

**Study on
Effectiveness of Investment in Population and
Family Health Project**

Submitted to
**National Planning Commission Secretariat,
Singh Durbar, Kathmandu**

**Center for Economic Development and Administration (CEDA),
Tribhuvan University
Kirtipur, Kathmandu**

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Acknowledgement

Health service is one of the basic needs of the common people. People as means of development need to be physically sound. Unless and until the health status of the people in a country is good, the social development and economic growth is hardly possible. The quality health service delivery, therefore, is of utmost importance for the economic and social development of the country. The present study assesses the effectiveness of the population and Family Health Project funded by World Bank in delivering the quality health services throughout the Kingdom and its contribution in improving the health indicators such as child and maternal mortality rates, life expectancy, contraception prevalence rate.

The study team would like to express profound gratitude to the Central Monitoring and Evaluation Division, National Planning Commission Secretariat for entrusting CEDA to conduct this study and also for providing financial support. The team received all kinds of cooperation from the staff at CMED and would like to acknowledge all of them. In particular, the study team would like to express sincere gratitude to Mr. Markandey Prashad Upadhyaya, Under-Secretary, CMED for his constant guidance and encouragement throughout the study which have been very much instrumental in completing the report on time. I would like to express my sincere thanks to the team members of the study and special thanks to Mr. Tirtha Bahadur Manandhar, Team member for his constant help and painstaking work in preparing the study report. Likewise, I would like to thank Mrs. Reena Manandhar, Mr. Deepak Aryal, Mr. Indra Kumar Shrestha for their contribution in the field work survey and Mr. Dibya Giri for computer programming.

Lastly, thanks are due to Mrs. Nilu Shrestha for her secretarial service and administrative staff at CEDA for their logistics support.

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List of Abbreviations

AHW	-	Auxiliary Health Worker
ANM	-	Auxiliary Nurse - Midwife
ARI	-	Acute Respiratory Infection
AV	-	Average
CBR	-	Crude Birth Rate
CBS	-	Central Bureau of Statistics
CDD	-	Control of Diarrhoeal Diseases
CDR	-	Crude Death Rate
CPR	-	Contraceptive Prevalence Rate
CRS	-	Contraceptive Retail Sale
DDC	-	District Development Committee
DoHS	-	Department of Health Services
EPI	-	Expanded Programme on Immunization
FCHV	-	Female Community Health Volunteer
FCHVP	-	Female Community Health Volunteer Programme
FMCHW	-	Female Maternal and Child Health Worker
FP/MCH	-	Family Planning and Maternal and Child Health
FPW	-	Family Planning Worker
HC	-	Health Centre
HDR	-	Human Development Report
HI	-	Health Institution
HH	-	Household
HMG	-	His Majesty's Government
HMIS	-	Health Management Information System
HP	-	Health Post
HS	-	Health Staff
HW	-	Health Worker
ICHSDP	-	Integrated Community Health Services Development Project
ICR	-	Implementation Completion Report
IDA	-	International Development Association

IEC	-	Information Education and Communication
IMR	-	Infant Mortality Rate
INGO	-	International Non-Governmental Organization
MCH	-	Maternal and Child Health
MCHW	-	Maternal and Child Health Worker
MIS	-	Management Information System
MMR	-	Maternal Mortality Rate
MoH	-	Ministry of Health
MoPE	-	Ministry of Population and Environment
MWRA	-	Married Women of Reproductive Age
NDHS	-	Nepal Demographic and Health Survey
NFPMCH	-	Nepal Family Planning and Maternal Child Health
NGO	-	Non-Governmental Organization
NPC	-	National Planning Commission
PFHP	-	Population and Family Health Project
PHC	-	Primary Health Centre
PHCC	-	Primary Health Care Centre
PHO	-	Public Health Office
PIU	-	Project Implementation Unit
SHP	-	Sub-Health Post
SLTHP	-	Second Long Term Health Plan
TBA	-	Traditional Birth Attendant
TFR	-	Total Fertility Rate
VDC	-	Village Development Committee
VHW	-	Village Health Worker
VSC	-	Voluntary Surgical Contraception
yrs	-	years

Executive Summary

1. The objectives of the present study 'Effectiveness of Investment in Population and Family Health Project are: a) Assessing population and health policies and programmes of the government, b) Assessing improvement in delivery of health services (as a result of the Project implementation), c) Assessing improvement in FP/MCH services through outreach and clinical services and supplies of medicines, d) Comparing flow of health services before and after the Project, e) Assessing improvement in health of mother and children in Project area, f) Assessing improvement in service delivery and community people participation, and g) Make recommendations to NPC.
2. The following methods were used in the study:
 - a. Conducting of a socio-economic survey of households in Project area.
 - b. Survey of health institutions.
 - c. Study of secondary data and information.
 - d. Effectiveness/impact of the investment in the PFHP was assessed by considering the changes in health facilities and services, and status of health indicators in pre PFHP and Post PFHP period.
 - e. Stratified multistage sampling was used for household survey. A total of 5 districts (one from Mountain belt, two each from Hill and Terai belts) were sampled. A Household questionnaire and Health institution Questionnaire were designed.
3. Objectives of the Population and Family Health Project were (i) to reduce infant, child, and maternal morbidity and mortality rates, (ii) To raise life expectancy, (iii) To increase contraceptive prevalence, and (iv) To lower total fertility rate.
4. The Project total cost (at the time of completion) was \$37.6 million, of this amount \$32.2 million was used for outreach service delivery component. This component has sub-components of a) employment of female MCH works at sub-health post level, b) construction and renovation of 225 health posts, and construction of staff housing for female ANMs, and c) establishment of 5 new Primary Health Centres and upgrading of 20 Health Posts. The outreach service delivery component of the Project accounted for 82% of the total Project expenditure.

5. Other programmes conducted under the Project were a) establishment of 5 FP/MCH clinical units in related district hospitals, b) development of a logistic system for delivery of supply, storage and distribution of drugs and contraceptives, c) construction and renovation of warehouses, d) provision of vehicles for transportation of supplies, and e) field support operation under which travel expenses of field supervisors are borne by the Project.
6. An important aspect of the Project is institutional development. Under this component, following programmes were conducted: a) Development of MIS for FP/MCH Programme, b) Establishment and operation of clinical training centres at district level, c) provision of technical assistance, training and skill development, and d) operation of Project Implementation Unit at the Central level.
7. The health policy of the government has been spelt out in various documents. Overtime the policy has been refined. The basic needs programme document in late 1980's emphasised the provision of basic health services to the rural people through health posts and sub-health posts. It also envisaged mobilization of village level health volunteers.

Integrated health services, which included provision of family planning was emphasised in late 1980's and early 1990's.

The "Health for All" goals for the year 2000 were spelt out in early 1990's. Targets for various health indicators are laid down.

In 1991, the government announced National Health Policy. This policy emphasised extension of health services to the rural areas and increased access to modern health facilities for rural people. The policy also emphasised preventive health services.

The Eighth Plan (1992-97) stressed the improvement of health condition of people, extending primary health to rural areas, extending mother and child care services (including reproductive health services) to rural areas, and developing specialised health services in the country.

In 1997, the government announced Second Long Term Health Plan (1997-2017). The Plan stresses the following guidelines for formulation of health policies: Sustainability,

Community Participation, Gender Sensitivity, Efficient and Effective Management, Private Sector and NGO participation.

The Ninth Plan (1997-2002) stresses the aims of comprehensive improvement of public health services, promotion of small family concept and contributing to poverty alleviation.

8. The Project brought positive impact on the people and health delivery system. Over 80% households (Field Survey Data), reported improvement in health services over the Project period. There was significant increase in clients (number) seeking health services. The Project led to improvement in supplies of drugs and contraceptives. This led to better service delivery. Most households remarked that health services had improved after the implementation of the Project. An improvement in health status of women and children was mentioned by majority of households. Various institutional improvements such as development of health management information system for FP/MCH programs, establishment of four clinical training centres, provision of skill training for services providers and provision of logistical training to management and operational staff were attained during the Project period.
9. A comparison of status of key health indicators overtime shows that IMR has declined from 90 per 1000 in pre Project period to 64 per 1000 in post Project period. Improvements were noted also in state of child (under 5) mortality. Maternal mortality rate did not register notable decline over the Project period.
10. The strength of the Project is reflected in its predominant emphasis on strengthening of the field based operation of the public health system in the form of strengthened health centres and health posts.
11. The Project has contributed much in developing countrywide infrastructure and system development, which has helped in increasing the coverage, quality and utilization of FP/MCH programmes. The provision of employment of female MCH workers at the local level has helped in achieving a dependable service delivery system all over the country.
12. The improvement in key health indicators such as IMR and child mortality rates and in contraceptive prevalence rate, and TFR has been notable over the Project period. The

PFHP has been a major contributor, though not the sole contributor towards attainment of these improvements.

13. The contribution made by the Project in improving the delivery of health services at local levels and in improving status of public health (as shown by trends in various indicators) is substantial. In that sense, the investment made in execution of the Project has to largely effective.
14. There are a number of general recommendations. The principal ones are improving quality of health services in the health centres, health posts and sub-health posts and provision of reproductive health services in district and local level health institutions. Further it is necessary to build capacities of district and local level agencies (including local elected bodies) in conducting district and local level health situation analysis (including MCH and Reproductive health), developing plans for improvement, and implementing and monitoring of the measures.
15. Major Project related recommendations are:
 - a. Ensuring maintenance of the existing facilities either by government funding or by collection of user charges.
 - b. Follow up activities, projects and programmes to ensure that the services provided by the Project are continued.
 - c. Support for the supervision of service delivery at the local levels.
 - d. Creation of awareness among local communities on health issues, and on use of available services.
 - e. Fulfilling the manpower shortages in rural health institutions.
 - f. Improving environmental sanitation, drinking water provision and housing conditions in order to bring down infant and child deaths.

1.1 Background

Population, health and development are interrelated in a cycle. Development cannot be achieved in absence of the better family health. People as means and beneficiaries of development need to be aware of the impact of the rapid population growth on their well being. In fact, rapid population growth and development are related in a vicious cycle. A meaningful and sustainable development is not possible without regulating population growth and improving family health status. Nepal, like many other developing countries, has been suffering from the high population growth and trying to combat the rapid growth by launching the family planning programmes more effectively. There were no specific population policies other than a resettlement policy in the First and Second Development Plans of Nepal. However, from the Third Plan onwards, the population aspects have been accorded greater attention in the development plans with the establishment of the National Commission on Population (NPC) in 1979. In this respect, the integration of population and development can be taken as an important step towards improving the quality of life and fulfilling the basic needs of the Nepalese people. Later on, the population activities were given more emphasis with the establishment of Ministry of Population and Environment and several specific policies and programmes were implemented to combat the high population growth. Despite these continuous efforts annual population growth rate has remained at quite high level (2.1%), which is higher compared to population growth in India (1.3%), Bangladesh (1.9%), Sri Lanka (0.8%) for the year 1999 (Human Development Report, 2001). In this situation wide coverage and more effective implementation of the family planning programmes are in urgent need.

Health is very complex phenomenon and is so difficult to have perfect world wide accepted definition of health. Health is an issue of social justice. It is comparative and all communities have their concept of health as part of their culture. In the world of continuous change, new concepts are bound to emerge based on new patterns of thought from biomedical concepts to holistic concept of health, as a multidimensional process involving the well being of whole person in the context of his or her environment. The well-accepted definition of health, given

by World Health Organization is as follows: 'Health is a state of complete physical, mental and social well being and not merely the absence of disease or infirmity'. This means that to be healthy not only must our bodies be fit but also our minds must be at ease, and we must be able to live and work well with our family, neighbours and with whole community. To be a healthy, it is necessary to have safe healthy surroundings, clean water to drink, nourishing food, good standard of personal hygiene, immunised against certain diseases, adequate physical exercise and be able to relate happily to other people. Preservation of good health depends on the understanding and practices of the factors conducting good health and factors causing ill health.

Health care service is more than addressing the immediate need for health services of those people who come to the professionals in search of such services which are based on technological interventions. It should embrace sense of human relationship and problems life prospective and larger sector of population who do not seek for such service due to different reasons should be addressed. Health activities should be shaped around the life patterns of the population and should be fully integrated with the activities of other sectors involved in the community development. A community based health care service encourages participation of community, responds to the need of the people, leads to self- reliance, helps to encourage community life, creates awareness and includes all the community members, and priority gives to the poorest, neediest and most at risk.

Community health is an organized team effort to protect the health and well being of whole people in the community, or the human races at large. The term 'community health' is replaced with different terms in some countries, like public health, environmental health, preventive medicine and social medicine. In broad sense, it is the ways of preventing diseases, prolonging life and promoting health and efficiency through organized community efforts on different aspects that influence health of the community. Moreover it refers maintaining good sanitation, ensuring potable drinking water and adequate food; controlling communicable and non-communicable diseases, organizing medical and nursing services, providing health education, and improving overall living standard of people. It encompasses all those activities, which either individually or collectively contribute to the prevention of sickness and protection and promotion of health of people.

In this modern growing complex society, the task of protecting and promoting human health has become very challenging. No matter how advanced and extensive the medical service provision, it has not been able to cope successfully with the existing and new emerging health problems. Increased environmental degradation, persistent human conflicts, improper consumption of food, alcohol and drugs, food shortage, increasing population and poverty etc. have made most of the efforts in the health sector inadequate.

During the past few decades, there has been a realization that 'Health is a Fundamental Human Right'. This is a world-wide social goal and every nation has accepted it. But, in reality there are many people in the world who are out of reach to health particularly in developing countries. Today, there is very wide gap between health status of developed and developing countries and of city and rural areas within same countries. Unfortunately, about 80% of people in developing countries live in rural areas where accessibility to health and other social services are very poor, and only about 20 percent of the people who live in cities are enjoying the health services. A country cannot develop putting this large number of population under shadow. To minimize the gap, different strategies were adopted for many years. Among them, Primary Health Care approach put forward by WHO Assembly in 1978 in Alma Ata is the widely accepted one. It was taken as the strategy to achieve the goal 'Health for All by the year 2000' at a level that will permit them to lead socially and economically productive life.

Despite the development efforts in Nepal over the last few decades, life of majority of Nepalese people still remains miserable, which is shown by different social development indicators including health Human Development Index ranked Nepal among the poorest countries. The poor health status of Nepalese people is not only in poor as shown by this indicators, but also in wide disparity in health indicators among the district. There are best and worst districts of the country. For example, in 2056/57, measles coverage in Kathmandu was 113.9% and in Sindhuli it was 49.9%, Diarrhoea incidence in under 5 children was 776 per 1000 in Manang and only 75 in Bhaktapur, and deliveries conducted by trained persons in Lalitpur was 45.0% whereas in Mugu, it was 1.1%.

Privatization of health sector has become a growing phenomenon in Nepal, and this is one of the strategies of the Second Long-term Health Plan. Private health care providers operate primarily in principle of profit and are city based and interested only on curative services.

The technical interventions may further marginalize the poor rural people if the motive of the private providers, quality and type of care, population coverage, and cost are not monitored by the state.

The country's burden of diseases becomes greater every year with the increase in factors such as poverty, inequality, malnutrition, poor quality water and sanitation, violence, unsafe sex, pollution, alcohol, tobacco and substance abuse. The availability of safe drinking water to population is limited. Water borne diseases are very prominent in summer months. Facilities for excreta disposal, disposal of solid waste and drainage for surface water are limited in magnitude and effectiveness. Diseases such as cholera, typhoid, dysentery, hepatitis, intestinal worm infestation and giardiasis that are result of faeco-oral transmission are very common. Malaria, Kala azar and Japanese Encephalitis account for a lot of morbidity and mortality cases in certain areas. Tuberculosis is still a critical problem. Under-nutrition in children and anemia in women and other micro-nutrient deficiencies are another great problems here. ARI in children and maternal problems are another threats. Moreover, HIV/AIDS and other social problems have taken big part in decreasing health status. So, the country is facing huge burden of existing re-emerging and newly emerging health problems. One of the important factors contributing to both poverty and malnutrition in Nepal is the rapid increase in population. Female literacy, which is a key determinant of the health and social status of the population, is still low in Nepal.

In Nepal, the programme packages for Primary Health Care (PHC) was adopted since Fifth Five Year Plan to address more people in rural areas, to strengthen community health concepts. Furthermore, the strategy of establishment of one sub-health posts in every Village Development Committee and at least one primary health care center in every electoral zone was adopted by National Health Policy 1991¹. This has led to added more effort towards improving the health status of the people. Most people still do not get the adequate benefits of the existing health facilities because reasons like lack of accessibility, low affordability, lack of information and shortage of health personnel. The programs related to the control of malaria, tuberculosis, leprosy, HIV/AIDS, and control of other major diseases, vitamin A programme, reproductive health program that are integrated to PHC in addition to the PHC package have also played major role in improvement of health status of the people. Second

Long-term Health Plan has proposed for Essential Health Care Service, which addresses the essential health needs of the population at large.

As an implementing body, the Department of Health Services (DOHS) is providing health and family planning services to all Nepalese people throughout the country through its network of Female Community Health Volunteers (FCHVs), Mothers' Groups, trained Traditional Birth Attendants (TBAs), Sub-Health Posts (SHPs), Health Posts (HPs), Primary Health Care Centres (PHCCs), Health Centres (HCs) and hospitals. In delivering the health services, 74 hospitals, 149 PHCCs / HCs, 739 HPs and 3,152 SHPs are involved (DoHS, Annual Report, 1999/2000). Besides, 15,115 trained TBAs, 46,597 FCHVs, 14,821 PHC outreach sites and thousands of mothers groups (DoHS Annual Report, 1999/2000) are also providing health services or making referrals for services.

Lack of health education, high infant and maternal mortality rate, rapid population growth, malnutrition and poverty are the major problems of Nepal. The slow population growth and better family health are the vital pre-conditions for the poverty reduction and the overall socio-economic development of the country. Reducing the rates of birth, infant, child and maternal mortality and morbidity and increasing the life expectancy and contraceptive prevalence rates are the appropriate steps to be taken for fulfilling these pre-conditions. With this realisation, Population and Family Health Project (PFHP) was designed and funded by the World Bank. The Project was started in 1994/95 to support the Nepal Family Planning and Maternal and Child Health Programs launched by the government. The Project intended to increase the contraceptive prevalence rate, to low the total fertility, maternal and child mortality and to raise the life expectancy of the Nepalese people. The Project's total period was six years which was completed in 2000. A bulk of money was spent in PFHP. In this respect, how far the investment in PFHP has been effective and successful in achieving the goal of the Project and raising the health status of the Nepalese people is a matter of great concern. The assessment of effectiveness of investment in PFHP is a right step towards this. With this realization, the study on effectiveness of investment in Population and Family Health Project has been intended.

1.2 Objectives

The overall objective of the study is to assess the impact of the Population and Family Health Project by considering the factors such as improvement in the delivery of health services, health facilities, recruit and deploy of female MCH workers, clinical services and supplies of drugs and contraceptives.

The specific objectives were as follows:

- To review the population and health policies and programmes of the government.
- To assess the improvement in the delivery of health services.
- To assess the improvement in the FP/MCH services through outreach and clinical services and supplies of drugs.
- To compare the flow of health services in the Project area before and after the Project.
- To assess the improvement in the health of mother and children in the Project area.
- To assess the improvement in the physical environment for service delivery and participation of health personnel and community people in the Project activities.
- To make policy recommendations to NPC.

1.3 Methodology

The study is based on both primary as well as secondary data. A socio-economic survey was undertaken in the Project (PFHP) areas for the collection of primary information and data. Secondary information and data were collected from the various sources. Among them, Department of Health Services, New ERA, World Bank, Family Planning Association of Nepal, Nepal CRS Company were the major sources of secondary information and data. Subjective information (perceptual) were acquired from the households as well as the health institutions under the study survey and objective information from the health institutions. Information consistency was checked with the information collected through secondary sources. Health indicators such as child and mortality rate, fertility rate, life expectancy were generated from the secondary sources. The effectiveness/impact of the investment in the PFHP has been assessed by considering the changes in the health facilities

and services, and health indicators for the pre-PFHP and Post PFHP period. The year 1994 has been considered as the pre-Project year and 2000 as the post Project year

1.3.1 Sample Selection

Administratively, the Kingdom of Nepal has been divided into 5 development regions, 14 zones and 75 districts. The districts have been further divided into village development committees (VDCs) and also into urban municipalities in some districts. The VDCs/municipalities are sub-divided into wards. The VDCs have nine wards but the number of wards in an urban municipality depends on the size of the population of the municipality. There are 3912 VDCs and 58 municipalities in Nepal at present.

Topographically, Nepal is divided into three ecological belts; Mountain, Hill and Terai. The Kingdom of Nepal has 16 Mountain, 39 Hill and 20 Terai belt districts. Although Nepal is divided into 5 administrative development regions and 14 zones, the characteristics of the districts belonging to one ecological belt are found nearly similar but different from the characteristics of the districts belong to other ecological belts. With this realisation, topographical division rather than the administrative division has been emphasised in the selection of sample districts for the study survey.

The sample for the survey is based on stratified multistage sampling. At the first stage, five districts, one from the Mountain belt, and two each from the Hill and Terai belts of the Kingdom were selected. They were Mustang, Dhankuta, Kaski, Morang and Rupandehi districts. Two health institutions - one representing health post and another representing sub-health post from each of the selected five districts were then chosen. While selecting the health institutions in a district, core and periphery approach was adopted. In other words, one health institutions near to the district head quarter and other relatively far from the head quarter were chosen. The VDCs/Municipality where the chosen health institutions are based were taken as the sample VDCs/Municipality for the socio-economic survey purpose of the study. In this manner, 9 VDCs and one Municipality were chosen at the second stage and they were Pakhribas and Pariwadin VDCs of Dhankuta, Dadar Bairiya and Katahari VDCs of Morang, Thinga and Kagbeni VDCs of Mustang, Armala VDC and Pokhara Municipality of Kaski and Shankarnagar and Anandaban VDCs of Rupandehi districts. Lastly at the third stage, 20 households from each of the chosen Mountain VDCs were selected at random.

Further, 30 households and 35 households were chosen respectively from each of the selected Hill and Terai VDCs /Municipality. In this way, 300 households were chosen for the study survey.

1.3.2 Questionnaire

Two sets of comprehensive questionnaire, one for the households and another for the health institutions were administered. The household questionnaire consisted of household background, employment and income, shelter and shelter facilities, sanitation and water supply, family health status and mode of treatment, family planning and health services, availability of drugs and contraceptives, and improvement in the health services and maternal and child health. Likewise, the health institution questionnaire contained health personnel and training, deployment of female MCHW, female MCHWs staff quarters, MCHWs services and outreach clinic services per month, monthly clients for the health services, supply of drugs and contraceptives, improvement in the delivery of health services and physical environment and participation of health personnel in the Project activities. Both the questionnaires were open as well as close ended. Attention was paid to get realistic information by making the questionnaire as simple as possible

1.3.3 Presentation and Analysis of Data

The information and data collected from the field survey have been processed and presented at the ecological level and health post area level. Likewise, the impact assessment have been analysed at both the levels.

1.3.4 Limitations of the Study

The major limitations of the study were:

- Due to very limited time frame and budget constraint, only limited coverage has been possible
- The result may not represent the Mountain, Hill and Terai belts of the Kingdom totally.
- The study has been mainly concentrated to the grass-roots level health institutions.
- The changes brought about in various health indicators may not be the sole contribution of the Population and Family Health Project.

1.3.5 Organization of the Study

The study output has been organized in eight chapters. Chapter 1 deals with the general background, objective of the study, methodology adopted and limitations of the study. The Chapter 2 portrays the past policies and programs of the HMG on population and health sector with particular emphasis on main thrust and achievements of the Eight Plan and policies and programs of the Ninth Plan. Besides, family planning and MCH programs of the government have been elucidated in this Chapter. Chapter 3 provides the details of the programs under Population and Family Health Project (PFHP), PFHP support for the four clusters of components included in the Project design and achievements of the Project.

Socio-economic characteristics of the household population under the study survey have been elucidated in the Chapter 4 with particular emphasis on education attainment and housing characteristics concerning sanitation facilities and drinking water supply. Likewise, the health services delivery issues including FP/MCH services, clinical and outreach services at the grass-roots level have been discussed in the Chapter 5. Moreover, supply of drugs and contraceptives scenario at the field level has been portrait in this Chapter along with the field level health service network. Chapter 6 depicts the improvement in health facilities and services. Improvement in flow of health services, health of mother and children, infrastructure development, poverty reduction and women development have been elucidated in this Chapter.

Chapter 7 presents the impact of the Project (PFHP) in the population and health sector. The impact assessed by considering the changes in the health indicators over the PFHP period has been discussed under this section with particular emphasis to CPR, fertility rate, child and maternal mortality and life expectancy. In addition, health related institutional development including management information system, clinical training centres, maintenance capacity development has been presented in this part. Lastly, the Chapter 8 summarises the major findings of the study and conclusion drawn on the basis of the derived findings. This part also includes the policy recommendations to the NPC.

2.1 Past Policies and Programmes

Nepal's health situation has improved steadily over the past three decades. In 2001, the infant mortality rate was found to be 64 per 1000 live births, and under 5 years mortality rate to be 91 per 1000 live births. (Nepal Demographic and Health Survey, 2001). Similarly, the maternal mortality rate is estimated to be 439 per 100000 live births (Approach paper on Tenth Plan). These rates are much lower compared to the rates prevailing in early 1990's. Yet, the rates are considered to be high in context of experience of many of the South Asian countries. The achievements in the health sector have been the result of the implementation of several policy measures and programmes over the past two decades.

In the late 1980's, the major thrust of the government policy was the implementation of the basic needs programs, which was incorporated as the main theme of the Seventh Plan (1987-92).

2.1.1 Basic Needs Programmes

The Basic Needs Programme aimed at bringing down the IMR to 45 per 1000 and population growth rate to less than 2% by the year 2000. The programme envisaged provision of basic health services to the rural people through the health posts (at ilaka level) and sub-health posts (at VDC level), mobilization of community support for the running of sub-health posts. Further, the programme envisaged mobilization of village level health volunteers. The structure of primary health care delivery evolved under the programme is still operational up to the present time.

During the period 1980-1990, the government's major health strategy was provision of integrated health services. The services were managed at the centre by the Integrated Community Health Services Development Project (ICHSDP). In ICHSDP, health post workers were responsible for a wide range of tasks including immunization, malaria control and promotion of family planning. Family Planning programme was carried out mainly by operation of camps for sterilizations. The health workers got a monetary incentive for

bringing in volunteers for sterilization. One comment on the camp based sterilization was that this system deflected the health workers from performing other primary health tasks for which there was no special payment.

2.1.2 Health for All goals

In early 1990's, the government policy was based on achieving Health for All goals by the year 2000 and goals for Children and Development for the 1990's. Major goals were as follows:

- Reduction of infant and under 5 mortality rates to 50 and 70 per, 1,000 live births respectively by the year 2000;
- Reduction of maternal mortality rate to 600 per 100,000 live births by 1996;
- Reduction of TFR to 4 by the year 2000;
- Reduction of population growth rate to less than 2% by the year 2000.

Other specific goals included reduction of diarrhoeal deaths among children, elimination of vitamin A deficiency, reduction of malnutrition among children under 5 years of age, elimination of iodine deficiency disorders and provision of information on family planning to couples.

The goals set by Health for all and for Children and Development for the 1990's were considered in the preparation of the National Health Policy, 1991.

2.1.3 National Health Policy, 1991

The main goal of the new health policy was to upgrade the health standards of the majority of the rural population by extending primary health services up to the village level and to provide to the rural people the opportunity to obtain the benefits of modern medical facilities by making service accessible to them. Enhancing access to health services for the rural people by raising the availability of the service at the local levels was a major objective of the policy.

Goals set for the year 2000 by the policy:

- Infant mortality will be reduced to 50 per 1000 from 1991 estimate of 107 per 1000.
- Child mortality will be reduced to 70 per 1000 from 1991 estimate of 197 per 1000.
- Maternal mortality will be reduced to 4 per 1000 from the 1991 estimate of 8.5 per 1000.
- Total fertility will be reduced to 4 from the 1991 estimate of 5.8.
- Life expectancy will be raised to 65 years from the 1991 estimate of 53 years.

The new health policy involved extensive reorientation of the country's health services with focus on extending the primary health care to all the rural people of the country. Further, the policy gave priority to preventive health services, particularly to the programmes related to reduction of infant and child morbidity and mortality. The preventive services related to reducing infant and child mortality were provided through Primary Health Centres, Health Post and Sub-health Posts.

2.1.4 Population Policy

The government involvement in family planning activities started from 1968, when the Nepal Family Planning and Maternal and Child Health Project (NFPMCH Project) was established under the Ministry of Health. Until then, the Family Planning Association of Nepal was sole provider of family Planning services in the country.

A Population Policy Coordination Board was formed in 1975 under the National Planning Commission. In 1978, the Board was upgraded to become National Commission on Population. It was further reorganized under the chairmanship of the Prime Minister and operated independently of the National Planning Commission, in 1982.

The National Commission on Population framed a national population strategy, and announced a set of programmes to attain TFR of 2.5 (corresponding to population growth rate of 1.2%) by the year 2000.

The strategy had following aspects:

- Fulfilling the substantial unmet demand for family Planning services,
- Integrating population programmes in all Projects relating to environment, forestry, agriculture, and rural development.
- Enhancing status of women, female education and female employment,
- Mobilizing local bodies, NGOs in population and fertility reduction activities,
- Controlling the increasing in migration into the country.

In 1990, the National Commission on Population was dissolved and its function was given to the Population Division of National Planning Commission. In 1995, the Ministry of Population and Environment (MOPE) was established. This is a reflection of government's strong commitment to population programmes. The MOPE has been given the responsibility of implementing various programmes as given in the Programme of Action of the International Conference on Population and Development (1994). The new strategy emphasizes linkages between population and development, and on meeting the reproductive rights of men and women, rather than achieving the demographic targets.

2.2 Main Thrusts and Achievements of the Eighth Plan (1992-97)

2.2.1 Objectives

The health policy pursued in this Plan was based on the National Health Policy of 1991. The following objectives are noted in the Health Section of the Eighth Plan.

- To improve the general health condition of the people in order to provide the healthy manpower necessary for the country's development.
- To extend basic and primary health services to the villages to improve the health status of the people,
- To extend mother and child health services and family planning to the local level to make the reproductive health programme including family planning more effective,
- To develop specialized health services in order to provide high quality treatment and referral available throughout the country.

2.2.2 Policies

Policies directly related to maternal and child health (as mentioned in Plan document) are as follows:

- Primary Health Centers, Health posts, Sub-health posts will be established and strengthened in order to provide health services in each VDC,
- Family Planning and MCH service will be provided as part of integrated primary health services. Family Planning services (provision of temporary and permanent means of contraception) will be provided as per the demand of the concerned people. Temporary means of family planning will be extended in order to promote spacing of births,
- Programmes will be carried out in order to resolve problems of micro-nutrient deficiency, vitamin A deficiency, iodine deficiency with the aim of improving nutritional status of women and children.
- A policy of involving local bodies, NGO's, Private sector and foreign investors in the management of health institutions and in service provision will be adopted.

Table 2.1: Targets fixed by Eight Plan (Population and Health)

	Beginning of Plan (1992)	End of Plan (1997)
a) IMR (per 1000 live births)	102	80
b) Under 5 mortality (per 1000 live births)	165	130
c) Maternal mortality (per 100000 births)	850	750
d) TFR	5.8	4.5
e) Life expectancy (Years)	54	61
f) Contraceptive Prevalence Rate (%)	23	32

Source: National Planning Commission, the Eighth Plan, 2049.

2.2.3 Programmes

The Plan pledged to establish 3000 Primary Health Centres and 3199 sub-health posts in order to provide services at local levels. In order to protect children from 6 major diseases controllable by immunization. DPT, Polio, and BCG vaccinations will be provided to 3,39,232 children. Family Planning services will be provided to 1,246,800 couples, thus raising the CPR to 32%.

The Eight Plan period is particularly noteworthy since the Population and Family Health Project (1994-2000) was launched during this Plan period. The main objectives of the Project are:

- a. To reduce maternal and child mortality and morbidity,
- b. Raise life expectancy,
- c. Increase contraceptive prevalence rate, and
- d. Lower the total fertility rate.

The programmes under the Project were aimed at increasing the coverage, quality and utilization of FP/MCH services, improving the functioning of local health facilities, and strengthening institutional and managerial capacity of the HMG to implement population and MCH programmes.

Table 2.2: Achievements in Various Health and Population Areas during the Eighth Plan Period

Area	Target of the Plan	Progress Achieved
Primary Health Centres (Additional)	100	100
Sub-health Posts (Additional)	3,199	3,187
Health Services for under 5 children (Total)	14,85,000	16,49,415
Contraceptive Prevalence Rate (%)	32	30.1
TFR (Estimated)	4.5	4.58
Family Planning Services to couples (Total)	12,46,800	12,62,523
Services to Pregnant and Lactating Women	1704000	833951

Source: National Planning Commission, the Ninth Plan 1998.

The Eighth Plan had three main objectives in the health sector: providing healthy manpower for the country's development by raising health status of the people, controlling population growth by providing FP/MCH services, and providing specialist health services within the country. Progress has been attained in each of these areas.

Health services have been extended to local levels through primary health centres, health posts and sub-health posts. The areas of services were primary treatment of common diseases, immunization against communicable diseases, health education, nutritional programme and programmes to control malaria, TB. and Leprosy. Health services were provided to 1.6 million children under 5 years of age, and maternity services to 833 thousand

women. Family Planning services were provided to a total of 1.6 million couples, helping to bring down the TFR to 4.58.

2.2.4 Situation at the end of Eighth Plan

Health status of the people has improved with the expansion of health facilities and institutional development of the health sector. The Population and Family Health Project contributed towards this by strengthening the health facilities and institutions at local levels.

However, the chief health indicators are still regarded as high. The 2053/54 situation with respect to various key indicators were:

- IMR of 74.7 per 1000 live birth
- Child mortality rate of 118 per 1000 live births
- Maternal mortality rate of 475 per 100,000 live births.

2.2.5 Second Long Term Health Plan 1997-2017

Towards the end of the Eighth Plan, the Ministry of Health developed a 20 years Second Long Term Health Plan (SLTHP) for 1997-2017 period.

The aim of this Plan is to guide health sector development in the improvement of the health of the population, particularly those whose health needs are not often met.

"The SLTHP vision is a health care system with equitable access and quality services in both rural and urban areas. The system would encompass the concepts of sustainability, full community participation, decentralization, gender sensitivity, effective and efficient management and private and NGO participation "(Annual Report of DOHS, 1999/2000).

The Plan provides a broad vision of health sector development for the next 2 decades.

The SLTHP has the following objectives:

- a. To improve the health status of the population of the most vulnerable groups, particularly those whose health needs are often not met - women and children, the rural population, the poor, the under privileged, and the marginalized population,

- b. To extend to all districts cost effective public health measures and essential curative services for the appropriate treatment of common diseases and injuries,
- c. To provide the appropriate numbers, distribution and types of technically competent and socially responsible health personnel for quality health care throughout the country, particularly in underserved areas.
- d. To improve the management and organization of the public health sector and to increase the efficiency and effectiveness of the health care system.
- e. To develop appropriate roles for the NGO's, the public and private sectors in providing and financing the health services.
- f. To improve inter and intra coordination and to provide the necessary conditions and support for effective decentralization with full community participation.

Some relevant targets of the SLTHP (1997/2017):

- Reducing IMR to 34.4 per 1000 live births
- Reducing under 5 mortality rate to 62.5 per 1000
- Reducing maternal mortality rate to 250 per 1000,000 births
- Raising life expectancy to 68.7 years
- Raising CPR to 58.2%
- Reducing TFR to 3.05
- Reducing CBR to 26.6 per 1000 and CDR to 6 per 1000.

2.3 Policies and Programmes in the Ninth Plan and Achievements

2.3.1 Objectives and Targets

The objectives of the Health Sector in the Ninth Plan (1997-2002) are as follows:

- a. To bring about comprehensive improvement in public health (accepting public health as an important human right) by strengthening the existing infrastructure for preventive, promotive, curative, rehabilitative health and family planning services.
- b. To improve public health status by the development and extension of health services and by expanding the small family concept by providing family planning services, thereby decreasing the population growth rate.
- c. To contribute to poverty alleviation by improving the health of the population, thereby creating a healthy labour force able to benefit from access to the labour market and attendant income generation activities.

Table 2.3: Targets of the Ninth Plan (Population and MCH areas)

Area	Status as of 1996/97	Target of the Plan
a) IMR (per 1000 live births)	74.7	61.5
b) Child Mortality rate (per 1000 live births)	118	102.3
c) Maternal Mortality Rate (per 1000 live births)	475	400
d) Contraceptive Prevalence Rate (%)	30.1	36.6
e) TFR (per women)	4.58	4.2
f) Average life expectancy in years	56.1	59.7

Source: National Planning Commission, *The Ninth Plan*, 1998

2.3.2 Programmes in the Ninth Plan

a) Health Programmes

- Essential Health Care Services will be expanded on the basis of principle of people's accessibility to public health, participation of community and individuals, self-reliance, appropriate technology and cost effectiveness.
- The number of female health volunteers will be increased to 73,000 in the Plan period.
- Primary Health Centres, Health Posts, Sub-health Posts will be used for providing services related to mother and child, family planning, immunization, malaria, TB, leprosy, and environmental education.

- Preventive, promotional, and curative services on common diseases and injuries will be provided through primary health centre, health posts and sub-health posts. Referral services to upper level health institutions will be implemented effectively. Specialist health services will be provided in regional and zonal hospitals.
- Family planning programmes will be carried out and female health services will be provided.
- With a view to bring down population growth rate, to spread awareness of the concept of "small family for happy family" to rural areas, to reduce infant and maternal mortality and promote safe motherhood (reproductive health). Mortality health and safe motherhood programmes will be conducted in 25 districts.
- Family Planning services will be provided to 16,91,020 couples, and safe maternity services will be provided to 20,000 million pregnant women.
- Expanded immunization programme will be conducted to reduce IMR. BCG, DPT, Polio, and measles vaccine will be provided to all infants below one year of age.
- Diarrhoeal diseases will be controlled with a view to reduce diarrhoeal morbidity and mortality among under 5 children by one third.

b) Other Health Programmes

- Control of various diseases such as malaria, tuberculosis, Kala azar, Leprosy, AIDS/STD, Dental Health, Eye health, Hearing/Deafness Treatment Environmental Health Programme.
- Curative health services: National Hospitals, Regional, Zonal, District Hospitals, Ayurvedic Hospitals.
- Strengthening district health management.

Specific Programmes Related to Maternal and Child Health (in the Ninth Plan)
Child Health Programmes

a) Expanded programme on immunisation (EPI)

This is a priority programme of the government aimed at eliminating neonatal tetanus reducing measles and eradicating polio (by 2000)

b) Control of diarrhoeal diseases

The objective of the programme is to reduce mortality due to diarrhoea and dehydration (from the estimated 30,000 deaths per year to a minimum), and to reduce morbidity (from 33 episodes per child per year to a minimum)

c) Nutrition

The aim of the programme is to reduce malnutrition of children under 3 years of age, eliminating iodine and vitamin deficiency disorders (by the year 2001), and reducing the incidence of low birth weight..

d) Control of Acute Respiratory Infections (ARI)

The ARI is a major public health problem among children under 5 years of age. The objective of the programme is to reduce the under 5 ARI related morbidity and mortality and to improve the child health situation. Educating mothers and child care takers in supportive care work and in recognizing symptoms of ARI and pneumonia is a major strategy of the programme.

Maternal/Family Health Programmes in the Ninth Plan

a) Family Planning

The main thrust of Policy, related to reproductive health and family planning is to expand coverage and sustain adequate quality family planning services to the village level through all health facilities. hospitals, primary health centre,, health Posts and sub-health Posts.

Within the context of reproductive health, the main objectives of the family planning programme are to assist individuals and couples a) to space their children , b) prevent unwanted pregnancies, c) manage infertility and d) improve the overall reproductive health.

The Ninth Plan aims at raising the contraceptive prevalence rate to 38.2%, and reducing TFR to 4 per women by the end of the Plan.

b) Safe motherhood

The safe motherhood programme aims at improving maternal health by addressing the high rates of death and disability suffered by women caused by the complications of pregnancy and child birth. The strategies adopted are to provide around the clock essential obstetric services, and ensuring the presence of skilled attendants at deliveries especially in the home setting.

c) Female Community Health Volunteer Programme (FCHVP)

The role of FCHVs is mainly to focus on motivation and education of local mothers for promotion of safe motherhood, mother and child health, family planning and community health. They are expected to promote available health services, such as immunization, family planning and control of diarrhoea diseases.

2.3.3 Population Policy in the Ninth Plan

The Ninth Plan considers the ICPD goals in defining objectives and programmes of population policy. The Plan states 17 policies and programme with the aim of reducing to promote two child family room and bringing down TFR to replacement level. The policies include increasing female education and employment, promoting safe motherhood, promoting reproduction health, involving local bodies and NGOs in population activities at decentralized levels, and provision of various family planning services.

2.3.4 Population and Health Situation Towards the end of the Ninth Plan

The Approach Paper to the Tenth Plan (2059/60 to 2063/64) prepared by the National Planning Commission presents the following data on areas relevant to population and health

Table 2.4: Population and Health Indicators, 2057/58

Area	Status : Ninth Plan
1. IMR (Per 1000)	64
2. MMR (Per 100,000)	439
3. TFR. (Per woman)	4.1
4. Life Expectancy (Years)	57.6
5. Population Growth Rate (% per Year)	2.1
6. Contraceptive Prevalence Rate (%)	39.0

Source: The Approach Paper on the Tenth Plan, 2059

2.4 General Assessment of Family Planning and Maternal and Child Health Programmes

2.4.1 Family Planning Programmes

The National Population Strategy (1982), the National Health Policy (1991) and the Second Long Term Health Plan (1997-2017) have all stressed the goal of bringing down total fertility rate through provision of family Planning services, and implementation of socio-economic measures for popularising the concept of "small family". The Ninth Plan (1997-2002) has also set an objective of expanding the small family concept by providing health and family planning services thereby decreasing the population growth rate.

Family planning services were mainly provided through health institutions, and camp-based sterilization services in the 1970s under the Nepal Family Planning and Maternal Child Health Project. At present, family planning services have been integrated with health services and are now available at all government health institutions (up to sub-health post levels). Accessibility of family planning services has increased. And a large number of NGO's are involved in providing family planning services.

The aims of family planning programme are to enable individuals and couples to space their children, prevent unwanted pregnancies, manage infertility and improve the overall reproductive health. The Ninth Plan aims at raising the contraceptive prevalence rate to 38.2% and to lower TFR to 4 per woman.

In order to achieve the CPR target as laid down in the Plan, the number of couples using modern contraceptive should reach 16,91,360 by the final year of the Plan.

Voluntary Surgical Contraception (VSC) accounts for major portion of contraceptive use in Nepal. Female sterilisation is the most prominent method used followed by male sterilization and injectable (Depo Provera) NorPlant and IUCD are methods that are least used. The BCHIMES Survey done by CBS (2001) showed that female sterilisation accounted for 39% of contraceptive use. The second highest proportion (28%) was accounted for by injectables. Vasectomy (male VSC) accounted for 21% of current use of family planning. Oral pills accounted for 6% of contraceptive use.

The family planning strategy emphasises the need of greater use of spacing by couples. Spacing methods are Depoprovera (Injectable), Oral pills, Condom, NorPlant and IUCDs. Spacing methods are made available through private practitioners, CRS outlets, pharmacies, and NGO's/INGO's.

In 2056/57(1999/2000), the number of family planning current users reached 1,524,808 (which slightly exceeded the target for that year)

The Annual Report of the Department of Health Services for 2056/57 (1999/2000) has mentioned the following issues with respect to family planning:

- a. The importance of family planning as a national priority programme at the implementation level is not yet fully realized.
- b. The VSC services are not provided regularly in many hospitals.
- c. There is lack of resources for performing IUCD activities and transfer of trained manpower has hampered IUCD services.
- d. IUCD services are not-available in hospitals.
- e. Record keeping and reporting on Family Planning Services is weak.
- f. The District Health Office and PHO's have not yet taken full responsibility for family Planning activities.
- g. Monitoring and supervision of implementation of family Planning programmes is weak.

2.4.2 Maternal Health Programmes

Maternal health issues are several. Nutritional status of most rural Nepali women of child bearing age is extremely low. There is a shortage of maternal health care services. About 90 percent of women give birth at home due to lack of knowledge or lack of necessary health (delivery) services nearer the homes. Only about 13% deliveries (births) are done with the assistance of a health professional. Maternal mortality rate is still very high. The MMR in 2054/58 was estimated to be 439 per 100,000 live births.

Bringing down the MMR has been a major objective of the government's health policy. The main programmes related to promotion of maternal health are:

a) *Safe Motherhood Programme*

Under this programme, efforts are made to provide quality antenatal, postnatal and neonatal services; staff capacity at district hospitals is improved; Supply of essential drugs is improved, referral systems between peripheral health facilities and district hospitals are established; public awareness is raised about safe motherhood issues.

b) *Female Community Health Volunteers (FCHV)*

The FCHVs contribute towards promotion of safe motherhood, mother and child health, family planning and community health mainly by providing knowledge about primary health care especially related to health of mothers and children. The programmes relating FCHVs are community orientation and mobilization, FCHV selection and training support to FCHVs and follow-up activities.

c) *Traditional Birth Attendants (TBAs)*

The TBAs programme is expected to reduce maternal mortality through the provision of trained attendants during childbirth and provision of referral for high risk pregnancies and obstetric emergencies.

The Annual Report of Department of Health Services for 2056/57 (1991/2000) mentions the following issues with respect to the various maternal health programmes.

Safe Motherhood

- Low coverage of antenatal and postnatal care and delivery services.
- Limited awareness of safe motherhood programme.
- Underreporting, inconsistent and unreliable data.
- Insufficient staff to provide maternity services.
- Inadequate supplies for safe motherhood activities at all level.

FCHVs

- FCHVs do not get regular support and guidance from health staff.
- FCHVs review meetings are not held effectively.

- Many sub-health post In-charges do not have training on FCHVs programme

TBA

- Lack of funds to carry out training on a continuing basis.
- Training manuals too advanced for trainees.
- Deterioration in quality of TBA monitoring due to less frequent supervision and review meetings.

2.4.3 Child Health Programmes

The infant and child mortality rates are declining steadily in the country. Yet, the current rates of IMR and child mortality are considered to be high. The country's child health programmes are as follows:

- Expanded Programme on Immunizations (EPI) aimed at eliminating neonatal tetanus, reducing measles cases, and eradicating polio (by 2000)
- Control of Diarrhoeal Diseases (CDD) aimed at reducing under 5 morbidity and mortality, increasing awareness about Jivan Jal/ORS and increasing accessibility of population to Jivan Jal
- Control of Acute Respiratory Infections (ARI) aimed at reducing morbidity and mortality due to ARI among children under 5 years of age.
- Other programmes are Nutrition and Growth Monitoring.

The Ninth Plan goals with respect to the above are:

EPI

- Eradication of Polio by the year 2000
- Expansion of cold chain sub-centres in all 75 districts to facilitate maintenance of cold chain and reducing wastage rate.
- Maintenance of cold chain equipment in all 75 districts,
- Introduction of Hepatitis B Vaccine in EPI Programme

CDD

- Training all levels of health workers including volunteers.
- Orient VDC members, opinion leaders, faith healers.

- Supply Jivan Jal to all health institutions and to all FCHVs.
- Developing health education materials.
- Promoting supervision and monitoring.

Control of ARI

- Training health workers of all levels, school teachers.
- Orienting community leaders, DDC, VDC members, faith healers.
- Supply medicines (related) to all health institutions and FCHVs.
- Developing IEC materials.
- Managing ARI cases.
- Supervise/monitor at all levels.

Nutrition

- Reducing malnutrition among children below 3 years of age.
- Reducing iron deficiency, anemia of expected pregnancies.
- Reducing vitamin A deficiency in children below 5 years of age.
- Promoting baby friendly hospital initiative in all hospitals.
- Conducting growth monitoring.

ISSUES

The Annual Report of Department of Health Services for 2050/57 (1999/2000) has mentioned following issues:

EPI

- Low coverage of communities for various vaccines.
- Problems relating to cold chain equipment maintenance.
- District health authorities are not using their authority to manage EPI programme
- Social mobilization still not adequate.

CDD

- Inadequate supervision and monitoring at all levels due to shortage of manpower and vehicles.
- Untrained staff in sub-health posts.
- IEC materials in short supply.

Control of AIR

- Not enough manpower in the CDD/ARI Section (of Department of Health Services)
- Inadequate supervision and monitoring of activities at all levels due to shortage of manpower and vehicles.
- New sub-health posts are manned by untrained personnel.
- IEC materials are in short supply.

2.5 Overall Assessment

The Annual Report of the Department of Health Services for 2056/57 (1999/2000) contains a series of recommended actions to resolve the problems and issues in each of the major programmes/activities of Family Planning, Maternal Health and Child Health programmes.

At the Central level (Department of Health Services), most of the problems faced by the Technical Divisions and Support divisions are related to: a) Human Resources, b) Budget, supplies and equipment, c) Planning and Co-ordination, d) Technical aspects, e) Information management and f) IEC materials. The report identifies measures to resolve these problems. At the field level, particularly with respect to primary health care system, there are a number of problems.

- It is observed that given the burden of diseases, the essential components of preventive, promotive and curative health service at each level of health care are inadequate.
- There is a shortage of adequately trained health personnel in primary health centres, health posts, and sub-health posts.
- The quality of service provided at the health institutions and facilities (both public and private) fail to meet the established standards of care.

- The training of medical and paramedical personnel is a matter of concern as quality of training is not sufficiently monitored and maintained.
- The poor and disadvantaged have still difficulty in accessing the health facilities.
- Along with medical care, there needs to be an improvement in domestic environment and sanitation as well as in provision of safe drinking water in order to tackle problems like CDD and ARI.

At present, the government is active with implementation of programmes based on Second Long Term Health Plan. The key elements of government's health policy and programmes are as follows:

- a. Developing an effective health system that provides affordable and accessible essential health care services,
- b. Developing public/private partnership for health care.
- c. Developing an effective decentralized health system.
- d. Improving the health care system so that it provides quality care through better management of human, physical and financial resources.

The Approach Paper on the Tenth Plan states¹³ the fundamental problems of the health sector to be:

- Inability to provide quality health services mainly due to management weaknesses.
- Lack of public awareness about health issues.
- Predominance of communicable diseases.
- Low access of women to maternal health and reproductive health services.
- Inadequate referral system
- Inability of the health delivery system to meet health services according to needs of the geographical areas.

The Approach Paper mentions government's followings goals in maternal and child health sub-sectors:

- Handing over the management of primary and district health facilities/institutions to local communities.

- Giving priority to reproductive health and safe motherhood programmes.
- Facilitating control of population growth through enhancement of female health.
- Extending immunisation for controlling infant and child mortality.
- Extending primary health facilities in disadvantaged areas.

PFHP Program, Investment and Achievement

3

The Population and Family Health Project (PFHP) was designed to support the government's effort to reduce the mortality and fertility rates and raise the life expectancy and contraceptive prevalence rates. The six-year PFHP was funded by the World Bank and was started in 1994/95. The total cost of the Project was US\$ 39.0 millions of which the IDA credit was US\$ 26.7 millions (comprising 68.5 % of the total cost) and rest US\$ 12.3 million was met by the HMG. The Project was extended to all 75 districts of the country. The major objectives of the Project were to increase the coverage and quality of the family planning/maternal and child health (FP/MCH) services through outreach and clinical services to improve the functions of grass-root health facilities through recruitment and deployment of female MCH workers and to enhance the government's institutional capacity. The Project design consisted of four clusters of components. They were: i) outreach service delivery, ii) clinical FP/MCH units, iii) logistics and supplies, and iv) institutional development.

Table 3.1: Project Expenditure by Component

In million US \$

Component	Appraisal Estimate			Actual Expenditure			Actual Expenditure %		
	IDA	HMG/N	Total	IDA	HMG/N	Total	IDA	HMG/N	Total
1. Outreach Service Delivery	20.60	11.50	32.10	18.98	13.22	32.20	92.14	114.96	100.31
2. FP/MCH Clinical Unit	1.60	0.20	1.80	0.44	0.08	0.52	27.50	40.00	28.89
3. Logistics and Supplies	1.10	0.20	1.30	1.39	0.19	1.58	126.36	95.00	121.54
4. Institutional Development	3.40	0.40	3.80	3.06	0.24	3.30	19.00	60.00	86.84
Total	26.70	12.30	39.00	23.87	13.73	37.60	89.40	111.63	96.41

Source: Staff Appraisal Report World Bank, March 18, 1994 and ICR Report (IDA-26000), June 25, 2001.

Although the Project was extended to all 75 districts of the Kingdom, the Project support for all the four broadly categorized components was not provided in all the health facilities of the country. However, support in outreach clinic service delivery, field allowance to MCHWs, supplies transport and field operation support covered all the districts of the country. Though the Project appraisal estimate cost was US \$ 39.0 million, at the Project

closing, the total expenditure was US\$ 37.6 million comprising 96.41 percent of the prior estimate.

3.1 Outreach service Delivery

Inadequate outreach for health facilities to the people at the household and community levels has been major barrier to the programme effectiveness. With this realisation, the Project had set the goal of strengthening the outreach service delivery by supporting the following key sub-components. The total estimated Project cost for this component was US\$ 32.10 million.

Table 3.2: Outreach Service Delivery Cost

In million US \$			
Component	Appraisal Estimate	Actual Expenditure	Expenditure %
1. MCH Workers	8.90	8.87	99.66
2. Health Posts	12.00	14.46	120.50
3. Primary Health Centres	4.10	4.48	109.27
4. Field Operation Support	7.10	4.39	61.83
Total	32.10	32.20	100.00

3.1.1 Female MCH Workers at Sub-Health Post Level

Under this sub-component, the Project planned to recruit the MCH workers with three months' training in clinical and outreach service delivery and post them locally. The HMG support for about 1300 MCH workers already recruited by the Government was envisaged. The deployment of remaining 1900 MCH workers (about 650 per year for three years) and continued funding throughout the Project period was expected to be made by the Project. In this respect, the Project had trained 3100 MCH workers for the 3150 positions and 2793 of them were in place. The Project had allocated US\$ 8.90 million for this purpose, and in actual US\$ 8.87 million was spent.

3.1.2 Health Posts

The Project planned to fund the construction of 125 new health posts and to renovate and repair additional 100 health posts. Staff quarters for the female Auxiliary Nurse -Midwives

(ANMs) were expected to be provided in all of these facilities. The main goal of this program was to mitigate the constraint in retaining the technical female staff in the outlying rural areas, which limits the access to female clients. An amount of US\$ 12.00 million was provisioned in the Project for this purpose. By the Project completion, 133 new HPs were constructed and 35 HPs were renovated and functional (ICR Report, June 25, 2001). Altogether 479 HPs were provided medical equipment. The actual Project expenditure under this component was US\$ 14.46, exceeding 20.5 % of the planned estimate.

3.1.3 Primary Health Centres (PHCs)

The Project planned to provide funding for the establishment of five new Primary Health Centres (PHCs) and upgrading of 20 existing health posts with better potential of services. The Project allocated US\$ 4.10 million for this sub-component. In this respect, the Project constructed 15 new PHCs and established 10 PHCs by undertaking renovating and upgrading works. The Project expenditure under this sub-component went up to US \$ 4.48 million as against the planned \$ 4.10 million.

3.1.4 Field Operations Support

The Project had provisioned US\$ 7.10 million for facilitating the mobility of clinical and outreach service providers and their supervisors. The funding of TA/DA was done with the realisation that the investment in the personnel, contraceptives and drugs, infrastructure and other activities of the Project would be wasteful and unproductive in absence of such field operations support. However, only US\$ 4.39 million comprising 61.83 % of the allocated budget was spent under this sub-component. The inadequate daily allowance and travel allowance permitted by the government for the field visits which constrained the mobility of the staff and supervisors in the field, were the major reasons behind the amount provisioned in the Project not being used up.

3.2 Clinical FP/MCH Units

The Project was expected to support the establishment of five FP/MCH clinical units in the related district hospitals outlying in the rural areas. A sum of US \$ 1.80 million was

provisioned in the Project for the establishment of clinical FP/MCh units. The Project constructed seven FP/MCH units as against the five planned. Medical equipment and basic furniture were also provided to the newly constructed FP/MCH units. Only 28.89 % of the Project provision of US\$ 1.80 million was used up in constructing these clinical FP/MCH units and providing medical equipment.

3.3 Logistics and Supplies

The Project planned to support the development of an effective logistics system for need-based delivery of supplies, storage and distribution. In this respect, it was planned to fund the following components of Logistics and supplies. A total of US \$ 1.30 million was provisioned in the Project for logistics and supplies component. However, the actual expenditure was US \$ 1.58 which exceeded the prior estimate by 31.67%.

Table 3.3: Logistics and Supplies Cost

Component	Appraisal Estimate	Actual Expenditure	In million US \$
			Expenditure %
1.Store Construction/Renovation	0.50	0.93	186.00
2.Supplies Transport	0.40	0.00	0.00
3.Warehouse-Furniture	0.00	0.12	
4.Vehicle	0.00	0.31	
5.Monitoring Equipment	0.00	0.22	
6.Field Operation Support	0.40	0.00*	0.00
Total	1.30	1.528	121.54

* This expense is incorporated in outreach service delivery (Field Operation Support).

3.3.1 Construction and Renovation of Warehouses

The Project planned to support the construction and expansion of 7 warehouses and refurbishment of the dilapidated warehouses. A sum of US\$ 0.5 million was allocated in the Project for this purpose. However, 11 warehouses were built under the Project as against the planned seven which cost US\$ 0.93 million exceeding 86.0% of the appraisal estimate of US\$ 0.50.

3.3.2 Transportation of Supplies

The Project had provisioned US \$ 0.40 million for supplies transport. The Project planned to cover the distribution of contraceptives, drugs and medical equipment. The grant from donors covered only the cost of freight for supplies up to the central/regional warehouses. The Project support, therefore, was expected to cover the distribution from these points to the districts and outlying health facilities. The Project spent 0.12, 0.31 and 0.22 million \$ for warehouse-furniture, vehicle and monitoring equipment respectively. The Project provided 25 pick-up vehicles for distributing drugs and contraceptives throughout the country and also provided computer, photocopies and fax machines for logistics monitoring.

3.3.3 Field Operations Support

The Project intended to provide TA/DA support to the field supervisors at the regional level. It had provisioned US \$ 0.40 million for this purpose. This expense was incorporated in outreach service delivery-field operation support.

3.4 Institutional Development

The Project planned to support various activities under this component for the long-term sustainability and capability building. A total of US\$ 3.80 million was provisioned for the following activities under this component. In actual, only US\$ 3.30 million comprising 86.84 percent of the allocation was spent.

Table 3.4: Institutional Development Cost

Component	Appraisal Estimate	In million US \$	
		Actual Expenditure	Expenditure %
1. Management Information System	1.20	0.66	55.00
2. Clinical Training Centres	0.10	0.13	130.00
3. Maintenance Capacity Development	0.10	0.01	10.00
4. Project Management	2.40	2.50	104.17
Total	3.80	3.30	86.84

3.4.1 Management Information System (MIS)

The Project was expected to provide support for the development of field based effective and integrated MIS for FP/MCH programmes and IDA supported Project. It focused on the workers' visitation at the outreach level, specific FP/MCH services, regular visit of the supervisors and data compilation and reporting. US\$ 1.20 million was allocated for this activity in the Project. In actual, only \$ 0.66 million was spent under this activity.

3.4.2 Clinical Training Centres

The Project planned to fund for creating seven small clinical training facilities in the existing hospitals in the capital and regional headquarters. Its main aim was to provide on-the-job clinical training to various cadres of service providers. The allocation for this activity was US \$ 0.10 million. The number of training units was reduced to four at the time of implementation in consultation with DoHS by considering the availability of qualified trainers at the district level. The Project cost was 30% more than the amount allocated for accomplishing this activity.

3.4.3 Maintenance Capacity Development

The Project allocated US \$ 0.10 million for building up capacity in this area. It was expected to build up capacity through technical assistance, training and skill development. The Project expenditure, in this activity was however, only US\$ 0.01 million by the end of the Project.

3.4.4 Project Management

The Project provided the support for staffing and operation of the full-time Project Implementation Unit (PIU). The Unit was responsible for monitoring Project implementation and coordination with HMG's FP/MCH Program and other related agencies. It was headed by the Project Director and assisted by Deputy Director and four Chiefs overseeing the Monitoring and Supervision; Logistics and Procurement; Infrastructure Development; and Finance and Administration sections. There was a FP/MCH Board, chaired by the Minister of Health and an Executive Steering Committee, chaired by the Secretary of Health. The PIU served as the secretariat of the Executive Steering Committee. The support provisioned in the Project for this activity was US\$ 2.40 million; however, US\$ 2.50 million was spent in actual.

Socio-economic characteristics play an important role in the development of a country. Sociological and economic characteristics such as religion, education, employment, housing condition and environment have a significant impact/influence in the family health and population growth of the country. Without the improvement in the socio-economic conditions, a country cannot achieve the development. This chapter presents the socio-economic characteristics of the household population as found through the study survey.

4.1 Household Composition

The size and composition of a household influence the living conditions of individuals in the household and they, in turn, affect the family health as well as other socio-economic factors. The households in Nepal are predominantly male-headed; 89.7% of the households under the study survey were found to have male heads. The percentage of the male headed households has been found to be highest (97.5%) in the Mountain belt and percentage of female headed families was found to be highest (12.1%) in the Terai belt. Likewise, sub-health post area had more male headed households while health-post area had more female-headed households. Moreover, male-headed households have been seen economically better of than the female-headed households. The average size of the households under the study survey was observed to be 5.9 persons. The Terai household was found to be slightly bigger than the Mountain and Hill households. The Hill households under the study had equal number of male and female members while the Mountain and Terai households were male dominated. The Population Census of Nepal, 2001 recorded the average household size of 5.4 persons. The study survey showed 1.4 married women of reproductive age (15-49 years) per household. Likewise, it indicated 2.2 average children (under 15 years of age) in a household and reported the highest of 2.3 children in the Terai based households

Table – 4.1A - Household Composition

Belt	Average HH Size			MWRA Per HH	Av. Children per HH (14 Yrs. & below)			Household Head (HH %)	
	Both	Male	Female		Both	Boy	Girl	Male	Female
Mountain	5.6	3.0	2.6	1.4	1.9	1.1	0.9	97.5	2.5
Hill	5.7	2.9	2.9	1.3	2.2	1.2	1.0	89.2	10.8
Terai	6.0	3.2	2.8	1.5	2.3	1.3	1.0	87.9	12.1
Overall	5.9	3.1	2.8	1.4	2.2	1.2	1.0	89.7	10.3

Table – 4.1B - Household Composition by HP Area

Area	Average HH Size			MWRA Per HH	Av. Children per HH (14 Yrs. & below)			Household Head (HH %)	
	Both	Male	Female		Both	Boy	Girl	Male	Female
Health Post	5.9	3.2	2.8	1.4	2.3	1.3	1.1	86.7	13.3
Sub-H. Post	5.8	2.9	2.8	1.4	2.1	1.1	1.0	92.7	7.3
Overall	5.9	3.1	2.8	1.4	2.2	1.2	1.0	89.7	10.3

4.2 Household Religion

Religion also plays a significant role in the family. It influences the family health and size of the family. Many of the rural people in Nepal are not willing to adopt the family planning methods because of the religion point of view. Majority of the Nepalese people are Hindu. The study survey indicated 82.7% Hindu and 15.7% Buddhist. The Terai had the maximum Hindus (96.4%) and the Mountain had the high proportion of Buddhists (75.0%). 2.1% of the Terai people were Muslims.

Table – 4.2A: Household Religion

Belt	HH %				
	Hindu	Bouddha	Muslim	Christian	Others
Mountain	25.0	75.0	0.0	0.0	0.00
Hill	85.5	12.5	0.0	0.8	0.80
Terai	96.4	1.4	2.1	0.0	0.00
Overall	82.7	15.7	1.0	0.3	0.30

Table – 4.2B: Household Religion by HP Area

Area	HH %				
	Hindu	Bouddha	Muslim	Christian	Others
Health Post	85.3	14.0	0.7	0.0	0.00
Sub-H. Post	80.0	17.3	1.3	0.7	0.01
Overall	82.7	15.7	1.0	0.3	0.30

4.3 Household education

Education is the backbone of the country. People as means of development require skill and knowledge to contribute to the production of goods and services. Education is, perhaps, a single means of acquiring knowledge and skill and acquainting with new information and technology. Literacy is the primary step towards the education and it enables a person to improve his knowledge and acquaint with the information necessary to conduct various essential activities in daily life and work. It is a one of the important variables affecting the demographic parameters like fertility and mortality and also a potent factor for social and economic development of a country.

Development in education is an important indicator of social development. It plays a crucial role in the nation building activity of the country. Without the development in education, one cannot expect the development in the country. Illiteracy, especially, female illiteracy, however, is the most challenging constraint being faced by the underdeveloped countries like Nepal. Education promotes the household economy and influences the reproductive behaviour and family planning consciousness of the household members. Moreover, it plays

a significant role in maintaining the health of mothers and children and in developing the hygienic habits in the household.

Table 4.3A and 4.3B present the educational attainments of the household members under study. The table shows that 28.2% of the household members attained the SLC and above level of education of which female members comprised 29.3%. The persons attaining primary and secondary level of education were 39.0% and 23.5% respectively. The proportion of females was found to be better (around 44.0%) in those attaining primary and secondary level of education compared to other levels of education. At the ecological level, Terai had the highest SLC and above degree holders (32.4%), Mountain had secondary level (25.3%) and the Hill had highest primary level completers (44.1%).

Table – 4.3A: Household Education

Belt	Educational Attainment (%)							
	Primary Level		Lower Secondary Level		Secondary Level		SLC & Above	
	Both	Female %	Both	Female %	Both	Female %	Both	Female %
Mountain	39.8	42.4	7.2	16.7	25.3	42.9	27.7	34.8
Hill	44.1	51.0	8.8	44.8	24.0	46.8	23.1	27.6
Terai	34.7	37.4	10.2	31.7	22.7	41.8	32.4	29.2
Overall	39.0	44.2	9.3	35.5	23.5	44.0	28.2	29.3

Table –4.3B: Household Education by HP Area

Area	Educational Attainment (%)							
	Primary Level		Lower Secondary Level		Secondary Level		SLC & Above	
	Both	Female %	Both	Female %	Both	Female %	Both	Female %
Health Post	43.3	38.7	8.7	46.7	18.3	42.9	29.7	24.3
Sub-H. Post	36.6	47.3	10.1	34.0	27.4	43.0	25.9	18.0
Overall	39.0	44.2	9.3	35.5	23.5	44.0	28.2	29.3

Table 4.4A and 4.4B depict the literacy rate of the population study areas. The overall literacy rate has been observed to be 72.7%. Maximum of the Mountain belt (83.5%) and least of the Terai belt (61.0%) people were literate and this has been found to be similar in

the case of female literacy also. However the male literacy was seen lowest in the Hill compared to the Mountain and Terai.

Table – 4.4A: Literacy Rate

Belt	Literacy Rate (%)		
	Male	Female	Both
Mountain	85.6	78.0	83.5
Hill	72.4	68.3	73.5
Terai	74.3	57.2	61.0
Overall	77.4	67.8	72.7

Table – 4.4B: Literacy Rate by HP Area

Area	Literacy Rate (%)		
	Male	Female	Both
Health Post	71.9	59.7	66.2
Sub-H. Post	83.0	75.2	79.2
Overall	77.4	67.8	72.7

4.4 Household Income and Adequacy

Household employment is the prominent factor which directly influences the economic status of the household and family health and hygiene aspect. Employment is directly related to income and it is the main source of generating income. Unemployment is regarded as the main constraint of development and a cause of poverty in the least developed countries like Nepal. The role of employment in the upliftment of the standard of living of the household and reduction in poverty is quite vital and meaningful. The least developed countries like Nepal faces a serious problem of underemployment.

Household employment is essential for the alleviation of poverty on the one hand, the volume of income is also equally important on the other hand. Table 4.5A and 4.5B depict the households annual income and household indicating adequacy of income for livelihood under the study survey.

It is seen from the table that the household annual average income is Rs. 65,138 (Rs. 5428 per month) which gives an estimate of the per capita income of Rs. 920 per month (as the household size is 5.9). The annual income was Rs. 31947 in pre-Project period (1994/95) as reported by the households under study. The household annual income has doubled over the period. The Terai households had the highest and the Mountain households had the lowest annual income. However, it has been seen that the Hill households had the highest income during the pre-Project period. Majority of the households under study (88%) reported that their income is adequate for their livelihood. The most of the Terai HHs (90.7%) expressed adequacy of income. However, only 74.3% of HHs reported that the income was adequate in the past, and 35% of households of the Mountain belt stated that their income was inadequate for their livelihood in the past (pre-Project). Likewise, 30% of HP area and 21.3% of SHP area HHs indicated inadequacy of income for livelihood in the past.

Table – 4.5A: Household Annual Income and Adequacy

Belt	HH Annual Income (Rs.)		HH % Indicating Adequacy of Income for Livelihood	
	Present	Pre-Project	Present	Pre-Project
Mountain	45487	24775	85.0	65.0
Hill	66033	34975	85.8	76.7
Terai	69986	31400	90.7	75.0
Overall	65138	31947	88.0	74.3

Table – 4.5B: Household Annual Income and Adequacy by HP Area

Area	HH Annual Income (Rs.)		HH % Indicating Adequacy of Income for Livelihood	
	Present	Pre-Project	Present	Pre-Project
Health Post	64970	31720	87.3	70.0
Sub-H. Post	65307	32173	88.7	78.7
Overall	65138	31947	88.0	74.3

Main source of household income has been presented in Table 4.6A and 4.6B. As seen in the table, agriculture appeared as a main source of income of the majority of the households in all of the three belts Mountain, Hill and Terai. The survey data show that 45.7% of the households depended on agriculture for their livelihood. Agriculture dependent households have been found higher (57.5%) in the Mountain compared to that in the Hill and Terai. Service sector emerged as the second highest households dependent sector for their livelihood. The households depending on service averaged (24.3%) ranging from 5% households in the Mountain belt to 28.6% households in the Terai belt. The survey data show that 25% of the households in the Mountain belt depended on trade while only 7.9% of the households of Terai depended on it, and 53.3% of HHs of HP areas were found dependent on agriculture while 38.0% of SHP areas depended on it.

Table – 4.6A : Major Source of Household Income

Belt	Major Source of Income (HH %)					
	Agri	Wage	Service	Trade	Tailoring	Iron Work
Mountain	57.5	0.0	5.0	25.0	5.0	7.5
Hill	42.5	10.0	25.8	20.8	0.8	0.0
Terai	45.0	17.9	28.6	7.9	0.0	0.7
Overall	45.7	12.3	24.3	15.3	1.0	1.3

Table – 4.6B : Major Source of Household Income by HP Area

Area	Major Source of Income (HH %)					
	Agri	Wage	Service	Trade	Tailoring	Iron Work
Health Post	53.3	14.7	20.7	9.3	0.7	1.3
Sub-H. Post	38.0	10.0	28.0	21.3	1.3	1.3
Overall	45.7	12.3	24.3	15.3	1.0	1.3

4.5 Housing Characteristics

The housing characteristics of the household play an important role in improving the family health status and the health of the mothers and children. Drinking water sources, type of toilet and type of cooking fuel influence the family health and surrounding environment. Access to safe drinking water, toilet facility and improved cooking facility is essential for better health and sanitation. Lack of sanitation facilities is the major cause of poor health and sanitation in Nepal especially in the rural areas of the Kingdom.

Table 4.7A and 4.7B provide information on the housing condition of the household population as found by the study survey. According to the table, 80.7% of the households had their own house. The percentage of the households having own house is highest (87.5%) in the Mountain ecological belt and least in the Hill belt (79.2%). In this respect 85.3% of the health post peripheral area household possessed the own house and this percentage is 76.0 in the case of sub-health post area households. The people not having own house used to live on rent (75.9%), in relatives' house (6.9%) and remaining to safe-guard the house (6.9%).

Table – 4.7A: Housing Condition

Belt	HH %			
	Own	On Rent	Relatives	Safeguard House
Mountain	87.5	10.0	2.5	0.0
Hill	79.2	20.0	0.8	0.0
Tera	80.0	11.4	1.4	7.1
Overall	80.7	14.7	1.3	3.3

Table – 4.7B: Housing Condition by HP Area

Area	HH %			
	Own	On Rent	Relatives	Safeguard House
Health Post	85.3	9.3	2.0	3.3
Sub-H.Post	76.0	20.0	0.7	3.3
Overall	80.7	14.7	1.3	3.3

Overall, 38.7% houses were brick built and 61.3% mud-built. Overwhelming percentage (95.0%) of the Mountain belt houses were found mud-built while one-third and one-half of the houses respectively of the Hill and Terai belts were brick-built. In the health post-wise context, 37.3% and 40.0% of the houses respectively of health post and sub-health areas were brick-built. One of the major needs for improving the quality of life of the people is utility services such as separate kitchen room, electricity, telephone, toilet facility and other amenities. It is seen that 84% of the households under the study survey had access to electricity but only 6% had the telephone connection. Comparatively higher percentage of the Terai households had the telephone facility. Similarly, higher percentage (8.0%) of the health post area households had telephone connected compared to the sub-health post area households (4.0%).

Table – 4.8A: Type of House and Facility Available

Belt	Type of House		Facility Available (HH %)					
	Brick Built	Mud Built	Separate Kitchen	Electricity	Private Tap	Toilet	Telephone	Cattle Shed
Mountain	5.0	95.0	90.0	97.5	12.5	67.5	2.5	27.5
Hill	34.2	65.8	78.3	87.5	25.0	94.2	2.5	40.8
Terai	52.1	47.9	97.5	90.0	46.7	73.3	11.7	52.5
Overall	38.7	61.3	82.3	84.0	30.3	76.0	6.0	41.0

Table –4.8B: Type of House and Facility Available by HP Area

Area	Type of House		Facility Available (HH %)					
	Brick Built	Mud Built	Separate Kitchen	Electricity	Private Tap	Toilet	Telephone	Cattle Shed
Health Post	37.0	63.0	80.0	79.0	31.0	63.0	8.0	47.0
Sub-H. Post	40.0	60.0	85.0	89.0	30.0	87.0	4.0	35.0
Overall	38.7	61.3	82.3	84.0	30.3	76.0	6.0	41.0

Separate kitchen room facility and cooking fuel used in a household have a great importance in the family from the health and sanitation point of view. Most of the households (82.3%) under study had separate kitchen room. However, the relatively low percent (78.0%) of the Hill households had such facility. More than half of the HHs ((58.0%) used the traditional cook-stove (firewood/charcoal *chulo*) for cooking purpose. The use of such *chulo* has

caused the respiratory illness to many of the women of Nepal due to smoke inhalation during the process of cooking. Kerosene users found to be the second highest cooking fuel (18.7%) used by the households under the study. 8.3% HHs used improved cookstove (firewood). It has pushed the HHs using firewood for cooking to 66.3% which is very close to the estimate of the Census, 2001. The percentage of the HHs using LP gas and bio-gas both were found to be around 7.0%. The Population Census, 2001 reported that 65.6% or 2.7 million households of the Kingdom used firewood as fuel for cooking. It also indicated the kerosene as the second major fuel used by the people for cooking.

Table – 4.9A: Use of Cookstove by Type

Belt	HH %				
	Fire-wood Chulo	Improved Cookstove (Firewood)	Kerosene Stove	Gas Stove	Bio-gas Stove
Mountain	70.0	25.0	0.0	2.5	2.5
Hill	55.0	10.8	15.0	10.8	8.3
Terai	57.1	1.4	27.1	6.4	7.9
Overall	58.0	8.3	18.7	7.7	7.3

Table – 4.9B: Use of Cookstove by Type by HP Area

Area	HH %				
	Fire-wood Chulo	Improved Cookstove (Firewood)	Kerosene Stove	Gas Stove	Bio-gas Stove
Health Post	62.7	9.3	16.7	4.0	7.3
Sub-H. Post	53.3	7.3	20.7	11.3	7.3
Overall	58.0	8.3	18.7	7.7	7.3

Toilet facility is the another most important part, which affects the family health and surrounding environment. Lack of sanitation facilities is the major reason behind the condition of health and hygiene being poor in the context of Nepal. One-fourth of the

households (under the study survey) did not have toilet facilities in their homes. The percentage of the HHs not having toilet facilities in their homes was found highest (42.5%) in the Mountain and lowest in the Hill (8.3%). In the like manner, more than one-third of the HP area HHs had no toilet and such HHs were 13.3% in the SHP areas. The survey showed that 72.4% of such households were using open field and one-fourth such HHs used stream/road drain for toilet purpose. 41.3% of the HHs had managed pit latrine, 31.0% and 2.3% HHs had pour flush latrine and flush toilet receptively.

Table – 4.10A: Household Sanitation Facility

Belt	Toilet Facility (HH%)				No Access to Toilet (HH%)		
	Flush Toilet	Pour Flush Latrine	Pit Latrine	No Toilet	Open Field	Stream/ Street	Others
Mountain	7.5	15.0	35.0	42.5	94.1	11.8	0.0
Hill	2.5	57.5	31.7	8.3	100.0	0.0	0.0
Teraï	0.7	12.9	51.4	35.0	59.2	34.7	6.1
Overall	2.3	31.0	41.3	25.3	72.4	23.7	4.0

Table – 4.10B: Household Sanitation Facility by HP Area

Area	Toilet Facility (HH%)				No Access to Toilet (HH%)		
	Flush Toilet	Pour Flush Latrine	Pit Latrine	No Toilet	Open Field	Stream/ Street	Others
Health Post	2.7	28.7	31.3	37.3	73.2	23.2	1.8
Sub-H. Post	2.0	33.3	7.3	13.3	70.0	25.0	10.0
Overall	2.3	31.0	41.3	25.3	72.4	23.7	4.0

4.6 Drinking Water Facility

Drinking water is one of the fundamental requisites of human survival. Access to safe drinking water is a must in the life of the people. Most of the diseases, deaths and deteriorated health of the people have been caused by the use of unsafe drinking water. World-wide more than 2 million deaths from diarrhoea alone could be avoided each year if all people had reasonable water and sanitation services (World Bank Report : 1992).

Around 70% of the household population under the study reported no access to drinking water within their own premises (provision of private tap). Such percentage is highest

(46.7%) in the Terai belt and nearly equal percentage of the HHs of both the HP and SHP areas had no private tap facility.

The survey indicated that 44.7% of the HHs indicated public piped drinking water as their source of water. Likewise, 24.3% of HHs reported the tube-well/borehole as their source. Access to public piped drinking water has been found highest (85% HHs) in the Mountain belt and lowest (9.3%) in the Terai belt. Time required to fetch water also counts no less in the household activity as the household members can use this time in other economic activity. The study showed that 30.0% of the households with no access to drinking water within their own premises had to devote more than 15 minutes to collect water for their household use.

Table -4.11A: Sources of Drinking Water

Belt	HH %			
	Well	Tubewell/ Pump	Public Tap	Personal Tap
Mountain	0.0	2.5	85.0	12.5
Hill	2.5	0.8	72.5	24.2
Terai	0.7	50.7	9.3	39.3
Overall	1.3	24.3	44.7	29.7

Table - 4.11B: Sources of Drinking Water by HP Area

Area	HH %			
	Well	Tubewell/ Pump	Public Tap	Personal Tap
Health Post	0.0	24.7	44.7	30.7
Sub-H. Post	2.7	24.0	44.7	28.7
Overall	1.3	24.3	44.7	29.7

Water sources in the rural areas are not hygienically good. Drinking of water collected from the source directly is common in rural people of Nepal. This causes various water borne diseases. A little awareness towards this situation may help in preventing such diseases. In

this connection, the households were asked what they did to treat the water before drinking it. Overwhelming percentage (86.7%) of the households reported that they did nothing to the water before drinking. The survey showed that 97.0% of the Hill and Terai people found to be consumed the water directly without treating. However, 8.7% HHs used to boil and 3.7% HHs used to filter before using for drinking purpose. Negligible HHs percent found to be used a tablet (*Nirmal chakki*).

Table – 4.12A: Steps Undertaken to Water Before Drinking

Belt	HH %				
	Boil	Filter	Boil & Filter	Nirmal Tablet	Nothing
Mountain	0.0	2.5	0.0	0.0	97.5
Hill	21.7	7.5	0.8	0.0	70.0
Terai	0.0	0.7	0.0	1.4	97.9
Overall	8.7	3.7	0.3	0.7	86.7

Table – 4.12B: Steps Undertaken to Water Before Drinking by HP Area

Area	HH %				
	Boil	Filter	Boil & Filter	Nirmal Tablet	Nothing
Health Post	8.7	0.0	0.0	0.0	91.3
Sub-H. Post	8.7	7.3	0.7	1.3	82.0
Overall	8.7	3.7	0.3	0.7	86.7

The delivery of health services is the main component playing vital role in improving the health condition of the people in the country. Merely a large number of health institutions cannot achieve the better health of the people in absence of the good delivery of the health services. Presently, 74 hospitals, 149 PHCCs/HCs, 739 HPs and 3152 SHPs are providing basic health services in the Kingdom through the network under DOHs. Besides, large number of TBAs, FCHVs and Mothers' groups are providing health services or making referrals to the Nepalese people. By the past experience and records, the health services have not been reached/covered at the grass-root/rural level. Recently, the Department of Health Services, MoH indicated that the Maternal and Child Health Workers (MCHWs) at the sub-health post level made a significant impact in the health coverage at the grass-root level. In this context, the contribution of PFHP is considered substantial. The PFHP had emphasised the delivery of health services at the rural level by expanding clinical as well as outreach services delivery.

5.1 FP/MCH Services

Family planning and maternal and child services are of utmost importance and constitute most essential services especially in case of rural people and vulnerable community. Most of the early age and maternal deaths are due to lack of knowledge relating to MCH services. Similarly repeated pregnancy and child bearing which exposed to high risk of death are due to the lack of knowledge and Family Planning/MCH services in the rural areas. Lack of delivery services is particularly noted. Majority of the deliveries take place at home in absence of the birth attendants. However, the PFHP has contributed to a larger extent in providing FP/MCH services at the grass-roots level. The Project had introduced and deployed a new cadre of female MCH workers in the HPs/SHPs at the VDC level in all the 75 districts of the country. The deployment of female MCH workers has contributed substantially in upgrading the FP/MCH services, and provision of staff quarters for female ANMs under the Project has enhanced the retention of the female technical staff in outlying rural areas as well. It has also contributed in increasing the female clients as the women prefer female service providers in general.

The current use of contraception is the measure of the success of family planning programmes. It is seen that 68.0% of the HHs under study reported that they were using family planning method. Maximum of 75.8% HHs of the Terai expressed such opinion. The family planning method using households were 8.0% more in the HP areas than in the SHP. Majority of those not using FP methods (71.9%) gave "no need of it" as their reasons for not using the method. 20.8% HHs did not use FP method for being afraid of its adverse effect in the health. None of the households gave "unavailability of contraceptives" as their reason for not applying FP methods.

Table – 5.1A: Major Reasons for Not Practicing Family Planning Devices

Belt	HH % Not Practicing FP Method	Reasons (HH%)			
		Devices Not Available	Religious Opposition	Want More Children	Afraid of Side Effects
Mountain	40.0	0.0	0.0	6.3	0.0
Hill	24.2	0.0	0.0	10.3	13.8
Terai	36.4	0.0	0.7	3.9	31.4
Overall	32.0	0.0	1.0	6.3	20.8

Table – 5.1B: Major Reasons for Not Practicing Family Planning Devices by HP Area

Area	HH % Not Practicing FP Method	Reasons (HH%)			
		Devices Not Available	Religious Opposition	Want More Children	Afraid of Side Effects
Health Post	29.3	0.0	2.3	6.8	20.5
Sub-H.Post	34.7	0.0	0.0	5.8	21.2
Overall	32.0	0.0	1.0	6.3	20.8

5.1.1 Clinical Services

The improvement in the clinical services (clinic based) has been experienced over the PFHP period. As a result, the number utilising health services by out patient visits has increased to 7.1 million in 1999/2000, which was 4.49 million in 1994/95 (ICR, Report 2001). Likewise, the antenatal first visit by pregnant women grew up to 35% from 15.5% and the deliveries undertaken by the health personnel/trained persons rose up to 13.5% from 3.1% over the

period 1994/95 to 1999/2000. These performances have been possible due to the construction and renovation of health facilities, provision of medical equipment and supply of drugs and deployment of MCH worker under the Project. The study survey showed the health institution at the VDC level delivered health services to 394 people on average per month out of them 199 were women. The health posts delivered health services to more people (471 per month) than the sub-health posts. They delivered family planning and MCH services to 54 persons on average per month. Almost all of the SHPs and 60.0% of the HPs under study reported significant increment in the clients seeking health services over the PFHP period.

Table – 5.2: Monthly Average Clients for Health Services at Grass-Root Level

Area	Family Planning	MCH Services	Immuni- zation	OPD Attendance	Total	Women Clients	HI % Indicating Increase in Clients
Health Post	36	20	63	351	471	236	60
Sub-H. Post	32	20	70	194	317	162	100
Overall	34	20	67	273	394	199	80

The improvement in the health services has also been assessed on the basis of opinion expressed by the households under study. In all, 83.3% of the HHs expressed satisfactory improvement in the health services over the Project period. Further, 97.5% HHs of the Mountain belt and 90.7% HHs of the SHP areas rated the improvement in the health services over the Project period as satisfactory. The same percent of households reported that the health services were poor before the Project.

Table- 5.3A: Access to Health Services Assessed by HHs

Belt	Post-Project (HH %)				Pre-Project (HH%)			
	Highly Satisfac- tory	Satis- factory	Poor	No Improve- ment	Highly Satisfac- tory	Satis- factory	Poor	No Improve- ment
Mountain	2.5	97.5	0.0	0.0	0.0	10	90	0.0
Hill	11.7	79.2	9.2	0.0	0.0	19.2	76.7	4.2
Terai	3.6	82.9	13.6	0.0	0.0	11.4	87.1	1.4
Overall	6.7	83.3	10.0	0.0	0.0	14.3	83.3	2.3

Table- 5.3B: Access to Health Services Assessed by HP Area Households

Area	Post-Project (HH %)				Pre-Project (HH%)			
	Highly Satisfactory	Satisfactory	Poor	No Improvement	Highly Satisfactory	Satisfactory	Poor	No Improvement
Health Post	12.7	75.3	12.0	0.0	0.0	20.7	78.7	0.7
Sub-H.Post	0.7	91.3	8.0	0.0	0.0	8.0	88.0	4.0
Overall	6.7	83.3	10.0	0.0	0.0	14.3	83.3	2.3

Regarding the delivery of health services, 10.0% of the health institutions assessed the health services delivery highly satisfactory and 40.0% indicated satisfactory delivery. The remaining 50.0% HIs rated the delivery of health services as poor.

Table – 5.4: Delivery of Health Services Assessed by HIs

Area	HI%		
	Highly Satisfactory	Satisfactory	Poor
Health Post	20.0	40.0	40.0
Sub-H. Post	0.0	40.0	60.0
Overall	10.0	40.0	50.0

5.1.2 Outreach Services

The health facilities provide clinic based services and outreach clinic services. The outreach clinic services are more essential and important in the context of rural people, especially for the vulnerable community. It is very difficult to access the clinic based services rendered by the health facilities for the remote rural people. The outreach clinic services have mainly been targeted to those people by the Project. The Project's aim was to take services nearer to the people. The Project has institutionalised the regular outreach clinic services in all VDCs. This activity has expanded countrywide access to and coverage of FP/MCH services. The health institutions under study reported that they conducted the MCH outreach services 3 times (average of health institutions) a month. The frequency of outreach services conduction is higher in SHP compared to HP.

Table – 5.5: Maternal and Child Health Outreach Services

Area	Services Conducted Per Month (Av. of IIIs)	
	Post Project	Pre-Project
Health Post	2.4	0.6
Sub-H. Post	3.4	0.8
Overall	2.9	0.7

5.2 Mode of Treatment and Visit with Health Staff

Health facilities in Nepal are provided by a number of health institutions viz hospitals, health centres, health posts, outreach site, nursing homes, clinics etc. Even then, the tendency of people getting services from the traditional healers (Dhami/Jhakri) is still prevailing in the rural areas of Nepal. However, the study survey showed no such cases and revealed the increasing attraction towards the allopathic services. Nearly cent-percent of the HHs under the study have been found to have adopted the allopathic treatment. More than half of the HHs used to get the hospital/health post services for delivery cases. The percentage of HHs utilising such services was found to be highest in the Terai households and in HP area households. About 14.0% HHs reported that they used to have TBAs' services and 22.3% HHs stated that they sought neighbour/relatives cooperation in the delivery cases.

Table – 5.6A: Mode of Treatment

Belt	General Case (HH%)			Delivery Service (HH%)				
	Hospital/ H. Post	Baidya	Tradi- tional Healer	Hospital/ H. Post	HW/ANM/ MCHW's Assistance	TBA's Assistance	Friends/ Relatives	None
Mountain	97.5	2.5	0.0	27.5	5.0	5.0	57.5	5.0
Hill	99.2	0.8	0.0	44.2	18.3	12.5	24.2	0.8
Terai	100.0	0.0	0.0	67.9	3.6	17.9	10.7	0.0
Overall	99.3	0.7	0.0	53.0	9.7	14.0	22.3	1.0

Table – 5.6B: Mode of Treatment by HP Area

Area	General Case (HH%)			Delivery Service (HH%)				
	Hospital/ H. Post	Baidya	Tradi- tional Healer	Hospital/ H.Post	HW/ANM/ MCHW's Assistance	TBA's Assistance	Friends/ Relatives	None
Health Post	100.0	0.0	0.0	67.3	6.0	10.0	16.0	0.7
Sub-H. Post	98.7	1.3	0.0	38.7	13.3	18.0	28.7	1.3
Overall	99.3	0.7	0.0	53.0	9.7	14.0	22.3	1.0

The frequency of the households visits with the health staff also count no less in the improvement in family health. Even the counselling by the health worker/family planning workers may contribute significantly in improving the family health to a larger extent in the context of people of Nepal. The study survey indicated that the households made on average 9.9 visits with the health workers/staff and 2.7 visits with the family planning workers in the last year. The number of visits made by the households with the health workers and family planning workers before the Project were 3.7 and 1.5 respectively. The Hill people have been observed to be making frequent visits with health workers (14.9 times), and family planning workers (3.8 times). The SHP area people used to make relatively more visits (11.0 times) with the health workers than the HP area people. However, the visit with the family planning workers is found to be the same in both the areas. The data reflect the awareness created in the community people towards health and family planning.

Table – 5.7A : Households' Visit with Health Staff and Family Planning Workers

Belt	Annual Visits with			
	Pre-Project		Present	
	HWs	FPWs	HWs	FPWs
Mountain	2.4	1.9	6.1	3.5
Hill	4.6	1.8	14.9	3.8
Terai	3.2	1.1	6.6	1.6
Overall	3.7	1.5	9.9	2.7

Table – 5.7B : Households' Visit with Health Staff and Family Planning Workers by HP Area

Area	Annual Visits with			
	Pre-Project		Present	
	HWs	FPWs	HWs	FPWs
Health Post	4.1	1.5	8.7	2.7
Sub-H. Post	3.3	1.5	11.0	2.7
Overall	3.7	1.5	9.9	2.7

5.3 Supplies of Drugs and Contraceptives

Supplies of drugs and contraceptives are also as equally important as the health facilities, services and medical equipment. Supplies of drugs and contraceptives at the rural level has been striking problem since a long time. It has been experienced that the unreliable and irregular distribution of the drugs and contraceptives has seriously affected the health services delivery. In this context, the Population and Family Health Project has contributed substantially. The Project developed a transportation mechanism by managing 25 pick-up vehicles for warehouses for distributing drugs and contraceptives throughout the Kingdom at the grass-roots level. The availability of the drugs and contraceptives at the grass-root level has also been assessed through the information provided by the households under the study survey. In this context, 86.0% of the households reported the satisfactory availability of drugs and 80.7% HHs expressed such opinion in the case of contraceptives availability. The households reporting highly satisfactory availability of drugs and contraceptives were 7.7% in case of drugs and 10.3% in case of contraceptives. Negligible percentage (0.7%) of HHs expressed the unavailability of contraceptives. High proportion of households in Mountain and Hill reported availability of drugs and contraceptives. 90.0% Mountain HHs reported satisfactory availability of drugs and 86.7% Hill HHs gave such opinion on availability of contraceptives.

Table – 5.8A: Availability of Drugs and Contraceptives

Belt	Drugs (HH%)				Contraceptives (HH%)			
	Highly Satisfactory	Satisfactory	Poor	Not Available	Highly Satisfactory	Satisfactory	Poor	Not Available
Mountain	2.5	90.0	7.5	0.0	10.0	77.5	12.5	0.0
Hill	7.5	89.2	3.3	0.0	11.7	86.7	1.7	0.0
Terai	9.3	82.1	7.1	0.0	9.3	76.4	12.1	1.4
Overall	7.7	86.0	5.7	0.0	10.3	80.7	8.0	0.7

Table – 5.8B: Availability of Drugs and Contraceptives by HP Area

Area	Drugs (HH%)				Contraceptives (HH%)			
	Highly Satisfactory	Satisfactory	Poor	Not Available	Highly Satisfactory	Satisfactory	Poor	Not Available
Health Post	10.0	86.0	4.0	0.0	10.0	83.3	5.3	1.3
Sub-H.Post	5.3	86.0	7.3	0.0	10.7	78.0	10.7	0.0
Overall	7.7	86.0	5.7	0.0	10.3	80.7	8.0	0.7

Overall, 70.0% of the health institutions indicated enough availability of drugs and contraceptives. This clearly indicates the effective supplies of drugs and contraceptives under the initiative of the PFHP at the grass-roots level.

Table – 5.9: Availability of Drugs and Contraceptive in the HIs

Area	HI%		
	Enough	Fair	Poor
Health Post	80.0	20.0	0.0
Sub-H. Post	60.0	40.0	0.0
Overall	70.0	30.0	0.0

6.1 Health Facilities and Flow of Health Services

There has been a tremendous increment in the number of health facilities especially, in the sub-health posts and primary care centres in the Kingdom over the PFHP period. The health facilities at the rural level has been found to be very poor in the past. There were altogether 1968 sub-health posts all over the country in 1994/95. In total 1184 sub-health posts comprising 60.2% of the SHPs at the beginning were added during the Population and Family Health Project period. The Project had emphasised the establishment of health facilities and services at the rural level and constructed and renovated a large number of HPs and SHPs. The progressive trend in the increment of SHPs has been a result of the effective implementation of the PFHP. Likewise, 78 PHCCs/HCs existing at the beginning of the Project were increased to 149 (91.0%) at the end of the PFHP. Many of the sub-health posts have been upgraded to health posts under the PFHP. Similarly, the number of TBAs providing health services or making referrals for services rose from 11500 to 15115 and the number of FCHVs grew from 36450 to 46597 over the Project period (1994/95 to 1999/2000). The improvement in the flow of health services can be assessed by the rise in the number of OPD visits in the health facilities from 4.49 million in 1994/95 to 7.1 million in 1999/2000.

Health facilities and logistics support alone cannot deliver the health care services in the real sense. The provision of trained and experienced staff, regular monitoring and supervision are also equally important for efficient and effective delivery of health services. The PFHP had deployed MCH workers with three months training in clinical and outreach service delivery at the sub-health post level. They were recruited and posted locally. As a result, almost all of HPs/SHPs set up in the country has been provisioned with at least one of these workers. The study has also observed one MCH worker in almost all of the health institutions under study.

Table – 6.1A: Health Staff at the VDC Level Health Institutions

Belt	Health Staff					Average H-Staff	H-Staff/ Other Ratio
	H.W %	A.H.W %	A.N.M %	VHW %	MCHW %		
Mountain	0.0	50.0	0.0	25.0	25.0	2.0	4.0
Hill	15.4	30.8	15.4	23.1	15.4	3.3	2.2
Terai	10.0	30.0	10.0	20.0	30.0	5.0	2.5
Overall	10.8	32.4	10.8	21.6	24.3	3.7	2.5

Table – 6.1B: Health Staff at the VDC Level Health Institutions by HP Area

Area	Health Staff					Average H-Staff	H-Staff/ Other Ratio
	H.W %	H-Staff %	A.N.M %	VHW %	MCHW %		
Health Post	18.2	31.8	18.2	13.6	18.2	4.4	2.0
Sub-H. Post	0.0	33.3	0.0	33.3	33.3	3.0	3.8
Overall	10.8	32.4	10.8	21.6	24.3	3.7	2.5

The study survey has recorded 3.7 health staff members per health institution at the grass-roots level. The health posts had on average 4.4 HS while the sub-health posts staffed with 3.0 HS. At the ecological level, Terai health institutions had more health staff (5 on average) compared to the Mountain (2.0) and Hill (3.3). The study indicated the ratio of the health staff to other as 2.5. This implies that for every 5 health personnel there were two other supporting staff (Mukhiya, peon). This ratio was observed relatively high in SHP and Mountain based HI. The percentage of the MCHW among the HS found highest in the SHP and Terai health institutions.

Table - 6.2A: Health Personnel Post Sanctioned at the VDC Level HIs

Belt	Sanctioned Post				
	H.W %	A.H.W %	A.N.M %	VHW %	MCHW %
Mountain	14.3	28.6	14.3	28.6	14.3
Hill	15.4	30.8	15.4	23.1	15.4
Terai	9.5	28.6	9.5	19.0	33.3
Overall	12.2	29.3	12.2	22.0	24.4

Table - 6.2B: Health Personnel Post Sanctioned at the VDC Level HIs by HP Area

Area	Sanctioned Post				
	H.W %	A.H.W %	A.N.M %	VHW %	MCHW %
Health Post	19.2	26.9	19.2	15.4	19.2
Sub-H. Post	0.0	33.3	0.0	33.3	33.3
Overall	12.2	29.3	12.2	22.0	24.4

In connection with the improvement in the health facilities, 86.3% of the households under study expressed satisfactory improvement in the health facilities. The highest of 92.1% of the Terai people expressed such opinion and lowest of 79.2% Hill households reported the satisfactory improvement. Overall, 6.0% HHs reported least improvement in the health facilities. 92.5% of the Mountain belt people opined the least improvement in the health facilities before the Project (PFHP). The Hill and Terai people expressing such opinion were 80.8% and 85.0% respectively. Overall percentage of HHs expressing least improvement in the health facilities before the Project was 84.3%.

Table – 6.3A: Improvement in Health Facilities Assessed by HHs

Belt	Post-Project (HH %)				Pre-Project (HH %)			
	Highly Satisfactory	Satisfactory	Poor	No Improvement	Highly Satisfactory	Satisfactory	Poor	No Improvement
Mountain	2.5	87.5	10.0	0.0	0.0	2.5	92.5	5.0
Hill	15.8	79.2	5.0	0.0	0.0	14.2	80.8	5.0
Terai	2.1	92.1	5.7	0.0	0.7	14.3	85.0	0.0
Overall	7.7	86.3	6.0	0.0	0.3	12.7	84.3	2.7

Table – 6.3B: Improvement in Health Facilities Assessed by HP Area Household

Area	Post-Project (HH %)				Pre-Project (HH %)			
	Highly Satisfactory	Satisfactory	Poor	No Improvement	Highly Satisfactory	Satisfactory	Poor	No Improvement
Health Post	10.7	84.6	4.7	0.0	0.7	15.4	83.9	0.0
Sub-H.Post	4.6	88.1	7.3	0.0	0.0	9.9	84.8	5.3
Overall	7.7	86.3	6.0	0.0	0.3	12.7	84.3	2.7

6.2 Health of Mother and Children

Health of mother and children are inter-related to each other in general. Having many children may spoil the health of the mother because of the repeated pregnancy and delivery on the one hand, the health of the children may deteriorate due to the lack of proper care of the mother on the other hand. Small family promotes the better health of the mother as well as of the children. The households of the PFHP areas felt significant improvement in the health of mothers and children due to implementation of the Project. In all, 90.3% of the households under the study survey expressed satisfactory improvement in the health of mothers and children of their village/community due to health services provided under the initiative of the Project. The HHs reporting such improvement is highest in the Terai and least in the Mountain. However, 8.7% HHs expressed poor improvement in the health of

mothers and children. The assessment of the health institutions in this regard is also found close to the HHs reporting. In all, 10.0% of the HIs reported highly satisfactory, 80.0% of HIs satisfactory improvement and 10.0% assessed poor improvement in health of mothers and children.

Table – 6.4A: Improvement in Health of Mother and Children Assessed by HHs

Belt	HH %			
	Highly Satisfactory	Satisfactory	Poor	No Improvement
Mountain	0.0	95.0	5.0	0.0
Hill	0.8	86.7	12.5	0.0
Terai	1.4	92.1	6.4	0.0
Overall	1.0	90.3	8.7	0.0

Table – 6.4B: Improvement in Health of Mother and Children Assessed by HP Areas HHs

Area	HH %			
	Highly Satisfactory	Satisfactory	Poor	No Improvement
Health Post	2.7	90.7	6.7	0.0
Sub-H.Post	0.0	89.3	10.7	0.0
Overall	1.0	90.3	8.7	0.0

Table – 6.5: Improvement in Health of Mother and Children Assessed by HIs

Area	HI %		
	Highly Satisfactory	Satisfactory	Poor
Health Post	0.0	80.0	20.0
Sub-H. Post	20.0	80.0	0.0
Overall	10.0	80.0	10.0

6.3 Physical Environment for Service Delivery

Physical environment deserves an important place in any field of works and services. In the health services, it is even more important and crucial. In absence of the good physical environment, even if health services are delivered, quality care cannot be achieved. Quality care is a determining factor in the improvement of the health services delivery. Poor physical environment and sanitation in the rural health facilities have been repeatedly stated as health problems in Nepal. The PFHP has contributed in improving the situation in these respects. 20.0% of the health institutions under the study survey indicated good physical environment for services delivery and 70.0% of HIs expressed fair environment, and 10.0% of HIs reported poor physical environment for services delivery.

Table – 6.6: Improvement in Physical Environment for Services Delivery
Assessed by HIs

Area	HI %		
	Good	Fair	Poor
Health Post	20.0	80.0	0.0
Sub-H. Post	20.0	60.0	20.0
Overall	20.0	70.0	10.0

6.4 Health Personnel and Community People Participation

People's participation plays a determining role in making the public servicing programmes and activities functioned effectively, in particular, sustaining the conducted programs and activities. Various studies and reports indicated that the programs conducted with the participation of the community people have become most successful. In this respect, one-third of the households under study reported their participation in the activities of the PFHP. The HHs reporting participation were found highest (57.5%) in the Mountain belt and lowest (22.5%) in the Hill belt. Nearly equal percentage of the HHs of the HP and SHP stated their participation in the PFHP activities. Altogether 70.0% of those HHs reporting participated in the PFHP activities revealed fair level of participation. 85.2% of the Hill HHs and over two-third of the Terai and half of the Mountain HHs expressed such views. Likewise, 90.0% SHP area HHs indicated fair level of participation in the PFHP programmes.

Table – 6.7A: Community People Participation in PFHP Activities

Belt	HH% Indicating Participation	Level of Participation		
		Good	Fair	Poor
Mountain	57.5	0.0	52.2	47.8
Hill	22.5	3.7	85.2	7.4
Terai	35.7	8.0	70.0	24.0
Overall	33.3	5.0	70.0	25.0

Table – 6.7B: Community People Participation in PFHP Activities by Area

Area	HH% Indicating Participation	Level of Participation		
		Good	Fair	Poor
Health Post	33.3	8.0	50.0	34.0
Sub-H.Post	33.3	2.0	90.0	12.0
Overall	33.3	5.0	70.0	25.0

Overall, 60.0% of the HIs under study assessed fair level people's participation and remaining 40.0% rated poor people's participation. But the health institutions reported their good participation (40.0% of the HIs) in the Project activities and 60.0% of them indicated fair participation.

Table – 6.8: Participation of Health Staff and Community People in the Project Assessed by His

Area	Participation					
	Health Staff			Community People		
	Good	Fair	Poor	Good	Fair	Poor
Health Post	20.0	80.0	0.0	0.0	60.0	40.0
Sub-H. Post	60.00	40.00	0.0	0.0	60.00	40.00
Overall	40.00	60.00	0.0	0.0	60.00	40.00

6.5 Infrastructure Development and Sustainability

Infrastructure is a pre-requisite for the institutions carrying out any kind of works and services. Without the infrastructure development, the programmes and activities under the institution cannot be carried out effectively and regularly in a systemized way. With this realization, the Population and Family Health Project has developed the health infrastructure with the aim to make the delivery of health services effective and regular at the rural level. The project has constructed and renovated a large number of HPs/SHPs, warehouses, FP/MCH clinical units and clinical training centres. Besides, the PFHP has provided support for transportation of drugs and contraceptives supplies, medical equipment, field operation and health MIS. As a result, the health facilities have been equipped with necessary medical equipment, drugs and supplies, staff quarters; and improvement in the quality of health services has been achieved as a result of integrated monitoring and supervision backed by HMIS.

However, the question of sustainability of the Project performance is a striking and critical issue which is very difficult to tackle. The health facilities established under the Project need constant support for staffing, drugs supplies, maintenance and operation of medical equipment and field operations for being effectively functional. The Project has been completed and thus the government should meet the expenses of all these cost through regular budget in order to make them functional which would not be easy in the present circumstances. However, once the infrastructure and system have been established, there may be many alternatives to make them functional. Involving VDCs, NGOs, INGOs, private agencies, community people and local level stakeholders in the programme activities and generating users fees may be the some of the alternatives that can help support the programme. As assessed by some of the health institutions under the study survey, such alternatives have already been encouraged and applied. Nonetheless, the government should emphasize the allocations for this purpose in the annual government budget. Under such circumstances, the sustainability of the programme can be expected.

6.6 Poverty Reduction and Women Development

Poverty is measured in terms of income or consumption of an individual or a family which in other words refers to standard of living. An individual or a family is defined as poor if its

standard of living is below a specified minimum poverty line. Poverty reduction is a challenging and serious problem faced by the developing countries. Nepal has initiated many types of programmes for poverty reduction or alleviation with the first development programme in the late 50's. Despite numerous programmes and efforts for poverty reduction, it has not been improved to a significant level. The Human Development Report, 2001 has indicated that 42% of the Nepalese people are below the income poverty line which is highest among other South Asian countries. The Population and Family Health Project has considered the poverty alleviation aspect by including the programs of special emphasis in the Project. The Project expected the reduction in poverty as a result of the decline in population growth achieved through FP programs under PFHP. The reduction in population pressure in a household at the micro level may lower the poverty level through reduced pressure on the household economy. Altogether, 72.0% of the households under the study survey reported significant contribution of the PFHP in alleviating the poverty. The percentage expressing such opinion was found highest (85.7%) in the Terai among the three ecological belts. Fifty percent of the Mountain and nearly one-third of the Hill people reported least contribution of PFHP in alleviating the poverty. Likewise, 29.3% of the HP area and 18.0% of the SHP area households remarked poor contribution of the Project in this regard. Similarly, 70.0% of the health intuitions assessed satisfactory contribution of the PFHP in alleviating the poverty. In this context, the survey found that the household annual income of the survey areas was doubled over the Project period and majority of the households reported the adequacy of the income for their livelihood. These observations indicate the decline in the poverty level.

Table – 6.9A: Contribution of PFHP in Poverty Alleviation Assessed by HHs

Belt	HH %			
	Highly Significant	Significant	Poor	No Contribution
Mountain	0.0	50.0	50.0	0.0
Hill	4.2	63.3	30.0	2.5
Terai	2.9	85.7	10.7	0.7
Overall	3.0	72.0	23.7	1.3

Table – 6.9B: Contribution of PFHP in Poverty Alleviation Assessed by HP Area HHs

Area	HH %			
	Highly Satisfactory	Good	Poor	No Contribution
Health Post	5.3	64.7	29.3	0.7
Sub-H.Post	1.3	78.7	18.0	2.0
Overall	3.0	72.0	23.7	1.3

Table – 6.10: Contribution of PFHP in Poverty Alleviation Assessed by HIs

Area	HI%		
	Highly Satisfactory	Satisfactory	Poor
Health Post	0.0	80.0	20.0
Sub-H. Post	0.0	60.0	40.0
Overall	0.0	70.0	30.0

Women and children suffer most from the implications of population pressure and poor health conditions in Nepal. The PFHP has considered this aspect in the Project activities and expected significant contribution towards promoting women and children development. The FP as well as MCH programs initiated by the Project have provided relief in these respects through better health of women and children resulting from child spacing and benefits of immunization. In all, 73.7% of the households indicated significant contribution of the Project in the development of women and children and 20.7% expressed least contribution. The HHs expressing least contribution were highest (26.7%) in the Hill compared to the Mountain and Terai. A negligible percentage of HHs (.0.7%) reported no contribution of the PFHP in the development of women and children of their area. Likewise, 83.3% HHs of the SHP areas expressed satisfactory contribution of the PFHP in the women and children development and 28.7% HHs of the HP areas stated least contribution in this regard.

Table – 6.11A: Contribution of PFHP in Women and Children Development Assessed by HHs

Belt	HH %			
	Highly Significant	Significant	Poor	No Contribution
Mountain	2.5	77.5	20.0	0.0
Hill	3.3	68.3	26.7	1.7
Terai	7.1	77.1	15.7	0.0
Overall	5.0	73.7	20.7	0.7

Table – 6.11B: Contribution of PFHP in Women and Children Development Assessed by HP Area HHs

Area	HH %			
	Highly Significant	Significant	Poor	No Contribution
Health Post	8.0	63.3	28.7	0.0
Sub-H.Post	2.7	83.3	12.7	1.3
Overall	5.0	73.7	20.7	0.7

Overall, 70.0% of the health institutions under study survey assessed satisfactory contribution of the PFHP in the women and children development, and 80.0% of the SHPs indicated similar view. However, 10.0% of HIs noted poor contribution in the women and children development.

Table – 6.12: Contribution of PFHP in Women and Children Development Assessed by HIs

Area	HI%		
	Highly Satisfactory	Satisfactory	Poor
Health Post	20.0	60.0	20.0
Sub-H. Post	20.0	80.0	0.0
Overall	20.0	70.0	10.0

Nepal is predominantly rural. Eighty six percent of the people live in the rural areas (Population Census, 2001). Therefore, unless and until the health facilities and services are delivered effectively at the grass-root level (village level) and the health condition of the rural people and population growth in the rural areas in turn are not improved, the population and health status of the country will not be geared up. The Population and Family Health Project paying due attention towards this direction, had emphasised the rural health services, and invested 82.6% of the Project fund in delivering the clinical and outreach health services especially the FP/MCH services at the grass-root level (HP and SHP level). In this respect, the Population and Family Health Project might have contributed significantly towards achieving the health sector improvements in the country along with other health programmes. With this realization, the impact of the investment in PHFP has been assessed by considering the changes in the health indicators over the PFHP period. Moreover, the Project's overall goal is also to reduce maternal, infant and child mortality, to raise life expectancy, and to support the government's efforts to increase the contraceptive prevalence and to decrease the total fertility rate. Besides, the impact has also been appraised as mentioned in the earlier chapters by assessing the improvements in the health facilities and services, especially the FP/MCH clinical and outreach services at the village level (grass-root level).

7.1 Change in Health Indicators over the PFHP Period

The contraceptive prevalence rate (CPR), birth rate, total fertility rate (TFR), child and maternal mortality rate, life expectancy etc are the major health indicators. The improvement in these rates indicates the better health and population condition which is essential for the poverty reduction and other socio-economic development of the country.

7.1.1 Contraceptive Prevalence Rate (CPR)

As too much pressure of anything is harmful, high population pressure is also harmful to any country. To check this situation and to help improve the health of the mothers and children, family planning programs and services are conducted. The family planning programs and services are designed to assist the people to space their children, manage infertility and improve their reproductive health and to provide counselling for family planning methods and thereby to reduce births, maternal and child mortality. CPR is the major index, which evaluates the progress and effectiveness of the family planning programs and services. CPR is defined as the ratio of current users of modern family planning methods to the married women of reproductive age (MWRA) expressed in terms of percentage. High CPR leads to low births and low TFR. The CPR in Nepal was 21.3 percent in 1994 (pre Project period) and has reached to 34.5 percent in 1999 (DoHS, Annual Report). The noteworthy rise in CPR over the Project period may be regarded as the result of the effective programs and services of the FP/MCH programs of the government, which by and large represents the impact of the PFHP.

7.1.2 Total Fertility Rate (TFR)

Fertility rate is the number of live births in a year per MWRA and is generally expressed as per 1000 women. Fertility plays a vital role in the population growth and health of the mother and child and also in their mortality. High fertility increases the population growth on the one hand, it leads to the poor health of the mother and child, and high maternal, infant and child mortality on the other hand. Moreover, the high fertility pushes the family towards the poverty. The total fertility rate, that is the average number of children born alive to a woman during her reproductive life span under the given age-specific fertility schedule, was 5.7 per woman in 1994/95 which has declined to 4.1 per woman (NDHS Report, 2001) over the PFHP period. The NDHS report also indicated a large difference in fertility by urban-rural residence. It indicates that rural TFR is 2.3 more than the urban TFR (absolute difference). The reduced fertility is likely to reduce the burden of child bearing among the women. This will help in improving the overall health status of the mothers having relief from successive conception. The reduction in TFR per woman during the Project period has been possible due to effective implementation of the FP/MCH programmes and services at

the village (grass-root) level initiated by PFHP through clinical and outreach services. In other words, it is the impact of the successful implementation of the PFHP. In this respect, the crude birth rate per thousand has been lowered from 38 in 1991 to 33.5 in 1998 (NDHS Report, 2001). The birth rate is considered as the primary determinant of the population growth.

7.1.3 Infant and Child Mortality

The term mortality relates to death, which is a component of population change. Age is considered as a most important variable in the analysis of mortality as there is a very close relation between the age and risk of death. Various surveys and reports have indicated that the majority of the deaths occurred at the age below 5 years. Consequently, the life expectancy of the Nepalese people is low. The infant mortality which is the probability of dying before the first birthday (under one year) and the child mortality that is the probability of dying between the first and fifth birthday are of greater importance in ascertaining the overall health status of the society/country. Infant and child mortality rates are in general expressed per 1,000 live births. High infant and child mortality might lead to high fertility through insurance and replacement effects. Moreover, reduction in fertility may lead to improved health of mothers due to reduced burden of successive child bearing and to improved health and survival chances of infants and children due to possibility of particular care of mothers for their limited number of children.

The infant mortality rate has declined substantially over the PFHP period from 90 per thousand live births in 1993 to 64 per thousand live births in 1999 (NDHS, 2001). Likewise, the under-five mortality rate, that is the probability of dying before the fifth birthday per thousand live births, went down to 91.2 per thousand live births (NHDS, 2001) from 197 per thousand over the PFHP period. The NDHS Report, 2001 also indicates that the infant and under-five mortality rates are quite high in the rural areas recording more than 50% of the rates prevailing in the urban areas.

7.1.4 Maternal Mortality Ratio

Maternal mortality is directly related to the fertility as the repeated pregnancy and delivery lead to high risk of death. Besides, successive child bearing also affects the health of the

mother. Maternal death is caused generally due to the lack of access to delivery services and tendency of delivering baby at home in absence of birth attendants. Maternal mortality ratio, that is the number of maternal death per thousand live births is highest in Nepal among other South Asian countries. Human Development Report (HDR), 2001 reported the maternal mortality ratio in Nepal as 5.4 per thousand live births. This ratio (recent available) is around 4 in Bangladesh and India and still lower than that in other SARRC countries as reported by HDR, 2001. The maternal mortality ratio in Nepal was reported 8.3 per thousand live births in 1988. There has been no significant changes in the maternal mortality ratio over the PFHP period. This is because the rural people still do not have the delivery services (baby delivery). There is still the tendency of the people, especially the rural people to deliver baby at home mostly in absence of health/birth attendants. Delivery without assistance of health personnel is considered as highly unsafe.

7.1.5 Life Expectancy at Birth

Life expectancy at birth which is defined as the average number of years to be lived by a newly-born baby, assuming a fixed schedule of age-specific mortality rates, is considered as a best indicator of the health status of a country. Better health and quality of life are the main aims of all the health programs, facilities and services undertaken in the country. High life expectancy indicates a better health and quality of life and well-being of the people.

The life expectancy at birth in Nepal is lowest among the South Asian countries as reported in HDR, 2001, which clearly indicates poor health facilities and services in the country. The HDR, 2001 indicated the life expectancy at birth as of 1999 in Nepal as 57.3 years of which female life expectancy is 57.8 years and male life expectancy is 56.3 years. Moreover, it also reported that the 53.7% of the females and 52.4% of the males were expected to survive to age 65 years which clearly indicates that the life expectancy of the Nepalese people has been lowered because of the majority of the deaths occurring at the age below 65 years. Various surveys and reports conducted so far in Nepal have reported that many of the deaths occurred at the ages below 5 years of age. It may thus, be argued that the low life expectancy in Nepal has been caused by high infant and child mortality. It can be assumed that the lowering of infant and child mortality achievement may promote the life expectancy of the Nepalese people, which was one of the main aims of the PFHP.

The life expectancy has increased from 53 years in 1991 to 57.3 years in 1999. The five years increment in life expectancy over the PFHP period is considered significant, though it is still at low level compared to other South Asian countries.

7.2 Institutional Development

Institutional development is an essential component of an organization. It plays a vital role in implementing the policies, programmes, and plan of action and in conducting the activities and rendering the services under the programme effectively. In absence of the institutional development, the aimed objectives cannot be attained even if the organization is well staffed and the organization's programmes and activities are quite feasible and practicable. Physical infrastructure development, working system, managerial capability and financial capacity development, human resource development, regular supervision and monitoring etc are the major components of the institutional development. In this respect, the Project constructed and renovated large number of health facilities even in some of the remote mountain areas and trained and deployed FMCHWs at the grass-root level, which made the access of the deprived rural people to the health facilities possible. The Project Implementation Unit (PIU), MoH, indicated the increment in the access to and utilization of health services after the construction and equipping of health facilities with drugs and contraceptive supplies. It also reported that the construction of 215 health facilities and renovation of 332 health facilities were successfully completed during the Project period. The storage capacity of MoH has been increased substantially due to construction of warehouses by the Project. It expanded the storage space by 45 percent at the central level and by more than 40 percent at the regional level (ICR Report)

7.2.1 Management Information System (MIS)

Systemized information system is quite essential for an organization from every point of view. It helps the organization to collect information and monitor program achievement, identify successful approaches and strategies, avail necessary information to policy makers for developing appropriate policy guidelines; and it also plays an instrumental role for monitoring and supervision. The PFHP provided valuable support towards strengthening the HMIS and has developed an integrated HMIS for FP/MCH programme; and IDA supported

Project on HMIS is now under Planning and Foreign Aid Division of DoHS. It has been working as a monitoring mechanism to assess the achievement of the FP/MCH activities such as specific FP/MCH service delivery, supervisor's visits, data compilation and reporting, worker visitation at the outreach level and data base for the planning purposes. In this respect, integrated monitoring and supervision has been backed by a HMIS institutionalized under the MoH System. The Department of Health Services, Annual Report, 1999/2000 indicates that the Health Management Information System of DoHS has been gradually strengthened and the reporting by peripheral health institutions, health workers is improving every year. The percentage of sub-health posts reporting HMIS has been increased from 73.7% in 1994/95 to 92.0% in 1999/2000. Likewise, the HP/PHCCs reporting HMIS went up to 95.5% from 72.0% over the PFHP period. Additionally, the planning and implementation capacity of MoH has been strengthened under the Project. The Project had build up capability of MoH to design and implement similar programs in the future with minimal external assistance. However, the underutilization of data in management decision making has been experienced as indicated by DoHS.

7.2.2 Clinical Training Centres:

Training is a crucial and important part of a institutional development of a organization. It is taken as the instrument for developing human resource capability. In this respect, on-the-job training is even more important as the trainee will be acquainted with the plan and policies, goals and programs of the organization and also the working system and procedure apart from the gain in knowledge and skills regarding concerned subject matter. The PFHP had intended to create clinical training units under the central and regional hospitals. The main aim of this program was to provide facilities for on-the-job clinical training to the service providers . The Project set up four clinical training centres. The establishment of training centers alone cannot achieve the quality training and goal. The skilled and experienced trainers and other technical and support staff in possession with centres are also equally important in achieving the goal. If such circumstances are created, the program would improve the quality of care over time.

7.2.3 Maintenance Capacity Development

Maintenance is an important and necessary factor whether it is a matter of the infrastructure or of a technical equipment. The bulk investments in the infrastructure and /or equipment might have become wasteful and under utilized because of the poor maintenance. The poor maintenance or non-maintenance might have happened due to the lack of fund and /or lack of technical expertise in the concerned field. The PFHP had built up capacity in this area concerning health facilities through technical assistance. Further, it had provided skill development training and prepared training manuals.

7.3 Logistics and Supplies

Logistics and supplies are the essential components of an institution which makes it function effectively. Development of effective logistics system is a must for an institution for achieving the efficiency and effectiveness in the institution's programmes and activities. In this respect, the PFHP developed the effective logistics system for delivery of supplies and their storage and distribution. The Project has been assessed most effective with regard to this component (ICR Report, 2001). The Project built 11 warehouses exceeding the target of seven, which expanded 45% and 40% storage space at the central and regional levels respectively. The cold room storage for vaccines at the regional level was expanded more than 67 percent due to the construction of the warehouses. In the like manner, the PFHP developed a transport system by managing 25 pick-up vehicles for warehouses to distribute medical supplies and contraceptives throughout the country. Additionally, the Project provided computer, photocopies, and fax machines for logistic monitoring for regional warehouses and district head offices. About 9,000 management and operational staff of various levels were provided logistics training under the Project. The PFHP performance under this component has contributed substantially in the systems development and has produced positive impact on the integrated primary health care system, especially in the supply of drugs and contraceptives.

7.4 Strengths and Weaknesses of the Project

Infrastructure development, system development, managerial and financial capability building, human resource development and supervision and monitoring are the vital factors which are instrumental for the effective and successful implementation of the programs and policies of an organization. The Population and Family Health Project has contributed significantly in developing these components which made the health services accessible at the grass-roots level. The PFHP constructed 215 new health facilities and renovated 332 health facilities. The project had planned to construct 125 new health posts and to renovate and repair 100 additional health posts. It had also planned to establish 25 Primary Health Care Centres (5 new centres and 20 upgraded from HPs), 5 FP/MCH units, 7 clinical training centres and 8 warehouses (4 new, 4 renovated). Due to the establishment of the training centres, the training capacity and quality of training have been improved; and storage capacity of the MoH has been expanded due to construction of warehouses. The Project has trained and deployed the MCHWs at the grass-roots level and developed the transportation network for supply and distribution of the drugs and contraceptives to the village/community level which made the health services accessible to the deprived rural people. The Population and Family Health Project has developed HMIS, maintenance capacity building of the facilities and project management. Capability development in project management made the MoH capable of designing and handling similar projects in the future with minimal external assistance. The development of HMIS helped in the collection of service statistics, processing and reviewing health program's performance which has laid a solid basis for bottom up planning. Further, the Project has developed the integrated supervision and monitoring system which has brought the supervision and monitoring under the institutional process and helped in formulating the health policies and programmes. There are major strengths of the Population and Family Health Project.

The health facilities constructed and renovated with Project finance need to be equipped with critical staffing, drugs, supplies and these require proper maintenance of infrastructure, field operation support, and regular supervision and monitoring. But, no follow-up mechanism system has been developed by the Project, which is the main weakness of the Project. In fact, it is difficult to sustain institutional changes with only one project. There

should be continued activity and engagement to sustain and institutionalized the reforms made in the Project. Another weakness of the Project is inadequate consultations with the communities from an early planning stage. Involvement of community in site selection, monitoring works, maintenance of health facilities is of utmost importance. This is necessary to gain their ownership and support. Proper mechanism for involvement of the community in the site selection, construction supervision and monitoring, maintenance of the infrastructure will help in smooth implementation of the Project and encourage community involvement and trust. Further, it will help in sustaining of the Project programs and activities.

8.1 Major Findings

The following findings can be deduced from the study:

Population Characteristics

- Population aspects have been emphasized in the development plans from the Third Plan onwards
- The population growth rate of Nepal is higher compared to South Asian Countries; India, Bangladesh and Sri Lanka.
- The average size of the households under the study survey was 5.9 and the Terai households were found slightly bigger than the Mountain and Hill households.

Households Socio-Economic Features

- 89.7% of the households under study had male head of family and male-headed households were found economically better than the female headed households.
- A household had 1.4 married women of reproductive age (15-49 yrs of age) and 2.2 children (under 15 yrs of age) out of 5.9 household members.
- 28.2% people under the study were SLC and higher degree holder out of the primary and above level completers
- Terai had more (32.4%) SLC and above degree holders. Mountain and Hills had more secondary level (25.3%) and primary level (44.1%) completers respectively.
- Per capita income of the households under study was Rs. 920 per month. The Terai households had the highest and Mountain households had the lowest annual income.
- 88.0% of the HHs under study reported the adequacy of income for their livelihood.
- Agriculture was found to be the main source of income of the majority of the HHs under study. Mountain people were dependent on agriculture compared to the Hill and Terai people. Service sector emerged as the second highest households depended sector. 53.3% of HHs of HP areas depended on agriculture while 38.0% of SHP area depended on it.

- More than four-fifth of the HHs under study had their own house, 95% of the Mountain belt houses were mud-built and fifty percent of the Terai houses were brick-built.
- More than eighty percent of the HHs had access to electricity and 6% had the telephone connection.
- More than eighty percent of the HHs under study had separate kitchen room.
- Two-thirds of the households are found to be using firewood for cooking purpose. Kerosene was the second major fuel used by the households under study.
- One-fourth of the HHs under study had no toilet facility. More than four-fifth of the Mountain households and one-third of the HP area households were without toilet.
- 72.0% of HHs having no toilet facility used open field and one-fourth of such HHs applied stream/road drain for toilet purpose.
- Around 70% of the HHs had no access to drinking water within their own premises.
- Nearly fifty percent of the HHs had access to public piped drinking water and tube-well/borehole was the source of water for nearly one-fourth of the HHs under study.
- 86.7% of the HHs under study did nothing to treat water before drinking. 8.7% HHs used to boil and 3.7% used to filter water before using.

Population and Family Health Project

- IDA contributed 68.5% the expenditures on the PFHP and remaining 31.5% was met by the HMG.
- More than 82% of the PFHP cost was spent on Outreach Service Delivery component.
- The total expenditure of the PFHP at the Project closing was US\$ 37.6 million comprising 96.41% of the prior estimate.
- The PFHP has deployed FP/MCH workers at the VDC level in all districts of the country. It has contributed substantially in upgrading the FP/MCH services. In this respect, 68.0% of the HHs under study were found using family planning methods and none of the households reported the unavailability of contraceptives.

Health Services Provided by the Project

- People utilizing health services increased from 4.49 million to 7.1 million over the PFHP period. Likewise, 35.0% of the pregnant women made antenatal check-up in 1999/2000. This percentage was 15.5% in 1994/95.
- 83.3% of the HHs reported satisfactory improvement in the health services over the PFHP period.
- More than 80.0% of the HHs reported having the poor health services in the past.
- The health institutions under study had delivered health services to 394 people per month on average including MCH services to 54 people per month.
- 60.0% of the HIs reported significant increment in the clients seeking health services.
- Almost all of the HHs under study adopted allopathic treatment. Fifty percent of the HHs sought hospital/health post services for delivery cases and 14% HHs took TBA's services.
- The PFHP has managed the distribution of drugs and contraceptives at the grass-roots level. The Project contributed substantially in the supplies of drugs and contraceptives, the shortage of which has been a striking problem since a long time.
- More than 80.0% of the HHs expressed satisfactory availability of drugs and contraceptives within their areas. Only negligible percentage of HHs pointed unavailability of drugs and contraceptives.
- A tremendous increment in the health facilities over the PFHP period has been observed. In all, 60.2% increment in health facilities in the SHPs and 91.0% in the PHCCs/HCs during the PFHP was recorded.
- One MCH worker has been provisioned under PFHP in almost all of the HPs/SHPs in the country.

Changes brought about by PFHP

- 74 hospitals, 149 PHCCs/HCs, 739 HPs and 3,152 SHPs are currently providing health services to the Nepalese people.
- The health institution under study have conducted the MCH outreach services 3 times a month on average.
- 86.3% of the HHs evaluated the satisfactory improvement in the health facilities during the PFHP period. 92.1% of the the Terai people expressed the improvement in the health facilities. Overall 84.3% HHs indicated low level of improvement in the health facilities before the PFHP.
- 90.3% of HHs under study experienced the improvement in the health of mother and children due to PFHP. 8.7% HHs noted least improvement in the health of mothers and children.
- One-third of the HHs indicated their participation in the PFHP programs and 70.0% of those participating rated fair level of participation. 85.2% of Hill HHs and fifty percent of Mountain HHs expressed such views.
- 72.0% of the HHs remarked significant contribution of the PFHP in alleviating the poverty in their areas. The maximum of Terai people expressed such view.
- 73.7% of HHs pointed out significant contribution of the Project in the development of women and children of their areas and 20.7% indicated the least contribution.
- A noteworthy rise in CPR has been observed over the Project period. The CPR reached 34.5% (an increase of 62.0% over this period). The CPR achieved is 2.1 percent point less than the Ninth Plan target of 36.6%.

Status of Main Indicators

- TFR declined to 4.1 per woman from 5.7 per woman over the PFHP period and CBR improved from 38 per thousand to 33.5 per thousand. The attainment in TFR achieved the Ninth Plan target, which was 4.2 per woman.

- IMR declined substantially from 90 per thousand live births to 64 per thousand live births over the PFHP period. Likewise, under five mortality rate went down to 91.2 per thousand live births from 197 per thousand live births during the period.
- MMR has observed to be highest in Nepal (5.4 per thousand live births) among other South Asian Countries (around 4 and still lower). No significant improvement in MMR was experienced over the Project period. Lack of adequate delivery services for rural people and rural people's tendency of delivering baby at home without assistance of health staff/birth attendants have been found to be the major causes for MMR being high.
- Life expectancy at birth in Nepal is observed to be lowest among the South Asian Countries. Low life expectancy has been caused mainly by high infant and child mortality. Life expectancy at birth has been increased from 53 years in 1991 to 57.3 years in 1999.
- 215 health facilities were constructed and 332 health facilities were renovated during the Project period.

Institutional Improvements

- The Project developed the integrated HMIS for FP/MCH programs. It played an instrumental role for monitoring and supervision.
- HMIS has been strengthened and as a result, percentage of SHPs and HP/PHCCs reporting HMIS went up to 92.0% and 95.5% respectively from around 70.0% over the PFHP period. However, under-utilization of data in management decision making was felt.
- The PFHP created four clinical training centres to provide on-the-job clinical training for service providers.
- The Project provided skill development training and prepared training manuals.
- The Project developed an effective logistics system for delivery of supplies and their storage and distribution. It constructed 11 warehouses which expanded the storage space by more than 40 percent.
- The Project provided logistics training to about 9000 management and operational staff of various levels.

8.2 Conclusions

On the basis of the findings of the study, conclusion can be drawn that the investment in Population and Family Health Project has been effective. The Project contributed substantially in developing the countrywide infrastructure and system development, which helped in increasing the coverage, quality and utilization of FP/MCH programs. The deployment of female MCH workers at the rural level and development of supply distribution network for supplies of drugs and contraceptives down to the VDC level by the Project has further helped in achieving the dependable services delivery all over the country. The Project has strengthened the institutional capacity for managing and implementing FP/MCH programmes, which helped in achieving increased CPR and other targets of the government.

- Contraceptive Prevalence Rate has increased from 21.3% in 1994 (Pre Project situation) to 34.5% in 1999. This increase can be attributed to a large extent to the FP/MCH programmes. The Population and Family Health Project had contributed to enhancing the effectiveness of the FP/MCH Programmes.
- The total fertility rate (TFR) has declined from 5.7 per woman in 1994/965 to 4.1 in 2001. This decline in TFR has been possible due to more effective FP/MCH programmes. The Population and Family Health Project has contributed towards this by providing outreach and clinical services.
- The IMR has come down from 90 per 1000 live births in 1993 to 64 per 100 live births in 1999. This is regarded as significant achievement

The Project has provided field operation costs for the mobility of supervisors and staff in the field which has played an effective role in monitoring and supervision. However, less mobility of the supervisors and staff in the field due to inadequate daily allowance permitted by government for field visits have been experienced. Further, the development of integrated HMIS by the Project, which has been working as a monitoring mechanism to assess the program achievement and weakness, has contributed substantially in formulating the further plans and programs.

8.3 Recommendations

On the basis of the study on 'Effectiveness of Investment in Population and Family Health Project' following (a) General, and b) Project specific recommendation can be made.

General Recommendations

- a. **Primary Healthcare Services :** A great deal of investments have been made in establishing a decentralized health care system with Primary Health Centres, Health Posts, and Sub-Health Posts, and engagement of local health workers, and Female Community Health Volunteers. It is observed that the health services in the rural health institutions is still inadequate because of lack of health staff and supporting facilities. In order to provide quality health services to the people, these health institutions should be properly managed, and quality of services provided in these institutions should be raised.
- b. **Reproductive Health Services:** The basic health services are meant to include safe motherhood, and reproductive health services. And these services are planned to be provided in an integrated manner (integrated health services) through district hospitals, Primary Health Centres, Health Posts, and Sub-health Posts. In reality, the safe motherhood and reproductive health services are not-available in most of these health institutions. Basic reproductive health services should be available at health post and sub-health post levels and a referral system to upper level health institutions should be established.
- c. **Management Strengthening:** At present, the public sector health institutions are facing several management problems; consequently, they have not been able to deliver good quality services. Particularly, the Primary Health Centres, Health Posts, and Sub-Health Posts need strengthening of their programme management capacity. Management strengthening needs to be undertaken in these areas: Information Management, Service Delivery Management, and Resources Management.
- d. **Community Level Provision of Reproductive Health Services:** Access to reproductive health service at the community level is currently being attempted by setting up the sub-health posts and outreach clinics. Also the assistance of trained birth attendants, and Female Community Health Volunteers is being sought. Also the Maternity and Child Health Workers are being employed in regular staff of the government health service. At the community level, awareness/educational programmes need to be conducted to make the family members, particularly the female members

aware of the reproductive health problems and about the services that are available at local and upper level health institutions. Safe motherhood messages should be widely disseminated. Facilities available locally on safe motherhood should be made known widely.

- e. **'Health for All' Goals:** Attainment of 'Health for All' as soon as possible with due focus on preventive and primary health services remains a major goal of health policy in Nepal. The goal requires extension of health services to rural areas. Health services, now broadly defined, include mother and child health services and family planning services (delivered at local levels). The 'Health for All' goal also requires providing access to health services for the underserved and the disadvantaged. Access to reproductive health service, particularly maternal health services and family planning should be increased for these groups.
- f. **Quality of Care:** The delivery system of general health and reproductive health services can ensure quality services on the fulfilment of following conditions:
 - Regular presence of qualified health personnel in the concerned health institution
 - Availability of medical equipment for diagnosis and treatment
 - Availability of essential drugs in the institution
 - Provision of information and counselling
 - Proper management of the infrastructure
 - Good client provider relationship, communication
 - Determination of quality standards for the institutions of various levels (by the government) and a system of monitoring of the delivery of services.
- g. **Family Planning Services:** The Annual Report of DOHs (1999/2000) has pointed out several issues with respect to family planning services. The main ones are lack of regular VSC services in hospitals, non-availability of IUCD services in hospitals, poor data keeping on services, and weak monitoring /supervision. These issues should be resolved.

There should be counselling services, provision of reliable information on contraceptive methods, access to a wide range of contraceptives, provision of information on STDs and HIV/AIDS.

- h. **Collaboration with the Private Sector and NGO's:** Collaboration with the private sector and NGO's should be strengthened with respect to provision of MCH and family planning services. The private sector and NGO's can serve as service delivery agencies at the community level (under government determined standards of performance). They can be mobilised for provision of training to TBAs and FCHVs. They can be used to mobilize women's groups.
- i. **Community Participation:** The community leaders should be provided orientation of reproduction health issues, causes of high infant and child mortality, and high maternal morbidity and mortality as well as on measures needed to bring down infant, child, and maternal mortality rates. Safe motherhood programmes should be explained to them.
- j. **Strengthening Capacity of Local Bodies and Institutions:** In conducting decentralized management of health services, the capacity of local bodies to plan, involvement and monitor health program was should be raised.

Project Related Recommendations:

- a. **Maintenance of the Infrastructures:** Under the Population and Family Health Project, a large outreach service delivery component was carried out. Under this component, infrastructures were developed for Primary Health Centres, and Health Posts. These physical infrastructures contributed to delivery of FP/MCH services in the rural areas. Continued service delivery requires proper maintenance of the infrastructures, which is often neglected. Government needs to allocate some money for maintenance and upkeep of the facilities.
- b. **Introduction of Service User Charges:** It is generally felt that imposition of a modest user fee on the services rendered by the public health institution helps in generating resources that could be used for maintenance of physical facilities. Such changes need not be high so as to defer the people from using the services.
- c. **Supervision of the Service Provision:** The PFH Project has been completed for about two years now. But the physical facilities developed under it, the female MCH workers employed by the Project as well as the various equipment provided by the Project, are

still being used by the health delivery system. Therefore, there is still a need of regular supervision and monitoring of the service provision.

- d. **Development and Deployment of Human Resources:** The health sector in Nepal faces not only a shortage of trained health manpower of various categories and levels but also very uneven distribution (geographically) of this manpower. There is concentration of doctors, paramedical, and other health personnel in the urban areas, and a shortage in the rural areas. The Population and Family Health Project has tried to reduce the shortage of basic health personnel (Female MCH workers) by training and recruiting these personnel in the rural area. Further, the Project constructed living quarters for these personnel with aim of retaining them in the rural areas. The government and local communities should continue to provide incentives to health staff who are in critical need for delivering services in the rural areas.
- e. **The Multisectoral Nature of Health:** The health of the people is promoted not merely by construction of health facilities and provision of treatment. The health situation is an outcome of several other factors notably education and awareness, environmental sanitation, provision of safe drinking water, and health habits of the people. Particularly, several of child health problems are caused by lack of environmental sanitation, lack of safe drinking water, and bad housing conditions. A multisectoral approach is thus needed to reduce infant and child deaths. Similar approach is needed for reducing maternal deaths, nutrition, sanitation, awareness, family health education, and use of safe water can together prevent maternal deaths.

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ANNEXES

Study on Effectiveness of Investment in Population and Family Health Project

National Planning Commission /Centre for Economic Development and Administration (CEDA)

Household Questionnaire

Name of the Interviewer Date of Interview:

1.0 General Information

1.1 Questionnaire no: .2 House No: . 1.3 Ward No:

1.4 VDC Municipality 1.5 District

1.6 Ecological Belt: Mountain Hill Terai

1.7 Name of the household head

1.8 Sex: Male ☐ Female ☐ 1.9 Caste.....

1.10 Religion.....

2.0 Household Information

2.1 How many members are there in your family?

a) Male b) Female c) Total member

b) Number of married women of age 15-49 years:

c) Number of children under 15 years of age: Boy Girl

2.2 Please, provide the information regarding educational attainment of the member of your family members (6 years and above).

a) Illiterate: Male ☐ Female ☐ b) Literate : Male ☐ Female ☐

c) Primary level attained: Male ☐ Female ☐

d) Lower-secondary level attained: Male ☐ Female ☐

e) Secondary level attained: Male ☐ Female ☐

d) S.L.C and above degree holders: Male ☐ Female ☐

2.3 What is the main source of income of your family ?

- | | | | |
|------------------|--------------------------|-------------------------|--------------------------|
| a) Agriculture | ☐ | f) Leather work | ☐ |
| b) Wage/Labour | ☐ | g) Iron work | ☐ |
| c) Service | ☐ | h) Fishery | ☐ |
| d) Shop/Business | ☐ | i) Other (Specify)..... | |
| e) Tailoring | ☐ | | |

2.4 How many members of your family are employed?

- a) Male ☐ b) Female ☐

2.5 What is the annual income of your family in total ? Rs

2.6 Is your present family income adequate for livelihood ? Was the income adequate 7/8 years ago in the past ?

- | | | |
|-------------------|-----------------------------------|-------------------------------------|
| Present: | Adequate ☐ | Inadequate ☐ |
| 7/8 years before: | Adequate ☐ | Inadequate ☐ |

3.0 Information on Housing Characteristics

3.1 Does the house in which your are living belong to you/your family ?

- Yes ☐ No ☐

3.2 If no, in what ways you are staying?

- a) On rent ☐ B) on relatives ☐ c) To safeguard other people's house ☐

3.3 Type of house: a) Brick-built ☐ b) Mud-built ☐

3.4 Which of these facilities are available in your home ?

Separate Kitchen room

Electricity	Yes	No
Personal Tap		
Latrine/toilet		
Telephone		
Cattle-shed		

3.5 Which type of cook-stove does you/your family use for cooking purpose ?

- a) Firewood Chulo ☐ b) Improved cook-stove (firewood) ☐
c) Kerosene stove ☐ d) Gas Stove ☐ e) Bio-gas stove ☐
f) Electric heater ☐

3.6 What is the source of the drinking water for your family ?

- a) Well ☐ b) Spring/Source ☐
c) River ☐ d) Tube-well ☐ e) Public piped tap ☐
f) Personal piped tap ☐

3.7 How long does you/your family need to fetch water from the source ?

- a) Average Collection in a day ☐ times
b) Time required to fetch water ☐ minutes (for one fetching)

3.8 What steps do you/your family members take to treat water before drinking ?

- a) Boil ☐ b) Filter ☐
c) Use Nirmal tablet ☐ d) Do nothing ☐

3.9 What type of toilet facility is available in your house ?

- a) Flush toilet ☐
b) Pour flush toilet ☐
c) Pit latrine ☐
d) No toilet facility ☐

3.10 If there is no toilet in your home, how you/your family have managed ?

- a) Open field ☐
b) Stream /Street drain ☐
c) Other (Specify).....

4.0 Family Health Information

4.1 Where do you/your family members usually go for treatment in case of sickness ?

- a) Hospital/Health Post ☐ b) Vaidya ☐
c) Traditional healer ☐

4.2 From whom do you/your family members take service in the delivery case ?

- a) Hospital/Health Post ☐ b) Health Worker ☐
c) Traditional Birth Attendant ☐ d) Neighbour/Relatives ☐
e) Other Specify.....

4.3 How many times did you/your family make visit with the health /family planning workers in a year ?

Year	Visit with Health Workers (times)	Visit with Family Planning Workers (times)
Last year		
7/8 year ago		

4.4 What is the status of availability of drugs and contraceptives in your village/ locality ? (Tick one of the following)

Drugs

- a) Enough ☐
b) Good ☐
c) Poor ☐
d) Too poor ☐
e) Not available ☐

contraceptives

- a) Enough ☐
b) Good ☐
c) Poor ☐
d) Too poor ☐
e) Not available ☐

4.5 Do you/your family practice family members planning devices ?

- a) Yes ☐ b) No ☐

4.6 If no, will you please indicate the reason

- a) Devices not available ☐
- b) Cannot afford ☐
- c) Religious opposition ☐
- d) Want more children ☐
- e) Afraid of adverse effect in health ☐
- f) No need of it ☐
- g) Other (Specify).....

4.7 Did you feel there has been improvement in the health sector in the recent years compared to that in the past (7/8 years ago) ?

- a) Yes ☐
- b) No ☐

4.8 If yes, please indicate what improvements have been taken place ?

- a) Health post added/established ☐
- b) Health Assistants posted in Health post/Sub-health posts ☐
- c) Regular home visit of health assistants ☐
- d) Regular DPT, Polio, Vaccination provided ☐
- e) Improvement in availability of medicines in the health posts ☐
- f) Contraceptives easily available in the locality/village ☐
- g) Publicity of health education ☐
- h) Improvement in sanitation and environment ☐
- i) Other (Specify).....

5.0 Information regarding Population and Family Health Project

5.1 Do you have information about the Population and Family Health Project conducted by the government in your village/locality?

5.2 If yes, how far do you feel the Project has helped in improving the family health ?

- a) Highly ☐
- b) Fair ☐
- c) Poor ☐
- d) Did not help ☐

5.3 Do you and community people of your village/locality participate in the Population and Family Health Project activities ?

- a) Yes ☐
- b) No ☐

5.4 If yes, please indicate the level of participation ?

- a) Highly Satisfactory ☐ ☐ b) Satisfactory ☐ c) Poor
d) No Participation ☐

5.5 How far do you feel the increase in public awareness regarding health and hygiene due to implementation of the Population and Family Health Project ?

- a) Highly Satisfactory ☐ ☐ b) Satisfactory ☐ c) Poor
d) No Increment ☐

5.6 What is the status of availability of health facilities in your village/locality ?

- a) Highly Satisfactory ☐ ☐ b) Satisfactory ☐ c) Poor
d) No available ☐

5.7 What was the status of availability 7/8 years ago ?

- a) Highly Satisfactory ☐ ☐ b) Satisfactory ☐ c) Poor
d) No available ☐

5.8 What is the present status of availability of health services in your village / locality ?

- a) Highly Satisfactory ☐ ☐ b) Satisfactory ☐ c) Poor
d) No available ☐

5.9 What was the situation of health services 7/8 years ago ?

- a) Highly Satisfactory ☐ ☐ b) Satisfactory ☐ c) Poor
d) No available ☐

5.10 How far do you feel the health services delivered under the Project has improved the health of mother and children of your village/locality ?

- a) Highly Satisfactory ☐ ☐ b) Satisfactory ☐ c) Poor
d) No Improvement ☐

5.11 How far do you feel the health facilities provided and services delivered have contributed to alleviating the poverty of the community people of your village/locality ?

- a) Highly Satisfactory ☐ ☐ b) Satisfactory ☐ c) Poor
d) No Contribution ☐

5.12 How far do you feel it has helped in the development of women and children of your village/locality ?

- a) Highly Satisfactory ☐ ☐ b) Satisfactory ☐ c) Poor
d) Did not help ☐

Study on Effectiveness of the Investment in Population and Family Health Project National Planning Commission/Centre for Economic Development and Administration (CEDA)

Interview Schedule for Health Institutional Heads

Name of the Interviewer _____ Date of Interview _____

1.0 General Information

- 1.1 Questionnaire No: 1.2 Health Institution No:
- 1.3 Ward No 1.4 VDC: / Municipality:
- 1.5 District:
- 1.6 Ecological Belt: Mountain ☐ Hill ☐ Terai ☐
- 1.7 Health Institution : Health Post ☐ Sub-Health Post ☐
- 1.8 Number of health institutions in the District:
- a) Hospitals b) Primary Health Centres
- c) Health Posts d) Sub-Health Posts
- e) Others (specify)
- 1.9 Name of the Head of the Institution
- Post/Designation

2.0 Information on Working Staff of the Institution

2.1 Working Staff and Sanctioned Post:

Post	No of working staff	No. of sanctioned post
a) Health worker (HW)		
b) Auxiliary Health Worker (ANW)		
c) Auxiliary Nurse-Midwife (ANM)		
d) Village Health Workerr (VHW)		
e) Maternal and Child Health Worker (MCHW)		
f) Others (Specify)		

2.2 Have any of the above staff undergone in-service training?

- a) Yes b) No

2.3 If yes, please provide the information

Trainee's Name	Subject	Duration of training (months)
----------------	---------	-------------------------------

1. ....	.....	.....
2. ....	.....	.....
3. ....	.....	.....
4. ....	.....	.....
5. ....	.....	.....

2.4 Is there provision of Female MCHW in your Institution ?

a) Yes ☐ b) No ☐

2.5 In your opinion, are the present health manpower adequate for your institution?

a) Yes ☐ b) No ☐

2.6 If no, please indicate how many and what type of health manpower you need.

.....
.....
.....

3. Information on Population and Family Health Project

3.1 Had your institution received any medical equipment or other materials from the government under Population and Family Health Project?

a) Yes ☐ b) No ☐

3.2 If yes, please give the details of the equipment/materials

1.
2.
3.
4.

3.3 Does your institution have trained manpower and necessary space for the use and operation of these equipment/materials availed?

a) Yes ☐ b) No ☐

3.4 Was there been any health institution building construction/renovation work under the Project?

a) Yes ☐ b) No ☐

3.5 If yes, please provide the details of construction/renovation?

.....
.....
.....

3.6 Does your Institution have regular budget for maintenance of equipment/materials availed?

a) Yes ☐ b) No ☐

3.7 Does your Institution have staff quarter facility for Female Maternal and Child Health Workers?

a) Yes ☐ b) No ☐

3.8 Had the Project provisioned the regular field allowances for the Maternal and Child Health Workers?

a) Yes ☐ b) No ☐

4 Information on Delivery of Health Services

4.1 How many days in a month does your institution provided maternal and child health services? times

4.2 How many days in a month, were these services provided 7/8 years ago in the past ? times

4.3 How many days in a month, does your institution conduct outreach clinic services? times

4.4 How many days in a month, were these services conducted 7/8 years ago in the past ? times

4.5 How many persons on average used to visit your institution for the following health services over a month?

a) Family Planning persons

b) Maternal and Child Health Services persons

c) Immunization Services persons

d) Other Services persons

4.6 How many of the clients seeking health services are women? persons.

4.7 Was these increase/decrease in the number of clients visiting for services compared to past 7/8 years ago in the past ?

a) increased b) decreased

4.8 If increased, please indicate the reasons.

.....

.....

.....

4.9 Please indicate the status of availability of necessary drugs, vaccines, and contraceptives in the institution/village/locality.

- a) Highly satisfactory ☐ b) Satisfactory ☐
- c) Poor ☐ d) No available ☐

5. Information on Improvement in Health Facilities and Services

5.1 What is your opinion regarding the increment in health facilities in the village/locality?

- a) Highly satisfactory ☐ b) Satisfactory ☐
- c) Poor ☐ d) No increment ☐

5.2 What was the situation 7/8 years ago in the past?

- a) Highly satisfactory ☐ b) Satisfactory ☐
- c) Poor ☐ d) No increment ☐

5.3 How do you rate the level of availability of health services in the village/locality?

- a) Highly satisfactory ☐ b) Satisfactory ☐
- c) Poor ☐ d) Extremely poor ☐

5.4 How do you rate the health services delivery situation in the past (7/8 years ago)

- a) Highly satisfactory ☐ b) Satisfactory ☐
- c) Poor ☐ d) Extremely poor ☐

5.5 How far do you feel the Population and Family Health Project has improved the health of the mother and children of the village/locality?

- a) Large extent ☐ b) Fair level ☐
- c) To some extent ☐ d) Did not improve ☐

5.6 How far do you feel the Project has created favourable physical environment for the delivery of health services?

- a) Quite good ☐ b) Fair ☐
- c) Poor ☐ d) Not at all ☐

5.7 How far do you feel the Project has created the awareness regarding health and hygiene in the people of the village/locality?

a) Highly satisfactory ☐ b) Satisfactory ☐

c) Poor ☐ d) No creation ☐

5.8 How far do you feel the Project has helped in alleviating the poverty in the village/locality?

a) Adequate ☐ b) Fair ☐

c) Poor ☐ d) No contribution ☐

5.9 How far the Project has contributed in the development of the women and children of the village/locality

a) Highly satisfactory ☐ b) Satisfactory ☐

c) Poor ☐ d) Not contribution ☐

5.10 What is your opinion about the sustainability of the project?

a) Sustainable ☐ b) Difficult to be sustainable ☐

c) Cannot be sustainable ☐

6 Information on participation in the Population and Family Health Project activities

6.1 How do you rate the level of participation of the health workers in the Project activities?

a) Highly satisfactory ☐ b) Satisfactory ☐

c) Poor ☐ d) No participation ☐

6.2 To what extent do you feel the community people of the village/locality have participated in the Project activities?

a) Highly satisfactory ☐ b) Satisfactory ☐

c) Poor ☐ d) No participation ☐