



POPULATION PERSPECTIVE PLAN

BHUTAN

2010

Goals and Strategies

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TABLE OF CONTENTS

1.	Preamble	3
2.	Population & Development: Major issues & Challenges	4
2.1	Demographic Challenges	4
2.2	Declining but still high population growth rate and total fertility rate	4
2.3	Low level of contraceptive use	5
2.4	Population momentum	5
2.5	Demographic Bonus and demographic transition	5
2.6	Rise in adolescent and youth population	6
2.7	Steady increase in elderly population	6
2.8	Dependency on foreign labor	7
2.9	Uneven spatial population distribution	7
2.10	High volume of internal migration	7
2.11	Rapid increase in urban population	7
2.12	Concentration of urban population	8
2.13	Pressure on land carrying capacity	8
2.14	Data gaps in policy analysis and research for development planning	9
3.	Reproductive Health Concerns	9
3.1	Risky sexual behavior of adolescents	9
3.2	High maternal mortality and low institutional delivery	9
3.3	Declining but still high infant mortality	10
3.4	Low use of contraception	10
3.5	High incidence of mother and child malnutrition	10
3.6	Modest but rising HIV/AIDS and high risks of spreading	10
3.7	Knowledge about HIV/AIDS	11
3.8	Rising abortion	11
3.9	Rising trend of Urinary Tract Infections (UTIs)	11
3.10:	Increasing Trend in Drug Abuse	11
3.11	Reproductive health outcome versus economic status	11
3.12	Quality and effectiveness in health care service delivery	11
4.	Gender Concerns	12
4.1	High sex composition of the population	12
4.2	Gender disparity in education	12
4.3	Gender disparity in labor force participation	13
4.4	Gender disparity in legislative and executive branches	13
4.5	Data and Research Gaps	13
5.	Environment Concerns	13
6.	GOALS AND STRATEGIES	15
6 (a)	Population and Development	15
6 (b)	REPRODUCTIVE HEALTH	18
6 (c)	POVERTY	20
6 (d)	GENDER	20
6 (e)	ENVIRONMENT	20
6 (f)	CROSS SECTORAL ISSUES	21
7.	Institutional Framework	22
7.1	Strategies for institutional arrangement	22

1. PREAMBLE

Bhutan has made significant strides in economic, social and demographic arenas ever since planned development began in 1961. All along the course of development, high growth of population was considered as a challenge to sustainable development in view of the limited natural resources and rugged and mountainous terrain. Under such circumstances prudent population and development policies and plans pursued by the Government has contributed to the reduction of population growth rate and improvement in the quality of life.

During the last two decades (1980-2005) population growth rate has declined from 3.1 percent per annum during the 1990s to 1.8 percent in 2005 and total fertility rate from over 6 children per woman during 1980s to 3.6 children per woman in 2005. During the same period quality of life as measured by the Human Development Index (HDI)¹, increased from 0.477 in 1999 to 0.619 in 2007 and the country ranks 132nd out of 182 countries.

At the current rate of growth, the population of Bhutan will double in about four decades (2005 as the base year) and even if replacement level fertility² is achieved by 2020, the population is expected to grow till the end of the 21st century. This increase in population size will put a severe strain on natural resources and environment and undermine Government efforts to improve the standards of living of the populace on a sustainable basis. This underscores the need for continued reduction in fertility and population growth rate until the population stabilizes.

Along with the effort to reduce fertility and growth rate until population stabilizes, it is also important to address other important emerging population issues, which have an impinging effect on the country's development. These issues include: (i) population momentum³; (ii) demographic bonus⁴; (iii) rise in adolescent and youth population; (iv) slow but steady increase in ageing population; (v) skewed spatial distribution of population; (vi) high rural-urban migration; (vii) dependency on foreign labor; (viii) depletion of natural resources; (ix) improving but still low antenatal & post-natal care and institutional delivery; (x) declining but still high maternal and child mortality; (xi) maternal & child malnutrition; (xii) reproductive health needs, sexually transmitted diseases & HIV/AIDS; and (xiii) gender gaps and insufficient sex disaggregated data particularly at the sub-national level. A detailed description of these population & development issues are provided in section 2 of the perspective plan document.

¹ A summary measure of health (life expectancy at birth), educational attainment (weighted average of adult literacy and combined primary, secondary and tertiary gross enrolment ratios) and GDP per capita.

² Two surviving children per woman

³ Tendency where population continues to grow even after birthrates have declined substantially.

⁴ Rise in number and proportion of population in the productive ages

The population perspective plan aims to improve the quality of life of the population by addressing each of the aforementioned issues with a comprehensive action plan. It has been kept broad based, multi-sectoral and comprehensive in nature to encompass all issues of national concern with respect to human settlement, labor force planning, social & human development as well as environment management.

The perspective plan stipulates 21 goals with strategies and action plans to address various emerging population and development issues such as gender, environment, urbanization, and reproductive health. The institutional framework has been developed for coordinating and monitoring implementation at the national and sub-national levels. It has been developed in consultation with all concerned stakeholders and partners comprising government, NGOs, civil society and multi-lateral donors, particularly the UN agencies.

2. POPULATION & DEVELOPMENT: MAJOR ISSUES & CHALLENGES

2.1 *Demographic Challenges*

Demographic challenges that will have an impinging effect on development of the country include: the declining but still high fertility and high population growth rates, increasing but still limited level of contraceptive use, population momentum, demographic bonus, rise in adolescent and youth population, slow but steady increase in older population, high level of rural to urban migration and skewed spatial distribution of population and data gaps for development planning.

2.2 *Declining but still high population growth rate and total fertility rate*

Although the population growth rate has declined from 3.1percent in 1994 to 1.8percent in 2005, this is still very high. At this rate of growth the population will double in about four decades. Data also show a considerable decline in total fertility rate (TFR) from 5.6 births per woman in 1994 to 4.7 in 2000 and 3.6 in 2005.

However, it is projected that population will continue to grow for the next 40 years, even if fertility is reduced drastically to the replacement level fertility of two surviving children per woman in 2012.

As per NSB's population projections, it is estimated that the total population size would increase from 634,982 in 2005 to 757,042 in 2015 and 886,523 in 2030 which is an increase of 19.2 percent and 39.6 percent by 2015 and 2030 respectively over 2005, if fertility were to drop to the replacement level of two surviving children per woman in 2012, from its current level of 3.6 in 2005 and life expectancy were to increase from 66.3 years in 2005 to 71 years in 2015 (Population Projections Bhutan 2005-2030, NSB).

Rapid population growth is detrimental to economic growth, since it neutralizes much of the gains obtained due to developmental efforts and leaves little surplus for investment after meeting the social overhead costs of maintaining the increasing number of dependent population. Rapid population growth will increase the absolute level of poverty both by retarding economic growth and by worsening income distribution. Rapid population growth complicates the task of building human and capital resources such as sanitation, health care services, education, transportation and infrastructure, the most vital endowments for development.

2.3 *Low level of contraceptive use*

The Contraceptive Prevalence Rate (CPR) has increased steadily from 23 percent in 1994 to around 34 percent in 2006. CPR needs to be doubled from its current level, keeping other factors constant, to achieve the replacement level fertility. Data also shows a huge gap between the knowledge and use of contraceptive. According to the National Health Survey 2000- 95 percent of women in the reproductive ages reported to be aware of family planning methods but only 30.7percent use contraception. The challenge is to sustain the use of contraception by current users and to increase the existing CPR by bridging the gap between the knowledge and practice of contraceptive use. Meeting unmet need for contraception along with efforts to create demand among new entrants in the reproductive ages through massive Information Education Communication (IEC) and advocacy campaigns and ensuring wider choices of contraceptives, which are easily accessible and affordable.

2.4 *Population momentum*

As noted earlier, the population will keep on increasing in the next four to five decades even after achieving replacement level fertility. This is due to the large youth (15-24 years) population, accounting for 22.9 percent of the total population in 2005, entering into reproductive ages. This is the result of high levels of fertility over the last few decades and people, who have already been born, build momentum into the population. The country has high inbuilt potential for rapid population growth for several decades, which can have serious implications for provision of schooling, health, employment and other basic amenities of life in the coming decades. This will further restrict government efforts in improving the standard of living of the people.

2.5 *Demographic Bonus and demographic transition*

With the decline in fertility and mortality, particularly the former there has been a shift in age-structure of the population in which overall dependency ratio which is the number of younger (0-15 years) and older persons (60 years and above) to population in the working ages (15-59 years), declined from 80percent in 1984 to 60percent in 2005, leaving a high proportion of around 40percent population in the working age-group 15-59 years. This is expected

to increase to 70.6 percent in 2030, reaching the peak of over 71 percent by 2035, after which it will begin to decline.

The size of the working age population of Bhutan estimated at around 233,520 in 1984 increased to 380,704 in 2005, which is projected to increase to 590,858 in 2030 and 684,000 in 2045. During the period 2005-2045, the working age population will grow by around 80 percent or an average annual growth of about 2 percent per annum. The working age population will be higher than any time in the past. This (i.e. when the highest proportion of a country's population falls within the productive ages) creates a window of opportunity for the country to boost living standards and economic growth. However, the window of economic opportunity created out of increasing number and proportion of population in the working age group can only be exploited when it is accompanied by adequate savings, investments and sound public policies. This opportunity lasts for a decade or two, depending on the pace of fertility decline, and the opportunity will be lost as soon as the enlarged work force moves into the older age group which then leads to a rise in the old age dependency ratio (i.e., when the number of older persons 60 years & above to population in the productive ages (15-59) increases).

2.6 Rise in adolescent and youth population

Adolescent and youth population in the age-group 15-24, who are born when fertility rate was relatively high, are expected to increase to over 166,042 in 2030 from 145,810 persons in 2005. With a large number of people moving into the child bearing ages, the total number of births will continue to rise, even though individual couples choose to have fewer children than earlier generations did. This will place enormous pressure on the secondary and tertiary level schools resulting in a critical shortage of space and teachers at this level. Moreover, the youth population is more vulnerable to drug and substance abuse, and early pregnancies. There is a need to promote responsible sexual behavior so that the effects of these social problems and others like STD, HIV/AIDS will be mitigated in future. Moreover, creating employment opportunities for the youth poses another serious challenge for policy makers and planners. Data show rising unemployment among adolescents and youth as indicated by the unemployment rates for adolescents (15-19 years) which increased from 2.5 percent in 1998 to 7.2 percent in 2004. Similarly unemployment for the 20-24 years age group increased from 2.7percent in 1998 to 4percent in 2004 and 11.4percent in 2006 (Labor Force Survey, MoLHR 2007) .

2.7 Steady increase in elderly population

The elderly population will steadily grow with the improvement of health status and declining fertility. The number of elderly persons (60 years and above) in the population is expected to increase drastically from 29,745 (4.7 percent) in 2005 to 111,000 persons (11.2 percent) in 2045. The number and proportion of this population group will grow further when the enlarged

work force moves into the older ages. The increasing number and proportion of the elderly population will have a dampening effect on productivity and put a severe strain on the government health budget for the provision of expensive health care for chronic degenerative diseases, which mostly require hospital-based capital intensive care.

2.8 Dependency on foreign labor

The shortage of skilled labor has been a chronic problem in the country. As such the country is highly dependent on foreign labor, a situation which persists and has grown in proportions in recent years. In order to sustain and boost the economic growth that has been achieved it is projected that the country will still rely on foreign skilled labor in the coming years.

2.9 Uneven spatial population distribution

The population is unevenly distributed across the country. As per the PHCB 2005, the population density is highest in Thimphu Dzongkhag which has a density of 54 persons per square kilometer, followed by Chhukha and Samtse Dzongkhags, each with a density of 40 persons per square kilometer, compared to only 16 persons per square kilometer for the country as a whole. On the other-hand, the least densely populated Dzongkhag is Gasa, with only one person per square kilometer, followed by Lhuentse, which has a density of five persons per square kilometer.

2.10 High volume of internal migration

Internal migration has contributed significantly to the redistribution of the population. Of all the Dzongkhags, Thimphu is the highest recipient of migrants from other parts of the country. Zhemgang, Lhuentse and Trashigang are comparatively the highest sending Dzongkhags. About two-thirds of the migrants move from rural to urban areas for reasons of family move, employment and education/training.

2.11 Rapid increase in urban population

Even though the population of Bhutan is predominantly rural (69 percent), the pace of urbanization is accelerating. In 1980, only 5 percent of the total population was estimated to be urban. This increased to 15 percent in 1994 and 30.9 percent in 2005, an increase by over 100 percent during the last decade (1994 to 2005). The urban population growth is largely attributed to migration from rural to urban areas. The urban population grew (3.5 percent) two times faster than the national population (1.8 percent) during the last 11 years (1994-2005). As per projections it will continue to grow in the coming decades. According to one projection, the urban population will increase by about 135 percent, from 196,111 in 2005 to 461,071 in 2020 using the growth rate of 1.28 percent and urbanization level of 60 percent (Bhutan National Urbanization Strategy, MoWHS 2008).

Excessive urban growth will put a severe strain on the existing urban services and pose serious developmental and environmental problems such as increasing noise and air pollution, shortage of safe drinking water and electricity, inadequate sewerage facilities, proliferation of urban slums and squatter settlements, due to shortage of housing, unemployment and other social issues. Some of these symptoms are already visible in the cities of Thimphu and Phuentsholing, which have the highest concentration of urban population in the country. The limited arable land will also be affected by the expansion of the urban areas which will make the task of the government to attain its objective of cereal self-sufficiency more difficult. Related to rapid urbanization are social issues such as poverty, unemployment, prostitution, crime, HIV/AIDS, violence and numerous others. This calls for reduction of population growth and rural-urban migration through the creation of off-farm employment opportunities, and the provision of socio-economic facilities and infrastructure in the rural areas.

2.12 Concentration of urban population

The urban population is also concentrated in fewer Dzongkhags and urban centers. For example, Thimphu Dzongkhag alone accounted for 40.4 percent of the urban population, followed by Chhukha Dzongkhag, accounting for 16.8 percent of the urban population and Sarpang Dzongkhag accounting for 6.4 percent of the urban population (PHCB 2005). Gasa Dzongkhag has the lowest number of urban population with only 402 urban residents. Thimphu, the capital city, accounts for 75 percent of all urban population, which is over seven times higher than the second largest town Phuentsholing with 10.5 percent of urban population. The skewed concentration of the urban population is detrimental to balanced regional growth as the government will be under pressure to devote a major share of its meager resources to meet urgent urban needs such as electricity, water, sewerage, road, transport, etc.

2.13 Pressure on land carrying capacity

Bhutan is a mountainous country with only 8 percent of arable land. Moreover, the scope of further expansion of agricultural land is severely constrained due to the ruggedness of its terrain. Under the circumstances, the pressure on land will be exacerbated with the rapid increase in population. For example, if the current rate of growth (1.8 percent) remains unchanged, the population will double in 39 years, from 635,000 in 2005 to 1,270,000 in 2044. This will imply a drastic reduction in per capita availability of agricultural land (wet, dry and orchard) by 50 percent in 39 years i.e. from 0.61 acre in 2005 to 0.30 acre in 2044. The per capita availability of land would be much lower than what was estimated, if allowance were made for the loss of agricultural land to meet growing development needs such as housing, schools, hospitals, roads, factories, recreation centres, etc., associated with the high population growth rate. The problem of small landholdings will be further accentuated by fragmentation of land among family members with the rapid increase in population. The increasing fragmentation of landholdings in the rural areas may lead to

decreased productivity, because of the lack of economies of scale, and thereby impairing the chances of achieving cereal self-sufficiency.

2.14 Data gaps in policy analysis and research for development planning

Although the country has recently increased its efforts in the collection of socio-demographic and health related data, there are still many gaps. These gaps are: (i) little or no sex-disaggregated, socio-demographic, economic and health data at sectoral and local levels to develop gender sensitive development planning and to monitor implementation of national and international development goals/targets at all levels, (ii) little or no data on emerging population and health issues such as unmet need for family planning services, HIV/AIDS, drug abuse, trafficking, gender-based violence, environmental degradation at national as well local levels, (iii) lack of continuity in data collection as census data are collected at ten year intervals while the socio-demographic and health surveys are not regularly conducted to capture inter-census changes, and (v) duplication of data and data inconsistencies. Moreover, data that are available are not fully analyzed and significant gaps remain in policy analysis and research capacities, which need to be addressed in order to facilitate evidence-based development policy and planning.

3. REPRODUCTIVE HEALTH CONCERNS

As per the article 9, section 21 of the Constitution of Bhutan- 'The State shall provide free access to basic public health services in both modern and traditional medicines'. Good health including reproductive health is one of the essential pre-conditions for poverty reduction through increased productivity. A healthy person, keeping other factors constant, is likely to be more productive than an unhealthy person. Although there has been a marked improvement in the reproductive health (RH) situation of the country over the years, accessibility and improving quality and utilization of comprehensive RH services for all women and men especially young people still remains a challenge. The following are key RH concerns and challenges face by the country:

3.1 Risky sexual behavior of adolescents

Early marriage, teenage pregnancy, the low use of contraception, sexually transmitted diseases including HIV/AIDS are reported to be increasing among adolescents. Adolescent fertility is considerably high, accounting for 11percent of all births in 2005 (PHCB 2005).

3.2 High maternal mortality and low institutional delivery

Maternal mortality ratio declined from 8/1,000 live births in 1984 to 2.6/1,000 live births in 2000. This has to be further reduced to 1.4/1000 live births in 2015 to achieve the MDG target on maternal mortality. Nearly four-fifth of births (78.3 percent) was delivered at home (source: NHS 2000). Most maternal deaths are due to post-partum hemorrhage, which requires easy

access to emergency obstetric care services. In 2007, 56 percent births were reported to be attended by trained health personnel.

3.3 Declining but still high infant mortality

Infant mortality rate declined from 103/1,000 live births in 1984 to 41/1,000 live births in 2005. This has to be further reduced to 24/1000 live births in 2015 to achieve the MDG target on under-five mortality. IMR is higher in rural than in urban areas and also higher among poorer than among well-to-do households.

3.4 Low use of contraception

Contraceptive prevalence rate (CPR) among currently married women of reproductive ages has increased steadily from 23 percent in 1994 to around 43.5 percent in 2005. CPR varies by rural/urban residence and level of education of women. CPR is higher in urban areas and among literate women than in rural areas & illiterate women. Data also shows huge gap between knowledge and use of contraception. 95 percent of women reported to be aware of family planning methods but only 30.7 percent used contraception (Nation Health Survey 2000).

3.5 High incidence of mother and child malnutrition

The health of the mother and child has improved as indicated by the increase in antenatal care coverage which rose to 70.1 percent in 2007. However, the prevalence of malnutrition among women and children persists as a major health problem. The National Nutrition, Infant & Young Child Feeding Survey 2008 found that the prevalence of stunting was 37 percent, underweight was 11.1 percent and wasting was 4.6 percent. Anemia is another major health issue and the prevalence rate was 54.8 percent among mothers of children 6-60 months old (A study on Anemia among men, women and children in Bhutan 2003, MoH).

3.6 Modest but rising HIV/AIDS and high risks of spreading

HIV/AIDS prevalence is relatively low (below 0.1 percent) in Bhutan but is increasing in recent years. As per the National Strategic Plan for Prevention and Control of HIV/AIDS 2008, between 1993 and 2008, 144 persons were detected with HIV infection. The distribution of these cases by year shows an increasing trend, particularly in recent years. Only one-third of the 144 HIV/AIDS infected cases were reported during the ten years following the first two cases that were detected in 1993, but this number more than doubled during the past five years (2003-2008). Moreover, Bhutan faces a number of risks factors that suggest that the HIV/AIDS prevalence could rise further unless preventive measures are strengthened. Among these risk factors include: (i) higher prevalence of HIV/AIDS across the globe and in the neighboring countries. (ii) rising level of substance abuse (iii) rising unemployment rates that may drive young women to prostitution and (iv) the large proportion of population in the young reproductive age groups. More

than half of the population is under twenty years who are more vulnerable as the prevalence of HIV/AIDS is reported to be highest in the younger age-group.

3.7 Knowledge about HIV/AIDS

Although advocacy and awareness programs widely cover all parts of the country, over 30 percent of the youth felt that they had totally adequate or just adequate knowledge on sexual health (The Situation on Bhutanese Youth 2005-2006, YDF & MoE). A recent study of out of school youth found that 29 percent of the respondents thought that AIDS could be cured.

3.8 Rising abortion

Within the country hospital based data indicates a rising trend in abortions from 466 cases in 2003 to 913 in 2007, indicating that it has almost doubled in four years. Unsafe abortions may lead to higher maternal deaths. As abortion is not legal, no information is available on induced abortions and the above figures represent only spontaneous abortions.

3.9 Rising trend of Urinary Tract Infections (UTIs)

The number of UTI cases visiting the hospital increased by 134 percent in 4 years i.e. from 11,160 cases in 2003 to 26,133 in 2007 (Annual Health Bulletin 2008).

3.10: Increasing Trend in Drug Abuse

Crime incidents related to drug/narcotics increased from 23 cases in 2001 to 60 cases in 2005, which has tripled in the four year period (Statistical Year Book 2007). This reflects a sharp increase in drug abuse.

3.11 Reproductive health outcome versus economic status

PHCB 2005, data reveals that reproductive health outcomes are lower for the poor. The TFR for mothers varied in accordance to their economic status and literacy levels. For example, the TFR for literate mothers was much lower than that of illiterate mothers who were usually poorer. Similarly, the estimated infant mortality rate (IMR) for wealthier households were much lower than the poorer households. These findings underline the need to improve access to health especially reproductive health & family planning services, and education for the poor.

3.12 Quality and effectiveness in health care service delivery

Although primary health care targets have been achieved, any further achievement is dependent on how well the health system can cope with emerging health issues at the turn of the morbidity transition. This implies dealing with both quantity in terms of medical, technological, capital and human resources and quality of services. Some major challenges ahead are the high mortality levels particularly maternal and child, increase in non-

communicable lifestyle related diseases, improving emergency medical services and capacity development. In order to further improve the health service delivery mechanism, health centers both at the urban and rural areas need to be adequately equipped with updated technology, equipment and materials and manned with sufficient numbers of well trained technical and professional staff. Emphasis needs to be greater in the rural areas where the existing communication and transportation network, settlement patterns, low level of awareness and education, etc. are the main barriers for quality service delivery.

4. GENDER CONCERNS

Although there is no overt (legal and/or policy level) discrimination, as per the Gender Pilot Study conducted in 2001 (GPS, 2001) by the erstwhile Planning Commission and the Central Statistical Bureau, gender gaps exist in the areas of education, enterprise development and governance. Low participation of women in national and local public offices and at important decision making levels, the low female literacy rate, and limited access to business-related training and technologies were highlighted as key issues. More recently the National Plan of Action on Gender (2008-2013) has identified 7 critical areas for action in the 10th plan which includes: governance; education and training; economic development with focus on employment; health; violence against women; gender prejudices and stereotypes; and ageing, mental health and disabilities. Gender gaps are impediments to the realization of the full potential of nearly one-half of the population and have an adverse bearing on the overall development of the country.

4.1 High sex composition of the population

The total population of Bhutan was 634,982 in 2005 with 333,597 males (52.5 percent) and 301,387 females (47.5 percent), yielding a sex-ratio of 110.7 males for every 100 females. The sex distribution of population reflects that there are more males than females in every age-group but most prominently in the reproductive age group (15-49 years) in both the rural and urban areas. Such a situation is unexpected and can be explained if there is evidence of higher female than male mortality and/or more net out-migration of women than men. However, in Bhutan this can be attributed to the large number of expatriate labor force present in the country. The sex ratio at birth is 101 males per 100 females.

4.2 Gender disparity in education

More adult (15 years and above) women (61.3 percent) than adult men are (35 percent) illiterate. The literacy rate, defined as proportion of people 6 years and above who can read & write a simple letter, is higher for males (69 percent) than females (49 percent). Gender disparity also persists in school enrolment, particularly at lower and middle secondary levels, and more prominently at higher secondary and tertiary levels. The gross enrolment

ratio of boys to girls at primary, lower secondary, middle secondary and higher secondary levels are 1.04, 1.04, 1.13 and 1.39 respectively. School progression (i.e., percentage of pupils that progressed from the lower to the next higher class) and school completion rates are also lower for girls than boys. More boys than girls complete higher secondary and tertiary level education.

4.3 Gender disparity in labor force participation

Although women account for half of the working age population, their participation rate in economic activities is substantially lower than men. Only 47.7 percent of women, compared to 71.5 percent of men aged 15 years & above were reported to be economically active in 2005. This pattern holds true for both rural and urban areas and in all age groups. Most female workers (over 76 percent) are engaged in traditional unpaid family works (i.e., housework), while most men (52 percent) are involved in paid work. Very few women compared to men are engaged in professional occupations and administrative jobs.

4.4 Gender disparity in legislative and executive branches

Women have low representation in higher level decision making bodies such as the parliament, cabinet and civil service. Four out of 47 (8.5 percent) members of parliament are women and there are no women cabinet ministers. In the civil service only 29 percent are women and those in executive positions are only a handful.

4.5 Data and Research Gaps

Data and research gaps exist which constrain the better understanding of the gender dimension of poverty, sexually transmitted diseases, including HIV/AIDS, abortion and gender-based violence. There is also lack of sex-disaggregated data which is a drawback for the formulation of gender-sensitive development policy & programmes, including reproductive health programme & systematic integration of gender concerns into development planning. Lack of capacity and inadequate numbers of gender specialists in the country further aggravates the situation.

5. ENVIRONMENT CONCERNS

Amongst others, meeting the twin objectives of equitable socio economic development and environmental conservation as enshrined under the philosophy of gross national happiness will be a major challenge for the Royal Government of Bhutan. The commitment to preserve the environment as reflected in her constitutional obligation to maintain 60 percent of its land under forest cover at any point of time is tested, when pitched against meeting the needs of a growing population. It is against this backdrop, a strategy of sustainable development has been adopted, through which the needs of a growing population can be met without jeopardizing the quality of the environment.

However, in order to ensure this noble objective is realized even in the future, it is critical that population concerns are integrated in all development plans and policies.

With the declining per capita availability of agricultural land and shortage of food-grain, due to high rate of population growth, and lack of alternative job opportunities outside of agriculture in rural areas, will lead to over-exploitation of resources, including cultivation of marginal land and steep hilly terrain to meet the increasing demand of the growing population. This will not only damage natural resource base, land, water and air, but will also threaten the sensitive balance of a fragile mountain eco system. Some of these likely adverse impacts are already in the horizon. There are already signs of eroded hillsides, worn-out farmlands, parched grassland, polluted water and treeless ranges, air and industrial pollution, water and garbage pollution, loss of soil fertility and shrinking access to safe drinking water.

Bhutan's Forest Policy accords a very high priority on the conservation of natural resources and to keep more than 60 percent of the country under forest cover. But this cannot become a reality if, on other hand, the government does not have a population influencing policy. It has already been noticed that the forest cover has decreased by 16.7 percent between 1958 and 1989, from its level in 1958, according to the Master plan for Forestry Development (1991). The cause for the decrease in the forest cover has been, mainly, due to shift in land use from broad-leaved forest to cultivation. In some valleys, the forest lines are receding to make way for cash crop plantation such as oranges, apple and cardamom (Royal Government of Bhutan, in National Report on Population for ICPD Conference, 1994). The pressure on the forest will further increase with over grazing and accelerated use of forest products for fuel- wood, fodder, manure and construction materials, furniture and other use with the increasing population. Increasing mining and industrialization may cause loss of forests and natural habitat. Mining industries nearly doubled from 46 in 2002 to 91 in 2006.

Inability of the rural economy to absorb the growing number of population due to limited agricultural land and employment opportunities outside of agriculture contributed to the exodus of population from rural to urban areas. This has led to an accelerated growth (6percent per annum) of urban population. Rapid urbanization is associated with increasing air, water and garbage pollution. Solid waste – around 50 tons of solid waste is produced per month in urban areas of Bhutan. Increasing air and industrial pollution with the rise of vehicles and industries in urban areas are also contributing to Green House Gas Emission.

Access to safe drinking water would be under increasing stress with increasing industrialization, land irrigation to feed growing number of population and improve quality of life of people.

With the increase in population, the trend of such depletion of environment will continue. This will eventually impair the ability of resources to renew them, thereby causing environmental and economic crisis. No systematic effort has been made to integrate environment concerns into development plans and there is also data gap on environmental degradation. These are matters of serious concerns for sustainable development and deserve policy interventions to arrest environmental degradation. The needs of a growing population demands a make a strategic shift, where the environment should be considered as a productive resource to be used sustainably to meet future needs. The existing safeguard measures mandated by current environmental policies and plans would have to be complimented with more pro-active approaches.

The following section outlines the goals, strategies and action plans proposed to address the emerging population & development, reproductive health, gender and environment issues.

6. GOALS AND STRATEGIES

Goals, strategies and action plans are grouped under the following thematic headings:

- (a) Population and Development
- (b) Reproductive Health
- (c) Gender
- (d) Environment and
- (e) Cross-cutting issues

6 (A) POPULATION AND DEVELOPMENT

Goal 1: Increase public awareness on population and development, especially reproductive health (RH)

Strategy 1.1: Mobilize the support of policy planners, decision maker and local bodies to interact and participate in IEC activities.

Strategy 1.2: Publish and disseminate updated information on population, RH, and development issues through electronic and print media.

Goal 2: Maintain current declining trends in fertility to achieve a stable population size by 2050

Strategy 2.1: Focus attention on pockets of high fertility such as illiterate mothers, adolescents and remote areas.

Strategy 2.2: Enhance access to reproductive health services and commodities, including family planning information and education, through government bodies, NGOs and the private sector.

Strategy 2.3: Ensure complete registration of vital events (births, deaths, marriages, divorces and move-ins and move-outs).

Strategy 2.4: Strengthen the integration of population education into the school curricula through life skills based education approach.

Goal 3: Reduce Population Momentum Effect on Growth

Strategy 3.1 Promote valued roles for women apart from motherhood

Strategy 3.2 Foster equality between young men and women and improve their perceptions of marital and parental responsibilities

Goal 4: Reap the Benefit of Demographic Bonus by Effectively Utilizing the Increase in the Number and Proportion of the Labor Force Population

Strategy 4.1: Create enabling environment and access to finance (credit, savings and investments) to enhance economic opportunities.

Strategy 4.2: Establish systems to ensure and expand employment security and benefits.

Strategy 4.3: Improve the existing information dissemination system for the labor market and enhance nationwide job-matching services.

Goal 5: Address the skills-based education needs of the increasing adolescent and youth (10 -24) population

Strategy 5.1: Promote and expand science, IT and vocational education including crafts.

Strategy 5.2: Strengthen the capacity of training institutions and enhance the status of teachers/instructors.

Strategy 5.4: Promote, and involve parents, in counseling and life skills education. Move old 6.5 instead.

Strategy 5.5: Raise awareness and disseminate information on youth related social issues through life skills education.

Goal 6: Reduce unemployment amongst the youth (15-24)

Strategy 6.1: Create adequate employment for the youth by diversification of employment opportunities.

Strategy 6.2: Provide the legal and institutional support in the work place.

Strategy 6.3: Encourage market needs-based education. (Examine if it can go as activity under 5.1)

Strategy 6.4: Formulate and implement appropriate regulations to reduce dependence on foreign labor in a phased manner.

Strategy 6.5: Promote dignity of labor through mechanization, especially in the construction industry.

Goal 7: Reduce rural-urban migration and promote planned urbanization

Strategy 7.1: Ensure coordinated and planned urban development to match internal migration from rural to urban areas.

Strategy 7.2: Promote balanced regional development by improving the quality of services and facilities including employment and income-generating opportunities.

6 (B) REPRODUCTIVE HEALTH

Goal 8: **Reduce maternal mortality** to 1.4/1000 live births by 2015

Strategy 8.1: Promote and encourage institutional deliveries.

Strategy 8.2: Strengthen and intensify ante-natal and post-natal care services

Goal 9: **Reduce infant and child mortality**

Strategy 9.1: Strengthen integrated management of neonatal and childhood illnesses (IMNCI).

Strategy 9.2: Promote childhood development with the implementation of early childhood development Program (ECD) through IMNCI.

Strategy 9.3: Increase immunization coverage and improve the quality of immunization.

Strategy 9.4: Strengthen surveillance of vaccine preventable diseases.

Strategy 9.5: Promote infant and young child feeding practices.

Goal 10: **Reduce the incidence of cervical and breast cancers**

Strategy 10.1: Improve and expand the screening services.

Goal 11: **Halt and begin to reverse the spread of HIV/AIDS**

Strategy 11.1: Enhancing the prevention of STI and HIV transmission.

Strategy 11.2: Enhancing access to treatment, care and support for people living with HIV and AIDS.

Goal 12: **Improve the reproductive health situation of the unreached population**

Strategy 12.1: Provide IEC and comprehensive basic health, reproductive, and child health services to people who live

in unreached and remote areas with the help of NGOs and the private sector.

Strategy 12.2: Formulate and implement a system of preventive and curative health care that responds to seasonal variations in the availability of work, income, and food for remote areas.

Strategy 12.3: Strengthen sustainable use of traditional and indigenous medicine and aromatic plants.

Goal 13 Provide adequate health care and welfare services for the elderly and people with special needs

Strategy 13.1: Establish social security schemes such as old-age pensions for the elderly and the disadvantaged who are currently not covered by formal government insurance, pension or social security schemes.

Strategy 13.2: Strengthen existing Bhutanese family and value systems through explicit programs.

Strategy 13.3: Provide incentives to encourage families to provide care for the elderly and those with special needs.

Strategy 13.4: Expand facilities and improve the quality of services provided for the elderly, and those with special needs.

Strategy 13.5: Ensure productive employment opportunities for those with special needs.

Strategy 13.6: Ensure inclusion of children with special needs in all forms and at all levels of the education system.

Goal 14: Reduce the Current level of malnutrition by 2015

Strategy 14.1: Conduct research on nutrition and eating habits and recommend appropriate policy interventions.

Strategy 14.2: Promote healthy eating habits.

Strategy 14.3: Provide nutrition education to the public, focusing particularly on children, adolescents, and women of reproductive age.

Strategy 14.4: Ensure access to essential food items at affordable prices.

6 (C) POVERTY

Goal 15: Targeted Poverty Reduction to Reduce the Number of People Living Under the Poverty Line in the rural areas

Strategy 15.1: Improve agricultural productivity

Strategy 15.2: Promote off-farm enterprises and opportunities

Strategy 15.3: Create an enabling environment for the private sector

Strategy 15.4: Enhance the skills of the workforce including the youth

Strategy 15.5: Reduce vulnerability to natural calamities

6 (D) GENDER

Goal 16: Achieve gender equality and empowerment of women

Strategy 16.1: Mainstream gender issues into all development plans, policies, and programs.

Strategy 16.2: Strengthen information, advocacy, and awareness on gender equality.

Strategy 16.3: Promote involvement and participation of women in politics and the decision-making process.

Strategy 16.4: Enhance employment opportunities for women.

Strategy 16.5: Promote institutional and organizational coordination in cross-sectoral approaches to gender issues.

6 (E) ENVIRONMENT

Goal 17: Promote sustainable development and conservation of the environment

Strategy 17.1: Mainstream environment issues into development policies, plans and programs.

- Strategy 17.2: Strengthen enforcement of environmental laws/acts.
- Strategy 17.3: Combat land degradation.
- Strategy 17.4: Improve and expand public service delivery and facilities through provision of environmentally- friendly technologies and practices.
- Strategy 17.5: Improve public health, hygiene and sanitation through environmentally sound waste management.
- Strategy 17.6: Harmonize environmental conservation with population pressure through the development of a national land use policy.
- Strategy 17.7: Formulate strategies to cope with and prevent uncertainties and calamities in the agricultural sector due to various factors including climate change, environmental degradation, wildlife depredation and natural disasters.

Goal 18: Ensure that Bhutanese have assured access to adequate, safe and affordable water to maintain and enhance the quality of their lives and the integrity of natural ecosystems

- Strategy 18.1: Meet the water needs of the population through improved water management.

6 (F) CROSS SECTORAL ISSUES

Goal 19: Strengthen statistics for population and development planning in all sectors and at all levels

- Strategy 19.1: Support policy-oriented research, evaluation, dissemination and feedback on population, RH, and development issues.

- Strategy 19.2: Strengthen the coordination mechanism for data collection to harmonize processes and avoid duplication of work.

- Strategy 19.3: Strengthen the technical capacity of statistical personnel at all levels.

- Goal 20: Achieve decentralization of population policy activities**
- Strategy 20.1: Mainstream population planning within the framework of strategic planning.
- Strategy 20.2: Institutionalize inter-governmental fiscal transfer mechanisms (IGFT).
- Strategy 20.3: Strengthen advocacy and awareness at the Dzongkhag, *Gewog* and *Thromde* levels.
- Goal 21: Ensure participation of NGOs and the private sector**
- Strategy 21.1: Establish coordination and close linkages between relevant government agencies and NGOs and the private sector.

7. INSTITUTIONAL FRAMEWORK

The size of the population, its structure, composition and characteristics are closely linked to all sectors of development. The change in age structure implies a change in the distribution of population in different age-groups which include children under 15, adolescents, youth, adults and the elderly that impact upon resources and the provision of social services. For instance, the growing youth and labor force population implies the need for a corresponding increase in the scale of economic investment and job creation. The underlying dynamics of population is closely related to the accessibility, quality, and efficiency of delivery of social and economic services. Since issues of population and development are intricately linked to one another, it requires a coordinated multi-sectoral approach to the development planning. This approach is adopted while developing strategies for monitoring, coordinating and implementing the proposed population perspective plan, which is articulated in section 7.1.

7.1 *Strategies for institutional arrangement*

The proposed institutional set-up is diagrammatically depicted in Figure 1 below. The apex body is the Cabinet which is mandated to approve all matters relating to population and development. The Gross National Happiness Commission will review and provide recommendations on policies related to population and development. It is proposed that a Population Unit be established under an appropriate organization. This Unit will be responsible for formulating, reviewing, and updating population-related policies, proposals and documents. The Unit will develop an efficient mechanism of coordination amongst the various sectors concerning

population data collection, updating, implementation, monitoring and evaluation. The Unit will undertake a pivotal role for various sectors and agencies to ensure efficient execution of the strategies and action plans towards achieving the goals and strategies of the population perspective plan.

All ministries, agencies, local governments and civil society are placed as key stakeholders and actors in the coordination and implementation processes.

Figure 1: Institutional Framework

