87	2428	1737	139.78
1987-88	2642	1929	136.96
1988-89	2874	2141	134.23
1989-90	3127	2378	131.49
1990-91	3402	2640	128.86
1991-92	3701	293	126.27
Annual increase	12%	13%	

Source: HIES of various years, Federal Bureau of Statistics, Islamabad.

2.3 SAVINGS AND INVESTMENT:-

Pakistan having comparatively higher growth rate of GDP from its neighboring South Asian countries, has very low savings both in absolute, as well as in relative terms. So is considered to be in the category of low income

economies of the world. The data given in table (3) reflects that Pakistan had its Gross Domestic Savings at 6.0 per cent of the total GDP. And its saving performance substantially deteriorated from 13.0 per cent in 1965 to 6.0 per cent in 1984 but then again it tended to increase its savings at 14.0 per cent in 1992. Whereas, the other low income countries while excluding Bangladesh are showed to increase their rate of saving in 1984, but in 1992 some of them are in perplexing conditions. However, during the year 1985-96, Pakistan recorded its savings at more than 7.0 per cent, ranking it 82nd country among the 102 countries of the world, and furthermore it recorded 14.0 per cent of its savings during the year 1993-94, while ranking the 78th country among the 106 countries of the world. In the same way, Pakistan also tend to decline its gross National Savings from about 15.0 per cent in 1982-85, and thereafter it showed a slight improvement while raising to round-about 13.0 per cent in 1985-86, 13.4 per cent in 1992 and than 14.6 per cent in 1994. This whole data shows that the people of Pakistan, on the whole are poor and are shown to be reluctant savers while comparing with the people of other countries.

Pakistan is thus shown to be highly dependent on the outside financial resources, which is not an encouraging sign for sustainable sound and ever lasting development. So Pakistan should made efforts to attain financial self-reliance at all the levels of economy. For this purpose Pakistan will have to make lot of efforts, as along with many other things it will have to spend a lot of time, labor and money on the programme of population in controlling its highest birth rate. This can only be done through efficient entrepreneurial leadership, and effective social sector performance, thereby, improving the

efficiency of the financial system and market and by making efforts to mobilize rural savings to financial institutions, which is possible only through a controlled fertility rate.

TABLE 2.3: Savings and Investment as Per cent of GDP among Selected Less Income Countries and Pakistan, 1965-84, and 1984-94.

Countries	Gross Domestic					
	Savings			Investment		
	1965	1984	1992	1965	1984	1992
Low Income Economics	19	23	18	21	25	22
Pakistan	13	06	14	21	17	21
Bangladesh	08	04	06	11	16	12
India	16	22	22	18	24	23
Sri Lanka	13	20	15	12	26	23
Nepal	10	12	06	19	22	
Burma	13	17	--	19	22	--
China	25	30	--	25	30	--
Kenya	15	20	15	14	22	17

Source:- World Bank, World Development Report, 1994.

Further more along with savings, the gross domestic investment as a percentage of GDP is also low in Pakistan, on the whole while comparing with the

overall average of the low income countries and a number of developing countries of the region. ✓

It is observed that Pakistan has tried successfully to sustain a high economic growth rate despite of its low investment level. Moreover the table indicates that Pakistan has comparatively low investment rate by international standards and ^{it} has decreased since 1960s. However, since 1984 onward it has increased a little in its investment.

While keeping in view the whole of this data one can easily come to infer that while having a deterioration in its social and physical infrastructure Pakistan can never have a sound base of capital and human resources, until and unless it develops its indigenous capability to sustain a high growth rate of investment. The investment which has made possible improvement, is mainly due to the remittance by the Pakistanis overseas along with the mobilization of financial resources from abroad. ✓

The indebtedness of Pakistan of about US \$ 12 billion has enabled it to finance its developmental projects instead of the absence of adequate savings. However the inefficient level of domestically generated savings will also create constraints in the way to economic growth. And shortage of foreign exchange will also hamper the economic growth. Therefore, only the major domestic resource mobilization efforts can made it possible to increase the public investment. ^{dis/} Which in turn would substantially raise the public savings and would lead the country on the way to economic development on sound basis. ✓

And for the convenient flourishing of this whole process a planned population is the most necessary pre-requisite. ✓

2.4 BALANCE OF PAYMENT

The situation created by the decline of exports (73%) and foreign remittances has considerably deteriorated the balance of payments during the year 1985-86, along with an increase in the proportion of imports of Pakistan rew *spell* only by 1.6 per cent which ultimately resulted the trade deficit of 11.5 per cent. The over-all trade deficit in the country was raised to \$ 900 million rupees and the gross official exchange reserves were decreased by \$ 11.1 billion rupees. While at the end of the fiscal year 1985, gross official exchange reserves were equivalent to about five weeks of imports. However, a combination of exogeneous factors, particularly, lower economic activity in the Middle East and its impacts on remittances, and Pakistan's exports and a drop in the commodity prices in the international market partially caused the severe deterioration in the balance of payments in Pakistan.

It also reflected the inconvenient export promotion policies and the management of exchange rates. This situation is still prevailing in Pakistan and is expected to deteriorate further the balance of payment due to the increasing trade deficit and a decline in the workers remittances in the next coming years. Moreover the rate of inflatin *spell* as measured by the GNP deflator increased from 7.1 per cent in 1982-83 to 8.8 per cent in 1983-84 and is

recorded 9.26 per cent in 1993 and 10.16 per cent in 1994, along with a growing trade deficit (Economic Surveys of Pakistan). *→ This is not in way to give ref*

In the light of both the deficiency of internal savings, inflation and trade deficit, it will prove a hard nut to crack, for the government of Pakistan to bridge the gap in the balance of payment during the coming years. So the policies of the stimulation of savings, reduction in imports and reduced population growth rate would be intensely required along with the increase in exports. It is a well known fact that the planned families and controlled population growth rates would highly facilitate the savings at both the micro and macro levels.

Moreover, the requirements for the import of consumable goods as, clothing and foodstuffs world *spell* only be controlled by lowering the population growth rate. And foreign exchange would be released for other investment purposes. Measures for the rectification of such a situation were included in the trade policy of 1987-88 and is given much importance onward but the need for consumption goods can not be denied to fulfill the requirements of ever increasing population. Abdul Razzaque Rukanuddin, and Naseem Iqbal Farooqui, in their book "The State of Population in Pakistan", have given the estimation of projected requirements of Gross National Product (GNP) and per capita income in Pakistan by the year 2000, under constant and declining growth rates of population which is given below. (See Table 2.4).

TABLE 2.4: Projected Requirement of gross National Product (GNP) and Per Capita Income in Pakistan by the Year 2000, under Constant and Declining Growth Rates of Population

Population, GNP, Per Capita Income and Investment	Requirement by the year 2000			Savings
	Base Year 1982-83	Under Constant Rate of Population growth of 2.85%	Under Declining Rate of Population Reaching 2.1% by the Year 2000	
1. Population (in `000s)	88,269	146,894	137,100	9,794
2. Gross National Product (GNP) at Factor Cost (in billionRs).	365,585	1,101.705	1,028.25	73.455
3. Per Capita Income (in Rs)	4,142	7,500	7,500	---
4. Additional Gross National (GNP) Required (in billion Rs)	--	736.120	662.665	73.455
5. Investment (Required to create additional GNP at 4 above assuming a capital output ratio 3:1 (in billion Rs).	--	2,208.360	1,987.995	220.365

Source: Government of Pakistan, Economic Survey 1985-86 Finance Division, Economic Adviser's Wing, Islamabad.

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2.6 LABOUR FORCE:-

Labour Force is considered to be that proportion of Population which is economically active and is functioning to produce goods and services to meet the requirements, facilities and satisfaction of their whole society. The labour force is infact consisted of the persons older than 10 or 12 years of age, who are working or are in search of work on the basis of salary or wage. All the segments either self-employed persons in their own business or employees who worked for profit or wages, and those persons who worked for profit or wages, including those persons who work voluntarily as family helpers in income producing activities, are considered to be the part of total labour force. Women although producing goods and services while performing their domestic work at home, are not included in labour force. The over-all economic performance of a country is directly effected by the proportion of labour force to the total population, the age and size structure of the labour force and its occupational structure and distribution in the industrial sector. Regional distribution of labour force has also vital importance from the point of view of industrialisation and growth of output among various segments of the total population. Economic factors also determine various features of the labour force including employment, underemployment and unemployment.

2.6.1 ECONOMICALLY ACTIVE POPULATION:-

The growth of the total population situation of economically active population and the crude economic activity rates are given in table 2.5. The table shows that the total population of Pakistan increased by about 1.64 per cent

TABLE 2.5
Growth of Total Populatiuon and Economically Active Population (10 years and above) by Sex, Pakistan, 1951-1981

Census year/sex	Population			Economically active population (10 years and aboe)			
	Total	Percentage increase	Annual growth rate	Total	Percentage increase	Annual growth rate	Crude activity rate
Both sexes							
1951	31,948	—	—	9,812	—	—	30.71
1961	39,442	23.46	2.15	12,763	30.07	2.68	32.36
1973	60,510	53.41	3.45	19,762	54.84	3.52	32.66
1981	84,254	39.24	4.52	22,626	14.49	1.81	26.85
Males							
1951	17,204	—	—	9,495	—	—	55.19
1961	21,168	23.04	2.1	11,641	22.60	2.07	54.99
1973	32,511	53.59	3.46	18,016	54.76	3.52	55.41
1981	44,233	36.05	4.19	21,791	20.95	2.55	94.26
Females							
1951	14,744	—	—	317	—	—	2.15
1961	18,274	23.95	2.19	1,122	253.62	13.57	6.14
1973	27,998	53.21	3.44	1,746	55.59	3.56	6.23
1981	40,021	42.94	4.88	835	52.16	9.37	2.09

Source:- Rakanuddin, A.R. Farooqui Iqbal, No., 1987; The State of Population in Pakistan, NIPS, Islamabad.

during the three decades from 31.9 million in 1951 to 84.2 million in 1981, and the corresponding increase of labour force during the same period of time was only about 131 per cent and the labour force participation rate declined during 1973-81. Further more rate of increase of economically active population, compared with the total population was higher during the first two decades, but was found to be lower, as by the latest intercensal period 1973-81. This rate of increase in economically active population is not reflecting healthy signs.

The data given in table 2.5 shows that all the economic infrastructure is *serverly* disturbed by a growing population and especially those sectors of economy which could not grow with the expansion of population. So the need of the hour is to control the population growth rate. So that the future generation may escape from the confrontation with worst consequences related to employment along with other factors. The utility of a reduced population growth rate can be observed from the fact that if the growth rate is brought down to 2.1 per cent from the current till the year 2000, then 36.81 people could be employed till the year 2000 while comparing to 39.44 under a constant growth rate of population, which indicates a saving of 2.63 million vacancies.

So it can be concluded that it is inevitable to develop all the sectors of economy to keep up with the growing population and to adopt more labour intensive methods of production so that a quantity of labour force could by employed.

END NOTES

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CHAPTER 3

SOCIAL SECTOR AND THE GROWTH OF POPULATION IN PAKISTAN

There are lot of measures ^{and} ^{is them} which are used to measure the level of development in a country, in which two are considered most important (1) National Income, and (2) Per Capita Income. But the development economists in 70s and particularly now in 90s are not satisfied in GNP, per capita income or national income as the principal measures of the development progress. In order to have a most proper measure of development they have developed an alternative approach in Physical Quality of life Index (PQLI). Norman Hicks and Paul Streeten were the originators of this approach and they agreed that the reduction of poverty and satisfaction of basic human needs should be taken as the yardsticks of development. And the basic human needs are; provision of better health facilities, housing, sanitation, water supply, food, education transport and energy. If these basic human needs are being provided progressively in a country and the quality of life is still improving, it means that the country is on the road to development. And if a country having highest GNP, per capita or national income has lack of these basic facilities, can not be considered as a developed country. So we may say that a developed social sector is a basic indicator of development, which is in a very miserable situation in Pakistan. The history of population welfare programme is about over 30 years but the highest population growth rate (2.9%) per annum is seeming to neutralise the gains of social sector in Pakistan. Owing to such a dreadful situation it seems a distant dream for a common Pakistani to achieve a high quality of life.

While evaluating the situation of social sector in Pakistan, it becomes apparent that its population suffers from high birth rate, high mortality rate, high dependency ratio, under employment, poor health, hygiene and low literacy standards. The data given about social sector reflects that at the time of independence the population of Pakistan was 32.5 million. Currently 3.6 million people are being added

per year to the existing population. 4.8 million births take place every year which means that 9 babies are born every minute. While at present about 1.26 million people die every year which means that every minute two deaths occur. In other words we may say that after every 7 seconds one birth and after every 30 seconds one death is taking place. About 80 new born babies become motherless every day due to the maternal deaths. It means, every hour, about three mothers die due to child birth. Only (36.8%) of total population is literate and the absolute number of illiterates increasing due to the rapidly growing population. Even 48 years after independence, a large part of rural population is living without electricity. About 31% of total population is still without safe drinking water. Women have very low status: for example only 16.0 per cent of females in the country and 7.3 per cent in rural areas were literate in 1981. Today literacy rate of women is estimated around 23.5 per cent. Half of the population lives in one room housing units. According to the latest statistics, there is a backlog of 6.3 million housing units which is increasing every year with the increase in population. Rapid population growth is leading to rapid depletion of natural resources and a rise in demand for goods and services, which, if remains unchanged will imply greater environmental damage. More people produce more waste and thus cause additional stress on earth's assimilation capacity.⁽¹⁾

Communication is also a key factor in development. Pakistan has only 0.24 Km of road per sq.Km. as compared to 1.53 Km. in United Kingdom and 1.98 Km in Germany. This low level in Pakistan severely hampers the development. Fast population growth will make matters worse as the funds required for communication will have to be diverted to meet other needs of growing population. While relating to education only about two children (70.82%) of primary school age are enrolled. More than half of our population does not have access to health facilities: there is only one doctor for 1918 persons, one nurse for 5969 persons and one hospital bed for 1548 persons. About 12 million children under the age of five are malnourished.⁽²⁾

All this data shows that the population of Pakistan is standing at a very critical situation, while having the highest birth rate, lowest per capita income and an extremely worse situation of its resources which in turn is worsening the situation of

social sector in Pakistan. Performance of social sector along with the growth of population is given in detail by sector wise.

3.1 HEALTH:-

Health is directly related to the developemnt of a counrty. A society having better health conditions can actively participate in the developmental activities. And the provision of basic health facilities is extrementy bad in Pakistan. Infact Pakistan inheritted the health sector in a very miserable condition at the time of its independence. For the reason, basic health facilites along with health man power are still in a very poor condition in urban and expecially in rural areas. However the government of Pakistan is providing free primary health care to all the people, but still basic health facilities and health manpower in the country do not match the requirements of rapidly increasing population and need to be concentrated for improvement.

Table 3.1:- Inter-country Comparison of Selected Vital Health Indicators.

(Year 1991)

Country	Life Expectancy at birth	Infant Mortality Rate (Per 1000 live)	Crude Birth Rate (Per 1000 live)	Crude Death Rate (Per 1000 live)
Iran	69	68	44	9
Pakistan	59	97	41	11
Sri Lanka	72	18	21	6
Thailand	69	27	21	6
China	69	38	22	7
India	60	90	30	10
Malaysia	71	15	29	5
Indonesia	65	41	28	7
Bangladesh	53	103	38	13
Nepal	54	101	38	13

Source:- World Bank, World Development Report 1993.

Standing at this point Pakistan is facing high infant mortality rate, low life expectancy and high death and birht rates. Which categorisese Pakistan at a very low level in the field of primary health services, when compared to its neighbouring countries shows that Pakistan has to do a lot in the field of health services.

Table 3.1 shows that after Bangladesh and Nepal, Pakistan stands at the lowest stage of the overall health conditions. Only in case of crude birth rate it overlaps Iran. Although Pakistan has considerably improved its conditions in the provision of basic health facilities and manpower during the period 1955-93. (See table 3.2).

TABLE 3.2:- Number of Registered Doctors, Dentists, Nurses, Lady Health Visitors, Hospitals, Dispensaries, and Maternity and Child Health Centres.

Year	Registered Doctors	Reg. Dentists	Reg. Nurses	Reg. LHV's	Hospitals	Dispensaries	Maternity and Child Health Centres
1955	127	-	-	-	333	984	198
1960	477	-	-	-	342	1,195	348
1965	1,591	151	-	-	379	1,695	554
1970	3,913	384	-	-	411	1,875	668
1975	6,018	650	1,985	118	518	2,908	696
1980	10,717	928	5,336	547	602	3,466	812
1985	30,044	1,416	10,529	1,574	652	3,415	778
1990	51,883	2,077	16,948	3,106	756	3,795	1,050
1993	63,003	2,401	20,245	3,920	796	4,144	829

Source:- 1) Ministry of Health.
 2) Planning and Development Division.
 LHV's = Lady Health Visitor.
 Reg. = Registered.
 - = Not Available.

There was also an overall increase in the yearly average growth in the ratio of health facilities like hospitals, dispensaries, and maternity and child health centres. On the other hand, examination of the absolute growth of health services and manpower in the country since 1995 reveals an overall yearly increase in the size of

registered doctors, dentists, nurses and lady health visitors. Hence it could be inferred that manpower in the health sector has grown much faster than the health services in the country. However the expansion of overall health services has been low when compared to the growth rate of population. The situation of health manpower and infrastructure is given in the following table.

Since the health services and manpower are to serve the needs of the general people, statistics of health service facilities and manpower show that their availability per head is very limited due to the overpopulation and the rapid population growth is worsening the situation more.

Table 3.3: Total Population, Number of Beds and Population per Bed, Doctor and Dentist.

Year	Total Population million	Total Beds	Population per Bed	Population per Doctor	Population per Dentist.
1951	33.819	19,197	2,077	-	-
1961	42.978	22,394	2,063	75,740	-
1972	65.321	35,337	1,792	13,190	1,23,953
1981	84.254	48,441	1,731	6,027	82,357
1991	113.78	75,805	1,501	2,048	51,892
1993	120.83	78,044	1,548	1,918	50,329

Source: 1) Ministry of Health.
 2) Planning and Development Division.
 - = Not available.

Table 3.3 shows that although an overall expansion has occurred in the health services and manpower but it is comparatively low when compared with the growth rate of population and cannot fulfill the requirements of rapidly increasing population. One of the main causes of this miserable situation is that government expenditure on health are very small and the distribution of health facilities is extremely unequal. A large amount of health expenditure is incurred in urban areas where most of the health facilities of the country are located.

Moreover the availability of basic health facilities was quite acceptable during the decade of 1951-60. But it declined during 1960-70 and further in 1970-80 and still in 1990s is moving towards worsity due to rapid increase in population growth rate and insufficient expenditure on the health sector. Only 2 per cent of the total GNP and 5 per cent of the total expenditure is being spent on the health sector, which is too small to meet the needs of such a huge population size along with its rising expectations.

This whole situation shows that the availability of basic health facilities is far below than the satisfactory level and is needed to be improve with a rapid growth rate.

Thus having lack of resources it looks imposible to improve the rate of basic health facilities to keep with the population growth rate. In such a condition, to make the availability of health services feasible for every person, it is necessary to control the fertility rate. On the other hand the proportion of health expenditure should also be increased. So that each of them could match each other, through bilateral process. Otherwise this situation will lead Pakistan towards the physical disaster.

3.2 Education:-

Education is considered to be the vital element in the development of any country. It is a basic investment for the human resource development and for developing the living standards of the people in general. It therefore plays a very key role in the socio-economic development of a country. Islam also declares it the basic duty of the whole society to acquire education. Because it provides the means of providing basic human needs of a society like adequate health and nutrition, safe drinking water, reduction of poverty and elimination of diseases. It also changes the attitudes and behaviours of the people towards the adoption of new technologies, modernisation, quality of life and living pattern. So it helps in overcoming poverty,

increasing incomes and improving health conditions through a planned family size. In this way its relationship to the population growth and population welfare cannot be neglected.

Pakistan inherited the education sector in a very poor condition and it remained one of the neglected sectors since independence. Which is apparent from the fact that literacy and enrolment rate stood lowest in Pakistan, when compared to the other developing countries of the world. Although the education infrastructure has developed and diversified in the past. But with the literacy rate of only 36.8 per cent, Pakistan still stands far behind other nations in this field. At present there are 1,56,450 primary schools including mosque schools with total enrolment of 15.5 million. Participation rate at this stage is estimated at 70.8 per cent: 86.3 per cent male and 54.9 per cent female students. There are 780 colleges and 24 Universities in the country. Mass dropout at primary and secondary level, lack of access to women education and inadequate facilities in the rural areas, rapid population expansion and less budgetary resource allocating accounts for the major bottleneck of the education sector thwarting the sincere and concerted efforts of the government to achieve universal primary education and higher literacy rate. ⁽³⁾

The dimensions of literacy in terms of region gender and province are given in table 3.4. Table 3.4 shows that the overall increase is occurring in the literacy level of all areas and growth rate is much higher in rural areas than in urban areas. In gender breakdown the literacy growth rate is much higher in females than in males. In provincial situation, the situation of Sindh is much better than the other provinces.

Table 3.4: Dimensions of Literacy

Years	1961	1972	1981	1994
All Areas	16.7	21.7	26.2	36.8
Rural	10.6	14.3	17.3	27.5
Urban	34.8	41.5	47.1	57.0
Gender Break Down				
Male	25.1	30.2	35.1	48.9
Female	6.7	11.6	16.0	23.5
Provincial Situation				
Punjab	16.1	20.7	27.4	-
Sind	20.1	30.2	31.4	-
NWFP	13.8	14.5	16.7	-
Balochistan	9.8	10.1	10.3	-

Source: Economic Survey of Pakistan 1993-94, Finance Division, Economic Advisor's Wing, Islamabad.

The literacy growth rate in urban areas is lower than in rural areas, because of the rapid population growth rate, rural to urban migration and more dense population situation in urban areas. Which contributes to the lower enrolment rate, which is in a very hazardous situation in Pakistan. Because the total number of the persons of the age of school enrolment is more than the number of enrolled school children. Which are shown in the table 3.5.

The table 3.5 shows that the total population of the age of primary, middle and high schools is much higher than the total number of enrolled students in their respective ages. As in 1961 it was three times high at primary level, five times high at middle level and nine times high at high school lever. In 1972 it was two and half times high at primary level, about four and half times high at middle level and seven times high at high school level. And in 1981 it was two and half times high at

TABLE 3.5 School Enrolment Ratio by Level and Sex

Year/ Sex	Primary School			Middle School			High School			Population (615 years old)	No. Of students (Thousands)	School Enrolmen t (Percent)
	Population (6-10 years old)	No. of Students (Thousands)	Enrolment ratio (percent)	Population (11-13 years old)	No. of Students (Thousands)	Enrolment ratio (percent)	Population (14-15 years old)	No. of Students (Thousands)	Enrolment ratio (Percent)			
1961												
Both Sexes	6,094,716	2,060	33.8	2,161,422	449	20.8	1,390,398	160	11.5	9,646,536	2,669	27.7
Male	3,275,551	1,063	49.8	1,195,296	382	32.0	764,589	133	17.4	5,235,436	2,145	41.0
Female	2,189,165	430	15.3	966,126	67	6.9	625,809	27	4.3	4,411,100	524	11.9
1972												
Both Sexes	10,385,411	4,210	40.5	4,058,744	963	23.7	2,498,807	366	14.7	16,942,962	5,539	32.7
Male	5,546,383	3,100	55.9	2,291,362	767	33.5	1,394,778	295	21.2	9,932,523	4,162	45.1
Female	4,839,028	1,110	22.9	1,767,382	196	11.1	1,104,029	71	6.4	7,710,439	1,377	17.0
1981												
Both Sexes	13,621,880	5,474	40.2	5,625,255	1,412	25.1	3,588,308	549	15.3	22,835,433	7,435	32.6
Male	7,143,504	3,692	51.7	3,076,738	1,053	34.2	1,946,794	412	21.2	12,167,039	5,157	42.4
Female	6,478,376	1,782	27.5	2,548,517	359	14.1	1,641,511	137	8.4	10,668,404	2,278	21.4
Enrolment ratio = $\frac{\text{Student of each level of school}}{\text{School age population}} \times 100$												

Source: Social Indicators of Pakistan, 1990, Federal Bureau of Statistics, Statistics division, Islamabad.

primary level, four times high at middle level and six and half times high at high school level. Although the situation of school enrolment is moving towards wellbeing but the growth rate of enrolment rates is rising very slow. And its main cause is the low government expenditure on education which in a way is also due to the overpopulation. The situation of government expenditure on education is given in the following table.

Table 3.6: Total Expenditure on Education (at current price).

Year	Development	Non Development	Total	% of GNP
1960-61	38.1	155.0	193.1	1.06
1965-66	177.5	331.7	509.2	1.7
1970-71	309.5	480.4	789.9	1.7
1975-76	751.1	1731.1	2482.2	2.0
1980-81	1240.5	3378.6	4619.1	1.8
1990-91	4070	19500	23570	2.3
1993-94	4870	29930	34800	2.20

Source: 1) Social Indicators of Pakistan 1990; Federal Bureau of Statistic, Statistics Division, Islamabad.
 2) Economic Survey of Pakistan, Finance Division, Economic Advisor's Wing, Islamabad.

Table 3.6 shows that the percent share of total expenditure on education is very low and has been in a very perplexing situation in past. Which has contributed to a very limited and low level of education infrastructure. The overall such a poor educational infrastructure is inadequate to provide the proper educational facilities to the whole country. Although this educational infrastructure has improved but its growth rate is considerably than that of population, which is threatening the overall educational performance of the country and is contributing to the low literacy rate or in other words it can be said that the high rate of illiterate persons in Pakistan, when compared to the other developing countries of Asia, which can be seen in the following table.

Table 3.7: Inter country comparison of illiterate persons be sex and its total percentage.

Country	Illiterate Population	Male	Female	Percentage of Illiteracy Population
Bangladesh	32923083	14501583	18451500	70.8
China	230146750	71110590	159036130	34.5
India	238097743	23899839	144197913	59.2
Indonesia	28325026	9490915	18834111	32.7
Maldives	8568	4565	4003	8.7
Nepal	6998148	3053083	3945065	79.4
Pakistan	33597018	15511984	18085034	73.8
Sri Lanka	1271984	424424	847506	13.2
Philippines	4626922	2200485	2426437	16.7
Malaysia	2399790	791000	1608790	30.4

Source: UN Statistical Year Book 1992.

3.3. Housing

While analysing housing situation the study of household becomes a primary pre-requisit. As in the study of fertility, migration, savings income distrubution and social welfare, the household is usually considered as a single statistical primary unit . And a household can be defined as a socio-economic unit consisting of individuals who live together, or it may represent some sort of an arrangement between individuals who may or may not be related, for providing themselves with food or other essentials of living. The household may be confined to only one person or it may be multi-person household.

Like many other developing countries Pakistan is facing the housing problem since independence. Not only the housing facilities are inadequate but their quality in most of the cases is also substandard. Rural-urban disparities also exist

there. The information on housing situation in Pakistan is available only at three points of time; 1960 Housing Census, 1972 Housing Economic and Demographic (HED) survey and 1980 Housing Census of Pakistan.

3.1.1 Housing Stock Situation in Pakistan:-

In 1947 the newly born country faced a very dreadful situation of housing. Especially for the settlement of huge bulk of migrants from across the boarder. Having a lot of other problems government could not pay due attention to this problem and pre-occupation by local inhabitants occurred which caused further diversificaion. At that time, the government was more concerned with the settlement of government employees, so the common people have to face a severe housing problem. Furthermore the rapid population growth at a near constant fertility rate and declining mortality rate inserted more pressure at already pity situation of housing stock in Pakistan. The housing stock situation in Pakistan and provinces is given in the following table.

Table 3.8: Housing Stock Situation in Pakistan and its Provinces.

Area	1960	1973	1980
Pakistan	7,816	10,881	12,588
Punjab	5,163	6,745	7,597
Sind	1,565	2,350	2,782
NWFP	792	1,074	1,616
Balochistan	296	512	593

- Source:**
- 1) Government of Pakistan, Housing Census of Pakistan 1960, Ministry of Home and Kashmir Affairs Division, Karachi.
 - 2) Government of Pakistan, HED Survey 1973, Pakistan Census Organisation, Interior Division, Islamabad.
 - (3) Government of Pakistan, Housing Census Report of Pakistan 1981, Population Census Organization, Islamabad.

33.2

3.1.2 Population Pressure on Housing:-

The rapidly increasing population is exerting high pressure on the existing housing stock which is growing very slowly. The number of persons living per housing unit was 5.5 in 1960 which increased to 5.6 persons in 1973 and to 6.7 persons in 1980. And the number of persons living per room was 3.3 persons in 1960 which decreased to 2.8 persons in 1973 due to the construction of new housing units having more rooms and this again increased to 3.5 persons in 1983. While the number of rooms per housing unit was 1.7 rooms in 1960 which increased to 2.0 rooms in 1973 and again deteriorated to 1.9 rooms in 1980 (See table 3.9). This whole data shows that the numbers of persons per housing unit is very high and is constantly increasing. It means that the rapid population growth is alarming housing stock situation in Pakistan, which can be seen in the following table.

Table 3.9: Persons Per Housing Unit, Persons Per Room, and Room Per Housing Unit

Housing Characteristics	1960			1973			1980		
	Rural Areas	Urban Areas	All Areas	Rural Areas	Urban Areas	All Areas	Rural Areas	Urban Areas	All Areas
Persons per Housing Unit	5.5	5.5	5.7	5.6	5.4	5.9	6.7	6.6	7.0
Persons Per Room	3.3	3.3	3.1	2.8	2.7	2.7	3.5	3.6	3.2
Room Per Housing Unit	1.7	1.7	1.8	2.0	2.0	2.2	1.9	1.8	2.2

Source: Social Indicators of Pakistan 1990, Federal Bureau of Statistics, Statistics Division, Islamabad

It is statistically observed that the average number of persons living per housing unit has constantly increased during the two decades 1960-80, which implies a serious housing stock situation. Currently the existing blockage is 6.25 million housing units in the country. Apart from this shortage the additional shortage is increasing at the rate of 1,50,000 houses per annum.⁽⁴⁾ This incremental shortfall has substantially

raised the overall demand of the housing units. One of the major factors of this higher demand is the rapid population growth and the other factors are its subsidiary i.e. low capability in general and low income groups in particular to save and invest in housing, budgetary constraints, collapse of the traditional joint family system and the constant flocking of rural migrants to cities in search of jobs, services, amenities and better standard of living. The urbanising migration has created a problem of severe housing shortage, sanitation, water supply and environmental pollution squeezing the urban residential capacity to the breaking point. ✓

With respect to future housing requirements the demand of housing units is still increasing constantly due to the rapidly increased population. This prevailing situation is seeming to sweep out the physical development of Pakistan and is needed to be handled. Thus the need is to retain the population growth through reduction in fertility and increase in housing capacity by more investment in housing stock.

3.4 HUMAN ENVIRONMENT

Population growth and the human environment are interlinked and are directly related to the development of a country. The major environmental linkages to the population growth can be viewed in two aspects: (i) the production and the environment; and (ii) urban migration population density and the environment. ✓

Production influences the human environment when the production increases rapidly in order to develop the resources to meet the needs of ever increasing population. Both the industrial as well as agricultural production process are included in causing the depletion and degradation of natural resources and the pollution of water, air, land in the loss of biodiversity. While the urban migration/population density effects the environment through expansion of areas of urban agglomeration and their ever increasing density. Which causes the destruction

of natural resources to make way for expansion and the pollution of surrounding rivers as well as the degradation of urban environment e.g water, air and land etc.

In the light of above discussion it might be said that the sustainable development requires urgent improvement in the environment. In 1992, UN Conference on Environment and Development has also expressed the same views. In Pakistan the rapid population growth and discriminate use of natural resources has led to the environmental pollution. In urban areas a bulk of unplanned industries and extra use of automobile is rapidly polluting the human environment. While in country-side environmental problem includes the denudation of forest resources, water logging, soil erosion, salinisation, decertificaton, deterioration of costal resources and reduction of valuable flora and fauna species. Renewable resources like forests, wildlife, range land and pastures are also becomming depleted very steadily through the menance of deforestation, soil erosion, salinisation, water logging, loss of genetic diversity and rare species. On the other hand, non renewable resources are being exploited very rapidly without developing any substitution. With an increase in population and the situation of lawlessness, lack of education, training and awareness about the environment, the situation is becomming more complicated.

"The index of air pollution is measured as concentration of sulphur dioxide and suspended particulate matter (SPM) in air. In Lahore for example, concentration of SPM is 496 micrograms/ cubic meters as compare to 57 for Toronto, 238 for Tehran, 105 for Benkok and 413 for Beijing. Rapid population growth is affecting the water quality as well. The concentration of dissolved oxygen in River Indus is only 2.3 mg/litre, which is far bellow the desired level of atleast 5.5 mg/litre. Only 4.4 per cent of the land in Pakistan under forests, as compared to the developed countries like United Kingdom (18.9%), United States (10.5%) and Japan (12.3%)" (5). In Pakistan this low proportion is due to the increasing demand of the growing population for agricultural land, fuel, building material and other needs. This has serious implications for the healthy environment and quality of life.

Infact the enviornmental awareness is of recent origen in Pakistan. The government of Pakistan has come to realize the intensity of the sittuation and is trying to control it. The government of Pakistan has formally included the integerated enviornmental issues in its development planning programe. But still it is not sufficient and is needed more concentration. If the current fertility rate and this pollutionary process is not controlled it will hinder the over all development of the country in the above mentioned ways.

All the above discussion reveals that the overall situation of social secter is extremely bad in Pakistan, which is alarming the social performance of the country. If this situation remains unchanged, it will sweep out all the developmental gains of the country and will lead it towards the social disaster. The discussion also reveals that the sole reason of this meagerness is rapid population growth.

END NOTES

1. Abdul Hakim, 1994; "Demographic situation and its socio-economic implications" National Institute of Population Studies, Islamabad, Pakistan.
2. Ibid;
3. Economic Survey of Pakistan, 1993-94; Finance Division, Economic Advisor's Wing, Islamabad.
4. Ibid.

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Chapter 4:

Evaluation of the Population Planning Programme in Pakistan.

The concern for population planning programme in the context of development in Pakistan can be traced back to the inception of development programme in the country. Alarmed by the accelerated growth of population, the government initiated family planning programme in the private sector in early 1950's. The task was assigned to the Family Planning Association of Pakistan (FPAP). In the Second Five Year Plan (1960-65), the programme operated in the public sector through the Health Department. During the Third Five Year Plan (1965-70), it was separated from the health sector and was given independent status with a view that it may be implemented as a crash programme throughout the country. The programme was launched on a nation wide basis forming an integral part of the over-all development strategy within the framework of a 20 years perspective Plan (1965-85). The programme during 1960-80 was referred under various titles and followed different approaches with a view to improve the acceptance and continuance of fertility control practices in the country. Briefly there was a target oriented approach (1960-75), the continues Motivation System (CMS) approach (1970-80), contraceptive Inundation Approach (1974-77) and multi sectoral and multi dimensional approach, which replaced the previous approaches. The examination shows that the strategies have been flickering and changing frequently, which among other factors have adversely affected the over-all performance of the programme. While allocation of funds for the programme have been increased from one plan period to the other, but its performance has not, so far, made an impact commensurate with its size and expenditure. Low literacy rate in the country seems to be among the major factors. So it will not be improper to say that if the country wants to implement its plans successfully and wants to achieve the desired targets of its programme it will have to concentrate

on its education sector to improve its prevailing literacy rate. This hypothesis can be validated by the fact that all the strategies and the projects of the programme could not yield desirable effects in Pakistan, but when applied in other countries, they were highly successful. Thus before authentically proving the validity of this hypothesis it is inevitable to review the performance of the programme under different plans.

i) First Five Year Plan 1955-60

The First Five Year Plan did not make any specific recommendation to start family planning programme in Pakistan. It, however, recognised the consequences of the population growth rate for economic Development. In the plan it was considered that a rate higher than 1.4 per cent would seriously jeopardize the prospects of development in the years to come. The statement from the plan is a good example of the dangers felt by economic planners:

The country appreciates that a population growth is a rock on which all hopes of improved conditions of living may flounder. It admits of, no approach except that the rate of growth must be low.⁽¹⁾

The plan took into consideration the effects of the population growth on age distribution, labour force, occupational distribution and manpower needs of the economy which was rather a progressive and enlightened step at that stage of the art. The plan was formulated on the basis of the needs of economy in terms of the development of various sectors and did make an effort to relate these sectors with the changes in population. A tribute is due to the authors of the First Five Year Plan for realising the importance of education and training as an important feature in social and economic development. One could expect that these had been a sound store of knowledge

of family planning at that point of time. So it would have been included in the First Plan as a separate sector of development.

ii) Second Five Year Plan 1960-65

The Second Five Year Plan which was later heralded as one of the most successful development plans in the world, attached special importance to population programme. The plan noted:

Since population growth can threaten to wipe out the gains of development, the plan clearly recognises the paramount need for a conscious population policy and its implementation.⁽²⁾

The Plan stressed the need for an understanding of the problem by the people themselves and the development of education, food, housing and welfare. In fact, the outline of a clear strategy for population control was spelled out in the plan. Emphasis on education particularly the education of women, literacy and employment opportunities for women were planks of a policy for popularizing family planning as a means of raising the standard of living of the population and their children.⁽³⁾

iii) Third Five Year Plan 1965-70

The Third Five Year Plan was the first planned document to have a separate chapter on family planning and the strategy for the implementation of the programme. Other sectors of the economy, particularly the social sectors, also reflected the development of the sectors which could contribute to the cause of family planning in the country. In fact, the programmes associated with family planning made impressive gains during the Second and the Third Five Year Plan periods especially the infrastructure of family planning programme.⁽⁴⁾

iv) **Fourth Five Year Plan 1970-75**

The Fourth Five Year Plan was a very bold document which was preceded by an extremely candid document, "The Socio-Economic Objectives of the Fourth Five Year Plan". The objectives of this document were based on an evaluation of the Third Five Year Plan.⁽⁵⁾

The Fourth Five Year Plan, apart from laying down policies for social justice and equal distribution of income, emphasised three aspects of the economy which were directly related with population policies i.e. family planning, education and rural development. By this time a widespread consciousness about the role of social sector development in the population dynamics had emerged. However, the pressure of the so called productive sectors was so over-whelming that the social sectors along with the population planning programmes trailed far behind the productive sectors in terms of plan allocations and were far short of the needs for achievements of various targets.

v) **Non-Plan Period 1970-78 and Fifth Five Year Plan 1978-83**

Due to the separation of the East Pakistan in 1971 the Fourth Five Year Plan became redundant and the period between 1970 and 1978 was marked by the non-existence of any plan. The Fifth Five Year Plan was launched after this "Non-Plan" period. So it tried to settle the economy and to recover the previous loss. So could not implement properly the future policies and failed in achieving due targets.

vi) **Sixth Five Year Plan 1983-88**

The Sixth Five Year Plan came out as a stronger plan document

and aimed at bringing a behavioural change towards a small family norm. The plan contains seven statements:

1. population policy is a national responsibility;
2. it aims at behavioral change favouring the small family norm within an acceptable socio-cultural framework;
3. Construct a programme based on local needs by enlisting community participation and developing responsibility and authority;
4. solicit involvement of a range of target groups and NGOs for expanded coverage;
5. seeks integration of activities with the programme of other departments for diversification;
6. make women the participants and beneficiaries of the programme; and
7. devises a communication strategy to remove public misgivings, to create demand and to promote the above approaches.⁽⁶⁾

As a result of this renewed attention, the programme in the Sixth Plan picked up momentum. Steps were taken to strengthen administrative controls, ensure the supply of contraceptives, revamp the service delivery system and new initiatives were taken to establish the programme on a permanent basis. A social marketing system was introduced to ensure the availability of the most popular contraceptives in the market; the National Institute of Population Studies was established to undertake research in population problems and a comprehensive communication policy was adopted to make the message of population programme more effective. An objective assessment of the situation showed clear gains of some decline in the level of fertility.

vii) Seventh Five Year Plan 1988-93

The Seventh Five Year Plan emphasized on achieving efficient

economic growth with sustained development and improving the quality of life of the people. This is being carried out on the one hand through the policy of privatisation, liberalisation and deregulation and on the other, through providing infrastructure in rural areas, developing public services including education and health services, providing employment opportunities and taking family planning services to the door steps of the people.

These measures along with an accelerated population planning programme introduced in 1991 provided a new beginning to bring the population growth rate in harmony with the social and economic development.

The main features of the accelerated programme include:

1. Increase the budget to meet the additional requirements of the accelerated programme;
2. Increasing the rural coverage from five per cent to 25 per cent by introducing family planning component in all those 7804 rural health outlets where a female para-medical or a lady doctor was present;
3. Training of lady doctors at district and tehsil levels in contraceptive surgery with provision of mini-lap kits and other equipments.
4. Increasing regular contraceptive surgery centres from 34 to 70 and setting 130 Mobile Service Units to cover greater number of villages where no health or family planning services existed;
5. Involving 25 Union Council on a pilot basis with the support of concerned Member of the National Assembly for the introduction of family planning on an experimental basis;
6. Ensuring effective use of communication by adopting disaggregated approach of the society such as rural area, labour class and educated persons;
7. Ensuring visible and sustained political support by reactivating the National and Provincial Population Welfare Councils;

8. Improving the functional efficiency of the programme by making all the Provincial Population Welfare set-up as full fledged independent departments, and
9. Creating divisional and tehsil tiers and for strengthening the supervision and monitoring of the programme at implementation level.⁽⁷⁾

In addition it was planned to increase the number of Family Welfare Centres, NGO's outlets, Reproductive Health Centres, health outlets, mobile service units, outlets of other departments, involvement of private medical practitioners and clinics to provide family planning services.

viii) Programme in the Eight Five Year Plan 1993-1998

Lessons from past experiences provided the basis for formulation of the population policy and programme for the Eighth Plan. The main thrust in the 8th Plan period is on expansion of the family planning services in rural areas by in the creation of special infrastructure. Recognising the consequences of the rapid growth of population for social and economic development, the government is determined to provide a strong support to the programme at the administrative levels. The main objective is to reduce the present rate of population growth from 2.9 per cent (1992-93) to 2.6 per cent per annum by the year 1997-98 and 2.5 per cent in 2000. For the purpose, during the 8th plan, family planning coverage will be expanded to cover over 70 per cent of the rural and 100 per cent of the urban population.⁽⁸⁾ During the Sixth and Seventh Plans multi sectoral approach was considered as a means to expand the population coverage, but it did not come about. For the Eighth Plan active participation has been mandated for Federal and Provincial Ministries, Departments of Health, and all the Line departments to provide family planning services through their service outlets. Private medical practitioners are also being involved in the provision of family planning services by giving them special orientation, relevant information, Education and Communication (IEC) material,

display of signboards at their clinics and regular supply of contraceptives. In other words, every health facility, private or public, would be involved to provide family planning services. The ultimate aim of the population policy continues to be improved of the living standards and quality of life of the people through slowing socio-economic and human development.

Objectives. The overall objectives of the 8th Plan are:-

- i) to raise the level of contraceptive use rate from an estimated 14 per cent in 1992-93 to 24.4 per cent by the end of 1997-98;
- ii) to reduce the total fertility rate (TFR) from 5.9 in 1992-93 to 5.4 by the end of June, 1998.
- iii) to reduce the crude birth rate (CBR) from 39.0 (1992-93) to 35 by the end of the 8th plan period; and
- iv) to prevent 4.661 million births by serving 20.904 million accepters and to reduce the rate of population growth from 2.9 per cent (1992-93) to 2.6 per cent by 1997-98.⁽⁹⁾

An assessment of the situation during the years of planned development in Pakistan brings out certain important factors. Firstly the planners in Pakistan have been alive to the alarming situation which can be created by rapid population growth. This concern found expressions in the plans as early as in 1955 and started taking a concrete shape in the 1960's.

Secondly the population control programme gathered momentum with the passage of time and by 1995 it has developed into a huge programme aiming at covering the entire country. Thirdly the programme has not been able to make an impact commensurate with its size and expenditure (Rs. 6 billion +). What went wrong with the programme and why it has failed to achieve its targets. These are the questions which are intensively debateable. Several factors are seemed to contribute to the failure of each programme. But the low literacy rate in Pakistan can be identified as one of the main factors which have contributed to the failure. In fact this low literacy rate caused the lack of

sustained political support, lack of support from religious leaders, shyness, fear of side effects, son preference, ignorance, fatalism perception of low status in the family and disapproval of husbands and mother-in-laws etc. Which in turn contributed to the failure of the programme. The validity of this relationship between literacy and fertility can be proved through a model, which can thoroughly explain the relationship and effects of literacy on fertility.

Effects of Literacy on Fertility:-

Literacy affects the fertility of a community through three sources; direct, indirect and joint. The demarcation of direct and indirect effects of literacy on fertility is unclear. Since it is extremely difficult to explain that how literacy can directly alter the fertility trends without acting through either biological or behavioral variables. Therefore, only indirect relations are considered here. These indirect relations can be explained through a model. The model has been adopted from another model given by Susan Hill Cochrane.⁽¹⁰⁾ Her model has been modified to the needs of present study. Here literacy is measured by access to information, broader perspective, skills and socialisation. It is reasonable to expect that these measures have somewhat different relation to fertility, since the effects of literacy on fertility trends act through multiple channels. As literacy increases the sources to have access to information and the broader perspective. This access to information in a way affects the use of contraceptives and like wise fertility controlling elements and the broader perspective gives a liberal way of thinking, so makes the use of these fertility controlling elements more legitimate. Then literacy also gives skills which furthermore promote the market opportunities and nonmarket efficiencies. Literacy is a socialisation process as well, and brings change in behavioural patterns and attitudes through inculcating the social values.

Figure:- 4.1: Effects of Literacy on Fertility.



Thus the extent of effects of all these elements would depend on the level of these elements. In addition, the ultimate effects of literacy may differ for men and women and in different environments. For example, the market opportunities for women may be so limited that the effect of literacy is minimal. This may be partially true in rural areas, so the fertility effects are greater in urban areas than in rural areas. The most important effect of literacy appeared to be on fertility is on the perceived costs and benefits of children and on family size preference. While the effect of literacy on the wife's market wage and occupation seems to affect greatly the demand for children. Literacy is also expected to have a substantial effect on fertility through its effects on fertility regulation. Then it is also related to favourable attitudes towards birth control, improved knowledge of birth control, and better communication between husband and wife. Literacy tends to decrease the potential biological supply of births as well because it is associated with older ages of first marriage and thus fewer years of exposure to pregnancy. This effect of literacy on marriage age is stronger for women than for men. Furthermore different researchers have explained this relationship between literacy and fertility according to their own views. According to McGreevey and Birdsall said, "The inverse relationship of education to completed family size is one of the most clear cut relation found in the literate".⁽¹¹⁾ Simon Julion is of view that "an increase in income causes an increase in education. And parental education in less developed countries (LDC's) reduces fertility".⁽¹²⁾

Furthermore, a cluster of empirical findings is there to support this hypothesis. Teitelbaum, while evaluating the context of fertility decline in Britain, has pointed out 'education' as an important element of demographic transition. He argues that literacy contributes towards growth in what might be called "rationality", reduces the economic value of children to their parents and increases the knowledge of the public about contraceptive practices, which in turn causes to reduce the fertility.⁽¹³⁾ Similarly, M.E. Khan and C.V.S. Prasad, while describing independent variables which inserted fertility control in India have also pointed out 'education' as an important variable. They say, "Education of Couples, particularly that of wives, has considerable influence on fertility and its related behavior. It acts through different channels such as making individual more rational through more exposure to mass media, a high age at marriage, increasing husband-wife communication, changing the female status in the family and making her more effective in the decision making process".⁽¹⁴⁾

In Pakistan this relationship between literacy and fertility can also be traced out from the findings of surveys, such as Pakistan Contraceptive Prevalence Survey 1984, the Population, Labour Force Migration Survey 1979 (PLM), the Pakistan Fertility Survey 1975 (PFS) and the National Impact Survey, 1968-69 (NIS). On the other hand many demographic researchers have successively tried to examine this inverse relationship on the basis of the findings of above mentioned surveys. For instance Zeba A. Sathar and Afifa Akhtar in their research article, have declared that educational attainment is much higher in Karachi and gender inequality of schooling ratio is also found less. Furthermore they have predicted that higher schooling ratios are associated with lower fertility due to the changing calculus of associated value and costs of children. In another study on Women's Status and Fertility, Sather has concluded that women in Karachi or major urban areas contain higher status, those with higher education. Furthermore Sather has found out two main factors contributing to fertility decline in Karachi. The first is, a girl's age at her marriage

which has risen from 18.5 years in the 1961 census to 21.5 years in the 1981 census.⁽¹⁵⁾ And the second one is notably high level of contraceptive use in Karachi. Both these factors are directly related to literacy. As women attaining education try to complete it before they get married, which causes delay in their marriages and in turn puts considerable lowering effect on fertility rates. And as literacy gives access to information and broader perspective, so makes people more rationale about the costs and benefits of children. Consequently people opt to use contraceptives to avoid next birth, which in turn lowers the fertility rate.

So it can authentically be concluded that fertility decline in Karachi is caused by high literacy rate.⁽¹⁶⁾ Being modern centre of Pakistan, and the heart of commercial, financial and communications activity for the rest of the country, comprising of almost 10 percent of the total population of Pakistan, Karachi can be presented as a model of the demographic transaction in Pakistan. And it can be predicted that this link between literacy and fertility in Karachi may play a key role in controlling the fertility rate throughout the country. While the findings of national level analysis in Pakistan reveal that the effect of literacy on fertility is more powerful in case of female than in males. As according to the findings of recently conducted Pakistan Demographic and Health (PDH 1990-91) Survey the largest differentials are observed for the women's education (See Table 4.1).

Table 4.1 shows that the women with some secondary school education or highers level have 1.4 fewer children, on the average, than the women with no education. For the oldest age group (35+) this differential widens to more than two children per woman. While differentials in fertility are less pronounced for the husbands education, particularly for the men whose wives are in the youngest age group.

Table -4.1: Mean Number of Children Ever-born

Background Characteristic	Age of Women			Total
	5-24	25-34	35+	
Woman's education				
No education	1.3	3.9	6.4	4.3
Primary	1.5	3.7	6.0	3.7
Middle	1.1	3.7	5.0	3.5
Secondary +	1.0	2.8	4.2	2.9
Husband's Education				
No education	1.3	4.0	6.4	4.4
Primary	1.4	3.7	6.5	4.1
Middle	1.3	3.6	6.7	3.7
Secondary +	1.3	3.4	5.3	3.6

Source: PDHS, 1990-91; NIPS, Islamabad.

Although female literacy has more worth in the reduction of fertility in Pakistan, however, it in turn contributes to the over all fertility of the country. Thus, it becomes clear that literacy adversely affects the fertility. This can further be illustrated through some other findings of DHS 1990-91. As the fertility is indicated slightly higher in rural areas (36) than in urban areas (34), where literacy diferential is comparatively higher than the rural areas. Same is the case in provincial situation, as Sindh having highest literacy rate (31.4%) has lower crude birth rate (33). While Balochistan having lowest literacy (10.3%) has highest crude birth rate (38).⁽¹⁷⁾

Hence it is proved that literacy effects the overall fertility of a country. And Pakistan had very low literacy rate about 36.8% which mainly contribut to the failure of all the plans of population planning in Pakistan. If it is so, a further problem occurs that where then the Ulemmas of Pakistan do stand. Are they literate or illiterate, and if they are literate then why do they oppose the movements of fertility control. Of course they are literate but the nature of their education is different from the nature of education discussed here. Indeed the education being discussed here is secular education while the education which

the Ullema attain is religious, which do not provide them broader perspective, and the sources of information discussed here. Furthermore the skills which they attain from religious education do not provide them market opportunities and non-market efficiencies of the secular nature. In addition they are being socialised in an absolutely different environment which moulds their attitude and behavior patterns in that very specific environment. So they view the problem in that very paradigm which they have developed during their madrisa time period, which creates further problem, and do not make them to view the problem in economic, social or anthropological perspective. So the education of that kind is not considered here in this kind of literacy.

An other point of relevance is that most of the Ullema do not actually study the teachings of Islam on this particular issue, otherwise they can find out that family planning is one of those issues on which jurists and scholars of all the Muslim sects are totally agreed. All the contraceptive methods prevalent in the early days of Islam have been mentioned in the books on Islamic law but the term 'Azl' has been one of the most widely used methods. The one most common definition of this term is quoted from the well known book, "Al-Taj al-Jama Lil Usul Fi Ahadith al-Rasul".

"The term 'Azl' includes the use of medicines for birth control purposes. It also includes the abortion of fetus in which life has not so far been breathed as the purpose in all these is the same i.e. birth control and Allah knows better (Vol. XI-P-345). Mufti Muhammad Shafi defines 'Azl' as follows: "In early Islamic times, the measures adopted for birth control were termed 'Azl'. It includes all contraceptive measures used for preventing the semen from reaching the womb of a woman, irrespective of whether these methods are adopted by the husband or the wife".⁽¹⁸⁾ An other large group of the Muslims in Pakistan, is the Shi'ites, who follow the Jafriah school of Islamic Law. In almost every authentic book of this school, permission for 'Azl' is given. In their most authentic book

"There is no harm in practicing 'Azal' with a wife of free origin". Moreover, according to the fourth report, both Imam Jafar Sadik and Imam Zain al-Abdin did not see any harm in 'Azl'.

All the above discussion shows that population planning is authentic according to all the schools of law in Islam. And this is not a new issue for Muslim Polity. Muslims through out the history have practiced the birth control. They consider it as a positive step if taken for the development and well being of the humanity.

Thus it can be concluded that literacy is inversely related to fertility and this inverse relationship is more inverse in urban areas than in rural areas and in women then in men. So the female literacy should be highly concentrated in urban females, it will steadily intail the fertility rate of the country which in turn will contribute to the fruitfull results of the population planning programmes. Moreover, the effects of literacy may differ in different environments but the overall experiences are found positive in Pakistan.

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Conclusion

A critical evaluation of the interrelationship of the growth of population and the socio-economic development of Pakistan has revealed that the development of all the socio-economic sectors like education, health, housing, environments per capita income, labour force, savings and investment is being hindered by rapid population growth rate. This rapid population growth rate sweeps out the developmental gains of these sectors in two ways. First; by making the budgetary allocations insufficient to meet the needs of a huge population: second, the population growth rate surpasses the growth rate of economic and social sectors. Thus, after analysing the empirical findings, I have inferred that population growth rate and socio-economic development are inversely related.

It has also been inferred that low literacy rate is the main factor in the failure of population planning programme in Pakistan. So, I conclude with the view that the socio-economic development of Pakistan can only be sustainable, if population growth rate correspond to its socio-economic growth rate. Secondly, population growth rate can only be managed by raising the literacy rate in Pakistan. Since, literacy rate and fertility rates are inversely proportional to each other.

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