SYNCRISIS:
THE DYNAMICS OF HEALTH

An Analytic Series on the Interactions of Health and Socioeconomic Development

XXIV:
AFGHANISTAN

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
OFFICE OF INTERNATIONAL HEALTH
DIVISION OF PROGRAM ANALYSIS
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PREFACE

This document was prepared within the Division of Program Analysis of the Office of International Health, Public Health Service, U.S. Department of Health, Education, and Welfare at the request and with the support of the U.S. Agency for International Development (AID). It is part of the Syncrisis series, which consists of country profiles describing and analyzing health conditions in particular countries and the relationship of those conditions to the country's socioeconomic development.

The primary purpose of these studies is to provide a concise and up-to-date introduction to the health situation in a country, for use by AID and throughout the international health community. The studies do not necessarily reflect United States government policy, and they usually do not include recommendations for specific programmatic actions by AID. They do provide a background against which further analysis and health program development may occur.

Specifically, Syncrisis studies are intended to acquaint the generalist in development administration with (1) interventions in the health system of the country which will contribute to socioeconomic development, and (2) the effects of other developmental activities on health. To the specialist in comprehensive health planning, they will provide both a preliminary document for his work, and an indication of the sources of information available for health planning in that country. For the specialist in a specific aspect of health care, Syncrisis studies are intended to provide insight into the relationship of the subsystem with which he is concerned to the comprehensive health system and the larger society. For each of these professionals, Syncrisis studies are intended not as a final definitive document, but rather as a point of departure from which their own professional skills can be applied to develop activities which will benefit the country.

In addition to the principal target audience, which will probably include a few dozen persons for a specific country, it has been demonstrated that Syncrisis studies are useful to others. For this reason the studies are published and made available for sale to the public. Some consideration is given in the preparation of the documents to their possible use in health science education in the subject country, in international health education, and by scholars concerned with more general aspects of the country or with closely related sectors.

Syncrisis studies also form an unusual resource for the student of comparative health systems. They present, in a uniform format, parallel descriptions of health systems in countries with widely varying cultural, social, economic, and government systems. It is hoped that in the future this aspect of the Syncrisis series can be of increasing value.

The sources for the Afghanistan Syncrisis derive from recent Government of Afghanistan documents, USAID information papers and analyses, and various studies, reports and analyses by private consultants employed both by the USAID and the Government of Afghanistan. In addition, books and monographs by specialists from universities and international institutions concerned with Afghanistan affairs were also utilized.
Such diverse sources of information, although credible, nevertheless produced varying and, at times, conflicting data. In particular, some Government of Afghanistan documents provided data which conflicted with other Government of Afghanistan documents and with various consultants' reports. Through extensive citations an effort was made to record these differences so as to provide the reader with a basis from which to evolve his own judgements.

It should also be emphasized, however, that this study was prepared within a very restricted time schedule in order to meet the USAID programming requirements. Thus, the limitations of the research effort, the sometimes conflicting data, and the curtailed time parameters all must serve to inhibit our conclusions. All figures and analyses, therefore, are tentative and must be viewed with caution.

I would especially thank Ms. Barbara Turner, USAID, who provided the bulk of the documentary material from which this Syncrisis derives and note that the discussions with her were of considerable assistance in drafting this study. I would also note that a previously, unpublished study on the health status of Afghanistan by Robert Fischer, M.D., OIH, provided very useful material for this endeavor. Finally, I would also thank Kenneth Farr, Ph.D., M.P.H., Karen Lashman, M.P.H., and Steve Lucas, M.P.H. for their helpful critique and editing of the draft manuscript and Ms. Laurie Solow for her patient typing of this study.

Arthur H. Furnia
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Summary

Afghanistan is a completely landlocked but strategically located nation surrounded by the Soviet Union in the north, Iran in the west, and Pakistan in the south and southeast. This semi-isolated country has a harsh physical environment which includes rugged mountains, the most impressive of which are the Hindu Kush dissecting the country, barren plateaus and windy deserts along with deep, often isolated valleys. Despite this forbidding topography and semi-arid climate, Afghanistan's location at the crossroads linking the Middle East and Asia has invited numerous invasions, as well as frequent migrations. Thus, five or six principal ethnic groups have emerged to comprise the Afghan population. Most Afghans are Sunni Muslims while Pashtoo and Dari are the official languages of Afghanistan.

Despite generally progressive economic and social policies, especially since 1919, history and geography have conspired to render Afghanistan politically and ethnically fragmented, and one of the least developed nations in the world. It is estimated that this nation of approximately 14.5 million people had a GNP of about $1.5 billion in 1973 and a per capita income of $85 (estimated at $110.00 in 1976). Economists believe the annual GNP growth rate to be between 2.3% and 2.5% over the past several years approximating the annual population growth rate of about 2.4%. This predominantly rural nation has an urban population of only 15% with about 62% of its labor force employed in agriculture. Economists estimate that trade (and services) and industry comprise only 8.0% and 6.8% of the Afghan GNP respectively.

After four modestly successful five year plans, which focused on infrastructure, transportation and agriculture, the GOA (Government of Afghanistan) introduced a new seven year plan in 1976 which also included light industry, social and health services as well as infrastructure, power, etc. This plan includes goals of alleviating such social ills as an 8-10% literacy rate and an inordinately low student level (only 12% of the 5-19 age group attend school). The Government is also attempting to remedy such health conditions as an infant mortality rate of 186/1000, a life expectancy of only 40 years and an excessively high maternal mortality rate. Nevertheless, despite these long-term efforts the Afghan society remains essentially "inward looking," tribal and family oriented in its allegiance, leaving Afghanistan as a still unintegrated nation-state. Afghan society is also encumbered by severe poverty, isolation, traditional social concepts, (i.e., the isolation of women) and is conservatively oriented by the Muslim faith. These factors strongly influence the development of all aspects of Afghan society, including health development.

The health sector dramatically reflects the more fundamental socioeconomic problems that afflict Afghanistan. Malaria and tuberculosis continue to constitute threats to health. Gastrointestinal, infectious and parasitic diseases also contribute significantly to morbidity and mortality. These diseases are exacerbated by insufficient water supplies and waste disposal, totally inadequate housing, nutritional problems and, of course, a general, widespread lack of trained health manpower, and inadequate health facilities and medicines.
The specific difficulties inhibiting the improvement of the Afghan health sector may be summarized as follows:

a. The Afghan Ministry of Public Health (MOPH) suffers from several problems which curtail the implementation of its health sector plans as part of the seven year plan. Among these problems are: division of responsibility between its departments of curative and preventive medicine which renders coordinated planning, management and supervision very difficult; failure to delineate responsibilities of the regional health officers; and infrequent contact with the rural populace, which diminishes the authority of the MOPH;

b. The health sector plan of the MOPH appears to strike an imbalance between the resources devoted to the most needy Afghans in health terms (women, infants, and children), and adult male workers;

c. The lack of adequately trained physicians, nurses, auxiliary nurse-midwives and technicians prohibits fulfillment of the current health sector plan;

d. Lack of female staff is acute and threatens the operation of the MCH and family planning programs;

e. Despite frequent references to the GOA support of family planning, limited actual support casts doubt on the seriousness of the GOA in promoting family planning in Afghanistan;

f. Maternal and Child Health care in Afghanistan is very limited. If the planned MCH care in the health sector plan is fulfilled, still less than half of the population will thus be served;

g. There appears to be a controversy as to the seriousness of nutritional deficiencies in Afghanistan. Nevertheless, some observers have provided ample evidence of nutritional deficiencies among Afghan women and children;

h. Afghanistan's environmental sanitation as well as the availability of potable water is hardly encouraging. Investigators found widespread contamination of drinking water by human and animal wastes in rural Afghanistan. Similarly, housing in virtually all of rural and much of urban Afghanistan was found to be unsanitary and sources of enteric infections;

i. There is a wide range of communicable diseases in Afghanistan which especially affects infants, small children and pregnant and lactating women and which derive in large measure from the lack of adequate environmental sanitation and personal hygiene. Measles, diarrhea/dysentery, typhoid fever, intestinal helminthiasis, pneumonia, tuberculosis, eye and skin diseases and respiratory infections regularly contribute to high rates of morbidity and mortality among Afghans;
1. Perhaps the most serious deficiency in the Afghan public health programs administered by the MOPH is a simple lack of coverage. Currently, it is estimated that only about 15% of the Afghan population is served by the Basic Health Centers (BHCs) and even if the 217 planned BHCs are completed and made operational by 1982-83, still only 30% of the population will be served, leaving health care for the remainder of the population to the capabilities of traditional healers; and

k. It is necessary to allocate a substantial portion of the total government budget to the health sector to address the needs cited above. Currently, the GOA contributes about 2.5% of its budget to health or about $.40 per capita and has little prospect of increasing this contribution significantly.

Fully cognizant of its coverage dilemma and drawing upon the experiences of other LDCs, the GOA/MOPH is now experimenting with a new village health worker program which, if effective, will provide most of the remaining 70% of the people with primary health care and health education. This new program is based upon the success of the smallpox immunization and malaria control programs from which most of the population benefitted. The MOPH plans to enlist four groups of health workers: the dai, already a part of the indigenous system and a woman with access to women; the village health worker using locally recruited men and women to provide primary health care, nutrition, sanitation, and contraceptive information; the trained dai for home visits to locate the ill child, pregnant women and malnourished child to refer these people to the nearest BHC; and more auxiliary nurse/midwives to work only in the BHCs. The GOA/MOPH believes this new village health worker concept may ultimately prove successful because the local workers will be more likely to be accepted into the rural villages and Afghan women and children will finally be admitted to participate in the health system on a large scale.
### Basic Health Environment Data

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
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<tbody>
<tr>
<td>Population</td>
<td>14.5 million (1976)</td>
</tr>
<tr>
<td>Population Density</td>
<td>70/square mile (1974)</td>
</tr>
<tr>
<td>Percent 0-14 Years</td>
<td>45.0%</td>
</tr>
<tr>
<td>Population Growth Rate</td>
<td>2.4 - 2.5%</td>
</tr>
<tr>
<td>Population Distribution</td>
<td></td>
</tr>
<tr>
<td>Crude Death Rate</td>
<td>25/1000</td>
</tr>
<tr>
<td>Crude Birth Rate</td>
<td>50/1000</td>
</tr>
<tr>
<td>Infant Mortality</td>
<td>180/1000</td>
</tr>
<tr>
<td>Maternal Mortality</td>
<td>640/100,000</td>
</tr>
<tr>
<td>Average Number of Children Per Female</td>
<td>7.1</td>
</tr>
<tr>
<td>Average Life Expectancy</td>
<td>40 years</td>
</tr>
<tr>
<td>Health Budget as a Percentage of Total Budget</td>
<td>2.5%</td>
</tr>
<tr>
<td>Annual Public Health Expenditure per capita</td>
<td>$0.40</td>
</tr>
<tr>
<td>Percent Literate</td>
<td>8 - 10%</td>
</tr>
<tr>
<td>Number of Hospitals</td>
<td>71 (1976)</td>
</tr>
<tr>
<td>Number of Hospital Beds</td>
<td>3,600 (1976)</td>
</tr>
<tr>
<td>Persons per Hospital</td>
<td>20,300 (1976)</td>
</tr>
<tr>
<td>Rural Health Centers</td>
<td>102 (1976)</td>
</tr>
<tr>
<td>Rural Health Units</td>
<td>74 (1976)</td>
</tr>
<tr>
<td>Physicians</td>
<td>1,027 (1976)</td>
</tr>
<tr>
<td>Persons per Physician</td>
<td>14,119 (estimated 1976)</td>
</tr>
</tbody>
</table>
The harsh physical environment of Afghanistan has proven to be perhaps the most important determinant in molding the lives of Afghanistan citizens. The realities of this environment include a semi-isolation of the country compounded by rugged mountains, barren plateaus and windy deserts along with deep valleys, themselves also often partially isolated. The climate, which is characterized by cold winters with some heavy snowfall or rain and hot, dry summers, fails to improve the natural inhospitality of the national topography for the climate, despite winter snows, is nevertheless also near arid with rainfall averaging between 6 and 15 inches per year. Nor does the Afghan river system contribute to the accessibility of the country since only the Kabul River flows beyond the national border into a major exogenous system, the Indus. The remaining Afghan rivers empty into lakes or disappear in the border deserts or steppes thereby discouraging commerce and transportation.

The topography, river system, climate and geographic location of Afghanistan all have exercised a dominant influence on the composition of the population. Thus, despite the semi-isolation of Afghanistan exacerbated by the presence of the Hindu Kush and Himalayas, numerous invasions impelled by major historical forces as well as some migration have produced five or six principal ethnic groups in the Afghan population (see Chapter Five and Appendices I and III for details on population and Afghanistan's historical development). Among these ethnic groups are: the Ghilzais, adjacent to Pakistan; the Pathans, in the center, south and east of the country; the Uzbeks in the north; the Tadjiks, of Persian origin; and the Hazara and Chahar Aimak, of Mongol ancestry, who live in the southwest and center of the country. Most Afghans are Sunni Muslims except for the Hazaras who are Shi'a Muslims. Pashtoo and Dari are the official languages of Afghanistan.

As one might expect, the economy of Afghanistan has had as significant an influence on cultural and social development of the Afghans as have the several historical forces in this area of the world (see Appendix II for details of Afghanistan's economic development and current status). Briefly, Afghanistan's economy is essentially agrarian with up to 85% of the population engaged in raising the principal crops, fruit, cotton, corn, rice and wheat, although only about 12% of Afghanistan's land is actually under cultivation. About 10% of those in agriculture are nomads, caring for livestock in public pasture lands. A variety of fruit plus cotton and livestock products (skin and wool) constitute Afghanistan's principal agricultural exports.

1 See the Bibliography, Books and Monographs, for the principal sources utilized in Chapter One. See also appendices II and III for details of Afghanistan's economic and social development.
Industry, mining, irrigation programs and transportation projects have been progressing slowly since the introduction of the first Five Year Plan in 1956. Indeed, the first concrete efforts at economic development in Afghanistan only began in 1933 and took the form not of classic economic development, but of the introduction of the tools of modern commerce. These included creation of Kabul University, primary, secondary, and technical schools, banks and modern business establishments. The largest Afghan industry is cotton textile production which produced 67 million meters of cotton cloth in 1967-68. Other much smaller industries include woolen textiles, synthetic fibers, cement, fertilizer, fruit, canning, leather tanning, gems, sugar refining and the production of natural gas. There is also a large handicraft industry of carpet manufacturing, producing carpets which are world renowned. Although it is believed Afghanistan has significant deposits of beryl, chrome, coal, copper, iron, lead and oil, in addition to its natural gas, transportation costs have limited commercial mining to coal and precious gems, with some limited mining of iron and production of natural gas (2.8 billion cubic meters in 1974), which is sold to the USSR.

The GOA (Government of Afghanistan) has attempted four Five Year Plans since 1956 focusing on infrastructure in transportation and agriculture, power generation and small industries. With substantial foreign assistance mainly from the Soviet Union, the United States and western Europe, the GOA did succeed in undertaking an impressive highway program and dam and irrigation projects in the Helmand basin which may offer the potential development of a million acres of presumably arid land.

Afghanistan's first Five Year Plan, 1956-1962, focussed on infrastructure and small industry but was relatively unsuccessful and was revised downward. The second Five Year Plan, 1962-1967, concentrated on the public sector with the private sector given a subsidiary role. Under this plan, significant steps were taken in transportation, communication, mining and power.

The third Five Year Plan, 1967-1972, which focussed on social services, agricultural exports and export-import substitution industries, was never fully implemented for a variety of economic and political reasons. The fourth Five Year Plan, 1973-1978, offered no new initiatives due to balance of payments and political difficulties. In any event, it was dropped in favor of a new Seven Year Plan by the new Republican Government.

The new Seven Year Plan, 1976-1983, has now been launched. It appears to be more comprehensive than the previous plans and covers a variety of goals toward national development. Primary focus appears to be on industrial increases in such product capacity as sugar, cotton, cement, fertilizer and coal; a substantial increase in exports; educational reform and expansion; rural development programs including new road construction; considerable increase in potable drinking water both for rural and urban dwellers; and a new effort to increase the efficacy of the rural health programs of the Ministry of Public Health (MOPH).

2 See First Seven Year Economic and Social Development Plan. March 76 - March 83, I. Kabul: GOA, Ministry of Planning, 1976/77.

3 Ibid., pp. 25-30.
According to the GOA's Ministry of Planning, the Afghan gross national product (GNP) grew by approximately 2.4% between 1968 and 1976, but due to the increase in population during that period from about 12.2 million to 14.5 million (or more) the per capita GNP showed no increase or only a very slight rise. The International Bank for Reconstruction and Development (IBRD), however, took a more liberal view and estimated that it may actually have increased from about $80 in 1970/71 to about $110 in 1975/76.\(^4\) In any event, Western economists assess the performance of the Afghan economy, at least until very recently, as relatively slow.

Since the assumption of power by the Republican Government in 1973, the GOA, to the contrary, has claimed a quickened economic pace with additional economic growth based upon: (1) increased agricultural production; (2) expanded industrial production through utilization of idle capacity and new plant construction; and (3) stabilization of prices through adoption of viable monetary and fiscal policies and institutional changes.\(^5\)

The GOA's Ministry of Planning offers the following benchmarks as evidence of economic progress between 1968 and 1975. The Afghan GNP increased from 80.81 billion Afghans to 96.06 billion, an 18.9% increase which included a 5.0% increase in agricultural and livestock production, a 56.9% increase in mining, industry and energy and a 38.54% increase in other sectors. The money supply, it is claimed, increased at about 11.2% per year while the general price index increased by about 5.2% per annum.\(^6\) But between 1968 and 1975 Afghanistan suffered a balance of payments deficit of $70.6 million. These data, if accurate, do reflect some movement under the new GOA, with about a 2.4% GNP annual growth rate since 1968.

As far as western economists have been able to determine, Afghan food production has increased somewhat since 1973 with wheat production up about 5.0% and they do not anticipate any severe food shortage despite the increase in population. Nevertheless, the rural poor majority have not benefited significantly either from the modest annual improvements in the Afghan GNP or the substantial foreign assistance provided the GOA over the past two decades, since the assistance has been devoted to infrastructure and institution-building projects with long-term potential. Western observers do not foresee any rapid improvement in the upward mobility of the rural poor of Afghanistan in the near future even though the objectives of the new Seven Year Plan are fulfilled.

It was recorded previously that up to 85% of the Afghan population are engaged in some form of agrarian life, although some sources suggest that only about 70% of the Afghans actually earn their livelihood directly from agriculture, with 5% dependent upon industry, 15% upon professions and a mercantile life and the other 10% from miscellaneous sources.\(^7\) In any event, it

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\(^4\) See IBRD 1976 Annual Report: Afghanistan. But per capita income for the rural Afghan population may be as low as $35 per year.

\(^5\) See Seven Year Development Plan, op. cit., p. 2.

\(^6\) The exchange rate is 45 Afghanis = US $1.00.

is this mass of people, the vast majority of the Afghan population, with which the MOPH must be concerned if the health status of Afghanistan is to be significantly improved. Suffice it to note here, with a few concrete examples which follow, that this agrarian society, both in the villages and among the nomads, presents severe challenges to a sound health environment.

The inhabitants of the majority of the Afghan villages live in various stages of poverty by Western standards. Their way of life reflects this economic status in their dwellings, in their lack of potable water and in their primitive waste disposal methods.

Their dwellings are mainly of sun-dried brick, stone, or combinations thereof, with very few windows, or privacy since these homes are usually clustered together in small villages. Ventilation is poor, exacerbated by an open kitchen fire. Durability of the dwellings is limited and they are often in a state of disrepair. One or two rooms of these dwellings may be shared with domestic animals during inclement weather. These dwellings provide a fertile breeding area for rodents, lice and insects of all kinds and the diseases for which they are the vectors.

Their source of water for drinking, cooking, bathing and cleaning derives for the most part from the common irrigation ditches. There appear to be very few wells or underground water to tap in most Afghan villages, leaving only contaminated open irrigation ditches as a water source.

The methods of waste disposal, both for human and animal excrement and the societal debris, also serve to contaminate the water supply. Since most of these houses have no sanitary facilities the people relieve themselves along with their animals in the fields or in the vicinity of their homes, frequently affecting the water source. Animals are also frequently slaughtered in the vicinity of the water sources, causing insect infestation and drain-off into the water source.

Heavy clothing is worn to protect from the cold and other inclement weather. Since suitable cleaning is rare, it also serves as another source for various disease vectors.

Malnutrition is not widespread in Afghanistan although food on the whole is not plentiful. By the same token, protein consumption is limited in many rural and urban areas and, as in some other developing countries, there are some deficiencies in Vitamin A, Vitamin C and Riboflavin. Unsanitary and primitive methods for handling and storing foods also affect the health environment.

Finally, the social structure of Afghan villages affords the highest status to the maliks or headmen and then to landowners, government officials, teachers and merchants. Shopkeepers, tenant farmers, carpenters and masons appear to have a lesser status. In Moghul villages there appears to be very little class distinction. As in most underdeveloped societies, economic position and political power such as owning valuable land or serving on the village council,
bring added prestige. Intangibles such as ancestry and tangibles, such as capability, education and association with the Muslim religion as a religious leader, also increase one's social standing. Social structure in Afghanistan's few cities is similar, with the workers and unemployed occupying the lowest rung on the social ladder. Except for wealthy Afghans, social status appears to have little influence on the health status of the Afghan people.

The Health Environment: An Overview

There emerges from this brief economic and social synopsis an image of an environment which is unhealthy and subject to considerable improvement. The majority of the people of Afghanistan live in conditions which inhibit good health practices. These conditions include: widespread rural poverty deriving from archaic, inefficient and often subsistence-level agriculture, poor income distribution, deficient housing constituting vast rural slums, totally unavailable potable water and waste disposal facilities, and suspected nutritional deficiencies.

A health environment exists in Afghanistan, therefore, in which the people are subject not only to the many diseases of any primitive society, but also to some health problems unique to an emerging nation. Thus, while Afghanistan has an increasingly serious population growth rate due to a high birth rate, it also has an elevated mortality rate among infants and growing children. While there is a desperate need for medicines and materials, Afghanistan lacks the health organization to meet these requirements. There follows, then, an overview, and a compendium of the principal diseases affecting the Afghans and the existing health organization which combats these diseases. Other problems and issues affecting the Afghanistan health environment, and the GOA policies affecting these problems and issues, are also briefly considered, all of which is meant to serve as an introduction to more detailed observations in subsequent chapters.

Initially, it should be emphasized that Afghanistan health data are severely limited and often unreliable when available. Much of the data utilized in this study, therefore, derive from reports and surveys by foreign medical personnel and consultants.

Afghan's vital statistics indicate a population of approximately 14.5 million in 1976, with an annual population growth rate of 2.5%. Approximately 2.4 million are regarded by the GOA as nomadic, and about 2.5 million live in urban settings. Approximately 5.6 million of the population are regarded as

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9 See Seven Year Development Plan, op. cit., p. 2 and Congressional Presentation Data, op. cit., key data; see also Health Sector Assessment and Strategy, Kabul: USAID Mission to Afghanistan, 1978, pp. 4-8; hereinafter cited as Health Sector Assessment, op. cit.

10 See "Demographic Charts and Tables", The National Demographic and Family Guidance Survey of the Settled Population of Afghanistan. Kabul: GOA, 1976; based on a 1974 survey, this organization concluded the nomadic population in 1973-74 was only 1,100,000. By 1977 the GOA had revised its estimate upward to 2,000,000 nomads.
in the labor force. As noted above, the average annual growth rate of the GNP has been estimated recently to be about 2.4%. About 85% of Afghanistan's population is rural and 15% urban while Kabul has 40% of the total urban population and 5% of the total national, sedentary population (see Chapter Five for additional population data.)

The biomedical data for Afghanistan's population reflect both the poor state of health care and the unsanitary condition of the health environment. The population in 1976 was 53.6% male, the overall sex ratio being 116/100 (males/females). This is one of the highest sex ratios for less developed countries (LDC's) and is explicable in part by the high maternal mortality rate of 640/100,000 compared for example to 0.3/100,000 for Sweden.11

A survey conducted for the MOPH in 1974 revealed that past the age of 50 there are approximately 1.5 males for every female. Women who are near completed fertility (age 35-44) have an average of 7.1 live births, about 30% of whom subsequently died.12 Life expectancy in 1975 was about 40.3 years, again reflecting a high female death rate. The crude birth rate is estimated to be about 50/1000. The crude death rate is believed to be about 25/1000 with the infant mortality rate at approximately 180/1000. It is estimated that there was one physician for every 14,119 people in 1976 and one hospital bed for every 20,300 people in 1976 (see Chapters Three and Four for detailed data).

The above survey and other material confirm the high morbidity among Afghanistan's rural population. One third of all the individuals in the households studied had been ill during the three months prior to the interview.13 Of the overall mortality rate of 20.1/1000, 68% were children under 5 years of age. Of these childhood deaths, 63% were attributed to measles, diarrhea or pneumonia. About 50% of those who died had received no treatment of any kind in the previous year.

Other national surveys conducted by the MOPH, also confirm the substantial morbidity in Afghanistan from a variety of diseases.14 The principal diseases afflicting the Afghans in descending order of importance in 1970/71 were: bacillary dysentery, chickenpox, typhoid, diphtheria and the flu. Still other surveys confirm a number of other diseases seriously affecting the Afghans

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11 Ibid.

12 See A Field Survey of Health Needs, Practices and Resources in Rural Afghanistan. Cambridge: Management Sciences for Health, 1975, pp. 45-76; hereinafter cited as Health Needs in Rural Afghanistan, op. cit., data for this paragraph derived mainly from a survey conducted in rural Afghanistan by this organization. In this survey 190 males and 422 females were interviewed in five sites, at 4 basic health centers and 1 sub center in the Parwan-Kapisa Province.

13 Ibid., pp. 45-47.

14 See The Statistical Pocket Book of Afghanistan, Kabul: Department of Statistics, MOPH, 1971/72; This report showed the number of contagious disease cases reported between the years 1961/62 and 1970/71.
including: measles, pneumonia, typhus, trachoma, tuberculosis, and some malaria. These diseases and other contributors to Afghans' morbidity and mortality will be examined in detail in Chapter Two.

The principal agency responsible for safeguarding the health of Afghan citizens is the GOA's MOPH. Other agencies of the GOA also provide some health services, however. The MOPH is responsible for developing health policy (with the Ministry of Planning), as well as operating hospitals, polyclinics, health centers and dental services in Kabul, other major cities and especially, in the provinces. The MOPH, as one might expect, is the GOA agency with the principal responsibility for health planning, health policy and national health services.

The MOPH is served by the Minister of Health and a Deputy Minister and has six major departments: the Public Health Institute, Preventive Medicine, Planning, Curative Medicine, Administration and Inspection. There are also three semi-autonomous agencies attached to the MOPH: the Afghan Family Guidance Association (AFGA), a voluntary family guidance agency; the General Medical Depot (GMD), the GOA drug procurement and manufacturing agency; and the Malaria Institute. Two boards, the Technical Board and the Planning Board also assist the Ministry of Health.15

The MOPH is also assisted by other GOA Ministries in delivering health care in Afghanistan. Among these are the Ministry of Education; the Rural Development Department which operates out of the Office of Prime Minister; the Ministry of Public Works; the Helmand Valley Authority; the Ministry of Finance; the Ministry of Interior; the Ministry of Defense and others, all of which provide medical services to their employees, their families and others.

But the people of Afghanistan, especially the rural population, also have other available sources of health care outside the scope of the MOPH and other GOA agencies. These are private sources including: village practitioners such as dais and mullahs, pharmacy operators, private physicians, voluntary agencies such as the Red Crescent Society and industrial organization clinics. It is probable that given the dearth of government services the Afghans seek assistance for the majority of their health problems from these private sources.

Afghanistan is not well provided with health facilities.16 There are 71 hospitals containing about 3,600 beds throughout Afghanistan, with 11 in the Kabul metropolitan area and 2 located in each province and the remainder scattered among the provinces and districts (woleswali). There are 12 urban health centers in the Kabul region and at least 118 Basic Health Centers located in the districts. There are also 74 sub centers located in the villages to serve about 16,000 villages. There are also about 315 pharmacies at the


16 See Ibid., figure 2.1; see also Report to the UN Fund for Population Activities by the UNFPA Programme Development Mission in Family Health (MCH/FP) in Afghanistan, 10-30 November 1975, pp. 3-6 and the Seven Year Development Plan, op. cit., p. 227.
provincial, district (woleswali) and village level (between 500 and 600 pharmacies for the whole nation). There are also a few Maternal and Child Health (MCH) and family planning centers at the provincial level along with a few eye clinics (see Chapter Three for details on health resources).

Afghanistan is short of health manpower on every level. It is assumed that there were 1,027 physicians in Afghanistan in 1976 providing about 1 physician for about every 14,119 people. In 1971 there were 635 nurses, assistant nurses and midwives. There were also a limited number of vaccinators, lab technicians, dressers and assistant dentists. Since most of the physicians and nurses are located in the Kabul metropolitan area and other urban areas the physician/population ratio in rural Afghanistan is extremely low: in Uruzgan Province it is 1:513,100 people (see Chapter four for details on health manpower).

The new Seven Year Plan envisages substantial improvement in the Afghanistan health environment including reduction of mortality and morbidity rates among children and mothers and a renewed effort to improve family health in general. It also assumes a better control over contagious and communicable diseases. In pursuit of these very general objectives, the GOA anticipates a significant expansion in health facilities and health manpower by 1983. They hope, for example, to increase the number of hospitals from 71 to 81 and the number of beds from 3,600 to 5,150, the number of health centers from 118 to 217 (one UN source claims 280) and the number of physicians from 1,027 to 1,941. The health sector in the seven year plan will be examined again in some detail in various subsequent chapters.

Problems, and Issues

Afghanistan's poor health environment, like that of its neighbor, Pakistan, appears to derive from at least three fundamental causes: (1) widespread contagious diseases; (2) traditional sociocultural attitudes, interspersed with varying degrees of poverty, which render difficult the task of implementing basic reforms in Afghanistan's health environment such as instituting an MCH care program; and (3) an inadequate public health program both with respect to the quality of service rendered by the MOPH and the scope of public health activities in Afghanistan.

Contagious Diseases and Other Illnesses

Surveys undertaken at the beginning of the current decade enabled medical statisticians to attach percentages to several categories of diseases and illnesses afflicting Afghans. The percentage of rural Afghans seeking

17 Ibid., p. 227.
19 Management Support for Rural and Family Health Services, op. cit., p.6.
treatment at public health facilities for several categories of diseases and illnesses was as follows: a) respiratory diseases including tuberculosis, 40%; intestinal infections, 20%; skin infections including leprosy, 10%; other infectious diseases including measles, chickenpox and typhus, 5%; parasitic disease including helminths, malaria, etc., 5%; traumatic and orthopedic diseases, 10% and miscellaneous illnesses including obstetric, malnutrition etc., 10%. These several surveys referenced do not always agree as to the most prevalent diseases and illnesses.

Quite apart from these diseases and illnesses, there are also the conditions specifically affecting mothers and young children. As indicated previously, women have an unusually high mortality rate whereby past the age of 50 there are 1.5 males for every female. Much of this female mortality occurs due to obstetrical problems. We have also noted that infant mortality rate is conservatively estimated to be at least 180/1000 and only a few years previously it was believed to have been as high as 500/1000 live births.

Among adult Afghans, Western observers believe that there is substantial illness of the categories recorded above which is never reported to the public health service. Many thousands of Afghans are ineffective workers and producers due to chronic and debilitating diseases which could be mitigated with adequate health care.

Sociocultural Attitudes and the Effects of Poverty

Afghanistan's poor health environment stems to a large extent, of course, from the country's status as an LDC. It also stems, perhaps to an even greater extent, from the sociocultural conditions and attitudes of the rural Afghans. Afghanistan, by the standards of Americans and Western Europeans, suffers from severe poverty and from this poverty emerge numerous maladies which undermine the Afghanistan health environment. Inadequate sanitation conditions, substandard housing, an almost complete lack of potable water and effluent disposal and some malnutrition (especially dietary deficiencies), are all direct attributes of Afghanistan poverty.

Nevertheless, most Western authors commenting upon Afghanistan's society do not focus upon this poverty nor do they appear much concerned with the deprivations caused thereby.21 There appears to be no danger of actual starvation and little malnutrition resulting from the lack of available food although there are suspected nutritional deficiencies stemming from the quality of available food. Whereas the housing is a constant source of disease and

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20 See the Seven Year Development Plan, op. cit., pp. 229-237 for hints and suggestions as to the true state of Afghan health by the official GOA planners and steps to be taken to deal with the poor health environment.

illness, few Afghans are without shelter which is adequate for the climate. Then too, this agrarian society has no large pool of unemployed even though its per capita GNP is significantly small. The society is deeply religious which serves to help maintain its internal stability. Moreover, the general environment has bred a sturdy, largely independent-minded people who rely on their own resources for survival.

Nevertheless, the Afghanistan sociocultural patterns, tinged with poverty, do impede not only the improvement of the health environment but also general economic development. Professor Dupree, in a perspicacious chapter in his latest study on Afghanistan, has touched the vital core of the problem when he characterized the Afghan society as "inward looking." Several impediments to progress in health and economics stem from this vital characterization.

Since it is an agrarian society the majority of its members are engaged in basic food production (80% to 90%) and eschew formal education. The latest estimates suggest that less than 12% of the student age group are in formal education. Thus, it is not surprising that Afghanistan has one of the lowest literacy rates in the world, about 8%. It is a society of small villages, almost entirely independent of the outside world, a society with limited mobility and provincial, unsophisticated attitudes. It is a society in which tradition and religion are the principal guiding forces. This "inward looking" society, therefore, resists not only change but the agents of the central government who seek to introduce change.

This kind of society has implications for the health environment. Gastrointestinal and other infectious diseases will hardly be curtailed as long as villagers use contaminated water and do not have sanitary waste disposal or relatively hygienic living quarters. This latter condition includes improper ventilation and screening, cohabitation with animals and the lack of personal hygiene.

Beyond these implications are the effects of the Afghans' strict adherence to the Muslim faith. For example, this connotes inferior status of Muslim women and the proscription or discouragement of their attendance at clinics, when they are available, and of their being treated by males other than family members. There is also the problem of an increasingly obvious population growth rate, certain to become more important as preventive and curative medicine lowers the crude death rate. Finally, there is the fatalistic acceptance by the rural population of the inevitability of morbidity and mortality as the "will of Allah."

Problems of the Afghanistan Public Health System

The Afghanistan public health system will be examined in some detail in Chapter Three. Although it has improved over the past decade, it still has serious deficiencies which are summarized below.

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23 Ibid., p. 250.
The MOPH, which represents the GOA health presence among the Afghan people, has less than a receptive environment in which to work. The sociocultural folkways and mores certainly tend to frustrate the best MOPH intent. For example, although the Afghan women and children are in the most severe need of medical attention, they are frequently deprived of such attention in favor of the male members of the family. Then too, the whole attitude of the rural Afghans toward the GOA health services may well be hostile due to their "inward looking" orientation. Villagers frequently frustrate the scientific approach to medical care by using several, local sources of medical services rather than the MOPH care even when that care is available. Finally, the rural Afghan accepts many health problems such as nutritional deficiencies, malaria and chronic infections as a way of life, perhaps ordained by Allah, instead of seeking treatment.

The rural Afghans and the urban population, therefore, suffer from a variety of diseases, illnesses and other health problems. These range from respiratory and intestinal infections, skin diseases, parasitic diseases and a variety of other infectious diseases such as measles, typhus and chickenpox, to acute sanitary problems. The inadequacies of the MOPH render it generally unable to cope with the Afghan health environment.

The following are the most general and pressing inadequacies of the MOPH:

1. Despite substantial foreign health assistance the MOPH per capita budget is minimal, even when the health service budgets of other GOA agencies are included;
2. It is estimated that only about 15% of the Afghans are served by GOA health services;
3. The facilities provided by the MOPH are also inadequate; only about 118 of 217 planned basic health centers are operational;
4. Not only are there an inadequate number of basic health centers, but almost all are not fully staffed with personnel ranging from physicians to laboratory technicians;
5. This shortage of personnel at the basic health centers reflects the general health manpower shortage in Afghanistan which embraces every professional and worker level (in 1976 it was estimated that there were only 1,027 physicians in Afghanistan but in 1966 there were only 400);
6. There is also a significant maldistribution of health manpower since most of the physicians (85%) practice in Kabul and other major cities;
7. The 71 hospitals with 3,600 beds are inadequate;
8. The MOPH also suffers from all of the technical difficulties normally associated with the health ministries of newly emerging nations, including data collection, health analyses and health planning; and
9. Health training, limited to two medical schools at the Kabul University and Nangarhar University, is entirely inadequate to provide the number of required physicians nor do the few nursing schools or technician's schools provide adequate facilities.
It is true that the new Seven Year Plan, referenced previously, is designed to deal with some of these pressing problems. Nevertheless, this brief synopsis of the present Afghanistan health environment strongly suggests that the GOA must face a complex series of health problems, the seriousness of which has never really been calculated. These health problems are essentially those of a developing nation and are duplicated in most countries, in substance if not in degree, at similar stages of development. In Afghanistan, however, the problem of countering an "inward looking" society may be more complex and difficult to solve than for other LDCs regardless of the sector of the economy compared.

The subsequent chapters of this study detail the principal diseases and illnesses afflicting the Afghans and provide a discussion of the other health problems such as health organization, health manpower, malnutrition, MCH deficiencies and others described in the synopsis above. An attempt has also been made to understand the difficulties encountered by the GOA in its programs, or lack thereof, in responding to the needs of Afghanistan's people. From these analyses, some proposals are offered.
Table 1*
GENERAL ECONOMIC AND SOCIAL DATA - AFGHANISTAN

<table>
<thead>
<tr>
<th>STATISTICS</th>
<th>LATEST AVAILABLE FIGURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area</td>
<td>647,497 sq. kms.</td>
</tr>
<tr>
<td>Total Population</td>
<td>14,500,000 (1977 USAID estimate)</td>
</tr>
<tr>
<td>Population 0-14 Years</td>
<td>45%</td>
</tr>
<tr>
<td>Urban Population</td>
<td>15%</td>
</tr>
<tr>
<td>Gross National Product</td>
<td>$1.5 billion (1973 estimate)</td>
</tr>
<tr>
<td>GNP Growth Rate</td>
<td>2.3% - 2.5% (estimated since 1968)</td>
</tr>
<tr>
<td>GNP Per Capita</td>
<td>US $110.00 (1976 estimate)</td>
</tr>
<tr>
<td>GNP Per Capita (rural population)</td>
<td>US $35.00 (1976 estimate)</td>
</tr>
<tr>
<td>GNP Per Capita Growth Rate</td>
<td>0.5% (1960-70)</td>
</tr>
<tr>
<td>Labor Force in Agriculture</td>
<td>62.0%</td>
</tr>
<tr>
<td>Literacy Rate (adult)</td>
<td>ca. 8-10%</td>
</tr>
<tr>
<td>Students as % of 5-19 Age Group</td>
<td>12%</td>
</tr>
<tr>
<td>Official Exchange Rate</td>
<td>45 Afghanis = US$ 1.00</td>
</tr>
</tbody>
</table>

CHAPTER TWO

HEALTH RISKS, MORTALITY AND MORTALITY

In Chapter One an effort was made to characterize the health environment of Afghanistan, a country which itself has been described as among the 25 least developed countries in the world. This characterization suggests that Afghanistan's health environment is not very hospitable. The rural population of Afghanistan suffers from a variety of communicable diseases including measles, bacillary dysentery, chickenpox, whooping cough, amoebic dysentery, flu, typhoid, smallpox, diphtheria and typhus as well as numerous other direct and related health problems. The following is an attempt, to the extent permitted by available data, to examine these diseases as well as other areas of prominent health risks to Afghanistan.

Major Risks of Morbidity/Mortality

Measles

In Afghanistan measles is one of the more serious childhood diseases. The incidence varies seasonally, peaking in the winter months. In a survey in 1974, 24.4% of all deaths reported were attributed to measles and 31.5% of deaths to children under 5 years of age were attributed to measles. Surveys done at several rural villages revealed that maximum prevalence of measles occurred at ages under 20 continuously declining with age.

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2 See Abrahams et al. op. cit., p. 175; This fascinating and thoroughly engrossing epidemiological study of 4 "representative" rural villages in Afghanistan formed much of the basis for this chapter as the citations attest. Since these villages were carefully selected and all aspects of sickness and injury so systematically investigated, the results of this study provided a sound epidemiological survey of the areas of health risks in Afghanistan. Other surveys were also used extensively, including the USAID's Health Sector Assessment of 1978 and are cited accordingly.

3 See Health Needs in Rural Afghanistan, op. cit., p. 54, Table 4.5.
Table 2*

ILLNESSES ASSOCIATED WITH DEATHS IN 1974 - 1975

<table>
<thead>
<tr>
<th>Illness</th>
<th>All Deaths</th>
<th>Children Under Five</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measles</td>
<td>24.4%</td>
<td>31.5%</td>
</tr>
<tr>
<td>Diarrhea/Dysentery</td>
<td>15.9%</td>
<td>16.7%</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>13.4%</td>
<td>14.8%</td>
</tr>
<tr>
<td>Cough</td>
<td>4.9%</td>
<td>3.7%</td>
</tr>
<tr>
<td>Black Cough</td>
<td>3.7%</td>
<td>3.7%</td>
</tr>
<tr>
<td>Small</td>
<td>2.4%</td>
<td>3.7%</td>
</tr>
<tr>
<td>Asthma</td>
<td>2.4%</td>
<td>–</td>
</tr>
<tr>
<td>TB</td>
<td>2.4%</td>
<td>–</td>
</tr>
<tr>
<td>Weakness</td>
<td>2.4%</td>
<td>3.7%</td>
</tr>
<tr>
<td>Typhus</td>
<td>1.4%</td>
<td>–</td>
</tr>
<tr>
<td>Cough w/sputum</td>
<td>1.2%</td>
<td>1.8%</td>
</tr>
<tr>
<td>Sore throat</td>
<td>1.2%</td>
<td>–</td>
</tr>
<tr>
<td>Other</td>
<td>19.5%</td>
<td>13.0%</td>
</tr>
<tr>
<td>Unknown</td>
<td>4.8%</td>
<td>7.4%</td>
</tr>
</tbody>
</table>

100.0% 100.0%

* Derived from Health Needs in Rural Afghanistan, op. cit., p. 54, Table 4.5.
Enteric Infections

Diarrheal/Dysentery

Diarrheas and dysentery are common in rural Afghanistan due, in part, to the poor sanitary conditions. A 1974 survey recalled that 15.9% of all recorded deaths resulted from diarrhea/dysentery and 16.7% of the mortality of all children under 5 years of age resulted from these enteric infections. Investigators found species of Shigella and Salmonella, as well as other enterobacteria, in villages visited, but could not identify the etiology of the diarrheas encountered.

Typhoid Fever

Typhoid fever has been widely reported in Afghanistan, sometimes mistaken by the villagers for malaria. Between 1960 and 1967 there were reported between 427 and 745 cases of typhoid fever to the MOPH. But specialists believed that these numbers represented "only a fraction of the true incidence" of typhoid fever during those years. There are no current data on reported cases available on a national basis.

Typhus

Along with typhoid fever and malaria, whose symptoms are often indistinguishable to the rural Afghans, typhus has also been widely reported in rural Afghanistan for many years. Investigators found it prevalent among the villages ranging from 14.8% in one village to 0.2% in another. Nationally, the 1974 survey showed typhus to have accounted for only 1.4% of all deaths reported.

Cholera

Cholera has long been prevalent in Afghanistan as it was in Pakistan and India. There were epidemics of cholera reported in Afghanistan as late as 1965. Recently, a substantial decline in cholera incidence has occurred but authorities believe that new outbreaks, even epidemics, are still possible.

Intestinal Helminthiasis

As a result of defective sanitation and unhygienic habits of most of the rural population, there is some infestation with the following most common helminths: hookworm - Ancylostoma duodenale; roundworm - Ascaris lumbricoides; whipworm - Trichuris trichiura and pinworm - Enterobius vermicularis and Echinococcasis or tape worm (see below). Thus, although current data on the above intestinal helminthiasis are not available, data covering the period between 1965 and 1970 show that roundworm and whipworm infections were frequent.

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4 See Abrahams et al, op. cit., p. 160.
5 Ibid., pp. 160-161; the authors found that typhoid fever ranged from 37.8% in one village to 7.0% in another.
6 Ibid., p. 161.
7 Ibid., p. 94.
while hookworm infections were rare among school children. Infections from Hymenolepis nana, the dwarf tapeworm, and the Fasciola hepatica, liver fluke, were also reported in Afghan villages.

**Echinococcosis** (hydatid disease)

This disease is caused by small tapeworm parasites in dogs and wolves and sometimes in cats. Its larva, known as the hydatid, may develop in nearly all mammals. It forms hydatid tumors or cysts in the liver, lungs, kidneys and other organs. It is one of the most important helminthological health problems in Afghanistan.

Although there are no accurate data on the quantity of echinococcosis infection in Afghanistan, it is believed to be widespread because all of the necessary conditions for the life cycle of the dog tapeworm are present in many parts of Afghanistan. As Abrahams et al have noted, "the triad of dogs (the final hosts of the parasite), sheep and other ruminants (intermediate hosts) and man living together under the same roof is a characteristic feature of village life in Afghanistan."

The exhaustive tests undertaken by the survey team identifying both the animal hosts and the ultimate human victims were revealing. In the villages investigated the percentage of infected villagers was from 15.7% to 38.8%.

**Pneumonia**

In the national survey of 1974, pneumonia accounted for 13.4% of all deaths and 14.8% of the deaths of children under 5 years of age. Although pneumonia was the third most important cause of reported deaths in Afghanistan in 1974, there are no data available on its occurrence in rural villages.

**Tuberculosis**

Tuberculosis (TB) was found to be responsible for 2.4% of all reported deaths in 1974. Abrahams et al also found tuberculosis present in significant quantities in all of the villages investigated. They concluded that TB is one of the most significant public health problems in Afghanistan.

**Smallpox**

In 1974, smallpox represented 2.4% of all deaths and 3.7% of the deaths of children under five years of age. Recently, however, WHO certified Afghanistan as free of smallpox.

**Eye Disease**

Apparently, as evidence from the Abrahams et al survey of rural villages

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8 Ibid., pp. 141-142.
9 Ibid., p. 131.
suggests, there is a significant amount of eye disease prevalent in rural Afghanistan. It includes trachoma, gonococcal conjunctivitis and other eye infections as well as physiological abnormalities, which were not considered unusual for a LDC.

**Trachoma**

Trachoma has long been a troublesome disease in Afghanistan. Generally, poor sanitation and polluted dust contribute to the prevalence of this disease. Among the four villages surveyed, investigators found it present in all of these villages but in varying degrees. In one there were only a few cases while in another trachoma was hyperendemic and severe, with many of the residents having incapacitating late lesions with the ultimate possibility of blindness.

**Conjunctivitis**

There were a number of cases of conjunctivitis of various types (blepharoconjunctivitis, etc.) revealed by the investigators among the villagers. Generally, it appeared to be most prevalent during the autumn and appeared to affect mainly children. Some cases became most pronounced during the winter months when Vitamin A intake was less (those with foamy conjunctival secretions with lusterless conjunctiva). \(^{11}\)

**Skin Diseases**

Investigators reported a wide variety of skin diseases among the villagers investigated. \(^{12}\) Pediculosis and bites by body lice, bedbugs and fleas were common, while scabies were found infrequently. Severe infestations of the dwellings by ectoparasites were also recorded by the investigators. Other skin diseases included Vagabond's skin, pyoderma, ulcers, depigmentations, rashes, rosacea and dermatitis.

**Diseases of Lesser Health Risks**

**Diphtheria**

There are no data on diphtheria morbidity available for this study, although informed observers tend to believe it has been on the rise since World War II. In the 4 village survey used as source material in this study, the physicians noted that from 12% to 59% of the villagers had developed antitoxin immunity to diphtheria. They believed that much of this immunity arose as a result of mild skin infections. Still, these physicians believed this antitoxin did develop from some clinical cases of diphtheria. \(^{13}\)

\(^{11}\) Ibid., p. 191.

\(^{12}\) Ibid., pp. 193-194.

\(^{13}\) Ibid., pp. 164-165.
### Table 3*

**DISTRIBUTION OF MOST COMMON DISEASES IN 1970/71 SURVEY**

<table>
<thead>
<tr>
<th>Diagnoses</th>
<th>Percent**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intestinal parasites</td>
<td>41.6%</td>
</tr>
<tr>
<td>Trachoma</td>
<td>11.2%</td>
</tr>
<tr>
<td>Chronic pulmonary disease</td>
<td></td>
</tr>
<tr>
<td>(excluding TB)</td>
<td>9.4%</td>
</tr>
<tr>
<td>Dysentery (bacillary/amoebic)</td>
<td>8.0%</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>6.0%</td>
</tr>
<tr>
<td>Otitis media</td>
<td>3.8%</td>
</tr>
<tr>
<td>Leprosy</td>
<td>2.1%</td>
</tr>
<tr>
<td>Osteomyelitis</td>
<td>1.9%</td>
</tr>
<tr>
<td>Malaria</td>
<td>1.0%</td>
</tr>
</tbody>
</table>

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* Derived from the study by Jeanne Blumhagen, "The Hazarajat Project," Medical Assistance Programs, 1971 in which these diseases were revealed in the above percentages while treating over 100,000 patients over a two year period.

** Other diseases, accidents, etc. represented 15.0% to register a total of 100.0%
Malaria

Prior to initiating the Malaria Eradication Project in Afghanistan in 1949, there were a significant number of malaria cases in the low-lying areas of Afghanistan. The occurrence of malaria followed rivers and streams as well as irrigation ditches serving the ricefields. The transmission period lasted from August to mid-November and the types of malaria derived from Plasmodium vivax and Plasmodium falciparum. Specific endemic areas of Afghanistan included Dhir and Rahim, the area just south of the Amu Darya (Oxus) River and the development area of the Helmand Valley.

At the time of the survey undertaken by Abrahams et al., the malaria eradication program had been underway for more than 10 years. They concluded that there was continued transmission of endemic malaria in at least one province, Qunduz, and by implication in others, and that the eradication program in Qunduz Province had failed.

With respect to Qunduz Province and the eradication program, the researchers concluded not only that the program has failed but that the future is not promising. They suggest that the expansion of irrigation projects to service new agricultural areas has created more favorable conditions for breeding mosquitoes. At the same time, the long-term use of DDT has led to biological adaptation by new mosquito strains. Finally, the personal habits of the Afghans permit new infections since they continue to sleep outdoors on hot summer nights without mosquito nets.

Trichinosis

Despite the fact that the Afghan peasants do not keep nor consume pigs, due to religious taboos, there is nevertheless evidence of trichinosis infections in Afghanistan. In all 4 villages studied sero-epidemiological studies revealed that from 7.1% to 10.8% of the villagers were infected. There was some doubt among the researchers as to whether or not some of the tests might have been biologically false since they were unable to identify the agent for Trichinella spirales which is the true vector for trichinosis.

Schistosomiasis

There are no data on infections by Schistosoma hematobium, S. mansoni and S. japonicum in Afghanistan. Nevertheless, authorities believe that there have been sporadic infections of S. hematobium along the Iranian-Afghan border in the Helmand area. With the new irrigation systems being created to serve expanded agricultural areas, it is feared that these sporadic cases will provide a new focus for the spread of schistosomiasis. It is not known, however, whether the natural water sources will contain the vector snails and suitable conditions for the spread of this disease.

13 Ibid., pp. 164-165.
14 Ibid., pp. 119-120.
15 Ibid., pp. 119-127.
Venereal Disease

As in virtually all other countries of the world, venereal disease is also present in Afghanistan. Venereal syphilis, for example, has been well-established in Afghanistan. There are no data on the frequency for the disease in rural Afghanistan but data are available on its occurrence in Kabul. In a limited survey there it was determined that about 2.2% of the urban population had the disease. Foreign physicians who had worked in Afghanistan gave it a low priority among the current public health problems despite its prevalence there.

The Abrams et al study did report that syphilitic infections were frequent in 2 of the 4 villages visited, however. The authors concluded, therefore, that, contrary to the opinion of previous investigating physicians, syphilis "must be included among the public health problems that deserve priority for action."16

Rickettsioses

Typhus has been widely reported in Afghanistan for a number of years. Louse-borne typhus is the only human rickettsiosis in Afghanistan for which recorded data are presently available according to Abrahams et al.17 Test conducted with 4 Rickettsia antigens, which produce antibodies when introduced into man, showed that the villagers of the 4 communities tested all had these antibodies in varying degrees suggesting widespread infection by murine and tick-born typhus. Evidence also suggests that Q fever is widespread in Afghanistan.

Arbovirus Infections

Arbovirus infections that appear to be of some significance in Afghanistan included: Siubis, West Nile, Dengue I, Dengue II, Japanese B, encephalitis and Sicilian West Nile and Japanese B arboviruses appeared to be especially prevalent which was to be expected since Afghanistan is geographically located on the eastern edge of endemic West Nile infections and on the western border of Japanese B encephalitis.18

Leprosy

Leprosy is endemic to most of Asia and especially to neighboring Pakistan. There are no data on the number of actual cases in Afghanistan but its presence has been established during the course of several surveys since 1969. Cases were identified in the village survey by Abrahams et al.19 Other surveys undertaken by the Medical Assistance Program team in 1969 and 1971 observed that it represented 2.1% and 3.2% respectively of diagnosed diseases.

16 Ibid., p. 159.
17 Ibid., p. 166.
18 Ibid., p. 177.
19 Ibid., p. 150.
Whooping Cough

A health survey conducted by the MOPH at the close of the 1960s indicated that during that decade whooping cough was one of the most formidable, contagious diseases. In 1961, there were 1,576 cases reported, but by 1970 the number of reported cases had dropped to 421. This compared with 7,957 cases of bacillary dysentery in 1961. There are no data available on the current status of this disease in Afghanistan.

Chickenpox

Chickenpox ranked along with whooping cough as a troublesome, contagious disease of the 1960s. In 1961 there were 3,305 cases reported but the disease had decreased by 1970 to 627 reported cases.

Degenerative Diseases

Unlike several LDCs, the Afghanistan MOPH does not appear to have to cope with the degenerative diseases of a Western industrial society. In a Medical Assistance Program (MAP) survey in 1971, the principal degenerative diseases were recorded from a large sampling of Afghans and found to be almost infinitesimal, certainly not significant. Only 0.30% of the sample population were reported suffering from malignancies of any kind, for example, while only 0.09% had arteriosclerotic heart disease.20

Other Diseases Currently Constituting Minor Health Risks

There are other sources of disease in Afghanistan which should be mentioned for summary purposes. Among these are Relapsing Fever transmitted by ticks of which 37 species have been identified in Afghanistan. Plague, although not widely found in Afghanistan, is transmitted both by fleas, of which there are 68 identified species and rodents. Sand flies are also known to be vectors of Cutaneous Leishmaniasis in Kabul. Biting midges are also present in substantial quantities in Afghanistan and they carry African horse sickness virus.

Finally, we have already observed that malaria was a potent disease in Afghanistan for many years, and although severely reduced by the eradication program, it remains a potential threat. The Anopheles mosquito is the vector of this dreaded disease and seventeen anopheline species have been identified in Afghanistan.

Problems and Conditions: A General Synopsis

The foregoing discussion clearly suggests that the Afghanistan health environment ranges from "poor" to "miserable".

20 Ibid., pp. 118-119; these authors reported some residents of the villages with enlarged hearts and elongated aortas but no association between these conditions and high cholesterol levels or systolic blood pressure was noted.
<table>
<thead>
<tr>
<th>Diagnoses</th>
<th>Percent**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malignancies (all kinds)</td>
<td>0.30%</td>
</tr>
<tr>
<td>Hypertension</td>
<td>0.16%</td>
</tr>
<tr>
<td>Peptic ulcer</td>
<td>0.15%</td>
</tr>
<tr>
<td>Prostatic obstruction</td>
<td>0.14%</td>
</tr>
<tr>
<td>Gall bladder disease</td>
<td>0.14%</td>
</tr>
<tr>
<td>Cerebro-vascular accidents</td>
<td>0.13%</td>
</tr>
<tr>
<td>Arteriosclerotic heart disease</td>
<td>0.09%</td>
</tr>
<tr>
<td>Poliomyelitis residue</td>
<td>0.05%</td>
</tr>
<tr>
<td>Diabetes</td>
<td>0.02%</td>
</tr>
<tr>
<td>Appendicitis</td>
<td>0.02%</td>
</tr>
</tbody>
</table>

* Derived from "The Hazarajat Project," MAP as a result of sampling 8,500 patients over the course of a year.

** These diseases represented only 1.2% of total diagnosed diseases in Afghanistan.
The rural population suffers from a number of ailments and diseases including measles, enteric infections, pneumonia, tuberculosis, smallpox, eye diseases, and skin diseases all of which are areas of prominent health risks. They also suffer in lesser degrees from diphtheria, malaria, venereal diseases and even schistosomiasis.

The environmental conditions both in the few urban centers and in virtually all of the rural villages are not conducive to good health practices. There are virtually no sanitary toilet facilities and the means for collecting and disposing of excreta and refuse are almost non-existent. The resulting conditions serve as breeding areas for disease vectors, contaminates for the water supply and sources of food infection.

Lack of personal hygiene also must be added to the environmental problems as a cause of disease in Afghanistan. Cultivation of habits of personal cleanliness, beginning perhaps with elementary health education, should be an area of major emphasis in programs to improve Afghanistan's health environment.

The measures taken to date by the GOA and the MOPH to provide rural Afghans (85% of the population) with adequate health care had little impact on health status. Not only has the total MOPH budget been small (about 2.5% of the national budget) but it has not focussed on the priority areas, i.e., infants, maternal and child health, nutrition, health education, rural care and immunizations. As a result, private consultants estimate that health manpower and health facilities are so limited that only between 15% and 20% of the Afghans actually enjoy the services of western medicine.

In this and the previous chapter, we have attempted to provide an overview of the Afghanistan health environment, only referencing briefly the major factors: diseases; human pollution; scarcity of health manpower and facilities; effect of cultural conditions upon the health environment; etc. In the subsequent chapters an effort will be undertaken to review, in as much detail as our sources permit, each of these major factors which influence the Afghanistan health environment and the effect these factors may have, as well as can be determined, upon Afghanistan's economic and social development.
Table 5*

PREVALENCE OF HEALTH PROBLEMS

<table>
<thead>
<tr>
<th>Diagnoses</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory Diseases</td>
<td>40%</td>
</tr>
<tr>
<td>(Including TB 10 percent)</td>
<td></td>
</tr>
<tr>
<td>Intestinal Infection</td>
<td>20%</td>
</tr>
<tr>
<td>Skin Conditions</td>
<td>10%</td>
</tr>
<tr>
<td>(Including leprosy)</td>
<td></td>
</tr>
<tr>
<td>Other Infectious Diseases</td>
<td>5%</td>
</tr>
<tr>
<td>(Measles, typhus, chickenpox, etc.)</td>
<td></td>
</tr>
<tr>
<td>Parasitic Diseases</td>
<td>5%</td>
</tr>
<tr>
<td>(Helminths, Malaria, etc.)</td>
<td></td>
</tr>
<tr>
<td>Traumatic and Orthopedic Disease</td>
<td>10%</td>
</tr>
<tr>
<td>Unspecified</td>
<td>10%</td>
</tr>
<tr>
<td>(Including Obstetric, malnutrition, etc.)</td>
<td></td>
</tr>
</tbody>
</table>

* Derived from "The Hazarajat Project," MAP as a result of sampling 8,500 patients over the course of a year.
<table>
<thead>
<tr>
<th>Health Problem</th>
<th>IMPORTANCE</th>
<th>IMPACT OF INTERVENTION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Children Under 5</td>
<td>Pregnant Women and Mothers</td>
</tr>
<tr>
<td>Immunizable Disease</td>
<td>H</td>
<td>-</td>
</tr>
<tr>
<td>GI/Diarrheal Disease</td>
<td>H</td>
<td>L</td>
</tr>
<tr>
<td>Acute Respiratory Disease</td>
<td>H</td>
<td>M</td>
</tr>
<tr>
<td>Acute Malnutrition</td>
<td>L</td>
<td>-</td>
</tr>
<tr>
<td>Pregnancy Complications</td>
<td>-</td>
<td>M</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>-</td>
<td>M</td>
</tr>
<tr>
<td>Malaria</td>
<td>-</td>
<td>L</td>
</tr>
<tr>
<td>Other Acute Illnesses</td>
<td>L</td>
<td>M</td>
</tr>
<tr>
<td>Degenerative Disease</td>
<td>-</td>
<td>M</td>
</tr>
<tr>
<td>Congenital Anomalies</td>
<td>L</td>
<td>-</td>
</tr>
</tbody>
</table>

* See Health Sector Assessment, op. cit., p. 17.

Definitions: 'H' - High, 'M' - Medium, 'L' - Low, '-' - Negligible
CHAPTER THREE

ORGANIZATION AND MANAGEMENT OF THE AFGHANISTAN HEALTH SYSTEM:

THE DELIVERY OF HEALTH CARE

The available data, inadequate though they are, reflect the inability of the current Afghanistan public health system to fulfill the needs of the people. This is especially true with respect to caring for the rural population and for special segments of that population such as pregnant women, infants, and small children.¹

The problem of providing adequate health care to the rural population of Afghanistan, therefore, constitutes the foremost "social welfare" challenge facing the Afghanistan Government. Given this shortage of public health services, the vast majority of the Afghan people have had to rely on the age-old, traditional mullahs, hakim, bonesetters and sayyids for many of their health services.

Private Health Care

In the absence of MOPH physicians and other health manpower, the rural Afghans have traditionally sought health care from the private sector. Investigators believe that the vast majority of rural illnesses, if they are treated at all, are treated by local traditional healers.²

There are a variety of traditional health care sources on the local level, village and bazaar, in Afghanistan (see Table 7 below). These sources include: on the village level, injectors, Dais, Barbers, mullahs and dokhans; on the bazaar level, there are the hakims, atars, bonesetters, and sayyids as well as the private pharmacies; at the town level one finds the private physician in some of the larger towns, occasionally a dentist, the traditional hakim and perhaps a very small private hospital. Finally, at the city level are located the larger private hospitals, the larger pharmacies, more private physicians, specialized hakims and some specialty hospitals.³

According to a recent survey of the modus operandi of rural health services in Afghanistan the single most common source of health care in rural Afghanistan is the household. A number of treatments are offered herein including bed rest, dietary prescriptions, herbal medicines, special treatments and childbirth assistance.⁴ These herbal medicines, for example, are usually obtained from

¹ See Seven Year Development Plan, op. cit., p. 227 which assumes that 84% of the medical doctors and 59% of the total hospital beds are concentrated in the Kabul metropolitan area.

² See Rural and Family Health Services, op. cit., p. 16.

³ Health Needs in Rural Afghanistan, op. cit., fig. 2.1.

⁴ Ibid., pp. 13-16; along with the herbal medicines, prayers and vows.
Table 7*

OVERVIEW OF AFGHAN RURAL HEALTH SYSTEM

LEVEL 5 - THE CITIES
- Private Doctors
- Specialty Hospitals

LEVEL 4 - THE TOWNS
- Community Health Services

LEVEL 3 - THE BAZAAR
- Pharmacies
- Sayyids

LEVEL 2 - THE VILLAGE
- Dias
- Injectors
- Local Shrines
- Hakims

LEVEL 1 - THE HOME
- Barbers
- Atars
- Mullahs
- Dokhans
- Major Shrines
- Basic Health Centers
- Pharmacists
- Bonesetters
- Hospitals
- Specialized Hakims

Malaria Eradication Workers

* Health Needs in Rural Afghanistan, op. cit., Figure 2.1.
atars (herbal medicine shops) and include a red dye (an organic dye of the rosameling type) for eye disease and a powder of antimony sulfide derived from stibnite. For coughs the extract of a wild plant called aspakak is used while opium is applied for chronic coughs and influenza. For fever, the special treatment of wrapping the patient in goat skins is applied. Finally, a dai or traditional midwife is often present to assist at childbirth.

At the village level one finds the largest number of traditional healers as noted above. The most popular and helpful is the dai or traditional midwife. The barber also performs such services as circumcision and "bleeding." Mullahs are Muslim religious leaders who hold an exalted position in the villages and offer prayers for the ill. The dokhandars are the village druggists and are also frequently used by the villagers. The injectors often administer drugs through injections at the village level and are frequently used in combination with the other local healers.6

In the bazaar or market place, which frequently supplies several villages with goods and services, there are found both traditional healers and occasionally western trained health technicians. There are between 500 and 600 pharmacies in Afghanistan many of which are located in the bazaars and sell both prescription and non-prescription drugs. Hakims, found also very prominently in Pakistan, are traditional medical practitioners, something more than the contemporary barefoot doctors. Atars are sidewalk vendors who sell herbal medicines and are found in all the bazaars. The bonesetter or shekesta bande is one of the more specialized medical trades in the bazaar. Sayyids, who claim to be holy persons descending from the prophet, are also found in the bazaars.

At the town level, (towns are regional centers for trade and government of between 30,000 and 50,000 people) one encounters a few private physicians. These private physicians usually are employed by the MOPH and also maintain a private practice after hours. The other health practitioners found in the bazaar are also found in the towns. Some of the larger towns also have a small hospital, which may be MOPH operated and others may be private establishments. Where there is manufacturing the company usually provides medical services to its employees.8

In the few Afghanistan cities, and especially the metropolitan area of Kabul, there are facilities and health manpower for specialized health services. Approximately half of all the physicians in Afghanistan, for example, practice in the Kabul metropolitan area, many under the same circumstances as the physicians in the towns, i.e., dual practice for the MOPH and privately. There are also specialized hospitals in the cities (both private and government operated) in such areas as women's illnesses, T.B. and children's diseases. Specialized hakims are also available in the cities as are the other health professionals.

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7 Ibid., p. 20; the WHO listed 577 pharmacies in Afghanistan in 1976; see WHO Programme Budget, op. cit. p. 611.
workers and the pharmacists.

If the health services available to the rural Afghan are relatively unsophisticated, investigators also stress that they are consummated with the people thus served. Even if western medical services are available, which they are not for the majority of rural Afghans, observers have noted that most patients would not rely exclusively on the university trained physicians and technicians in any event. A rural patient, for example, might well visit a hakim or a pharmacist while on his way to an appointment with a physician in a distant town or city. A physician might also consult with that hakim about the patient's condition. There is, therefore, often a combination of western and traditional inputs into the treatment of a patient.

The decision of the rural patient to seek Western medical care in the nearest town or city by a physician or at a hospital is often taken in conjunction with several factors of a cultural nature based on superstition, mythology or ancient tradition. If the illness is acute such as appendicitis an effort would probably be made to seek immediate transportation of the patient to a source of western medicine. If the illness is not acute there is a good possibility that the patient's family or the local healers will attempt to employ prayers and/or ancient rites to destroy or rout the evil spirits, the jinns, or the evil eye allegedly causing the illness. Tragically, one of these rites involves "bleeding" the patient to remove the bad blood.

The considerable infant and childhood death rate is not far fetched in view of Afghanistan's environmental problems and the traditional approaches to healing outlined above. The rural population, although without adequate transportation to Western style health facilities, appears to have access to private health practitioners. The degree of benefit obtained by the rural peasants from such private practitioners is questionable.

The Public Health Sector

The Ministry of Public Health (MOPH): Official Functions

The MOPH is primarily responsible for all GOA activities in the health sector. It is the policy making agency of the GOA as well as the initial planning agency for all health matters in Afghanistan. The MOPH also provides services for the Afghanistan population through the operation of:

a. Hospitals: The MOPH provides services for the general public while other ministries including Defense, Education and Mines and Industries provide coverage for their respective employees;

b. Ambulatory Care. The MOPH provides for hospital outpatient departments,

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9 Ibid., p. 27
10 Ibid., pp. 27-28; see also Abraham et al, op. cit., pp. 29-30.
11 Rural and Family Health Services, op. cit., pp. 17-36.
Table 8*

ORGANIZATIONAL STRUCTURE OF MINISTRY OF PUBLIC HEALTH

*Rural and Family Health Services, op. cit., Figure 2.2.
health centers separate from hospitals, mobile teams for malaria surveillance and smallpox and BCG immunizations;

c: Environmental Health Programs. The MOPH is also responsible for the administration of such programs as water supply, waste disposal, hygiene education and insect vector control; and

d: Drug and Laboratory Functions. The MOPH must also take responsibility for the control and production of drugs and vaccines as well as some laboratory functions.

Principal Departments and their Functions

The major organizational units functioning actively within the MOPH include its five departments and the Public Health Institute, which has departmental status (see Table 8). The major "field" programs (i.e. those that deliver services at the local level) are the Basic Health Service System, the Malaria and Smallpox Programs, and to a lesser extent, small scale curative facilities.

As Table 8 indicates, the Deputy Minister and the special Advisor (General President for Health Services) support the Minister in the overall administration of the health system, including presiding over the Technical and Planning Boards. Three important agencies connected with the MOPH - the Malaria Institute, the General Medical Depot (GMD) which is responsible for procurement of drug supplies, and the Afghanistan Family Guidance Association (AFGA) - have a great degree of autonomy.

The staff of these agencies are all direct civil service employees of the MOPH with the exception of some staff members of AFGA; they all have their own facilities physically separated from the rest of the MOPH, have control over their own vehicles, administrative system, and (in the case of the Malaria Institute and AFGA) derive a large percentage of their funds directly from foreign donors.

Curative Medicine Department

This department has primary responsibility for operation of 11 hospitals in Kabul province, of all hospitals in provincial centers, as well as the small (5 - 10 bed) hospitals in rural areas. This department also plays a critical role in the process of drug procurement and allocations for the entire MOPH. The Department has overall responsibility for the training of nurses and for their technical support in the field.

Department of Preventive Medicine

The Department of Preventive Medicine headed by a president, is concerned with communicable disease control, smallpox, TB, environmental health, family health, and the basic health center directorate. Thus, this department is currently responsible for two of the three major field programs - Smallpox and the Basic Health Services field programs but not for the Malaria Program.

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12 See Ibid., pp. 19-23.
Department of Administration

This department includes separate bureaus responsible for personnel, supply, accounts, budget and archives, and has become the focus of virtually all information, activities and decision-making of an administrative nature in the MOPH. Other departments play only a passive role, taking no responsibility for even routine administration.

The 3 field activities currently active - basic health services, smallpox and malaria - present a spectrum of degree of involvement with the Administration Department, ranging from total dependence to near independence.

The Basic Health Center (BHC) Bureau is almost totally dependent on the Administrative Department and others for the execution of basic support functions. The other bureaus of the Department of Preventive Medicine have a similar relationship with Administration. For example, recruitment and posting of staff is handled entirely by the Administrative Department on the advice of the Transfer Committee. The BHC director is not informed by the Administration Department of staff levels, vacancies, or changes in the staffing of health centers and plays little role in the formulation of the budget or in financial transfers.

The Smallpox Program, although relatively autonomous in many ways, is much more a part of present MOPH operations than is Malaria. Since the Smallpox Program receives virtually all of its equipment, per diem supplies, and vehicles from foreign donors, however, the Administrative Department budgets and pays only for salaries, travel and such minor items as stationery. The program also actively recruits, trains and posts its own personnel, communicating with, but largely independent of, Administrative Department control. Transfer of funds to the field requires the active participation and approval of the Ministry. Located well down in the MOPH chain of command, the Smallpox Director technically does not report directly to the Minister.

Except at budget time, the Malaria Program operates almost independently of the MOPH, including the Administrative Department, though Administration does participate in senior personnel transactions. Nearly all supplies and equipment come directly from foreign donors, and they take care of their own personnel recruitment and training. The fact that the program derives nearly as much financial support from outside sources as from the Afghanistan Government appears to be of little concern to the GOA since it strongly supports the autonomy of the Malaria Program.

Department of Planning.

Up to this time, this Department has not been in a position to do very much in financial, manpower or facilities planning, though the department did play a role in formulating the health sector plan of the nation's Five Year Development Plans and the current Seven Year Development Plan. To date, the principal activities of the department have been in statistics, foreign relations, and construction, each represented by a Bureau.

A proposal is now being considered by MOPH leadership which could create a meaningful planning function for the MOPH, including the BHCs. This proposal envisions the revitalization of the Planning Board, along with the development of supporting planning personnel within the Planning Department to act as the
staff section of the Planning Board. The Board would be invested with policy-making authority in the areas of planning and management.

**Department of Inspection**

With broad responsibilities for review of licensure, the Department of Inspection plays an important role in the following two functions:

a) Regulation of drug distribution: pharmaceutical manufacturers must obtain Inspection Department approval prior to marketing specific drugs, an obviously important mechanism for limiting drugs allowed to reach consumers;

b) Licensure of pharmacies and pharmacists: the number, location, operating procedures and pricing structure of pharmacies, as well as the qualifications of pharmacists, are under the jurisdiction of the Inspection Department. With the exception of private practitioners, the number of pharmacies (over 500) is greater than all other health service outlets put together. With relatively close contact with the people by virtue of long operating hours and marketplace location, the pharmacy system may well be the most important and easily exploitable Afghan health resource presently available.

**Technical Board**

The Technical Board of the MOPH meets approximately every 2 weeks under the chairmanship of either the Minister, his deputy, or his special advisor. It is basically a policy review body and discussion forum, composed of department heads, heads of larger curative facilities and other senior MOPH staff, depending on the agenda. It is the only formal policy review mechanism currently operating in the Ministry.

**Public Health Institute**

Among its services, the PHI provides most of the basic training of technical personnel for Basic Health Centers.

**Regional, Provincial, County and Village Level**

**Regional Administration**

There is a general Governmental trend toward developing a more decentralized management structure for government programs. The Smallpox and Malaria Programs have a tradition of regional planning and control, and Basic Health Services have recently instituted regional physician supervision, although this is still in the developmental stage in terms of division of responsibility and authority.

**Provincial Administration**

The MOPH has traditionally been represented at the provincial level by a Provincial Health Officer (PHO). The PHO is under the general administrative control of the provincial governor. As chief health official of the province, however, the PHO depends upon the MOPH for most administrative (and technical) direction. In most cases, the PHO acts as the technical and administrative
director of the provincial hospital. The demands of his job, coupled with the possibilities of supplementary income in the provincial capital, make it difficult and unlikely for PHOs to administer and to supervise rural health activities properly at the woleswali (county) and alakadari (subcounty) levels. As neither Smallpox nor Malaria programs are organized along provincial lines, the PHO has little responsibility and authority for supervising their activities.

**County (woleswali) and Village Administrative Levels**

The MOPH appears to have only a limited presence at the county (woleswali) and village-rural level. This MOPH presence and, therefore, influence appears to reside in 3 areas (see Table 9 and 10):

a) The health center, with staff responsible for general curative and preventive work for the woleswali;

b) The smallpox teams, regionally based, which at present make only infrequent sweeps through each woleswali;

c. The malaria surveillance agent, should the area have one, with responsibility for monthly visits to every house in every village in his area, looking for fever cases and giving treatment.

These MOPH-supported resources are augmented by the large pool of MOPH-regulated pharmacies, which require very little of the MOPH budget, but have a potentially large impact on available health service.

**Aspects of the MOPH Rural Health Services**

**The Basic Health Center Program**

The BHC program, initiated under the prior Five Year Plans, has received new impetus under the current Seven Year Plan, with these objectives:

a) Maintenance of mass campaign programs: Malaria, Smallpox and TB;

b) Preventive medicine, including environmental health and communicable disease control;

c) Medical referral from basic health centers to supplement limited BHC curative service;

d) Establishment of family health services - family guidance and MCH care.

**Organization and Control**

The BHCs are centrally monitored by the Director of the Basic Health Services as a function of the Department of Preventive Medicine. Tables 9 and 10 outline the present or proposed organizational relationships in the MOPH. In practice, supervision and support to date have been largely limited to sporadic field visits by the Kabul staff. The Provincial Health Officer (PHO) has little regular contact with, or sense of responsibility for, basic health services.
Staffing

A practical Health Center staffing pattern is still evolving (though in the last Five-Year Plan a large staff was considered), consisting of the following:

<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Doctor</td>
</tr>
<tr>
<td>1</td>
<td>Nurse-Midwife</td>
</tr>
<tr>
<td>1</td>
<td>Nurse (male)</td>
</tr>
<tr>
<td>1</td>
<td>Sanitarian</td>
</tr>
<tr>
<td>1</td>
<td>Clerk/Storekeeper</td>
</tr>
<tr>
<td>1</td>
<td>Vaccinator</td>
</tr>
<tr>
<td>1</td>
<td>Lab. Technician</td>
</tr>
<tr>
<td>2</td>
<td>Administrative Assistants</td>
</tr>
<tr>
<td>1</td>
<td>Storekeeper</td>
</tr>
<tr>
<td>1</td>
<td>Driver</td>
</tr>
<tr>
<td>11+</td>
<td>Plus contract employees</td>
</tr>
</tbody>
</table>

In practice, Centers generally have several vacancies, due in part to:

a) National shortages of various personnel categories, particularly female nurses and midwives;

b) Unclear task assignments and division of responsibilities, which compound the difficulty for the central personnel office in setting priorities in personnel assignments; and

c) The posting and transfer process, presided over by a Transfer Committee, which at this point has little access to information as to present staffing and priorities.

Location

Centers are usually located in the principal towns of the woleswali. An increasing number of centers are being provided with new government-owned facilities, though many centers located in rented buildings seem generally adequate in terms of space and minimum hygiene.

Health Center Materials and Equipment

Most aspects of fitting out a center are based on standard patterns and lists of supplies (including both government and UNICEF supplied drugs), equipment, transport and budget. While such standardization is useful as a tool for an efficient initial supply process, MOPH leaders are aware of the need to develop more flexible supply procedures and reporting mechanisms for the longer term.

Characteristics of BHC Service Delivery - Centralized Clinic Orientation

The people must come to this clinic for virtually all BHC services, as no practical strategy for extension to the village level has yet been decided upon. A tentative plan attaching three to four satellite or sub-centers (perhaps staffed by a nurse and a vaccinator) to each BHC has been considered but not systematically examined in relation to alternative approaches, such as working more directly with village health workers.
Table 9*
BASIC HEALTH SERVICES ORGANIZATIONAL STRUCTURE

*Rural and Family Health Services, op. cit., Figure 2.6.
### Table 10

STAFFING AND MOPH HEALTH PROGRAMS BY LOCATION

<table>
<thead>
<tr>
<th>General MOPH Program</th>
<th>Malaria Program</th>
<th>Smallpox Program</th>
<th>Basic Health Services Program</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Capital</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Headquarters Staff (see Personnel Section)</td>
<td>Malaria Institute (65)</td>
<td>Headquarters Staff (8)</td>
<td>BHC's Director, Supervisors, and Staff (14)</td>
</tr>
<tr>
<td>Curative Headquarters Staff (20)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospital Staff (1064)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Regions</strong> (5)</td>
<td>5 Regional Offices (79)</td>
<td>3 Zonal Offices (19)</td>
<td></td>
</tr>
<tr>
<td>Regional Staff (under discussion)</td>
<td></td>
<td>5 Surveillance Teams (35)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 Assessment Teams (15)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>13 Vaccination Teams (104)</td>
<td></td>
</tr>
<tr>
<td><strong>Provinces</strong> (28)</td>
<td>28 Malaria Units, each with several supervisory areas (3-7 per unit) (283)</td>
<td>Teams work at this level</td>
<td>P.H.O.** (28) (no effective supervisory role)</td>
</tr>
<tr>
<td>Supervisory Teams</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospital Staff (1910)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Villages</strong> (178)</td>
<td>Surveillance Agents (598), average 26 per unit.</td>
<td>Teams work at this level</td>
<td>Health Centers (95) Sub-Centers (74) (Average 6 trained staff per Health Center and associated sub-centers)</td>
</tr>
<tr>
<td></td>
<td>Spray Teams (3 months only)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Rural and Family Health Services, op. cit., Figure 2.5.
**P.H.O. (Provincial Health Officer)
Characteristics of BHC Service Delivery - Curative Orientation

A review of the actual work currently done in a health center emphasizes that the services are almost entirely curative, with a few immunizations, vitamins and food supplements provided as part of a developing Family Health emphasis. The sanitarian, as principal resource for preventive health activities, appears to be the most chronically under-utilized person in the health center.

Family Health Activities

Family health is intended to be a priority function of the Basic Health Services. In this regard, the MOPH has established a Family Health Bureau in the Department of Preventive Medicine, and is:

a) Training a cadre of auxiliary nurse midwives;

b) Receiving large amounts of drugs, supplies and equipment, largely donated by UNICEF, for the health center family health effort;

c) Receiving food supplements for mothers and young children, through the World Food Program;

d) Receiving contraceptive supplies, donated by USAID.

An on-site survey of approximately 40% of all operating health centers suggests that, at this writing, a substantial proportion of health centers see no more than 10-20 persons a day, mostly adult males. UNICEF supplies and equipment now stock virtually all operating health centers, and WFP food supplements are being distributed to most centers. Approximately 43 Auxiliary Nurse Midwife (ANM)s are now assigned to the field, with about 28 in health centers and 15 in provincial hospitals. Contraceptive supplies are currently neither stocked nor distributed through the health centers, although according to several qualified authorities and reports from BCH staff, the success of AFGA clinics in certain parts of the country indicate that there is a demand for contraceptive services in a number of areas.

The present delivery strategy is for each clinic to have 2-3 weekly "family health days" concentrating on food supplies and family guidance. Some BHC doctors and others are of the opinion that the main motivation for coming to these centers is to receive the food supplies. This tendency is reinforced in the present setting, where little other care is provided and attendance falls when food supplements are in short supply.

Health Facilities at Various Levels in Afghanistan

In previous chapters it was noted that in 1975/76 the MOPH reported a total of 71 hospitals with 3,600 beds. By the completion of the current Seven Year Plan in 1983, the GOA/MOPH hopes to have 81 hospitals with 5,150 beds. At the beginning of the current plan in 1976 the GOA reported 101 BHCs in operation with plans to raise that number to 217 by 1983. This latter objective is of extreme importance since much of the proposed improved health care for rural Afghanistan is dependent upon service through the BHCs. In 1976 there were also
Table 11

HEALTH SERVICES AVAILABLE FROM PUBLIC & PRIVATE SOURCES

<table>
<thead>
<tr>
<th>Ministry of Health</th>
<th>Private &amp; Voluntary Agencies</th>
<th>Physicians and the Private Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CAPITAL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospitals (11)</td>
<td>Red Crescent Hospital (1)</td>
<td>Doctors (500)&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>Urban Health Centers (12) (from Red Crescent Society and Rozan-toon)</td>
<td>AFGA Clinics (6)</td>
<td>(1:2,000 population)&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>Noor Eye Clinic (1)</td>
<td>Private Clinics Pharmacies (125)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1:8,000 population)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Practitioners &amp; Dias</td>
</tr>
<tr>
<td><strong>REGIONAL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smallpox Vaccination &amp; Malaria Surveillance Unit</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PROVINCIAL CENTERS</strong></td>
<td>AFGA Clinics (1)</td>
<td>Doctors (700)&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>(28)</td>
<td>Noor Eye Clinic (1)</td>
<td>Pharmacies (315)&lt;sup&gt;3&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Practitioners, Dias &amp; Merchants</td>
</tr>
<tr>
<td><strong>WOLESWALI TOWNS</strong></td>
<td>Basic Health Centers (101)</td>
<td>Doctors&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>(178)</td>
<td>Periodic Smallpox &amp; Malaria Surveillance</td>
<td>Pharmacies&lt;sup&gt;3&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>Rod Crescent Hospital (1)</td>
<td>Practitioners, Dias &amp; Merchants</td>
</tr>
<tr>
<td><strong>VILLAGES</strong></td>
<td>sub Centers (74)</td>
<td>Pharmacies&lt;sup&gt;3&lt;/sup&gt;</td>
</tr>
<tr>
<td>(16,000)</td>
<td>(Private Practice)</td>
<td>Practitioners, Dias &amp; Merchants &amp; Variolators&lt;sup&gt;4&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>Periodic Smallpox &amp; Malaria Surveillance</td>
<td></td>
</tr>
</tbody>
</table>

1. Assumes 500 Doctors in Kabul and 527 in the rest of the country; total 1,027, working in both public and private practices.
2. Assumes 1 million population in Kabul and 16 million in the rest of the country.
3. Approx. 315 pharmacies at Provincial, Woleswali and Village level.
4. If there are 2 local health sources in each village, total 32,000

*Rural and Family Health Services, op. cit., Figure 2.1.
reported to be 74 sub-health centers (see Table 11) but plans for construction of more sub-health centers were vague (see below for more detailed construction plans). There were also between 500 and 600 pharmacies.

The following data illustrate the nearly desperate need for more facilities and staff in the rural areas of Afghanistan. In Kabul province, for example, there were 2,300 people per physician and 900 people per hospital bed in 1970/71. In Baghlan Province in that year there were 71,000 people for every physician and 3,500 people for every bed. In the more remote provinces the situation was far worse. In Takhar Province there were 254,000 people for every physician and 20,300 people for every hospital bed. In Uruzgen Province one found the gravest discrepancies: one physician for every 513,100 people and 34,000 people for every hospital bed.

The same situation existed generally for health manpower. As in Kabul province, where 85% of the Afghan physicians practice, there were only 2,300 persons for each physician. But in Wardak Province there were 427,900 people for every physician. Most provinces had over 100,000 people per physician in 1970/71 and in the provinces there was only 1.0 nurse per 18 patients for bedside care. Similarly, poor ratios existed for dentists, western trained technicians and assistant nurses and midwives. It is of little surprise, then, that the rural Afghans have continued to seek health care from traditional healers.

Government Health Policies and Plans

The broad scope of the GOA/MOPH health program for the current Seven Year Plan has been referred to in the previous chapters. Thus, realistically, it has focussed generally on improving the scope and standards of rural health and more specifically on preventive medicine, environmental sanitation, MCH, family health, health education, health manpower and constructing the facilities enabling the MOPH to provide better health care.

Utilizing the public health sector of the GOA publication, "First Seven Year Economic and Social Development Plan," 1976/1977-1982/83, it is possible to delineate more specific health objectives within the broader context set forth above. These specific objectives include:

1. Construction of Health Facilities
   a. Construction of 10 new hospitals between 1975/76 and 1982/83, raising the number from 71 to 81;
   b. Increasing the number of total beds from 3,600 to 5,150;

---

c. Increasing the number of Basic Health Centers from 101 in 1975/76 to 217 in 1982/83. There are currently 57 BHCs under construction and it is anticipated that 59 more will be added by 1983. These centers are divided into 3 categories serving different numbers of the population:

1) First class - serves 316 sq. km and over 20,000 people;
2) Second Class - serves 250 sq. km. and 10,000 people;
3) Third Class - serves 150 sq. km. and between 5,000 and 10,000 people;

d. Expansion of 14 older hospitals especially in the provinces and specifically, construction of 5 of the 10 new hospitals in the provinces of Kandahar, Nangarhar, Herat, Baikh and Kunduz. These are to be 200 to 250 bed hospitals;

e. The regional hospitals are to be capable of providing services in all specialized fields of medicine.

2. Maternal and Child Health

The MOPH recognizes the danger to the female population of successive childbirths and the high mortality rates among both mothers and infants and small children and proposes to begin dealing with these problems through the construction and use of mother and child polyclinics in the major cities. These polyclinics will attempt to reduce the mortality rate among mothers and children by:

a. protecting them against communicable diseases;

b. providing prenatal care; and

c. advising women on family planning.

The new and renovated regional hospitals will also be equipped and staffed to handle MCH care. It is also planned to construct adjacent to these regional hospitals 5 maternity facilities and 5 nursing Midwifery schools. Finally, it would seem appropriate to use the newly constructed BHCs for MCH care although the GOA plan does not make this clear.

3. Environmental Sanitation and Potable Water

The GOA, according to its published plan, is aware of the enormous danger to the health of Afghans in the current polluted water conditions in Afghanistan. The GOA proposes to construct in rural Afghanistan, 3 "clean water" systems to serve various levels of the population. These are:

a. System a, which will provide potable water for up to 15,000 people, will increase from 38 in 1975/76 to 210 in 1982/83, a 452% increase;

b. System b, which will provide potable water for up to 5,000 people, will increase from 17 to 119, a 600% increase; and
c. System c, which will provide potable water for up to 500 people, will increase from 1,050 in 1975/76 to 1,533 in 1982/83, a 46% increase.

If this program is fully consummated, the population served by potable water will increase from 1.2 million in 1975/76 to 4.5 million in 1982/83 or a 275% increase.

4. Training of Medical Personnel

Health manpower problems will be examined in detail in the following chapter. The GOA/MOPH recognizes the necessity of increasing its health manpower at all levels. Accordingly, plans provide for fully utilizing the capacity of Kabul and Nangarhar Medical Schools and the training of 1130 new medical technicians. Five new schools to train nurses and midwives are to be constructed in conjunction with regional hospitals. If the manpower training aspects of the plan are completed by 1982/83, there will be 17.8 medical technicians and 9.9 physicians for each 100,000 of the population.

5. Preventive Medicine and Family Health

The available data suggest that despite a new emphasis on MCH care, environmental improvements and training, the heart of the MOPH program remains curative medicine. This explains, in large part, the stress placed on construction of BHC units and regional hospitals for general treatment of the working (and male) population.

The MOPH has sponsored, for some years, control programs for TB, malaria, and smallpox and the Seven Year Plan anticipates continued or increased support for these programs. A new 100 bed hospital and the National Institute of Tuberculosis are planned for construction in Kabul. Acute cases of TB will be treated at this new hospital which will also be a teaching hospital. The vertical treatment plan will continue and it is planned to open 5 new regional reception centers for TB patients making seven in all. It is believed that there are about 55,000 TB patients in Afghanistan, although this figure may be low, and the plan calls for use of BCG vaccine for all these patients to bring each one under treatment.

Although it was believed malaria was well under control in Afghanistan, two severe epidemics hit Kunduz in 1969/70 and in several provinces in central and southern Afghanistan in 1970/71. Over the past several years the malaria eradication program was intensified so that by 1976, about 7,400,000 Afghans had been covered by the malaria control program. By 1983 it is anticipated that 8,497,000 will be so covered.

In addition to these vertical programs and the BHC programs, the GOA is promoting a substantial increase in vaccine and serum production. The GOA is seeking to have a full range of vaccines against smallpox, cholera, typhoid, tetanus and diphtheria by 1983 which can be applied in the newly operational BHCs.
Problems, Conditions and Difficulties Associated With the Afghanistan Health Sector

It would appear from the foregoing that the GOA is cognizant of some, but not all, of the major health problems afflicting the citizens of Afghanistan. In summary, the Ministry of Planning noted that these problems were: 1) the vast majority of medical doctors, 84%, and over half the hospital beds, 59%, were located in the Kabul metropolitan area; 2) inadequate technical and financial resources, about 2.5% of the national budget, have been programmed for public health services; 3) insufficient attention to environmental health standards; 4) lack of MCH care; 5) "administrative and professional weaknesses" in the public health administration; and 6) failure to construct an adequate number of public health facilities.

The outline of the public health sector plan recorded above, therefore, was designed to correct some of the imbalances in the Afghan public health services. Thus, whereas it addresses such problems as securing more potable water, reducing morbidity and mortality among children and mothers, inadequate health facilities in rural areas and prophylaxis against "contagious" and communicable disease, it remains inadequate. It fails to emphasize Afghanistan's most serious health problems: MCH care, nutrition, inadequate housing and waste disposal and alternatives to admittedly inadequate rural health facilities. The morbidity and mortality data recorded in the previous pages clearly reflect the almost desperate needs of Afghan women, infants and children and all the services that must then flow from this need.

Even if the GOA/MOPH were to increase the emphases of their health sector plan on prevention, MCH and other basic health services, a number of other conditions would have to be fulfilled before these new emphases became effective:

1. The general resources of the GOA budget would have to be substantially increased over the current 2.5%;

2. These new resources should then be programmed toward MCH care and ancillary health development, i.e., sanitation, housing, and potable water;

3. An emphatic, aggressive health care education program would have to accompany the reorientation of resources focussed on rural villages, stressing the need for better MCH care. Such an education program would probably encounter much sociocultural opposition and could anticipate slow, limited progress against established Muslim beliefs and practices. The task of convincing the villages to accept western medicine in lieu of their traditional healers would be difficult;

4. An expansion of medical training facilities for all health care disciplines and a reorientation of the goals of the health worker are also required. Somehow, health workers have to be both motivated and rewarded to take service in the rural areas of Afghanistan;

5. The MOPH is already experimenting with a barefoot doctor type program (which in Jamaica is called the "Community Health Aids" and in Pakistan, "Health Guards"). These auxiliary health workers are itinerants who travel a specified route focussing on preventive medicine and treating simple ailments and diseases;

6. Female staff members are urgently needed in rural health facilities to
ease the problem of the reluctance of Muslim females to seek health care for themselves and their children;

7. Since it will be many months and perhaps years before sufficient health facilities are available in rural areas, a temporary expedient method of mobile health care might be implemented. It could be provided by an equipped land vehicle or a helicopter to transport physicians and nurses and could work in conjunction with auxiliary health workers;

8. There are abundant administrative and policy problems, including training, personnel, supervisory and financial, which must also be solved. Foreign consultants have been working on these problems with the GOA/MOPH for several years. One of the most critical is the collection of reliable data. Another appears to be the lack of proper supervision in the Directorate of Basic Health Services which is responsible for the MOPH family health program. Other administrative problems include a supply problem (medicines) to the clinics and existing BHCs as some are over-stocked while others have only limited supplies.
MOPH BUDGET BREAKDOWN

46% Salaries

8% Maintenance

23% Consumable Supplies Including Drugs

17% Subsidies to Donors

CHAPTER FOUR

HEALTH MANPOWER RESOURCES

In previous chapters, the severe shortages of Afghan health manpower trained in western medical practice from physicians to health auxilliaries were noted. In this chapter the quality and quantity of Afghanistan's health manpower resources and the future requirements attendant upon creating a viable Afghan health program will be explored. This delineation, including native healers, is limited by the paucity of available data, however.

Current Health Manpower Status

Western Trained Health Manpower

Physicians

There is an acute shortage of physicians in Afghanistan as well as the difficult problem of maldistribution of those physicians that are available. Nevertheless, there has been a steady if slow increase in the number of Afghanistan physicians since the end of World War II when records were initiated by the GOA.

In 1955 the GOA estimated that there were only 200 physicians in the country. At that point in time there were approximately 10 million Afghans which allowed one physician for every 50,000. By 1960, the number of physicians had increased to about 300. In 1966/67 the number of physicians had increased to 527 and by 1970/71 this number was 689. About 25,000 people for each physician. By 1976 the GOA reported 1,027 physicians in Afghanistan.2

The maldistribution of physicians in 1970/71, has already been noted, with one physician for every 2,300 in Kabul Province but only one physician for every 513,100 in Uruzgan Province. Even in 1976, the GOA observed that 84% of the physicians were concentrated in the metropolitan Kabul area.

There are also a number of foreign physicians practicing in Afghanistan. Ten years ago there were reported to be about 30 foreign physicians mostly employed as lecturers in the Faculty of Medicine, University of Kabul, specialists in Afghanistan hospitals, advisors for international donor agencies and as industrial hygiene specialists for foreign firms undertaking contracts in Afghanistan. In the latter 1960s, foreign physicians were not allowed to practice domestically in Afghanistan.

1 See Statistical Pocket Book of Afghanistan, op. cit. Manpower Tables.

2 See Seven Year Development Plan, op. cit., p. 229. See Table 16 for physician projections through 1983.
Nurses, Assistant Nurses and Midwives

The most recent data on the quantity of nurses, assistant nurses and midwives is for the period 1969/1970 and derived from a study completed for the WHO (see Table 14). These data suggested that there were 694 nurses, assistant nurses and midwives to serve Afghanistan in 1970. There were also 331 male nurses compared to 113 female nurses although midwives, female auxiliary nurses and auxiliary midwives tended roughly to balance the numbers between male and females. The need, however, is for more females to service MCH needs in the provinces. The failure to recruit more females for the nursing profession derives from Afghan mores which inhibit the mobility of Afghan women. Thus, whereas there were 1.5 nurses for each patient in 3 Kabul hospitals surveyed, in the provinces the ratio was 1 nurse for each 18 hospital patients.

Other Health Manpower Disciplines

In the GOA survey for 1970-71 it was revealed that there were several other health disciplines in which Afghans were employed, disciplines which presumably required some Western type training. These disciplines and the numbers involved were: a) 557 vaccinators; b) 11 technicians; c) 60 laboratory technicians; d) 4 Radiographers; e) 80 dressers; f) 40 mechanics and g) 247 other technical personnel. There were also listed among these other disciplines 117 dentists and 45 assistant dentists.4

Traditional Healers

In the previous chapter it was noted that the majority of rural Afghans depend upon traditional healers for medical care in view of the lack of MOPH facilities, physicians and nurses. The occupations of these healers are reviewed below to provide relevant background.5

Atars

Atars are shopkeepers or sidewalk vendors who specialize in the sale of herbal medicines. They are often small scale operators with little knowledge of health and illness themselves. As many of the herbal medicines used by villagers are well-known plants found growing in their own vicinities the atar’s role is a marginal one. Only 1.7% of people surveyed had used such service in the past year.

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4 See Statistical Pocketbook, op. cit., Table, "Number of Medical Institute Personnel". See also Tables 18-22 for other manpower projections.

5 Derived from Health Needs in Rural Afghanistan, op. cit., pp. 16-27. References are to a survey done in several villages while preparing the part of the report on traditional healers.
Table 12*

NUMBER OF MEDICAL INSTITUTE PERSONNEL

<table>
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<tbody>
<tr>
<td>Physicians</td>
<td>527</td>
<td>582</td>
<td>632</td>
<td>669</td>
<td>689</td>
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<tr>
<td>Assistant Physicians</td>
<td>19</td>
<td>19</td>
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<tr>
<td>Foreign Physicians</td>
<td>11</td>
<td>11</td>
<td>11</td>
<td>11</td>
<td>11</td>
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<tr>
<td>Pharmacists</td>
<td>169</td>
<td>189</td>
<td>210</td>
<td>260</td>
<td>260</td>
</tr>
<tr>
<td>Laboratory Technicians</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Male Nurses</td>
<td>269</td>
<td>269</td>
<td>269</td>
<td>269</td>
<td>280</td>
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<tr>
<td>Female Nurses</td>
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<td>90</td>
<td>90</td>
<td>102</td>
<td>141</td>
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<tr>
<td>Assistant Nurses</td>
<td>36</td>
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<td>110</td>
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<tr>
<td>Vaccinators</td>
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<td>379</td>
<td>390</td>
<td>557</td>
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<tr>
<td>Technicians</td>
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</tr>
<tr>
<td>Laboratory Assistants</td>
<td>18</td>
<td>18</td>
<td>18</td>
<td>52</td>
<td>60</td>
</tr>
<tr>
<td>Dentists</td>
<td>86</td>
<td>94</td>
<td>102</td>
<td>117</td>
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<tr>
<td>Radiographers</td>
<td>4</td>
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<td>4</td>
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<tr>
<td>Dressers</td>
<td>73</td>
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<td>73</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Midwives</td>
<td>91</td>
<td>91</td>
<td>91</td>
<td>105</td>
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<tr>
<td>Assistant Dentists</td>
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<td>45</td>
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<tr>
<td>Mechanics</td>
<td>38</td>
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<tr>
<td>Other Technical Personnel</td>
<td>161</td>
<td>176</td>
<td>196</td>
<td>227</td>
<td>247</td>
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*Source: Ministry of Public Health
<table>
<thead>
<tr>
<th>Province</th>
<th>Per Doctor</th>
<th>Per Hospital Bed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kabul</td>
<td>2.3</td>
<td>0.9</td>
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<tr>
<td>Kandahar</td>
<td>85.0</td>
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<td>Herat</td>
<td>71.0</td>
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<td>Balkh</td>
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<td>8.3</td>
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<td>Nangarhar</td>
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<td>12.0</td>
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<td>Jawzjan</td>
<td>147.0</td>
<td>14.7</td>
</tr>
<tr>
<td>Takhar</td>
<td>254.0</td>
<td>20.3</td>
</tr>
<tr>
<td>Dadakhshan</td>
<td>178.0</td>
<td>14.2</td>
</tr>
<tr>
<td>Damian</td>
<td>356.2</td>
<td>23.7</td>
</tr>
<tr>
<td>Uruzgen</td>
<td>513.1</td>
<td>34.0</td>
</tr>
<tr>
<td>Ghorat</td>
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<td>22.2</td>
</tr>
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<td>Perwan</td>
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</tr>
<tr>
<td>Kunduz</td>
<td>139.0</td>
<td>27.8</td>
</tr>
<tr>
<td>Baglan</td>
<td>71.0</td>
<td>3.5</td>
</tr>
<tr>
<td>Samangan</td>
<td>107.0</td>
<td>21.3</td>
</tr>
<tr>
<td>Badghas</td>
<td>165.0</td>
<td>32.9</td>
</tr>
<tr>
<td>Neemroz</td>
<td>63.0</td>
<td>8.3</td>
</tr>
<tr>
<td>Zabul</td>
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<td>36.6</td>
</tr>
<tr>
<td>Logar</td>
<td>106.0</td>
<td>12.7</td>
</tr>
<tr>
<td>Wardak</td>
<td>427.0</td>
<td>42.8</td>
</tr>
<tr>
<td>Kapisa</td>
<td>177.0</td>
<td>23.7</td>
</tr>
<tr>
<td>Laghmun</td>
<td>114.0</td>
<td>22.9</td>
</tr>
<tr>
<td>Kunarha</td>
<td>169.0</td>
<td>33.9</td>
</tr>
</tbody>
</table>

Source: Department of Statistics, Ministry of Planning
**Table 14**

**NURSE-MIDWIFE MANPOWER**

Afghanistan 1969-1970

**NURSING STAFF**

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male Nurses</td>
<td>311</td>
</tr>
<tr>
<td>Female Nurses</td>
<td>113</td>
</tr>
<tr>
<td>Nurse Midwives</td>
<td>72</td>
</tr>
<tr>
<td>Midwives</td>
<td>62</td>
</tr>
<tr>
<td>Auxiliary Nurse, Male</td>
<td>61</td>
</tr>
<tr>
<td>Auxiliary Nurse, Female</td>
<td>20</td>
</tr>
<tr>
<td>Auxiliary Nurse Midwives</td>
<td>40</td>
</tr>
<tr>
<td>Auxiliary Midwives</td>
<td>15</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>694</strong></td>
</tr>
</tbody>
</table>

**STUDENT ENROLLMENT**

**Professional Nurses**

<table>
<thead>
<tr>
<th>School Name</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aliabad School, Male Nurses</td>
<td>105</td>
</tr>
<tr>
<td>Mastoorat School, Female Nurses</td>
<td>58</td>
</tr>
<tr>
<td>Zaishgah School, Nurse/Midwivery</td>
<td>108</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>271</strong></td>
</tr>
</tbody>
</table>

**Auxiliary Nurses**

<table>
<thead>
<tr>
<th>Province/Site</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Badakhshan Province</td>
<td>10</td>
<td>-</td>
</tr>
<tr>
<td>Baghlan</td>
<td>-</td>
<td>6</td>
</tr>
<tr>
<td>Bost</td>
<td>28</td>
<td>5</td>
</tr>
<tr>
<td>Jalalabad (Ministry of Education)</td>
<td>31</td>
<td>5</td>
</tr>
<tr>
<td>Mazar-i-Sharif</td>
<td>7</td>
<td>-</td>
</tr>
<tr>
<td>Parwan</td>
<td>-</td>
<td>7</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>76</strong></td>
<td><strong>23</strong></td>
</tr>
</tbody>
</table>


* EM/GR.MTG.NURS./4.1; Annex I; page i.
Barbers

Each village has one or more barbers who traditionally have provided a number of services. In addition to cutting hair and shaving, the barber also performs circumcision, pulls teeth and draws blood to release "bad blood" which is considered to be the cause of many illnesses.

There are indications that the barber's role as bleeder is one that is diminishing as new concepts of illness diffuse through rural Afghanistan and as sanctions against their practice are enforced. Blood letting is frequently described by villagers as something that "was done in the past, but not anymore". This is supported by the fact that only 9.8% of the households interviewed reported having made use of the barber's service in the past year.

Bonesetters or Shekesta bande

The shekesta bande sets broken bones. He also treats sprains, dislocations, and assorted body pains. This practitioner is not found at every bazaar, as bonesetting is one of the more specialized trades. The value of their profession is attested to by the large numbers of villagers who report using their services in preference to hospitals. 239 out of 432 respondents reported that the best treatment for broken bones was to be found at the bonesetter. Bonesetting is a profession which is apparently not so much chosen as thrust upon a person out of the necessity for someone in a community to be able to meet the need to set bones. Bonesetters do not report training apprentices to carry out their work, although it is suspected that someone will take over their role when they die.

Consistent with their working out of demand rather than for economic gain, bonesetters often claim not to charge for their services, accepting money only as offered; as such they are not usually part of the bazaar economy and are not ordinarily full-time workers. However, due to their degree of specialization they serve a broad population and are usually located in the vicinity of a central marketplace.

Dais

In most if not all villages there are women specialized in the delivery of babies who will come to a woman's house to assist her at the time of delivery. They are usually older women, often infirm, who bring to their task years of experience and the general respect of the community. The frequency with which traditional midwives, (dais), are used, the services they perform and the competence with which they carry them out apparently varies greatly, both with regional and individual variation being present. Although most deliveries continue to take place in the household, only 30.8% of female respondents in the survey reported using a midwife to assist in her delivery. Dais may or may not receive rewards (money or goods) for their services depending upon regional custom and the ability of the woman's family to pay. Often the dai will visit a woman before birth to examine her and for some time after the birth of the child she may continue to visit the household to observe the condition of the mother and child and to lend emotional support as needed.

Dokhandars

There are dokhans or small shops in even the most remote villages. They usually sell a variety of small essential items, including medicines. Many of the medicines they sell are nonprescription items such as aspirin, vitamin C,
cibasol and Vick's Vaporub. There are indications that many also sell common antibiotics and other prescription drugs which they have obtained either from pharmacies or illegal distributors, although none of the dokhandars visited during this survey did. Almost one third of all respondents reported having purchased medicines from the dokhan during the past year spending 152 Afs or US$ 3.38 annually.

Hakims

Hakims or traditional medical practitioners are ordinarily not found in the villages, but rather in the bazaars and towns, with the more successful ones (and supposedly the more effective ones) being located in the cities. These practitioners, often Hindus, use procedures and medicines which descend both from the Unani medical traditions of India and from the Arabic traditions of the West. The influence of the hakim, while still significant, may be waning since they tend to be located in areas where Western trained doctors are also present, setting up a natural competition which is probably destined to be won by the private physicians and hospitals. For instance, only 3.5% of respondents claimed that anyone in their household had visited a hakim within the past year.

Injectors

It is common to find individuals in the village who are retired hospital workers or who have had some experience in delivering care in the military who provide advice and simple care to their fellow villagers. One of their common roles is to provide injections to patients who have visited a doctor and have received prescriptions in their injectable form.

One variant of this type of practitioner is the individual who purchases drugs in large quantities from pharmacies or outside sources and sells his services to the community. Seventy percent of respondents in the survey reported knowing someone who could give them an injection if needed.

Mullahs

In each village there will also be found one or more religious leaders or mullahs, who, in addition to leading the community in prayer and interpreting the Holy Koran in the context of everyday village life, play an important role in the curing and prevention of illness. One of the main procedures employed by the mullah is the giving of amulets (tawiz), which usually consist of appropriate verses from the Koran inscribed and sewn into a cloth pocket which is then pinned to the patient's clothes or worn on a string around the neck. The tawiz can be both curative, as is usually the case with adults, or preventative as is common with children. It is said that the mullah's greatest effectiveness is in treating emotional problems, nervousness, anxiety, mental illness and illnesses caused by "jinns" or spirits. Thus he can be seen as being especially important in the maintenance of the psychological well-being of the individual and of the community. He may also perform a role in diagnosing illness and making appropriate referrals to health facilities outside the village.

One indication of the importance of the mullahs' role in village health can be seen in his reported use from survey findings. Fifty-five percent of respondents reported having visited a mullah for health reasons in the year preceding the interview. For those who reported using his services, the average
number of times any member of the household had made use of this service was 4.5. Almost 9% of the total annual health expenditure, as reported in the survey, is used for this service.

Sayyids

 Certain holy persons, or sayyids, who claim to be descendents of the Prophet, are also considered as helpful in the treatment of illness. However, as none were interviewed or reported as being used by any informants in the survey, their relative importance remains undetermined.

Specialized Hakims

 There are a number of specialized hakims in the cities, some of whom are renowned, drawing patients from throughout the country. Specialization exists within this group as well as among modern practitioners. There are no facilities for in-patient care by hakims practicing in towns, however.

Health Manpower Training Programs and Facilities

 The deficiency noted in the quality and quantity of Afghan health manpower reflect, to a large extent, the equally serious shortcomings in medical education capacities in Afghanistan. These educational deficiencies pertain to the whole spectrum of health manpower from physicians through technicians and also includes shortages of managerial personnel for the MOPH. The latest information reveals the following medical and health care training programs currently operative in Afghanistan.

Medical Education (physicians)

 During the early stages of nationhood, most medical care was provided by foreign trained physicians. In 1932, to make up the deficit in trained medical personnel, the Ministry of Education founded the Medical School (Maktab-i-tibi) of Kabul which offered an abbreviated three-year course. With the establishment of the more traditional Medical Faculty of the University of Kabul, the Medical School was discontinued after about 7 years of operation.

 In 1932 the first medical faculty department of what was to become the University of Kabul in 1933, was founded. Originally Turkish lecturers provided instruction. After the second World War, French lecturers predominated, and the basic features of the French lecture system of medical education was begun. Lectures were conducted in French with a sentence-by-sentence translation from interpreters. By 1950, there were already 17 departments of specialties at the University and Afghan citizens were beginning to do much of the instruction.

 The number of students, and particularly women students, attending medical school has increased steadily but slowly since its founding. In 1963 there were 644 medical students, of which 104 were females; while in 1966 there were 655 with 111 women. In 1970-71 there were 674 medical students at Kabul University.

 In 1963 a second Medical Faculty was founded at Jalalabad. The University system at Jalalabad has been slow to develop and currently there is only a Faculty of Agriculture, besides Medicine.
<table>
<thead>
<tr>
<th>AVICINNA HOSPITAL</th>
<th>ZAISHGA HOSPITAL</th>
<th>NURSING DEPARTMENT</th>
<th>PUBLIC HEALTH INSTITUTE</th>
<th>FOREIGN RELATIONS DEPARTMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>X-RAY INSTITUTE</td>
<td>SCHOOL OF NURSE-MIDWIVES</td>
<td>AUXILIARY NURSE-MIDWIFE SCHOOL</td>
<td>DIRECTORATE OF TRAINING</td>
<td>OVERSEAS FELLOWSHIPS</td>
</tr>
</tbody>
</table>

**Ministry of Education**
- School of Male Nurses (Alliabad)
- School of Female Nurses (Mastoorat)

**Kabul University**
- Medical School
- Medical School - Pharmacists

**Mangarhar University**
- Medical School

---
* Rural and Family Health Services, op. cit., Fig. 3.4.1
Nursing and Midwifery Schools

Nursing education is entirely in the hands of the GOA. There are two professional nursing schools in Afghanistan. There are six schools for Auxiliary Nursing, one operated by the Ministry of Education and five under the Ministry of Public Health. The auxiliary nurse schools are located predominantly in the provinces. There is one ANM school only, located in Kabul.

Dental Training

In 1968 the GOA/MOPH constructed the first and only dental school in Afghanistan. No data on the current number of students or graduates are available.

Other Training Facilities

In addition to the nursing and midwifery schools noted above (see also Tables 14 and 15), there are other schools to train technical personnel as follows:

1. Avicinna X-Ray Institute for the training of X-Ray technicians;
2. Malaria Institute which trains Afghan malaria workers for the vertical malaria program;
3. The TB Institute which provides virtually all of the health workers for the vertical TB program.
4. Institute of Public Health provides post-graduate education in public health administration and technical aspects of public health;
5. Child Health Institute provides both undergraduate and graduate training in specialized fields of MCH care; and
6. Pathology Institute provides training in methods to combat communicable diseases in Afghanistan.

Prospects for Health Manpower in Afghanistan:
Problems and Considerations

As indicated in previous chapters, over the past several years foreign consultants have been engaged by the GOA to examine almost all aspects of health care in Afghanistan. Much of the data gathered and analyzed by these consultants were used in this study and revealed that the report prepared by the MOPH and Management Sciences for Health entitled "Financial Analysis of Health Programs" is especially apropos in connection with health manpower requirements and prospects in Afghanistan.6

There follows part of that report dealing with health manpower in a broad context, edited to conform to the nature of this study. Table 16 through 22 delineate more precisely the health manpower requirements and prospects for fulfilling these requirements as projected by the MOPH/MSH through 1982-83, the end of the current Seven Year Plan. In view of the diseases prevalent in Afghanistan, the generally poor health environment, the limited training facilities and the poor quality and quantity of general education, this study's projected requirements of health manpower appear to be too low while the study's optimism for supplying such manpower is too great.  

Manpower

"Analysis of manpower requirements during the planning period shows serious deficiencies in numbers of nurses and sanitarians. There is an initial shortage of ANMs but if classes are full, supply catches up with demand in 1981-85. There is a shortage of adequately trained doctors and of laboratory technicians whose training is up to the standard required in the better hospitals. Competent hospital administrators, if they exist, are in short supply. Clearly, shortages of health manpower can frustrate plans for extending the coverage and quality of health services. For this reason manpower planning and training must receive priority attention in the Ministry of Public Health." See the analysis of supply and demand of health manpower in Tables 16 through 22. These analyses must be considered merely a tentative first estimate because of deficiencies in the quality of source data. More accurate data should be gathered and new projections calculated.

"An Institute of Health Manpower Development has been suggested as a possible solution to health manpower deficiencies. Such an institute would seem a costly and sluggish response to an urgent group of problems, however. The immediate need is for an analysis of manpower requirements and supply. Then appropriate influence must be applied to other Ministries and institutions in the Ministry of Public Health, so that personnel of appropriate quality are trained in sufficient numbers to meet the Ministry of Public Health's needs."

"Strategies must be developed to meet critical shortages of manpower in the short term. Nurses can be augmented in number by substitution; by creating a new category of 'nurse assistant' or 'practical nurse'. Assistant nurses can be selected from the large pool of twelfth grade graduates and given an intensive short course in the most fundamental aspects of health sciences. This can be compressed into a twelve to eighteen month course, including in-service training. This category could later be phased out by offering assistant nurses additional training which would fully qualify them as nurses."

Quality of Care

"The quality of care is more dependent upon quality of personnel than on any other variable. Nowhere is this more important than the quality of care provided by doctors. In number alone there is no present or projected shortage of doctors. But in terms of the needs of both Basic Health Services and hospitals, there are critical shortages of suitably qualified doctors."

"In Basic Health Services there must be gradual extension and upgrading of..."
training of doctors in the orientation program which prepares them for service in Basic Health Centers. This process has started. It must be refined and extended. The Seven Year Plan desires to bring Afghan hospitals up to an acceptable minimum standard of care. An essential element is an expanded program of post-graduate training. This is best provided in a few select Kabul hospitals which must be given additional qualified clinical teachers and other resources. The Jamhouriat and CHI experience provides a successful working model. The effort needs to be expanded in these and other Kabul hospitals to include other clinical specialties, together with paramedical services such as physiotherapy, laboratory technology and dispensing."

"At the same time there must be similar in-service training in hospital management. The hospital system cannot be improved without a cadre of competent hospital managers."

"The clinical teachers and senior administrators of these hospitals should collectively form the faculty responsible for organizing and providing this in-service training. At the same time there must be a concerted effort to improve the standards of equipment, maintenance, and cleanliness as well as the logistics of supply to all Afghan hospitals. They must be improved if training staff, as they become available, are to provide quality of care." Incentive Payment for Service

"The system and scale of payment of hospital specialists and other senior professionals and administrators must be improved substantially if there is to be any real hope of improving the quality of care and the efficiency of hospitals. At present doctors are forced to supplement their meagre salaries by working in their private office. Here they dole out prescriptions at 20 Afs. a visit. While they are diverted to this activity, which is of questionable value, the hospital becomes a convalescent facility rather than an active treatment unit."

"The position of certain specialists, such as anaesthetists and radiologists, is even worse as they have no effective way of supplementing their income. Their plight is so bad that one can safely predict such specialists will almost certainly emigrate once they have achieved an internationally acceptable standard of competence. Recent experience with anaesthetists confirms this thesis."

"A fee-for-service system, based on receipts from patients who can afford to pay, would be ideal for the doctors but would unfairly exclude other key professionals. In addition it would be contrary to the personnel payment policies of the Ministry of Finance."

"Yet a solution must be found. Otherwise there is absolutely no hope of significant or sustained improvement in the quality and efficiency of Afghan hospitals."

"A system of fees for hospital services now exists but is poorly administered and it is now too easy, for many who can afford to pay, to avoid paying. This system should be extended to include realistic fees for hospital and professional services to inpatients and to polyclinic patients. These payments must be passed on to the Ministry of Finance. But the Ministry of Finance should return a portion of this sum, say 50%, to the hospital. Ten
percent should be designated for special projects or equipment required by the hospital but for which no provision was made in the budget. Forty percent should be divided up among the doctors, head nurses, chief administrative staff and department heads. The portion each receives could be decided by negotiation among the recipients."

"These are the key people whose dedication and effort alone can raise the standard of care and the efficiency of the hospital. The occupancy rate will increase under this system, and the average length of stay will fall. The total receipts for hospital and professional services which will be received and retained by the Ministry of Finance will be several times larger than present receipts from hospitals."

"At the same time the hospital polyclinic facilities must be substantially improved so that all patients can be interviewed and examined in privacy, warmth and cleanliness. The medical staff should be allowed to use these facilities at designated times during the week when they can see their private, fee-paying patients, from whom each physician collects (and retains) his fee directly. In this way they will remain on the hospital premises where they can quickly be reached in the event of emergency. Their professional time will be used with maximal efficiency."
### Table 16*

**HEALTH MANPOWER PROJECTIONS - DOCTORS**

<table>
<thead>
<tr>
<th>Year</th>
<th>BHS**</th>
<th>Hospital</th>
<th>Others</th>
<th>Total</th>
<th>Projected Supply</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1976/77</td>
<td>115</td>
<td>433</td>
<td>83</td>
<td>631</td>
<td>584</td>
<td>- 47*</td>
</tr>
<tr>
<td>1977/78</td>
<td>150</td>
<td>501</td>
<td>83</td>
<td>734</td>
<td>685</td>
<td>- 49*</td>
</tr>
<tr>
<td>1978/79</td>
<td>165</td>
<td>573</td>
<td>95</td>
<td>833</td>
<td>836</td>
<td>3</td>
</tr>
<tr>
<td>1979/80</td>
<td>183</td>
<td>631</td>
<td>104</td>
<td>918</td>
<td>944</td>
<td>26</td>
</tr>
<tr>
<td>1980/81</td>
<td>192</td>
<td>644</td>
<td>106</td>
<td>942</td>
<td>1102</td>
<td>160</td>
</tr>
<tr>
<td>1981/82</td>
<td>201</td>
<td>685</td>
<td>107</td>
<td>993</td>
<td>1267</td>
<td>274</td>
</tr>
<tr>
<td>1982/83</td>
<td>211</td>
<td>689</td>
<td>109</td>
<td>1009</td>
<td>1433</td>
<td>424</td>
</tr>
</tbody>
</table>

* Financial Analysis of Health Programs, op. cit., Table M-1.

** BHS - Basic Health Service.

### Table 17*

**HEALTH MANPOWER PROJECTIONS - NURSES**

<table>
<thead>
<tr>
<th>Year</th>
<th>BHS**</th>
<th>Hospital</th>
<th>Others</th>
<th>Total</th>
<th>Projected Supply</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1976/77</td>
<td>106</td>
<td>782</td>
<td>37</td>
<td>925</td>
<td>790</td>
<td>- 135*</td>
</tr>
<tr>
<td>1977/78</td>
<td>141</td>
<td>780</td>
<td>42</td>
<td>963</td>
<td>820</td>
<td>- 143*</td>
</tr>
<tr>
<td>1978/79</td>
<td>156</td>
<td>891</td>
<td>44</td>
<td>1091</td>
<td>849</td>
<td>- 242*</td>
</tr>
<tr>
<td>1979/80</td>
<td>174</td>
<td>1002</td>
<td>50</td>
<td>1226</td>
<td>909</td>
<td>- 317*</td>
</tr>
<tr>
<td>1980/81</td>
<td>183</td>
<td>1006</td>
<td>50</td>
<td>1239</td>
<td>991</td>
<td>- 248*</td>
</tr>
<tr>
<td>1981/82</td>
<td>192</td>
<td>1077</td>
<td>50</td>
<td>1319</td>
<td>1046</td>
<td>- 273*</td>
</tr>
<tr>
<td>1982/83</td>
<td>202</td>
<td>1081</td>
<td>50</td>
<td>1333</td>
<td>1064</td>
<td>- 269*</td>
</tr>
</tbody>
</table>

* Ibid, Table M-2.

** BHS - Basic Health Services.
### Table 18*

**HEALTH MANPOWER PROJECTIONS - AUXILIARY NURSE MIDWIFE**

Projected Requirements

<table>
<thead>
<tr>
<th>Year</th>
<th>Supply</th>
<th>Others</th>
<th>Total</th>
<th>Projected Supply</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1976/77</td>
<td>110</td>
<td>60</td>
<td>0</td>
<td>170</td>
<td>99</td>
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<tr>
<td>1977/78</td>
<td>279</td>
<td>73</td>
<td>0</td>
<td>352</td>
<td>163</td>
</tr>
<tr>
<td>1978/79</td>
<td>302</td>
<td>83</td>
<td>0</td>
<td>385</td>
<td>255</td>
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<tr>
<td>1979/80</td>
<td>338</td>
<td>93</td>
<td>0</td>
<td>431</td>
<td>342</td>
</tr>
<tr>
<td>1980/81</td>
<td>356</td>
<td>93</td>
<td>0</td>
<td>449</td>
<td>425</td>
</tr>
<tr>
<td>1981/82</td>
<td>374</td>
<td>99</td>
<td>0</td>
<td>473</td>
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<tr>
<td>1982/83</td>
<td>394</td>
<td>100</td>
<td>0</td>
<td>494</td>
<td>579</td>
</tr>
</tbody>
</table>

* Ibid, Table M-3.

**BHS** - Basic Health Services.

### Table 19*

**HEALTH MANPOWER PROJECTIONS - LAB TECHS AND/OR ASSISTANT LAB TECHS**

Projected Requirements

<table>
<thead>
<tr>
<th>Year</th>
<th>BHS**</th>
<th>Hospital</th>
<th>Others</th>
<th>Total</th>
<th>Projected Supply</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1976/77</td>
<td>76</td>
<td>111</td>
<td>43</td>
<td>230</td>
<td>147</td>
<td>- 83*</td>
</tr>
<tr>
<td>1977/78</td>
<td>106</td>
<td>68</td>
<td>66</td>
<td>240</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1978/79</td>
<td>139</td>
<td>78</td>
<td>79</td>
<td>296</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1979/80</td>
<td>173</td>
<td>88</td>
<td>78</td>
<td>340</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1980/81</td>
<td>178</td>
<td>89</td>
<td>81</td>
<td>348</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1981/82</td>
<td>187</td>
<td>96</td>
<td>82</td>
<td>365</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1982/83</td>
<td>197</td>
<td>96</td>
<td>87</td>
<td>380</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

* Ibid, Table M-4.

**BHS** - Basic Health Services.
### Table 20*

**HEALTH MANPOWER PROJECTIONS - SANITARIANS**

<table>
<thead>
<tr>
<th>Year</th>
<th>BHS**</th>
<th>Hospital</th>
<th>Other</th>
<th>Total</th>
<th>Projected Supply</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1976/77</td>
<td>115</td>
<td>62</td>
<td>63</td>
<td>240</td>
<td>289</td>
<td>49</td>
</tr>
<tr>
<td>1977/78</td>
<td>149</td>
<td>163</td>
<td>64</td>
<td>376</td>
<td>282</td>
<td>-94*</td>
</tr>
<tr>
<td>1978/79</td>
<td>166</td>
<td>188</td>
<td>92</td>
<td>446</td>
<td>288</td>
<td>-158*</td>
</tr>
<tr>
<td>1979/80</td>
<td>185</td>
<td>212</td>
<td>103</td>
<td>500</td>
<td>294</td>
<td>-206*</td>
</tr>
<tr>
<td>1980/81</td>
<td>195</td>
<td>213</td>
<td>120</td>
<td>528</td>
<td>299</td>
<td>-229*</td>
</tr>
<tr>
<td>1981/82</td>
<td>204</td>
<td>229</td>
<td>117</td>
<td>550</td>
<td>304</td>
<td>-246*</td>
</tr>
<tr>
<td>1982/83</td>
<td>224</td>
<td>229</td>
<td>122</td>
<td>575</td>
<td>309</td>
<td>-266*</td>
</tr>
</tbody>
</table>

* Ibid, Table M-5.

** BHS - Basic Health Services.

### Table 21*

**PHARMACISTS, ASSISTANT PHARMACISTS, COMPOUNDERS, AND ASSISTANT COMPOUNDERS**

<table>
<thead>
<tr>
<th>Year</th>
<th>BHS**</th>
<th>Hospital</th>
<th>Others</th>
<th>Total</th>
<th>Projected Supply</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1976/77</td>
<td>0</td>
<td>87</td>
<td>37</td>
<td>124</td>
<td>150</td>
<td>26</td>
</tr>
<tr>
<td>1977/78</td>
<td>1</td>
<td>105</td>
<td>40</td>
<td>146</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1978/79</td>
<td>1</td>
<td>121</td>
<td>42</td>
<td>164</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1979/80</td>
<td>1</td>
<td>135</td>
<td>44</td>
<td>180</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980/81</td>
<td>1</td>
<td>136</td>
<td>46</td>
<td>183</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1981/82</td>
<td>1</td>
<td>145</td>
<td>46</td>
<td>192</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1982/83</td>
<td>1</td>
<td>145</td>
<td>46</td>
<td>192</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Ibid, Table M-6.

** BHS - Basic Health Services.
### Table 22*

**HEALTH MANPOWER PROJECTIONS - VACCINATORS**

Projected Requirements

<table>
<thead>
<tr>
<th>Year</th>
<th>BHS**</th>
<th>Hospital</th>
<th>Others</th>
<th>Total</th>
<th>Projected Supply</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1976/77</td>
<td>285</td>
<td>205</td>
<td>77</td>
<td>567</td>
<td>628</td>
<td>61</td>
</tr>
<tr>
<td>1977/78</td>
<td>419</td>
<td>407</td>
<td>70</td>
<td>896</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1978/79</td>
<td>454</td>
<td>469</td>
<td>193</td>
<td>1116</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1979/80</td>
<td>508</td>
<td>530</td>
<td>199</td>
<td>1237</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980/81</td>
<td>535</td>
<td>533</td>
<td>199</td>
<td>1267</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1981/82</td>
<td>562</td>
<td>572</td>
<td>199</td>
<td>1333</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1982/83</td>
<td>592</td>
<td>572</td>
<td>199</td>
<td>1363</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Ibid., Table M-7.

** BHS - Basic Health Services.
CHAPTER FIVE
POPULATION AND FAMILY PLANNING

Background: Statistics and Other Population Data

Basic Demographic Profile

The vital statistics for Afghanistan reveal a population of approximately 14.5 million in 1976 with an annual population growth rate of approximately 2.4% - 2.5%. In 1974 the population density was about 70 per square mile. Approximately 2.4 million are regarded by the GOA as nomadic while about 2.0 million live in urban settings. The population of the leading cities include 500,000 for Kabul, the capital; 200,000 for Kandahar; 100,000 for Herat and 60,000 for Mazar-i-Sharif. Thus, about 85% of Afghanistan's population is rural while 15% is urban situated, largely in the metropolitan areas noted above. 1

Other data note that approximately 47.6% of the population is under 15 years of age. There is a predominance of men in the age groups above 50. The population in 1976 was 53.6% male. The overall sex ratio being 116/100 (male/female). This is one of the highest male dominated sex ratios for LDCs and is explicable in part by the high maternal mortality rate of 640/100,000 compared, for example, to 0.3/100,000 for Sweden. Past the age of 50 there are approximately 1.5 males for every female.

In 1977 the USAID estimated that the crude birth rate was approximately 50/1000 with the crude death rate about 25/1000. The infant mortality rate was estimated to be about 180/1000. Women who are near completed fertility (age 35-44) have had an average of 7.1 live births about 30% of whom have died.

There were no data available for this study on the age of women at marriage but it is believed to be somewhat lower than that of women in neighboring Pakistan, which was 19. In any event, the social status of females is highly inferior to men and subject to Muslim tradition. As one might expect, Afghan women are poorly educated with only about 3.0% literate and less than 6.0% of Afghanistan girls attending school.

Despite the relative isolation of Afghanistan both from external influence and internally due to geographic factors, there is some limited mobility among the rural population. There is both rural-rural and rural-urban mobility.

1 See Background Notes: Afghanistan, Washington, D.C.: Department of State, 1974, p.1; Report to the UN Fund for Population Activities, op. cit., p. 2 and "Population Review 1970: Afghanistan" by Louis Dupree, Fieldstaff Reports, South Asia Series, XV, No. 1, pp. 1-3; See also Health Sector Assessment, op. cit., pp. 6-9 and 14; various GOA ministries use total population estimates from 14.5 to 17 million and the annual population growth rate from 2.3% to 2.5%. The USAID believes the 14.5 million and 2.5% estimates are the most nearly accurate.
AFGHANISTAN: POPULATION DISTRIBUTION

= 10,000 people

Figure 3

Population Pyramid

Table 23
DISTRIBUTION OF THE POPULATION AMONG URBAN AND RURAL CENTERS

<table>
<thead>
<tr>
<th>Year</th>
<th>TOTAL</th>
<th>URBAN</th>
<th>RURAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1968</td>
<td>16,328,591</td>
<td>2,449,289</td>
<td>13,879,302</td>
</tr>
<tr>
<td>1969</td>
<td>16,703,149</td>
<td>2,505,472</td>
<td>14,197,677</td>
</tr>
<tr>
<td>1970</td>
<td>17,087,278</td>
<td>2,563,092</td>
<td>14,524,186</td>
</tr>
<tr>
<td>1971</td>
<td>17,480,280</td>
<td>2,622,042</td>
<td>14,858,238</td>
</tr>
</tbody>
</table>

* Source: Demographic Yearbook, 1972, U.N.
Table 24*

Estimated Population of Afghanistan in thousands by Age Group (excluding Kuchies)

<table>
<thead>
<tr>
<th>Age Group</th>
<th>1966-67</th>
<th></th>
<th>1971-72</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Total Population</td>
<td>13,041</td>
<td>100.00</td>
<td>14,608</td>
<td>100.00</td>
</tr>
<tr>
<td>Under 5 Years</td>
<td>2,307</td>
<td>17.69</td>
<td>2,401</td>
<td>16.44</td>
</tr>
<tr>
<td>5 - 9</td>
<td>2,135</td>
<td>16.37</td>
<td>2,169</td>
<td>14.85</td>
</tr>
<tr>
<td>10 - 14</td>
<td>1,569</td>
<td>12.03</td>
<td>1,994</td>
<td>13.65</td>
</tr>
<tr>
<td>15 - 19</td>
<td>1,107</td>
<td>8.49</td>
<td>1,490</td>
<td>10.20</td>
</tr>
<tr>
<td>20 - 24</td>
<td>875</td>
<td>6.71</td>
<td>1,056</td>
<td>7.23</td>
</tr>
<tr>
<td>25 - 29</td>
<td>858</td>
<td>6.58</td>
<td>846</td>
<td>5.79</td>
</tr>
<tr>
<td>30 - 34</td>
<td>854</td>
<td>6.55</td>
<td>848</td>
<td>5.80</td>
</tr>
<tr>
<td>35 - 39</td>
<td>750</td>
<td>5.75</td>
<td>834</td>
<td>5.70</td>
</tr>
<tr>
<td>40 - 44</td>
<td>687</td>
<td>5.27</td>
<td>730</td>
<td>5.00</td>
</tr>
<tr>
<td>45 - 49</td>
<td>438</td>
<td>3.36</td>
<td>665</td>
<td>4.55</td>
</tr>
<tr>
<td>50 - 54</td>
<td>385</td>
<td>2.95</td>
<td>403</td>
<td>2.75</td>
</tr>
<tr>
<td>55 - 59</td>
<td>348</td>
<td>2.67</td>
<td>346</td>
<td>2.37</td>
</tr>
<tr>
<td>60 - 64</td>
<td>223</td>
<td>1.71</td>
<td>309</td>
<td>2.12</td>
</tr>
<tr>
<td>Over 65</td>
<td>505</td>
<td>3.87</td>
<td>517</td>
<td>3.55</td>
</tr>
</tbody>
</table>

NOTE: The age group figures are based on the pattern available in neighboring and other developing countries.

Table 25*  
ETHNIC DIVISION (1963)

<table>
<thead>
<tr>
<th>Pathans or Pashtuns</th>
<th>Tadzhiks</th>
<th>Uzbeks</th>
<th>Hazarahs</th>
<th>Nomads</th>
</tr>
</thead>
<tbody>
<tr>
<td>8,800,000</td>
<td>4,300,000</td>
<td>800,000</td>
<td>440,000</td>
<td>650,000</td>
</tr>
</tbody>
</table>

associated with agricultural work and newly developing commercial and manufacturing activities in Afghanistan's cities. This may become increasingly important in the future for health service objectives.

Ethnic and Religious Background

Historic and geopolitical factors concerning Afghanistan have been examined in the appendices of this study. The Afghans are ethnically and linguistically mixed reflecting Afghanistan's geographic location on trade and invasion routes from Central Asia, the Near and Middle East and the Indian Subcontinent. Over thousands of years of significant but infrequent migrations and military campaigns, the Afghan population has come to present a mosaic of ethnic and linguistic groups.

Three principal ethnic types live in Afghanistan. The basic type derives from the Mediterranean substock of the Caucasoid peoples stretching from Gibraltar on both sides of the Mediterranean through the Middle East to Pakistan. The second type is a modified Mongaloid residing north of the Hindu Kush but often with blue eyes and light hair. The third type is described by Dupree as "veddoid," the Persian speakers of western Afghanistan. Thus, the nationalities or tribal groups of Afghanistan include Pushtun (Pathan), Tajik, Uzbek, Turkopian and Hazara with the Pushtun comprising about half of the total population.

Languages in Afghanistan also present a similar mosaic. There are five language families with several dialects. These include: Uralic-Altaic; Mongolian; Dravidan; Semitic and Indo-European. In more practical terms, however, 2 languages dominate in Afghanistan: Pashto and Dari. Dari (Persian) is the lingua franca of Afghanistan while 50% of the people have Pashto as their mother tongue. Both Dari and Pashto are official languages of Afghanistan. There are also more than 20 languages and dialects deriving from the 5 basic language groups.

As to religious preference, virtually the whole population are Muslim (99%). About 80% of the Afghans are Sunni Muslims (including Hanafi Sunni) while the remainder are Shitees or Ismailites. There are also a few thousand Hindus, Sikhs and a few Jews living in the urban centers. The Muslim religion is the official religion of Afghanistan and it pervades all aspects of Afghan life. Religious doctrine and codes provide the principal means of controlling conduct and settling disputes. It even influences health care, as we noted in earlier chapters, through religious shrines, which are petitioned by the rural population for the cure of specific diseases and for general health and well being, i.e., to ward off the Jinns.

2 Dupree, op. cit., p. 7.
3 Background Notes: Afghanistan, op. cit., p. 3.
4 Dupree, op. cit., p. 1.
5 Ibid., p. 1.
6 Background Notes: Afghanistan, op. cit., p. 3.
Factors in the Modus Operandi of Afghan Society, Literacy and Economic Determinants

Dupree describes the society of Afghanistan as essentially a peasant-tribal society. Whereas this society is slowly changing during the decade of the 1970s, the attributes which Dupree attaches to this society are well worth noting. These include:

1. **Nonliteracy** - General literacy is between 8% and 10% with female literacy at 3.0%. This factor limits communication and the population's awareness of itself;

2. **Ecological Time - Energy Relationships** - About 85% of the population spends the greatest part of its time in basic food production;

3. **Mobility** - This peasant-tribal society is characterized by limited social, economic, political and geographic mobility;

4. **Kinship in lieu of Government** - Various kin units substitute for the normal institutional interactions which occur between government and governed in the Western sense.

These factors help to insure the perpetuation of a peasant-tribal society in Afghanistan. It is an inward looking society as opposed to the pluralistic, extroverted, Western industrial society. In Afghanistan, then, the society is governed largely by Islam and Islamic leaders.

One of the most important elements which might alter this conservative society is educational development. But, despite the emergence of two universities and several trade schools the outlook for educational development is guarded. In 1970, only about 20% of the eligible population was in elementary school and 3.0% was in secondary school.

Still another factor is the vicissitudes of economic development (see Appendix II). Although the Afghan economy has been subject to several economic development plans since 1956, focussing upon infrastructure in transportation, agriculture and irrigation and on constructing light industry, the economy has remained predominantly agrarian. Western economists believe the Afghan economic performance has been spotty and real growth very slow. GNP increases have been estimated to be about 2.3% annually but this has been offset by the population increase leaving per capita GNP at approximately the same level over the past several years. At the same time, the Afghan balance of payments has deteriorated and Afghanistan has remained dependent upon foreign aid for capital investment. This kind of economic performance can contribute to a more sophisticated commercial-industrial society and a smaller agrarian society only slowly and ineffectively.

**Population Growth Data**

It has been estimated that Afghanistan's population was about 14.5 million

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7 Dupree, op. cit., pp. 23.
in 1977. Between 1970 and 1975 the population growth rate was estimated to have been about 2.5%, a slightly greater increase than the GNP. In the period between 1965 and 1970 it was estimated to have been 2.4%. In 1960 with the population at approximately 13,800,000 it was estimated at 1.8%.

As indicated, the crude birth rate, in 1977 was high at about 50/1000. Only Algeria, Bangladesh and Pakistan had slightly higher birth rates in 1972-73. By the same token, in 1973 Afghanistan had an estimated crude death rate of about 31/1000 which was substantially higher than Algeria, Bangladesh and Pakistan whose crude death rate was between 15-20/1000. The Afghanistan crude death rate, of course, was attributable to the high infant death rate.

**Fertility Trends**

The following are the only projections available for this study at the present writing. A survey conducted by the Afghan Demographic Survey (ADS) with the assistance of the State University of New York (SUNY) provided the following information.

Using an assumed population growth of 2.2% annually the total "sedentary" population would double in 31 years. Thus, they assumed that in 1973 (sic 1970), Afghanistan had a "sedentary" population of 10,750,000 which by 2000 would be 21,500,000. This may be somewhat unrealistic since in 1970 most other consultants believed the sedentary population was at least 12,000,000 and may have been 13,000,000 with a nomadic population of one to two million more.

In any event, the other projections are of interest. Assuming a constant fertility and constant mortality this survey projected the following:

<table>
<thead>
<tr>
<th>Year 2100</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>@ 3.0% growth</td>
<td>358 million</td>
</tr>
<tr>
<td>@ 2.5% growth</td>
<td>217 million</td>
</tr>
<tr>
<td>@ 2.0% growth</td>
<td>132 million</td>
</tr>
</tbody>
</table>

But at a constant fertility and a declining mortality, the projections were as follows:

---


9 See Demographic Charts and Tables. Kabul: Health/Family Planning Division, 1976.

10 See Ibid., Charts 4 and 5 and compilation of data.

11 See Situation Report: Afghanistan, op. cit., p. 1, which recorded the total population in 1960 as 13,800,000 and in 1970 as 17,125,000, the latter estimate obviously much too high. Other estimates from consultant sources placed the population at 16.7 million in 1976.
Other projections from the ADS/SUNY survey show that in the year 2,000, using a 2.2% growth rate and constant mortality, the dependent population, under 15, would be 45.5% of the total population. Using a declining mortality with constant fertility, the dependent population in 2000 would be 51% of the total population.

The Afghanistan Family Planning Program

Afghan Family Guidance Association

The Afghanistan Family Guidance Association, (AFGA) was formed in 1968 after the GOA endorsed the constitution of the AFGA. The inaugural meeting of the AFGA was attended by members of the Royal Family and GOA officials and the first clinic was opened in 1968. The leadership of the association have attempted to induce prominent volunteers along with MOPH personnel to join the AFGA and to campaign for family planning programs. The AFGA, therefore, became a semi-private organization which was to be the agency for the provision of family planning services in Afghanistan.

GOA Attitudes and Policy

For some time after 1968 it appears that the attitude of the GOA toward family planning was ambivalent despite the public association of the Royal Family and GOA officials. Many observers thought that the GOA intended to use the AFGA to test the winds so to speak, to determine how contraceptive services would be received in conservative Muslim society.

But the AFGA information programs, as well as the strong support of the USAID and other international agencies, helped promote a more positive GOA attitude toward family planning. Then too, there seemed little hostile reaction to the program in the limited areas where it was introduced. In 1971 the GOA decided to integrate family planning into their basic health services program in cooperation with the AFGA. In that same year the AFGA became an associate member of the International Planned Parenthood Federation (IPPF).

Finally, the current Seven Year Plan confirms the GOA interest in and continued promotion of family planning activities. Under the section entitled "Public Health Facilities Development Program" it notes that "the damage suffered by mothers from successive child births and the high mortality rate among mothers and children are the kind of problems which most developing

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nations, including Afghanistan, face." In pursuit of this policy, the plan calls for opening a mother and child polyclinic in Herat, 12 polyclinics in the Kabul metropolitan area, plus others noted in Chapter Three, during the Seven Year Plan. One of the objectives of these polyclinics will be to guide mothers in connection with family planning.14

**Current Clinical Services**

As noted above, the first family guidance clinic was opened in November 1968. Since then, the expansion of these clinics has been slow but steady. Four more clinics were opened in 1969 and 6 more by the end of 1970. At the beginning of 1972 there were 17 and by 1973 there were over 20 clinics in operation. At the end of 1976, these clinics numbered 37 and were operating in 24 of Afghanistan's 26 provinces.15 Most of these clinics are located in metropolitan areas, however.

According to the IPPF publication during the first full year of operation in 1969, about 6,300 visits were made to the AFGA clinics. There were 4,900 clients who chose to use the pill and 902 chose the intrauterine devices (IUD). The number of visits rose to 13,000 in 1970 and over 20,000 in 1971. By the close of 1976, it was reported that there were 30,000 new acceptors and users of the IUD and the pill as a result of the opening of new clinics.16

**Information and Education**

In addition to the direct services provided users of pills and contraceptive devices noted above, the AFGA has mounted an education campaign to encourage contraception usage among Afghan women. Through publications, films and home visits family planning programs are promoted. Literature is distributed especially at the growing number of clinics, and films are used to promote the advantages of family planning. Films are also shown at general public gatherings wherever possible.

**Training**

In accordance with the AFGA constitution, it is authorized to engage in training personnel in family planning activities. Thus, in 1971 it claimed to have trained 316 nurse/midwives in family planning activities. The AFGA also trains "family guides" who visit homes to promote family planning. In 1971, 35 such guides made 11,000 home visits. By the end of 1976 AFGA planned to have at least 140 family guides operating. It also planned to have 3 mobile training supervisory teams to visit the 37 operational clinics.

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13 Seven Year Development Plan, op. cit., p. 233.
14 Ibid., p. 233.
16 See Ibid., p. 28.
Financial Assistance

The IPPF has provided substantial assistance to the AFGA program as have the USAID and other agencies. In 1970, the IPPF granted the AFGA about $50,000, in 1971, $83,000 and in 1972, $125,000. The USAID has also provided substantial funding since 1970 to help the family planning programs. Through September 30, 1976, it appeared that this amounted to $541,000 obligated with $54,000 planned for FY 1977 and $743,000 proposed for FY 1978. In addition, in 1972 the UNFPA provided $15,000 for demographic scholarships and in 1976 the UNDP budgeted $6,000 for family planning activities.

Progress and the Future of the Family Planning Program

To date the family planning program has remained a minor aspect of the total GOA/MOPH health care activities. It is estimated that despite the opening of at least 37 clinics in most of the provinces of Afghanistan, only between 10 and 11% of women aged 15 to 44 are currently being served by these clinics which are located mainly in metropolitan areas. Such a limited number of eligible females hardly begins to affect the population growth rate or the health of the majority of Afghan women.

There are some positive aspects to the program, however. The GOA is committed to: 1) upgrading the existing AFGA clinical facilities; 2) expanding the educational and training facilities of the AFGA; 3) providing rent free clinics; 4) increasing the number of qualified personnel to run the clinics; and 5) continuing the policy of eliminating import duties on equipment and supplies.

The AFGA has been practical enough to promote the use of only the more effective contraceptives such as the oral contraceptive, condoms and IUDs. There is also a functioning client information system and the supplies at the clinics are reported to be adequate. There is also reported to be a growing interest in sterilization among Afghan women.

Nevertheless, due to several factors, not the least of which are socioeconomic elements, the program remains a minor part of health care in Afghanistan. The derivation of this situation is attributable to the following circumstances:

1. The sociocultural traditions of a Muslim society works strongly against the upward mobility of women, which mobility the family planning program suggests;

2. Although the GOA has lent its support to family planning activities and plan to introduce family planning into the family health services program (see Chapter Seven) in connection with the BHCs, the impression is gained that they are not firmly convinced of the necessity of a full family planning program and are not adverse to keeping it on a limited basis;

3. With only about 20% of Afghan land in use, with a very high infant/child mortality rate (180/1000 or more), with little danger of starvation or even severe food shortages and with many more substantive problems, the GO can compile viable arguments as to why it is not reconciled to substantial support of family planning; and
4. Since literacy and educational levels among women is low and most are provincial and dominated by men, it is extremely difficult to educate them as to the health advantages of good family planning.

There are undoubtedly more technical difficulties involved in this "voluntary" program other than the obvious impediments noted above. It would seem, however, that no dramatic breakthroughs in family planning can be envisaged in Afghanistan in the near future. Only a strategy of continued pressure by the AFPA on the GOA and the public together with an intensified educational program to educate both Afghan men and women can establish a basis for expanded GOA/MOPH supported mandatory programs in later years.
Nutritional Status

In the previous chapters it was indicated that up to the present time Afghanistan appeared to produce sufficient food for domestic consumption, plus some specialty foods for export with little evidence of mortality or nutritional deficiencies resulting from the quantity of food produced. This point of view was especially supported by Abrahams et al who observed that meat and milk were generally considered as staples in the diets of the residents of four villages in various geographic locations of Afghanistan. Consumption of an animal protein in sufficient quantities implies adequate nutrition.

Other studies take exception to such a blanket nutritional endorsement and claim, on the contrary, that malnutrition is one of the most serious health problems affecting children in Afghanistan. These authors cite WHO and Kabul hospital surveys to support their contention that, whether or not Afghan peasants produce sufficient food for domestic consumption, the Afghan children examined in Kabul showed evidence of serious malnutrition. Moreover, other sources also suggest that although Afghan peasants theoretically produce sufficient food for adequate domestic consumption, many peasant families must strictly ration their food consumption in order to survive, resulting in inadequate food for pregnant and lactating women as well as children.

In any event, each side of the nutritional controversy produces legitimate evidence to support its contentions. Abrahams et al note that among the residents of the subject villages consulted in their study, only a small percentage of the residents showed signs of nutritional deficiencies. In connection with four conditions considered the researchers found: 1) of Nasolobial Seborrhea at most only 2.9% of those under 10 years of age had this condition; of Angular lesions only 12.6% of those under 10 years of age, at most, evidenced this condition; of cheilosis, at most, only 3.3% were afflicted.

1 See Abrahams et al, op. cit., pp. 96-97; the authors admit, however, that there were major discrepancies in the quality of the diet between average families and a few of the less fortunate households in the community in each village.


3 Ibid., p. 70; surveys included a Kabul hospital survey of children admitted as patients; the WHO Infant and Early Childhood Mortality Survey and the CINAM village survey.

4 Abrahams et al, op. cit., p. 102, Table 4-8.
and; with Dystrophy-cachexia the highest rate was 4.9% of those under 10 years in one village.

Finally, then, these researchers suggest that what may appear to be malnutrition may in fact be the results of malaria, hookworm or other infections. Differences in growth patterns may also relate to ethnic background rather than nutritional deficiencies.

On the other hand, the MOPH study cited previously, found evidence in their Kabul survey that a large percentage of Afghan children suffered from malnourishment. Using arm circumference measurements, these researchers found that about 25% of all children examined between ages 1 and 3 were malnourished. After age 3 the percentage of malnourished children by these criteria dropped dramatically. These researchers speculate that this may be explained by the fact that, by the 3-4 year old bracket, the weaker, malnourished children have died. The USAID also believes that there is a serious nutritional problem among Afghan villagers resulting in calorie/protein deficiency in both pregnant women and the fetuses.6

**Diet Among the Afghans**

Given this debilitating effect upon the unborn, newborn and pregnant women, it is worthwhile to examine briefly, the dietary regimen pursued by mothers for their infants and young children.

Surveys undertaken which attempted to discern these feeding patterns revealed the following principal characteristics:

1. Breast feeding in Afghanistan, as in most LDCs, continued for an extended period of time: 24 months for boys and 29.6 months for girls.

2. This extended period might be interrupted by the next pregnancy, however, and therefore shortened.

3. Mothers only began to feed their babies solid foods at about 15 months in addition to the breast produced milk.

4. The principal foods given to the babies were rice, bread, tea, cows milk, fruit, cookies, eggs and soft meats.

5. These foods were introduced at varying times: bread, tea and fruit at about 15 months, eggs at 27 months and soft meats at about 34 months.

Again, the investigators could not determine whether or not there was an absolute shortage of food which would first affect the mother and youngest children. But they did suggest that changes in feeding patterns might be helpful. It was important, they believed, that the baby be introduced to solid foods at 6 months of age in such a way that the child could consume these foods. It was also necessary that the very young child not be forced to compete for


food from a common bowl with the older siblings. Finally, steps must be taken to prevent the young child from incurring diarrhea which is often fatal to the young child.

As to the Afghan diet for the remainder of the family (if, in fact, a sufficient quantity of food is available), then it would seem that there would be little opportunity for malnutrition. According to Abrahams et al, the staple diet for rural, adult Afghans consists of both fresh and dried meat, depending on the season, milk, bread, wheat, barley, beans, rice, and several kinds of vegetables and fruit. Nutritional problems, however limited, among women and older children as well as the young siblings may also result from distribution problems, (geographically, or within the family), despite apparently sufficient domestic food production.

**Nutritional Disease Patterns**

Despite a nutritional status which appears acceptable rather than poor, or whatever reasons, we believe there are nutritional problems among the Afghans.

The nutritional status of Afghan infants and very young children has already been reviewed. Even in the relatively positive Abrahams et al study, various small percentages of children under 10 exhibited Seborrhea, Angular lesions, Cheilosis and Dystrophy in the four villages visited. There were also discrepancies in age-specific mean body height and weight. Other researchers found at least 25% of children aged 1-3, brought to a Kabul hospital, to be malnourished. Other studies, including a WHO survey, supported the Kabul conclusions. Finally, malnourishment must be strongly suspected of contributing to the infant mortality rate of 180/1000.

Pregnant and lactating women also suffer nutritional deficiencies. It has been verified that pregnant and lactating women both in Kabul and in rural villages consume no additional food during their pregnancy and nursing (gravid and lactating) periods. If these women are already on a marginal nutritional status, which many of them are believed to be, the demands of pregnancy are too great. The results are very high maternal and infant mortality rates.

These Afghan women suffer other nutritionally related problems, however. In a 1965 study of pregnant women at the Kabul Zahishgah Hospital, it was reported that 59% of all cesarean section patients suffered from osteomalacia. It was also found that those women who had undergone more than one pregnancy suffered the most severe osteomalacia.

A 1970 study of nutritional conditions in the Hazarajat region revealed that the population suffered from A, B and C vitamin deficiencies. Gingivitis,

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7 Ibid., p. 10; USAID investigators found that in a typical Afghan Village there were no vegetable gardens and that the inhabitants had no knowledge of most vegetables.

Cheilosis and follicular hyperkeratosis were also found during this study. Anthropometric examinations (height, weight and skin fold thickness) also indicated general malnutrition in the Hazarajat.

Other diseases related to malnutrition are also strongly suspected in the Afghanistan population but have not been verified due to lack of research. Goiter, for example, is endemic to the mountain areas of South Asia and is prevalent in neighboring Pakistan. Riboflavin which is essential for cellular level metabolism is thought to be deficient among an indeterminate number of Afghans. Although it has not been reported, anemia is characteristic of malnourished, pregnant and lactating women and is believed to be prevalent among Afghan women.

**Government Programs to Improve the Nutritional Status of Afghanistan**

The GOA appears to be generally convinced that nutritional problems do exist among the Afghan population. In their Seven Year Plan under the heading dealing with problems and constraints on the development of public health, it is noted that the "shortage of nutritious food causes malnutrition and related diseases in mothers and children." Beyond this very general reference, however, the GOA appears to be vague about the nature of the problem, its scope or how best to achieve a satisfactory solution.

However imperfectly the GOA perceives the nutritional problem in Afghanistan, it appears to propose solving this problem through two programs: a) increased agricultural production which would be primarily an economic stimulus to the GNP and secondarily, a new source of nutrition for Afghan families; and b) the family health services programs based upon the expanded services to be provided at the BHCs.

The GOA agricultural and irrigation development program appears to be a highly ambitious aspect of the Seven Year Plan designed not only to increase agricultural production but also to create employment opportunities, modernize Afghan agriculture and also to serve as a source of long term social reform. According to the Seven Year Plan, however, the national resources will be directed where "the average product value per unit of land is highest" and "where the water supply is adequate and where industrial capacity already exists." Many, perhaps most, of the Afghan peasantry will not benefit from this USAID supported program. It is questionable, then, how much additional food will become available to 85% of the Afghan population either directly or through increased income as a result of this agricultural program.

The family health services program based upon more and better equipped and staffed BHCs may be more effective in providing better nutrition to a larger number of rural and urban Afghans. Already, the existing BHCs have special food distribution days and, according to independent observers, attract a significant

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9 See Seven Year Development Plan, *op. cit.*, p. 228.

Current planning appears to provide for increased food supplements, supported by the World Food Program, together with vitamins to be delivered to women and children on special "family health days." At the same time, this will provide an opportunity to "educate" the women in family planning practices.

Summary Observations

The most pertinent observation to be made, or at least the initial observation, is that there were not sufficient data available to articulate fully the nature of the nutritional problem in Afghanistan. Thus, unless the GOA/MOPH or the USAID have undertaken a more current nutritional study on Afghanistan, the first requirement to determine the true nutritional status of Afghanistan is a specialized nutrition study program.

Such a study should attempt to settle the controversy over Afghanistan's nutritional status by: a) determining the actual shortage of food among Afghanistan's rural peasantry and urban laborers; b) identifying geographically and/or socially, those Afghans suffering malnutrition as a result; c) determining the nutritional quality of the food consumed; d) ascertaining the effect of Muslim social mores upon the nutritional status of women and children; e) determining and identifying those diseases and maladies resulting from malnutrition and f) recommending feasible courses of action by the GOA/MOPH, such as nutritional education to correct whatever nutritional imbalances that do exist.

Finally, the incomplete data available seem to suggest the following nutritional status in Afghanistan:

1. Despite the observations of Abrahams et al., the available evidence does suggest that rural Afghan women and children suffer from a simple lack of sufficient food. Thus, they appear at the BHCs on food distribution days;

2. The many instances of poverty of the Afghan peasants, although not as extreme as in neighboring Pakistan, indicate a marginal if not a short food supply;

3. Despite the alleged satisfactory protein level in Afghanistan, the food distribution process on the family level may be highly unequal with the women and children not receiving an equitable share of food due to their inferior status within the family;

4. There is clear, though quantitatively limited, evidence of nutritionally related maladies including Vitamin A, B and C deficiencies, gingivitis, chielosis and follicular hyperkeratosis;


5. Retarded growth and muscle development among younger children are also suspected; and

6. It is suspected, though not substantiated, that lack of Riboflavin, goiter prevalence and anemia among pregnant and lactating women also result from various nutritional deficiencies among Afghans.
CHAPTER SEVEN
MATERNAL AND CHILD HEALTH CARE

Some Pragmatic Problems Associated with MCH Care in Afghanistan

Some of the activities associated with MCH care also fall within the scope of other sections of this study such as family planning, general health care and delivery, nutritional problems and health manpower. Various aspects of MCH in Afghanistan, including the outstanding problems, the GOA programs for dealing with these problems, limited though these programs may be, and the future projects for MCH care in Afghanistan, not covered in previous chapters, are reviewed below.

The following appear to be the principal operational problems affecting maternal and child health care in Afghanistan:

1. The percentage of Afghan women receiving maternal care is limited, since probably no more than 15% of the population had access to Western-style maternal health care in 1975;¹

2. Only a limited number of births are attended by Western-trained health personnel, physicians, nurses or auxiliary nurse midwives, perhaps less than 5.0% (estimated). By comparison, for example, about 75% of the deliveries in Jamaica were attended by Western-trained health personnel in 1974;²

3. Virtually none of the Afghan women have access to the more sophisticated treatment for multiparity or high risk pregnancies. Thus, the maternal mortality rate is very high, estimated at 640/100,000 compared to 0.3/100,000 for Sweden.³ It is estimated that the average women bears 7.1 children during her fertile years;

4. There are little data available but it is suspected that many pregnant and lactating women are anemic;

5. Through ignorance or material inadequacies there is a serious lack of adequate child care in Afghanistan which, together with the diseases recorded in Chapter Two, produce a high level of morbidity and mortality among children through 5 years of age. The infant mortality rate was approximately 180/1000 in 1977. One survey showed that 63% of these children died as a result of measles, diarrhea or pneumonia;

¹ See Report to UN Fund for Population Activities, op. cit., p. 4.
³ See Demographic Charts and Tables, op. cit., Miscellaneous Notes on Survey and Its Findings.
### Table 26*

NUMBER OF DEATHS BY AGE GROUP AMONG CHILDREN OF CLINIC PATIENTS INTERVIEWED DURING 1970 AND 1971

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Number of Deaths</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 1 months</td>
<td>228</td>
<td>11.9</td>
<td>11.9</td>
</tr>
<tr>
<td>1 - 3 months</td>
<td>270</td>
<td>14.1</td>
<td>26.0</td>
</tr>
<tr>
<td>4 - 6 months</td>
<td>185</td>
<td>9.7</td>
<td>35.7</td>
</tr>
<tr>
<td>7 - 11 months</td>
<td>145</td>
<td>7.6</td>
<td>43.3</td>
</tr>
<tr>
<td>12 - 24 months</td>
<td>399</td>
<td>20.9</td>
<td>64.2</td>
</tr>
<tr>
<td>2 - 4 years</td>
<td>467</td>
<td>24.4</td>
<td>88.6</td>
</tr>
<tr>
<td>5 - 15 years</td>
<td>217</td>
<td>11.4</td>
<td>100.00</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1,911</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

* Blumhagen and Blumhagen, *op. cit.*, p. 42.

### Table 27*

DEATHS BY AGE GROUP DURING 1972-73 IN AREAS OF BASELINE STUDIES IN PANJAO AND YAKAOLANG

Population: Yakaolang - 1,550 Tagobark, Panjao - 542
Total Population - 2,092

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Number of Deaths</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 11 months</td>
<td>24</td>
<td>32.0</td>
<td>32.0</td>
</tr>
<tr>
<td>12 - 23 months</td>
<td>19</td>
<td>25.4</td>
<td>57.4</td>
</tr>
<tr>
<td>2 - 4 years</td>
<td>12</td>
<td>16.0</td>
<td>73.4</td>
</tr>
<tr>
<td>5 - 14 years</td>
<td>4</td>
<td>5.3</td>
<td>78.7</td>
</tr>
<tr>
<td>15 - 19 years</td>
<td>0</td>
<td>-</td>
<td>78.7</td>
</tr>
<tr>
<td>20 - 39 years</td>
<td>9</td>
<td>12.0</td>
<td>90.7</td>
</tr>
<tr>
<td>40 - 59 years</td>
<td>0</td>
<td>-</td>
<td>90.7</td>
</tr>
<tr>
<td>60 + years</td>
<td>7</td>
<td>9.3</td>
<td>100.00</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>75</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

* Blumhagen and Blumhagen, *op. cit.*, p. 42.

88
Table 28*
CAUSES OF DEATH IN ORDER OF FREQUENCY BY AGE GROUP:
AGE GROUP - UNDER 5 - (50 Children)

<table>
<thead>
<tr>
<th>Causes of Death</th>
<th>0-11</th>
<th>12-23 months</th>
<th>2-4 years</th>
<th>Total</th>
<th>% Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pneumonias</td>
<td>10</td>
<td>6</td>
<td>3</td>
<td>19</td>
<td>38</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>3</td>
<td>5</td>
<td>6</td>
<td>14</td>
<td>28</td>
</tr>
<tr>
<td>Neonatal:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unknown - 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prematurity - 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malpres. - 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fever of undetermined</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>origin</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measles</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Infection (localized)</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>T.B. Meningitis</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Leukemia</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Unknown (sic)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>TOTAL</td>
<td>14</td>
<td>18</td>
<td>12</td>
<td>50</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Blumhagen and Blumhagen, op. cit., p. 43.

Table 29*
CAUSES OF DEATH IN ORDER OF FREQUENCY BY AGE GROUP:
AGE GROUP - 5 YEARS AND OLDER

<table>
<thead>
<tr>
<th>Causes of Death</th>
<th>5-14</th>
<th>15-19</th>
<th>20-39</th>
<th>40-59</th>
<th>60+</th>
<th>Total</th>
<th>% of Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diarrhea</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>17.7</td>
</tr>
<tr>
<td>Pneumonias</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td>3</td>
<td>17.7</td>
</tr>
<tr>
<td>&quot;stetric (Hemorrhage)</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Chronic Lower Resp. Disease</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td></td>
<td>11.8</td>
<td></td>
</tr>
<tr>
<td>Cardiac Failure</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>5.9</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>5.9</td>
</tr>
<tr>
<td>Malignancy</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>5.9</td>
</tr>
<tr>
<td>Arterial Thrombosis</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td></td>
<td>11.8</td>
<td></td>
</tr>
<tr>
<td>Accidents</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>5.9</td>
</tr>
<tr>
<td>Unknown (sic)</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>2</td>
<td></td>
<td>7</td>
<td>2</td>
<td>6</td>
<td>17</td>
<td>100.0</td>
</tr>
</tbody>
</table>

* Blumhagen and Blumhagen, op. cit., p. 43.
6. The MCH clinics are inadequate in numbers, frequently understaffed and are so situated geographically as to provide very limited coverage. The recent UN population report noted that in 1975 there were only 78 BHCs which were also equipped and staffed as MCH centers with ANMs on duty. But even in these centers, the UN investigators found "weaknesses" in the delivery of health education in general and nutritional education in particular. In 1974/75, the UN investigators also noted that no family guidance activities were carried on in the BHCs. This is being rectified in part, by the opening of new AFGA clinics (see Chapter Five) of which 37 were reported open in 1976 and by the intent to use the BHCs as family health centers which will include family planning;

7. There is also a shortage of trained personnel in all categories, the 2 which most severely affect MCH care being nurses and ANMs. According to GOA projections the ANM deficit will be terminated, through increased recruitment and training, by 1981-82, but the nurse shortage will not terminate in the foreseeable future (see Chapter Four);

8. Finally, it was noted that malnutrition appears to exist among children and pregnant and lactating women.

The Current Afghanistan MCH Program

Family Health Services and MCH Care

In a 1975 survey of rural women, it was noted that 91% of those interviewed (422 women) believed that the maternity services which were available were unsatisfactory. They also expressed the view (60.5%) that the BHC provided the best care when ill. This survey and others also revealed the inadequacies of child health care and child rearing practices, especially with infants and children up to 3 years of age. MOPH officials recognize the need for improved MCH care and Afghan women who have had an opportunity to express themselves appear to be dissatisfied with the lack of facilities, equipment and trained personnel.

Until very recently (the third Five Year Plan) Afghanistan had no MCH program per se. Its beginning coincided with the GOA's alignment with the AFGA to promote family planning. Slowly, as we noted in Chapter Five, the GOA began to accept the concept of family planning and supported the establishment of AFGA clinics. In conjunction therewith, the need for other services for women and children became increasingly apparent and was acted upon. Thus, the MOPH officials began to install ANMs at some of the developing BHCs.

As noted above, in 1975 a total of 78 of these centers had ANWs posted to them. Nevertheless, the ANWs were not at that time providing family guidance services. Rather, they were promoting the new concept of the Family Health Services (see below). MCH services were provided in the form of prenatal and

4 See Report to UN Fund for Population, op. cit., p. 3.
child health services together with some delivery services. Food is also distributed at the BHCs to mothers and children as is recorded in Chapter Six.

Hospital MCH Services

Afghan women and children are also able to obtain MCH services within the scope of the Curative Medicine Department of the MOPH. These services are available in 8 MCH centers in the Kabul area and in out-patient departments (OPDs) of some of the provincial hospitals. In cooperation with the MOPH, family guidance clinics were operated by the AFGA at these OPDs in 1975 unlike the BHCs at that time. As of 1975 there were 2 maternity hospitals with 165 beds each and 1 pediatric hospital of 100 beds in Kabul.

Family Guidance Clinics

As part of MCH care, the MOPH cooperates with the AFGA to promote family planning. The AFGA operated 8 family guidance clinics in the Kabul area in 1975 which were integrated with MOPH/MCH clinics. In 1975, the AFGA planned to open ten family guidance clinics at provincial hospitals on a cooperative basis with the MOPH/MCH program. By 1976 there were 37 clinics in operation in Afghanistan presumably including those integrated with the MCH centers in Kabul and at the provincial hospitals.

The Scope of Family Health Activities

As soon as the MOPH decided to institute family health services as an integral part of an MCH program, a Family Health Bureau was created in the Department of Preventive Medicine (see Chapter Three). Thereafter, with the plans to increase the number of BHCs, family health was designated a priority function of the BHCs.

The Family Health Bureau's functions include:

1. training a cadre of ANMs;
2. receiving drugs and supplies from UNICEF;
3. receiving food supplements for mothers and children from the World Food Program; and
4. receiving contraceptive supplies from the USAID.

These activities of the Family Health Bureau provide the sustenance for family health and MCH care. That care involves: a) some prenatal and child health services; b) health education; c) nutrition education; d) delivery of food to mothers and children on designated days; e) limited health delivery services and f) family guidance at AFGA clinics and recently, at Kabul and provincial hospitals and eventually at the BHCs.

See UN Fund for Population Activities. op. cit., pp. 3-4.

Ibid., p. 4.
Constraints on the MCH Program and Recommendations for Reform

Despite the hopeful beginning in the MCH area with the family health services, the MOPH's maternal and child health program suffers from a number of inadequacies:

1. Organizational problems - As of 1975, there appeared to be divided responsibility between the MOPH Curative Medicine Department and the Preventive Medicine Department with the former responsible for hospitals, including OPDs and MCH centers, and the latter responsible for BHCs. This divided responsibility has not yet been corrected;

2. Although the Seven Year Plan calls for improving the lot of Afghan mothers and children, the UN investigators have noted that the MOPH does not yet have a national family health/MCH program with logical objectives, guidelines and a strategy design;

3. Training problems, like the organizational dilemma, also occur because training responsibilities are divided among different units of the MOPH;

4. There is a serious lack of female staff at many BHCs and hospitals which, given Muslim mores, is a serious impediment to an MCH program. Furthermore, the ANM School in Kabul is not sufficient for training the number of females required;

5. Finally, even when the new network of BHCs are completed, totalling 217, these will cover only about 30% of the population at best.

In response to these shortcomings, it has been recommended that the following measures be taken:

1. The MOPH should be reorganized to ensure one line of operational command for all health services (whether curative or preventive) from Kabul to the provinces and the BHCs;

2. A national family health program for the Seven Year Plan should be drafted (some progress has been made in this direction - see Seven Year Plan in prior Chapters);

3. Development of preservice and inservice training for the MOPH staff in disciplines such as planning, management and supervision;

4. Exploration of alternative approaches to delivery of MCH care, such as training and using dais and mobile health units;

5. Promotion of expanded training curricula and facilities at the regional and national level to provide not only an increased number of MCH health personnel but also to make Afghan physicians, nurses and ANMs more aware of the basic needs of the rural Afghans.

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8 Ibid., p. 7.

9 See Rex V. Blumhagen and Jeanne Blumhagen, "Family Health Care: Rural Health Care Delivery Scheme." Final Report with Summary of Experience and Recommendations for a Health Care Delivery System. Wheaton, Ill.: Medical Assistance Programs, 1974, pp. 27-31 another delineation of "Goals of Rural Health Service in Afghanistan" involving principally MCH care programs.
CHAPTER EIGHT

ENVIRONMENTAL INADEQUACIES, THE MOPH VERTICAL PROGRAMS
AND MISCELLANEOUS HEALTH ACTIVITIES

Afghanistan's Environmental Conditions

The natural environment of Afghanistan, with its rugged terrain, dry climate and vast isolation, offers harsh challenges to the good health of the Afghan population and impedes achieving an acceptable national mortality and morbidity rate. The environmental irritants in Afghanistan are numerous and derive from the deficient living conditions of both the small urban and the predominantly rural population.

The two most serious problems are the lack of proper sewage facilities in both urban and rural Afghanistan and the absence of potable water. Numerous western observers noted the almost total lack of waste disposal. Defecation by both people and animals occurs in the open fields or in the vicinity of the living quarters, where the excreta serves as breeding grounds for disease vectors.¹

Equally or more serious is the contamination of the community water supply. This water is usually derived from a main irrigation canal but also from offshoot irrigation ditches. Laundering, watering of animals, bathing and washing after defecation are accomplished at the smaller ditches from which some drinking water is also obtained. Although most drinking and cooking water is obtained from the main irrigation canal, this also is frequently contaminated by the flow of excreta into the canal and from the slaughtering of animals by the canal.²

National data are not available on toilet facilities or on potable water. The villages investigated by Abrahams et al gave an approximate indication of these conditions in rural Afghan villages, however. In one village, for example, 53 families out of 67 drew water from irrigation ditches, the others taking water from a nearby river or spring.³ Only one of the four villages investigated had access to wells but even here, drinking water was also obtained from irrigation ditches and open ditches connecting an underground stream.

The investigators of the Afghanistan villages also declared that in none of these villages could the disposal of human fecal matter be considered adequate.⁴ Even in a village which had GOA sponsored housing with latrines, fecal matter was evident on the ground. Contamination of the soil and water was evident in all the villages studied.

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² Ibid., pp. 37-46.
³ Ibid., pp. 38-46.
⁴ Ibid., p. 46.
The investigators also observed that the result of this contamination was gastro-intestinal disorders especially among children under 10 years of age. Shigella and salmonella were found and a considerable number of cases of diarrhea were also noted. Histories of typhoid fever were also uncovered.\textsuperscript{5}

In addition to the deficiencies in sewage, garbage and waste disposal and the presence of contaminated water, there is also a personal hygiene problem in Afghanistan which provides still another disease source. The population usually washes in polluted water and usually without soap or detergents.

Substandard housing both in rural and urban Afghanistan is still another important source of pollution and disease. Not only are the houses poorly constructed and havens for rodents but they are overcrowded and frequently shared with livestock. Few windows, poor ventilation, dampness and poor heating capabilities also abet frequent respiratory illnesses.\textsuperscript{6}

Desired Environmental Reforms

The GOA appears to be cognizant of the necessity for environmental reform, for in the Public Health section of its Seven Year Economic and Social Development Plan it is noted:\textsuperscript{7}

Non-application of environmental health standards, shortage of potable water and the low level of general information among the masses contribute to the spread of contagious diseases.

The implication of this GOA statement is the need for and intent to institute environmental reform. The scope of such reform should involve almost all aspects of environmental sanitation.

Initially, the Afghan population, both urban and rural, require education in proper hygiene, both personal and environmental. This aspect of health education, like all the others, is difficult among a people whose literacy is only about 8-10\% and female literacy approximately 3.0\%. Thus, some method, graphics, lectures or instruction by health care personnel should be designed to instruct the population in the need for proper hygiene.

There is an urgent need for the provision of sanitary latrines for the rural population of Afghanistan. Such a program, already initiated in connection with government housing, could begin to eliminate human wastes from the villages and fields.\textsuperscript{6} Simultaneously, there is also a pressing need for

\textsuperscript{5} Ibid., p. 46; see Chapter Two for details of diseases deriving from contaminated soil and water.

\textsuperscript{6} See Syncrisis XVIII: Pakistan, op. cit., pp. 83-87; by comparison, it is estimated that in neighboring Pakistan, which has many of the same environmental problems, about 30\% of urban residents and 50\% of the rural residents have potable water.

\textsuperscript{7} Seven Year Development Plan, op. cit., p. 228.
upgrading the sanitary conditions of housing to eliminate the numerous insects and rodents which infest almost all of rural housing.

Similarly, Afghan cities are in urgent need of functioning sewage and drainage systems. Many of the urban, gastro-intestinal diseases, as in the rural areas, originate in the open sewers.

An equally urgent requirement is the creation of a pure and safe water supply. Clearly, given the lack of ample water sources in Afghanistan and the tradition of utilizing water from the irrigation canals and ditches, the provision of potable water is a long-term problem. Therefore, the continued study and improvement of the water system by the GOA and assisting agencies should have the highest priority. In fact, the current Seven Year Plan calls for an increase in the number of Afghans served by potable water systems from 1.2 million in 1976 to 4.5 million in 1983.8

Finally, it would seem that the whole health environment in Afghanistan would benefit from the increased production and distribution of soap and detergents through the health care system. Like the distribution of food and vitamin supplements at the BHCs, a similar distribution of soap, along with hygiene instructions, might at last begin to improve personal hygiene.

MOPH Vertical Programs: Malaria, Tuberculosis and Smallpox

As indicated previously, the MOPH also conducts several vertical health programs designed to eradicate such diseases as malaria, tuberculosis and smallpox. Plans are also underway to initiate new vertical programs in trachoma, for example. Background information on the three, most important current vertical programs of the MOPH follows.

Malaria Control

Prior to 1949, when the Malaria Eradication Project was initiated under the direction of the Central Malaria Institute, all low lying territories were considered malarious.9 Habitations above 6,500 feet were generally considered free of infection. The geographic distribution of malaria in the lowlands usually followed rivers and streams. Irrigation brought endemicity although malaria remained seasonal with maximum transmission from August to mid-November.10 The predominant type of malaria in Afghanistan before control projects were initiated were Plasmodium vivax and Plasmodium falciparum.

As the malaria eradication program matured, it assumed the following modus operandi. The country was divided into 3 regional headquarters and sub-units

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8 Ibid., p. 234.
9 See Abrahams et al, op. cit., pp. 119-127; the Central Malaria Institute was established in 1949, under the direction of the Minister of Health, with substantial WHO support.
10 Ibid., p. 120.
Table 30*
MALARIA SPLEEN AND PARASITIC RATES BEFORE AND AFTER COMPARISON

<table>
<thead>
<tr>
<th>Place or Province</th>
<th>Spleen Rate in % Before Campaign</th>
<th>Parasite Rate in % Before Campaign</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Year 1953</td>
<td>Year 1953</td>
</tr>
<tr>
<td>Pol-i-Khumri</td>
<td>76.0 1948</td>
<td>11.0 1948 0.55</td>
</tr>
<tr>
<td>Baghlan</td>
<td>74.7 1951</td>
<td>24.7 1951 3.3</td>
</tr>
<tr>
<td>Khanabad</td>
<td>47.6 1950</td>
<td>20.5 1950 1.7</td>
</tr>
<tr>
<td>Talugan</td>
<td>60.3 1951</td>
<td>14.6 1951 0.0</td>
</tr>
<tr>
<td>Laghman</td>
<td>76.2 1949</td>
<td>9.0 1949 0.0</td>
</tr>
<tr>
<td>Kandahar Province</td>
<td>46.0 1952</td>
<td>22.0 1952 9.3</td>
</tr>
<tr>
<td>Khost</td>
<td>65.5 1952</td>
<td>19.5 ? 1952 3.1</td>
</tr>
<tr>
<td>Kabul</td>
<td>21.0 1951</td>
<td>10.0 1951 0.55</td>
</tr>
<tr>
<td>Sarobi</td>
<td>58.0 1951</td>
<td>10.0 1951 1.6</td>
</tr>
</tbody>
</table>

(in 1974 numbering 23) located where malaria was a problem. Regional headquarters were headed by malariologists (medical doctors), and according to size and population, by an entomologist, 5-15 inspectors, 1-4 insect collectors, 5-13 technical assistants, 20-50 sprayers, and another 10-16 laborers and employees. The program required that each inspector be responsible for supervising the activities in a population area of about 100,000 persons.

The primary "attack phase" lasted about 3-4 years and was aimed at reducing the reservoir of vectors. It was first begun in hyperendemic areas and where the disease was of recognized economic importance.

The anti-malaria program initially ran into trouble with resistance of the public to allow government officials into their homes to spray with DDT. Also, the DDT on the rough-clay-walled houses faded in effectiveness after 10-12 weeks and repeated applications were necessary. The program, however, placed an estimated 570,000 people under protection by 1951. By 1955, the number protected rose to about 1.4 million, and by 1967 it was estimated at 5.7 million persons. Under this program, each case of fever, checked by blood tests, was treated with chloroquine and primaquine as a precautionary measure.

After a 4-5 year campaign in several areas, there was a drop in spleen and parasitic rates, as seen in Table 30 above.

By 1953, numerous of the previously hyperendemic and meso-endemic areas were in the consolidation phase of control. By 1965, over 9% of the population lived in areas under consolidation and only 33 indigenous foci of malaria were recorded.

Nevertheless, malaria has not died out in Afghanistan and there is always the looming threat of major reoccurrence. Of 640,000 blood tests carried out in 1966, for example, 2,320 were found positive. The movements of nomads and the pilgrimages to Mecca are a continuing source of concern for they provide the mechanism for the introduction of new mosquito strains or for new foci of infection.

In 1969-1970 in Kunduz Province and again in 1970-1971 in central and southern Afghanistan, there were epidemics of malaria. A survey of the last decade of malaria eradication in Kunduz revealed that the previous vector for human malaria in Afghanistan, Anopheles superpictus has disappeared but has been replaced by A. pulcherrimus and A. hyrcanus as a result of changing ecology and agricultural development. Expansion of irrigated fields has created more favorable conditions for breeding. At the same time A. hyrcanus has developed a full resistance to DDT and A. pulcherrimus avoids surfaces treated with DDT. Nevertheless, the GOA is expanding the malaria program to cover five regions over the period of the Seven Year Plan, 1976-1983. An additional one million Afghans will be brought under the malaria eradication program by 1983, totaling 8,500,000 people.

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11 See Seven Year Development Plan, op. cit., p. 236.

Tuberculosis Control

The first governmental effort in the control of Tuberculosis (TB) was instituted in 1930 at the time of the founding of the hospital for men in Kabul. A few years later a similar installation was opened for women, but a comprehensive nationwide effort was not initiated until 1954 when WHO and the MOPH established a Tuberculosis Center in Kabul. From this center, a program against the disease was conducted in major urban centers through the land. The control of TB has become a major effort of the new government, and plans for a new National Institute of Tuberculosis were announced at the 27th World Health Assembly in Geneva.

Between 1962-63 and 1964-65, approximately 146,000 persons received X-ray examinations and were afforded further diagnostic services or treatment. Besides this screening effort, a program of prophylactic BCG vaccinations was given. The number of vaccinations has grown from 34,280 in 1964-65 to 41,796 in 1966-67 to the most recent report of 318,348 in 1972.13

Because of the limitation of hospital beds, most patients are treated in outpatient facilities. Medicine such as Rimiform, PAS, streptomycin, vitamins, and dried milk and soap, are distributed without charge. The number of patients under treatment has expanded from just over 1,000 in 1962-63 to over 2,000 in 1965-66.

Tuberculosis continues to be a major problem in Afghanistan. Thus, the GOA/MOPH plans to construct a new 100 bed TB hospital in addition to the national institute noted above and to undertake a new campaign of vertical treatment and outpatient care. The new campaign will operate through seven regional centers. It is hoped that the 55,000 TB patients who currently are suspected of serving as transmission agents, will be brought under control. It is estimated that there are 200,000 TB victims in Afghanistan. The BCG vaccination program will be carried to all suspected areas of Afghanistan during this seven year period.

Smallpox Control

In the not too distant past, the fight against smallpox in Afghanistan was limited to variolation with the contents of virulent pustules, a practice which often did more harm than good. In the 1930s the first modern vaccination center was set up and between 1938-1939 an estimated 3 million people received protection.

Since World War II, a national program has been strongly supported by WHO and a comprehensive campaign of vaccination has been conducted. Both Soviet and Afghan produced vaccines have been increasingly distributed throughout the country. Most recent WHO Reports reveal that for 1970 almost 4 million doses of vaccine were distributed in Afghanistan.14 Although infection rates have fallen below 1/100,000 enough cases still occur in hard-to-reach rural areas to pose the threat of more widespread epidemics (see Chapter Two).15

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14 Ibid.
15 See Abrahams et al, op. cit. pp. 168-177 especially Table 4-54, Percent with Smallpox Vaccination Scars by Age.
Dental and Mental Health Including the Use of Narcotics

Little data are available concerning dental conditions in Afghanistan. In terms of health manpower, we noted in Chapter Four that in 1970-71, there were reported to be 117 dentists and 45 assistant dentists reported practicing in the urban areas of Afghanistan. In 1970-71, the ratio of dentists to population was 1/145,000.

It was also noted, that at the village level, the barbers, as members of the traditional healers' system, pulled teeth, drew blood and performed circumcisions. There were no elaborations of GOA plans for the training of additional dentists other than a reference to a dental school planned or under construction in 1969/70.

There were no data available on mental health treatment or facilities in Afghanistan. On the local level the Mullahs and local shrines undoubtedly play a psychiatric and psychological role of sorts. There is possibly some treatment of mental patients in Kabul and provincial hospitals also. Generally, the GOA has not addressed the problem of mental health, since most such problems are probably handled by the family concerned.

The availability of hashish and opium is apparently widespread in Afghanistan.\(^\text{16}\) Hashish, which is derived from Cannabis sativa, is grown in various parts of the country. Abrahams et al claim, however, that it is used only sporadically by the indigenous population. Opium is also available, but its sources are unknown.

As recently as 1972, due to the relatively free availability of hashish, Afghanistan's urban areas had become centers for an international group of people seeking this inexpensive drug.

Other GOA Agencies Involved in Health Care

Ministry of Education

The Ministry of Education administers the Faculty of Medicine of Kabul University and of Jalalabad, as well as the University Hospital associated with these facilities. In addition, it operates the 2 schools of nursing, the school health service, and a polyclinic.

Through the school health service the Ministry of Education provides ambulatory medical care and preventive medical services for all the students in the school system. Smallpox and BCG vaccinations and tuberculin testing are conducted under its auspices. The Ministry is also engaged in improving the sanitary conditions and constructing latrines for the schools and the

\(^\text{16}\) Ibid., pp. 117-118.
communities in which they are located.

Rural Development Department

The Department of Rural Development functions directly under the office of the Prime Minister. Its objectives are to improve the levels of living of the rural population and the improvement of health and health services is given high priority. There are a few rural development projects in the countryside which provide preventive health services through polyclinics established under this department. In addition to the direct provision of services, certain of the health units are engaged in the training of various categories of health personnel such as physicians, assistants, sanitarians, midwives, and nurses. Development projects also concentrate the government effort in helping communities to acquire safe water supplies and to improve their methods of sewage disposal.

Ministry of Finance

The Ministry of Finance operates and provides the major share of the budget for the government employee health insurance plan. The voluntary membership of the plan is open to employees of 52 governmental agencies, their spouses and one child of each family.

Ministry of Public Works

This ministry operates hospitals and polyclinics for the laborers engaged in various construction and road building programs. In addition it is concerned with the planned uses of water resources of Afghanistan for irrigation, hydroelectric power, flood control and navigation. Since the source of water for domestic use is often a by-product of these multi-purpose water projects, this agency has direct impact on this vital resource of the people.

Helmand Valley Authority

As part of a special development project in the Helmand Valley, this agency operates and finances a hospital and several polyclinics in the area. Besides providing primary and preventive health programs through these facilities, training of health students is also conducted.

Ministry of the Interior

This ministry is responsible for the gendarmery service which is Afghanistan's border patrol. It has special responsibilities in enforcing immigration laws during times of epidemics in neighboring countries. The ministry also contains the Directorate General of Statistics which is responsible for the population census and the periodic collection and publication of statistics on population, births, deaths, literacy, marriages, divorces, physical disabilities and crime. The "system" of such reporting, however, is underdeveloped and poorly utilized.

Ministry of Defense

Many of the health activities of the Ministry of Defense are classified, but it has obvious responsibilities for the health of military personnel. It operates a number of hospitals and clinics as well as a medical corps within
the Army.

**Ministry of Mines and Industry**

This ministry enforces labor laws which are concerned with working hours, employment benefits, compensation for disability, loss of life and regulations for the employment of women and children. It works in close association with the International Labor Organization. In addition, the Drilling Section of the Geological Survey Department of the ministry has drilled a number of wells which supply water for domestic use in some towns.

**Afghan Water and Soil Survey Authority**

This agency operates directly under the office of the Prime Minister and is concerned with the studies as well as the planning of ground and surface water resources in Afghanistan. It contracts for the drilling of test wells as well as the mapping and study of surface water. It is concerned with the development of a comprehensive use of these waters for the needs of the country.

**Ministry of Agriculture**

This ministry is concerned with the appraisal of the nutritional status of the people of Afghanistan. Similarly, animal husbandry is an important occupation in Afghanistan and related to a number of animal diseases which are transmitted to humans. The work of the Ministry in education and research is of great interest in planning for the nutritional base of the population as well as the control of many diseases. The coordination of the Ministries of Health and Agriculture has become vital, especially in the development of new agricultural areas where Bilharziasis may loom as a problem. Ministry studies of new agricultural methods, the use of fertilizers, machinery, pesticides and herbicides are all directly related to the health of the large agricultural population.

**Ministry of Press and Information**

This ministry is involved in the promotion of tourism in Afghanistan and has a dual responsibility of informing tourists of unsafe sanitary conditions that may exist in certain areas and encouraging the removal of hazards that may jeopardize the growing tourist industry. Through the numerous publications of this agency, health education has also become a major responsibility.
In previous chapters it was indicated that over the past decade, the GOA has been budgeting approximately 2.5% of their total budget for health care. There follow some delineation of the GOA budgeting process, including some cost analysis and projections, synopses of GOA health budgets, bilateral and multilateral foreign assistance and prospects for future assistance.

The Villager's Health Budget

A recent three-province survey conducted for the USAID/Kabul, revealed that the median annual health expenditure was approximately Afs 1000 per family or US$ 22 (See Table 31). The single highest expenditure by these families was for medicine at the pharmacy (37% of the family's total health budget). Another substantial amount was used by the village families for the services of traditional health practitioners (about 20% for dokhans, mullahs, injectionists, hakems, etc.). They also spent about 17% for visits to physicians in Kabul and the region and about 12% for regional hospital services.

It was also noted by the USAID that whereas the median household health expenditure was approximately Afs 1000, this was not the case for over 25% of the households appearing in the survey. Rather, these households spent less than Afs 100, an amount which would provide very limited health care even including that from the traditional healers only.

Recent Health Budgets

The MOPH budget for 1971-72 was Af 280 million or US$ 6.2 million. Approximately 71% of this (Afs 200 million) was for ordinary expenses (salaries, supplies, maintenance etc.), see Table 32. The remaining 29% was used for Government Development Expenditures.

The GOA health budget for 1973-74 indicated a slight increase in funding to Afs 297 million or US$ 6.6 million. Of this amount Afs 200 million or US$ 4.4

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1 UN Fund for Population Activities, op. cit., Annex 4, p.2 and Health Sector Assessment, op. cit.

2 Budgetary information on GOA health programs derive from Financial Analysis of Health Programs, op. cit., pp. 79-95, as well as from GOA and USAID documents.

3 See Health Sector Assessment, op. cit., p. 41.

<table>
<thead>
<tr>
<th>Source</th>
<th>Percent of Health Expenditure</th>
<th>Average Paid Per Visit (in Afs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmacy</td>
<td>37.0</td>
<td>248</td>
</tr>
<tr>
<td>Hospital - Regional</td>
<td>12.1</td>
<td>327</td>
</tr>
<tr>
<td>Doctor - Regional</td>
<td>9.0</td>
<td>182</td>
</tr>
<tr>
<td>Doctor - Kabul</td>
<td>8.0</td>
<td>664</td>
</tr>
<tr>
<td>Basic Health Center</td>
<td>5.7</td>
<td>54</td>
</tr>
<tr>
<td>Dokhan</td>
<td>4.6</td>
<td>36</td>
</tr>
<tr>
<td>Hospital - Kabul</td>
<td>4.4</td>
<td>909</td>
</tr>
<tr>
<td>Mullah</td>
<td>4.0</td>
<td>33</td>
</tr>
<tr>
<td>Shrines</td>
<td>3.5</td>
<td>122</td>
</tr>
<tr>
<td>Other (included care outside country)</td>
<td>2.8</td>
<td>958</td>
</tr>
<tr>
<td>Injectionist</td>
<td>2.4</td>
<td>14</td>
</tr>
<tr>
<td>Makimji</td>
<td>2.4</td>
<td>85</td>
</tr>
<tr>
<td>Doctor - Local</td>
<td>1.7</td>
<td>45</td>
</tr>
<tr>
<td>Atar</td>
<td>1.0</td>
<td>32</td>
</tr>
<tr>
<td>Dai</td>
<td>0.9</td>
<td>94</td>
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<tr>
<td>Bonesetter</td>
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<td>47</td>
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<tr>
<td>Barter</td>
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<td>30</td>
</tr>
<tr>
<td>Cupper</td>
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<td>39</td>
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</table>

* Health Sector Assessment, op. cit., p. 43.  
45 Afs. = $1.00  

** Includes transportation costs
Table 32*  

GOVERNMENT EXPENDITURES **  
FOR 1971-72 IN MILLION AFGHANIS

<table>
<thead>
<tr>
<th>Agencies</th>
<th>Government Total Expenditure</th>
<th>Ordinary Government Expenditure</th>
<th>Government Development Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>8,175.0</td>
<td>6,045.0</td>
<td>2,130.0</td>
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<tr>
<td>Ministry of Court</td>
<td>38.0</td>
<td>38.0</td>
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</tr>
<tr>
<td>National Assembly</td>
<td>29.0</td>
<td>29.0</td>
<td>-</td>
</tr>
<tr>
<td>Senate</td>
<td>11.0</td>
<td>11.0</td>
<td>-</td>
</tr>
<tr>
<td>Prime Ministry</td>
<td>35.0</td>
<td>35.0</td>
<td>-</td>
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<tr>
<td>Foreign Affairs</td>
<td>84.0</td>
<td>84.0</td>
<td>-</td>
</tr>
<tr>
<td>Interior (Civil)</td>
<td>162.0</td>
<td>62.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Interior (Police)</td>
<td>257.0</td>
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<tr>
<td>Justice</td>
<td>35.0</td>
<td>35.0</td>
<td>-</td>
</tr>
<tr>
<td>Finance (Debt Service)</td>
<td>1,295.0</td>
<td>1,295.0</td>
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</tr>
<tr>
<td>Finance (Others)</td>
<td>1,048.0</td>
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<td>-</td>
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<tr>
<td>Education</td>
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<td>Health</td>
<td>280.0</td>
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<tr>
<td>Communications</td>
<td>88.0</td>
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<td>20.0</td>
</tr>
<tr>
<td>Public Works</td>
<td>435.0</td>
<td>135.0</td>
<td>300.0</td>
</tr>
<tr>
<td>Agriculture</td>
<td>658.0</td>
<td>58.0</td>
<td>600.0</td>
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<tr>
<td>Mines and Industries</td>
<td>433.0</td>
<td>80.0</td>
<td>353.0</td>
</tr>
<tr>
<td>Planning</td>
<td>34.0</td>
<td>34.0</td>
<td>-</td>
</tr>
<tr>
<td>Commerce</td>
<td>25.5</td>
<td>24.0</td>
<td>1.5</td>
</tr>
<tr>
<td>Press and Information</td>
<td>78.0</td>
<td>72.0</td>
<td>6.0</td>
</tr>
<tr>
<td>Tribal Affairs</td>
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<tr>
<td>Kabul University</td>
<td>215.0</td>
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<td>Health Institute</td>
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<tr>
<td>Faculty of Medicine</td>
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<td>-</td>
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<td>Olympics Department</td>
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<td>4.0</td>
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<tr>
<td>Civil Aviation Authority</td>
<td>87.0</td>
<td>57.0</td>
<td>30.0</td>
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<tr>
<td>&quot;general Transport&quot;</td>
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<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Helmand Valley</td>
<td>128.0</td>
<td>28.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Rural Development</td>
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<td>Cartography</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Land Reclamation and Settlement</td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td>Polytechnic</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Paktia Department</td>
<td>75.0</td>
<td>-</td>
<td>75.0</td>
</tr>
<tr>
<td>Nangarhar Valley</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Water and Soil Survey</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Administrative Unit for Food Supply</td>
<td>10.0</td>
<td>-</td>
<td>10.0</td>
</tr>
<tr>
<td>Sayed Noor Mohd Shah Project</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Supreme Court</td>
<td>95.0</td>
<td>70.0</td>
<td>25.0</td>
</tr>
<tr>
<td>Industrial and Agricul-tural Bank</td>
<td>60.0</td>
<td>-</td>
<td>60.0</td>
</tr>
<tr>
<td>Housing and Town Planning Authority</td>
<td>73.0</td>
<td>-</td>
<td>73.0</td>
</tr>
<tr>
<td>Afghan Electricity Co.</td>
<td>100.0</td>
<td>-</td>
<td>100.0</td>
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<tr>
<td>Kabul Municipality</td>
<td>16.0</td>
<td>-</td>
<td>16.0</td>
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<tr>
<td>Reserve Fund</td>
<td>35.5</td>
<td>-</td>
<td>35.5</td>
</tr>
<tr>
<td>Other</td>
<td>1,430</td>
<td>1,400.0</td>
<td>30.0</td>
</tr>
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</table>


** 45 Afghanis = US$ 1.00.
<table>
<thead>
<tr>
<th>Ministry Activities</th>
<th>Ordinary Budget</th>
<th>% of total</th>
<th>Development Budget</th>
<th>% of total</th>
<th>Donor Contributions</th>
<th>% of total</th>
<th>Total Amount Budgeted</th>
<th>% of total</th>
<th>% of Total MOPH Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ministry Administration</td>
<td>13,070,223</td>
<td>6.52</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>13,070,223</td>
<td>4.22</td>
<td></td>
</tr>
<tr>
<td>2. Curative Medicine Department</td>
<td>82,054,495</td>
<td>41.0</td>
<td>16,000,000</td>
<td>14.0</td>
<td>4,530,000</td>
<td>5.0</td>
<td>102,524,475</td>
<td>26.0</td>
<td>48.4</td>
</tr>
<tr>
<td>3. Field Programs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BHC's</td>
<td>30,163,140</td>
<td>15.0</td>
<td>70,000,000</td>
<td>63.0</td>
<td>45,300,000</td>
<td>47.0</td>
<td>145,463,140</td>
<td>37.0</td>
<td>13.4</td>
</tr>
<tr>
<td>Malaria</td>
<td>36,000,000</td>
<td>18.0</td>
<td>-</td>
<td>-</td>
<td>30,600,000</td>
<td>32.0</td>
<td>66,600,000</td>
<td>17.0</td>
<td>16.6</td>
</tr>
<tr>
<td>Smallpox</td>
<td>4,692,930</td>
<td>2.3</td>
<td>-</td>
<td>-</td>
<td>4,800,000</td>
<td>5.0</td>
<td>9,492,930</td>
<td>2.4</td>
<td>2.8</td>
</tr>
<tr>
<td>Rozantoon</td>
<td>6,475,655</td>
<td>3.2</td>
<td>-</td>
<td>-</td>
<td>6,475,655</td>
<td>1.62</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sub-Total</td>
<td>77,331,775</td>
<td>38.5</td>
<td>70,000,000</td>
<td>63.0</td>
<td>80,700,000</td>
<td>84.0</td>
<td>224,031,775</td>
<td>58.0</td>
<td>36.3</td>
</tr>
<tr>
<td>4. Technical Support</td>
<td>27,543,507</td>
<td>14.0</td>
<td>11,000,000</td>
<td>10.0</td>
<td>11,053,200</td>
<td>11.0</td>
<td>39,596,707</td>
<td>12.6</td>
<td>13.3</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>200,000,000</strong></td>
<td><strong>100.0</strong></td>
<td><strong>97,000,000</strong></td>
<td><strong>87.0</strong></td>
<td><strong>6,283,200</strong></td>
<td><strong>100.0</strong></td>
<td><strong>393,283,200</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

* Includes 1.52 for TB

* Rural and Family Health Services, op. cit., Figure 2.4.
### Table 34*

**PROGRAM EXPENDITURE RELATED TO PRIORITY POPULATION ESTIMATES, 1977/78 PLAN, Afs X 1000**

<table>
<thead>
<tr>
<th></th>
<th>Infants 0-1 Year</th>
<th>Children 1-14 years</th>
<th>Pregnant/PP</th>
<th>Labor Force</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Immunization</td>
<td>40% 3864</td>
<td>40% 3864</td>
<td>20% 1932</td>
<td>X</td>
<td>9,660</td>
<td>2</td>
</tr>
<tr>
<td>2. TB/Leprosy</td>
<td>X 9549</td>
<td>10% 3673</td>
<td>64% 23506</td>
<td>36,728</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>3. Malaria</td>
<td>3.7% 4500</td>
<td>47% 57,199</td>
<td>7.1% 8641</td>
<td>42% 51,114</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>4. Water Supply</td>
<td>3.7% 1852</td>
<td>47% 23,523</td>
<td>7.1% 3554</td>
<td>42% 21,021</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>5. Basic Health</td>
<td>7% 7207</td>
<td>37% 38,096</td>
<td>6.0% 6178</td>
<td>0% 51,482</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Hospital</td>
<td>7% 16,035</td>
<td>21% 48,105</td>
<td>10% 22,907</td>
<td>62% 142,023</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>TOTAL EXPENDITURES</td>
<td>33,458</td>
<td>180,336</td>
<td>46,885</td>
<td>289,146</td>
<td>549,825</td>
<td></td>
</tr>
<tr>
<td>% Total Health Budget</td>
<td>6%</td>
<td>33%</td>
<td>9%</td>
<td>52%</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>% Total Mortality</td>
<td>38%</td>
<td>24%</td>
<td>(------38%----)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Total Population</td>
<td>3.7%</td>
<td>47%</td>
<td>7.1%</td>
<td>42%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Financial Analysis of Health Programs, op. cit., Table 1.

** 45 Afg. = US$ 1.00
million was budgeted for the Ordinary Expenses while Afs 97 million or US$ 2.6 million was for development expenses (but including Afs 15,000,000 or US$ 0.333 million for vaccine/sera Institute). This did not include donor contributions (see Table 33).

The Projected 1977/78 Ordinary Budget: Priorities and Allocations

Table 34 reflects the proposed GOA ordinary health budget for 1977/78. It represents a significant increase in total AFs over the 1971/72 budget or AF 549,900,000 vs. 200,000,000. This increase reflects the objectives of the new Seven Year Plan and, of course, inflationary pressures.

We believe the following comments on the allocation of resources by the special groups (Table 34) are of particular interest:5

1. Group one and two (infants and children 0-14 yrs)

Childhood diseases such as respiratory, gastrointestinal, diarrhea, measles and tetanus afflict this group which suffers 64% of the total mortality. This group only receives 39% of the total budgetary resources, however. Moreover, only that portion allocated to immunization and basic health services reaches this group since funds programmed for TB/leprosy, malaria, water supply and hospitals serve primarily the adult population. Malnutrition is also a major concern although we are not certain of the extent of this problem. In any event, only a small part of the budget for basic health services would be devoted to nutritional problems.

2. Group Three (Pregnant/PP women)

This group, which is concerned not only with family planning but also with malnutrition, would also receive a disproportionately small share of the health budget. Only that funding for immunization and basic health services would assist this group (the latter only minimally). In any event, this group obtains 9.0% of the budget.

3. Group Four (Labor Force)

This group, comprising primarily the country's adult male workers, would receive a disproportionately large share of the budget. They are largely the healthiest group in the country and require only inexpensive drugs and acute hospital care. They already consume a disproportionate share of the hospital services, which will be continued under this budget.

Seven Year Plan Projections

Under the projections for health services through the Seven Year Plan, 1976-1983, the projections for these categories change somewhat.6

6 Ibid., Table 35.
We believe the following comments, respecting cost-effectiveness of the programs within the health sector through 1983 are worth noting:

1. Immunization is the most cost-effective program and most directly focuses on priority groups 1-3. The implication is that it should be continued, perhaps expanded;

2. The TB/leprosy program may be too expensive and requires additional research before proposed funding be fully authorized;

3. The increase in malaria cost projections over the years appears reasonable;

4. The anticipated number of users of the expanded water supply system may be too optimistic;

5. The Basic Health Services (BHCs) program is the core of the MOPH effort to extend health care to rural Afghanistan. The projected funding for this service appears to be much too low. The use of sub-centers and village health workers are also urged to reach more than 30% of the people by 1983; and

6. The hospital program is very expensive and not completely justified by the requirements and utilization of the most needy groups: infants, children, and women.

Foreign Assistance, Multilateral and Bilateral

The principal sources of external assistance to Afghanistan for health services have been the WHO, UNDP, UNICEF, the USAID and some of the European powers including the USSR and West Germany.

World Health Organization

For the years 1976 through 1979 the WHO contributed or proposed contributing to the Afghanistan health services from its regular budget the following funding to be utilized for strengthening health education, primary health care, communicable disease prevention, pharmaceuticals and family health:

1976 = $1,195,000
1977 = 1,275,000
1978 = 1,485,000
1979 = 1,660,100

---

7 Ibid., pp. 9-14; these comments derive essentially from those offered by the consulting firm, Management Sciences for Health.

United Nations Development Program (UNDP)

Between 1976 and 1979 the UNDP contributed or planned to contribute the following toward various projects including health manpower development, malaria control, tuberculosis control and water supply:

1976 = $590,700  
1977 = $331,500  
1978 = $46,600  
1979 = $5,800

In addition, funds for population activities were provided in the amount of $122,500.00 in 1977 and it was planned to contribute $113,300.00 in 1978.

United States Agency for International Development

The USAID has contributed substantial funding to Afghan economic and social development over a number of years. Through FY 1976, US economic assistance to Afghanistan, including both grant and loan assistance, amounted to $41,977,000. This amount included $9,478,000 in grant assistance and $32,499,000 in loans. The USAID planned to obligate $21,722,000 in grants in FY 1977 and $19,600,000 in grants in FY 1978. No loans were anticipated for FY 1977 or FY 1978.

Only a limited amount of these considerable funds were obligated and expended for Afghan health programs, however. Through FY 1976, $1,961,000 in grant funding was obligated for the AFGA and BHCs. In FY 1977, $1,939,000 in grant funding was obligated for similar projects and in 1978, $1,965,000 in grant funding was proposed for these projects. There have been no loan funds obligated for health projects to date.

Most of the USAID grants were utilized in rural development (food and nutrition) projects and education and human resources. The loans were devoted to the Kajakai hydroelectric power plant. In FY 1977 and FY 1978, USAID health projects include:

a) Afghan Family Guidance Association I and II (for upgrading clinics and materials);

b) Basic Health Services (for construction costs of BHCs, personnel and supplies).

---

Prospects for Future Assistance

In Chapter Ten the status of the Afghanistan health sector will be summarized in order to arrive at some modest recommendations relevant to that status. Suffice it here to note that the GOA gives evidence of recognizing the need to improve the health standards of the Afghan people (see recent statements by officials of the GOA and MOPH), but heretofore, the resources made available to the health sector have been inadequate and have been devoted to inappropriate programs relative to need (see Figure 4). Unfortunately, current planning does not project much of an increase in the MOPH budget which is currently about 2.5% of total GOA spending. Thus, the GOA/MOPH is very concerned with the health of the adult male workers whose health is already the best in the nation, but only partially aware of the near desperate needs of the Afghan women and children. Clearly, as one of the United Nations twenty "least developed countries", Afghanistan must rely heavily on external assistance for its development programs. The practical advice offered in the health field is meant to secure maximum advantage from this assistance for Afghanistan.

Due as much to its strategic location as to the humanitarian motives of its benefactors, Afghanistan appears to be relatively certain of continued international assistance. As for the USAID, in addition to these funds programmed for FY 1977 and FY 1978, it is estimated that future year grant obligations will amount to over $32,000,000 for all proposed projects in its rural-oriented upward mobility program. The WHO and UNICEF also appear to be continuing or increasing their commitments to health care in Afghanistan as delineated above. We would also anticipate that the UNDP will continue its funding on a similar level in the future despite the apparent decrease noted above.

Afghanistan also receives assistance from a number of other countries, especially from the Soviet Union, but no data on such aid are available. Afghanistan also cooperates with a number of intergovernmental organizations such as the Asian Development Bank, the Colombo Plan, the International Committee of Military Medicine and Pharmacy, etc. There are also a number of nonprofit, voluntary agencies such as CARE, the Medical Mission Sisters, the Mennonite General Committee and the Asia Foundation from which future assistance might be anticipated.
Figure 4*

MOPH PROGRAMS AS PERCENT OF TOTAL ORDINARY BUDGET
FROM 1977/78 THROUGH 1982/83

* Health Sector Assessment, op. cit., pp. 46-47.

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Table 35*
FINANCIAL PROJECTIONS FOR HEALTH SERVICES

<table>
<thead>
<tr>
<th>Category</th>
<th>1977/78</th>
<th>1976/83</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immunization</td>
<td>2.0%</td>
<td>3.0%</td>
</tr>
<tr>
<td>&quot;B/Leprosy</td>
<td>6.0%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Malaria</td>
<td>2.0%</td>
<td>13.0%</td>
</tr>
<tr>
<td>Water Supply</td>
<td>9.0%</td>
<td>21.0%</td>
</tr>
<tr>
<td>Basic Health Services</td>
<td>19.0%</td>
<td>13.0%</td>
</tr>
<tr>
<td>Hospitals</td>
<td>42.0%</td>
<td>33.0%</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>20.0%</td>
<td>15.0%</td>
</tr>
</tbody>
</table>

* Financial Analysis of Health Programs, op. cit., Table 4.
CHAPTER TEN

SYNOPSIS AND CONCLUSIONS: THE AFGHANISTAN HEALTH ENVIRONMENT,
PROBLEMS AND PROSPECTS

Current Status of Afghanistan's Socioeconomic Development:
Some Summary Observations

Since the early years of the decade of the 1950's, the GOA, both monarchy
and republic, has been attempting to reform and modernize Afghanistan. Despite
a succession of Five Year Development Plans, a coup d' état which deposed a not
unbenevolent monarchy in favor of a more democratic republic and substantial
foreign economic assistance, a convincing case has been made that Afghanistan
remains an introverted, inward looking, essentially closed society. It is an
agrarian society governed largely by local Islamic leaders whose attitudes are
decidedly conservative. This conservative society is bolstered by poverty,
iliteracy, widespread illness and geographic isolation.

Afghanistan emerged into the post World War II era as one of the 20 least
developed nations in the world. In the nearly three decades that followed,
successive Afghan governments sought to improve the nation's economic and social
status by pursuing economic development plans. Since 1956, four five year plans
were launched focussing on infrastructure in transportation, agriculture, and
irrigation and on constructing light industry. Educational reforms on the
elementary and university levels were also undertaken. Despite improved
transportation facilities, new irrigation projects and the urbanization of the
Kabul area, the economy has remained predominantly agrarian and western
economists believe the Afghan economic performance has been spotty and real
growth very slow.

Basic economic and social data confirm this lethargic socioeconomic
performance. The GNP, it is estimated, increased about 2.4% annually during the
past several years but this increase has been offset by the population growth
rate leaving per capita GNP relatively static. It is believed that the per
capita GNP in 1976 was about $110.00. At the same time, however, the Afghan
balance of payments deteriorated and Afghanistan has remained largely dependent
upon foreign aid for capital investment. Afghanistan's social statistics are
even less encouraging. The general literacy rate hovers between 8.0% and 10.0%.
Only about 12% of the eligible, school age children are in primary and secondary
education. The social status of Afghan women is inferior to men. Afghan women
are poorly educated with only about 3.0% of them literate and less than 6.0% of
Afghan girls in formal education.

Health Challenges to Afghan Growth

Health challenges to the socioeconomic development of most LDCs have a
certain pattern of similarity. Most, for example, suffer an excessively high
crude birth rate resulting in a high population growth rate which, in turn,
exacerbates growing urban unemployment, an already overburdened educational
system, overtaxed social services, and food supply and nutritional deficiencies and necessitates increasing government expenditures of scarce resources to cope with these additional social problems. A large part of the population also frequently suffers from various communicable diseases with which the national health agency cannot cope due to inadequate health manpower, limited facilities and insufficient medicines and supplies. Most also have health agencies which are inadequately staffed and organized to undertake the collection of the necessary data with which to complete the kind of analyses needed to draft acceptable national health plans.

Virtually all of the LDCs must cope with the aforementioned problems but, of course, the criticality of each problem differs with the stage of national development. For example, LDCs with as diverse geography and different stages of development as the Arab Republic of Egypt, Iran, Jamaica, Pakistan and Saudi Arabia must each deal with these impediments to better health care. Beyond these health oriented difficulties, some of these nations also suffer even more basic obstructions to the development process. These include inadequate water resources, inclement climate, obstructive topography, a largely illiterate population dominated by ancient traditions and a government which is itself unstable and has ineffective or no control over large parts of the nation.

By these socioeconomic development criteria, Afghanistan is less developed in most categories than other LDCs, sometimes to a significant degree. Then too, in most instances the health problems are so interlaced with more basic challenges to socioeconomic development such as illiteracy, irrigation demands of agriculture, lack of potable water, inadequate housing and financial constraints that the health problems can only be considered within the context of the general development process. The need to consider Afghanistan’s health problems as an integral part of the development process has been emphasized when considering the following summary of Afghanistan’s specific health problems.

Specific Health Problems: A Summary

The specific difficulties impeding the improvement of the health sector, many of which are merely extensions of the more general problems noted previously, are:

1. On paper, the MOPH appears to be a logically organized, well functioning organization but, in reality, various consultants have several reservations concerning its operations, including: a) divided responsibility between the Curative Medicine Department and the Preventive Medicine Department whereby the former operates hospitals and MCH centers while the latter operates the BHCs; b) authority of the regional health officers has not been defined; c) the division of operational responsibilities between Curative and Preventive Departments renders coordinated planning, management and supervision difficult; and finally d) the authority of the MOPH is limited due to its infrequent contact with the rural population;

2. The lack of health manpower including physicians, nurses, ANMs and technicians is so serious as to undermine even the modest Health sector plans of the new Seven Year Plan;
3. The lack of female staff is especially acute, threatening the operation of the MCH and family planning programs of the AFGA/MOPH;

4. The training programs of the MOPH have also been criticized for being divided among different units of the MOPH. Training is reported to be frequently on an uncoordinated, ad hoc basis without a central training plan;

5. One of the most serious deficiencies of the Afghanistan public health programs administered by the MOPH is a simple lack of coverage. Currently, only about 15% of the Afghanistan population is served by the BHCs and even if the 217 planned (one source claims 280 planned) BHCs are completed and made operational by 1983, only 30% of the population will be served;

6. The present lack of coverage of the rural population by the MOPH does not portend well for the public health service winning the allegiance of the rural population from the native healers in favor of scientific medicine;

7. It has also been reported that in connection with the Seven Year Plan, the MOPH, in cooperation with the Planning Ministry, also prepared a National Health Plan, most aspects of which have been reviewed herein on a chapter by chapter basis. From the data available for this study and from critiques by consultants it appears that the plan: 1) strikes an imbalance between resources devoted to the most needy Afghans (women, infants and children), and adult male workers; b) fails to provide for an adequate number of nurses, ANMs, sanitarians and managers to fulfill the plan and c) fails to provide realistic priority in the overall plan toward which the MOPH can direct its energies;

8. Despite frequent references to the GOA support of family planning activities of the AFGA, the limited number of MCH facilities to be constructed and the cautious way in which family planning activities have been introduced into the BHC program causes doubt as to the seriousness with which the GOA/MOPH view the need for family planning in Afghanistan;

9. MCH care in Afghanistan is extremely limited, reaching no more than those women and children able to obtain services at the BHC units (probably no more than 15% of the population) while the maternal mortality rate and infant mortality are very high. Even if this percentage is doubled by 1983 as projections call for, the number receiving MCH care will still be inadequate;

10. Although there appears to be a controversy as to the existence or seriousness of nutritional deficiencies in Afghanistan, both the logic of poverty and some evidence strongly suggest malnutrition and certain nutritional deficiencies among Afghan women and children;

11. Afghanistan's environmental sanitation practices as well as the lack of availability of potable water are serious problems. Investigators found widespread contamination of drinking water by human and animal wastes in
rural Afghanistan, even where new GOA housing was available with latrines. Similarly, housing in virtually all of rural and much of urban Afghanistan was found to be highly unsanitary and sources of shigella and salmonella and considerable diarrhea and enteric infections;

12. Finally, the most acute aspect of the Afghanistan health environment is the wide range of communicable diseases which especially afflict infants, small children and pregnant and lactating women. Measles, diarrhea/dysentery, typhoid fever, cholera, intestinal helminthiasis, pneumonia, tuberculosis, smallpox, and eye and skin diseases regularly cause an unacceptably high mortality rate among infants and young children as well as a high maternal mortality rate.

Alternative Approaches to Improving Health Care

The USAID Kabul has revealed an MOPH experimental program of local health workers to satisfy, in a small part at least, the immediate demand for more comprehensive health care services for rural Afghanistan while simultaneously assimilating MOPH objectives within the rural Afghan society. This program, moreover, may well serve beyond an intermediate stage since, if proven experimentally sound, could be used as a permanent, institutional part of the Afghan health care system.

The MOPH has generated this proposed program to supplement the basic nature of the existing and currently planned Afghan health care system. That system of health care is based upon hospitals in the cities and provincial capitals and BHCs in the woleswalis, the basic unit of civil government in Afghanistan. Unfortunately, this system, with hospitals and projected BHCs, could only reach a maximum of 30% of the Afghan population when fully operational. The remaining 70% must also be served by providing them with the following components: 1) potable water supply; 2) adequate nutrition; 3) required immunizations; 4) early diagnosis and treatment of childhood diseases; 5) both curative and preventive care; and 6) effective family planning programs.

Under the present system, even with the projected expenditures under the current seven year plan, the hospitals and new BHCs will remain inaccessible to the majority of rural Afghans. Nor is funding likely to become available to increase the number of BHCs. Thus, the MOPH proposal would bring health care through local health workers directly to the rural villages, a program for which funding would more likely become available.

The local health workers to be employed would include: 1) the dai; 2) the village health worker (VHW); 3) trained dai and 4) auxiliary nurse/midwife. The rationale for this approach is persuasive. In addition to lending itself to intermediate, experimental and affordable possibilities, the local health workers appear to be acceptable to the villagers and able to promote the necessary rapport.

The dai, already a midwife within the indigenous system, would have her skills improved to recognize "high risk" pregnancies. The VHW would be trained to recognize and treat some minor diseases, to arrange a visit to the BHC for more serious illnesses and provide nutrition, sanitation, and contraception
The trained dai, in addition to midwife duties, would also provide "home" health care for the MCH patients and gather health information for the supervising BHC. The ANM would serve as a much needed woman health worker in the BHC.

The local health worker program would begin experimentally in a few local areas. If continued proof of success were forthcoming, it could be introduced into a province or two. If after a year's further trial it is successful, with assistance from the USAID it would become institutionalized, as a part of the national health care system.

However encouraging this scheme to provide an alternative health service delivery system through local health workers appears to be initially, the experiment would take a considerable time to implement even in a few provinces. For many years, it would have to remain an adjunct system. More important still, its success also depends on several obvious reforms within the present Afghan health care system. Most of these reforms have been discussed previously within the context of the health sector plans of the seven year plan. They may be recapitulated briefly as follows:

1. The MOPH should be organized in such a way as to ensure one line of operational command for all health services whether curative or preventive from the national level, through regional health offices and provincial health offices to the BHCs;

2. Current MOPH programs have suffered due to serious deficiencies in planning, budget and financing, logistics, personnel, training and supervision. These functions require urgent upgrading if existing programs are to be improved and the local health worker program successfully implemented;

3. An excess of physicians by 1983 has been predicted although we do not believe this has been amply demonstrated. Nevertheless, it is clear that greater incentives to secure physician commitment to rural health needs, better physician training and an orientation toward community/public health problems are needed;

4. It is imperative that the GOA undertake a renewed effort to alter the Afghan sociocultural attitude toward female participation in the society if sufficient female health workers are to be recruited;

5. A substantially expanded effort in environmental sanitation and personal hygiene could be emphasized for the urban areas. The provision of potable water and adequate waste disposal along with improved health habits must be achieved if progress in reducing enteric and gastrointestinal diseases is to be realized;

6. The health care education program directed at the rural population through the village health workers should also be stressed with urban elementary and secondary school students to convince young Afghans of the efficacy of western medicine;

7. A new nutritional survey is urgently needed to settle the present controversy over malnutrition and nutritional deficiencies; and
8. Recent analyses of the Afghan health sector make it quite clear that health care reforms cannot be much accelerated without a more serious commitment of GOA resources in excess of the 2.5% of GOA expenditures currently programmed.
Table 36*

The Afghan Lunar Calendar

<table>
<thead>
<tr>
<th>Afghan Year</th>
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<th>Afghan Year</th>
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<td>1352</td>
<td>1973/74</td>
<td>1368</td>
<td>1989/90</td>
</tr>
<tr>
<td>1353</td>
<td>1974/75</td>
<td>1369</td>
<td>1990/91</td>
</tr>
</tbody>
</table>

* The Afghan lunar calendar is different from the Arabic lunar calendar. The Afghanistan calendar has 365 days divided into 12 months. The Arabic calendar has only 336 days (12 months of 28 days each) which results in a sliding of months around the seasons over the years.
Appendix I

Afghanistan: Geographic, Historical, and Political Aspects

Physical Features

Geography

The area of Afghanistan is estimated to be about 260,000 square miles.\(^1\) Afghanistan is completely landlocked, surrounded as it is by the Soviet Union in the North, Iran in the west and Pakistan in the south and southeast. The length of the country at its extreme is 770 miles while its greatest width is about 350 miles.

Afghanistan is a land of rugged mountains, barren plateaus and windy deserts together with deep, often narrow valleys. Three-fifths of the country, in fact, is mountainous. The most impressive part of these mountains is the Hindu Kush (Persian meaning "Killer") which bisects Afghanistan from northeast to southwest.\(^2\) The northern plains pass into Soviet Turkistan while in the west and southwest the plateaus and deserts merge into those of Iran.

Afghanistan's river system is confined largely within the borders of the country. A few rivers in the eastern part of the country flow into the Kabul which, in turn, empties into the Indus River in Pakistan. Given the location and capacity of the Afghan rivers and the limited rainfall, potable water and water for irrigation purposes is not plentiful.

Geographers have divided Afghanistan into three general regions in accordance with principal geographic features. The first, the "Central Highlands," contains part of the great Alpine-Himalayan mountain chain and has as its core an east-west trending mountain axis composed of three ridges descending toward Iran. These ridges or mountain chains are cut by passes which permit access between northern and southern Afghanistan.

To the north of the central core of the mountains lies the "Northern Plains" covering an area from the Iranian border to the "Eastern Hindu Kush" mountains. The Northern Plains comprise about 40,000 square miles and are about 2,000 feet above sea level. These plains are highly cultivated and well-settled. They constitute one of Afghanistan's most important agricultural areas.

Southwest of the central mountain core lies the "Southwestern Plateau." It

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\(^2\)Ibid., p. 3.
extends from Pakistan to Iran and covers an area of 50,000 square miles at approximately a 3,000 foot altitude. Unfortunately, it comprises principally deserts and semi-deserts, traversed by a few large rivers, including the important Helmand River. The "Southwestern Plateau" is a poor agricultural and/or livestock region except for the Helmand Valley where irrigation projects have been underway for several years.

In summary then, the imposing Hindu Kush mountain system, an extension of the Himalayas to the east, creates a difficult barrier between northern and southern Afghanistan. Passage from south to north (and east to west) can be accomplished only by traversing the few passes through the mountain core. Clearly, the topography of this mountainous nation along with its deserts and limited mountain passes, have helped render Afghanistan generally an isolated nation.

Climate

Afghanistan has a semi-arid climate characterized by cold winters and hot, dry summers. Climate differs somewhat according to region, however. In the "Southwestern Plateau," the Afghans suffer intense heat, drought, high winds, and sandstorms where the temperature rises to 95°F and the precipitation may fall to about 6 inches annually. In the "Central Highlands: temperatures may range from 50°F to about 80°F in July. These mountains and intervening valleys may also be subject to severe blizzards in the winter months. Finally, the "Northern Plains" generally have fertile soil but enjoy only a minimum of rainfall from between about 6 to 15 inches and a temperature from the mid-30's to 90°F.

A Synopsis of Afghanistan's Historical Development

The Achaemenid Empire

Historians believe that about 2,000 B.C. Aryans began to infiltrate the Iranian Plateau. These Aryans, from central and western Asia, provided the ethnic and linguistic basis of the present Afghan population, i.e., Indo-European language and western racial characteristics. The Aryan invasion of the Iranian Plateau was part of a much wider migration by Aryans stretching from the Aegean Sea in the west to the Indus River in the east, a migration that was completed between 700 and 600 B.C.

After the Aryan migration a new invasion occurred under the tutelage of Cyrus the Great, founder of the Achaemenid Empire. About 545 B.C. Cyrus's armies incorporated that part of the Iranian Plateau (modern Afghanistan) known as Bactria after which it became a satrapy of Cyrus' empire.

Alexander's Empire, the Kushans and the Islamic Conquest of Afghanistan

But Persian power was broken by the martial ability of Sparta and Athens after which the Achaemenid Empire fell into decline. Thus, Darius III proved to

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3 Ibid., p. 39.
be no match for the dynamic Alexander the Great who routed the Persians in 331 B.C. at Guagamela.

After Guagamela, Alexander proceeded to conquer the whole Achaemenid Empire including the Indus Valley. Upon the death of Alexander in 323 B.C., his empire split into three parts, the area of Afghanistan falling to The Seleucids. Thereafter, two Greek/Indo-Greek kingdoms, Bactria (north of the Hindu Kush) and Indo-Greek (south of the Hindu Kush) emerged.

By 50 B.C., however, the nomadic Kushans from Central Asia established a new state structure from the Indus Valley to the Persian frontier and up to the Caspian and Aral Seas, including, of course, Afghanistan. Under the Kushan kings, eastern art and other cultural developments proliferated while Hellenic culture including the Greek language disappeared. Of considerable importance during the Kushan Empire was the substantial expansion of east-west trade through Afghanistan between the Roman Empire and China.

By 430 A.D. The Kushan Empire collapsed completely, overwhelmed by the White Kurds from Central Asia. The Huvniss power was short-lived, however, for during the next century it was overwhelmed by the resurgent Persians, the Sassanian Empire.

Slowly but inexorably during the seventh and eighth centuries Arab invaders, in turn, destroyed Sassanian power and obliterated existing religions including Zoroastrianism, Buddhism, Hinduism and remaining pagan rites all of which were replaced by a triumphant Islam, a fact of signal importance to the future Afghan state. Arab rule proved to be extremely lax, however, and between the Ninth and Thirteenth centuries local rulers including some Huvnish, marauding Turks, Sassanian and even Kushan, fought each other for control of very limited areas of Afghanistan.

Mongol, Persian, British and Russian Invaders and the Attempt to Unify Afghanistan

In the very early part of the Thirteenth Century, a politico-military upheaval in Central Asia launched the momentous Mongol invasions of Russia, eastern Europe and the Middle East. Under Genghis Khan's Mongol chiefs the whole area of the Middle East including Afghanistan fell under Mongol military control as far as the Indus Valley, and later, beyond, into India. But again, as under the Arabs, the Mongols conquered but did not remain and in lieu thereof, a local Persian (Tajik) dynasty seized control of most of Afghanistan and ruled this part until the latter part of the Fourteenth Century.

At this point in time Tamerlane (the Barlas Turk) led a new Turko-Mongol invasion that destroyed the Tajiks but was never able to subdue the Pashtun Tribes of eastern Afghanistan. Tamerlane died in 1404 and for the next three centuries the area of Afghanistan degenerated into a chaotic battleground as Persians, Mongols and Pashtun Tribes struggled for supremacy. Finally, during the first half of the Eighteenth Century, Iranian power proved too great and the Iranian leader, Nadir Shah, captured Kabul and then the western provinces of the Mongol (Moghul) Empire in present-day Pakistan. Afghanistan had now fallen completely under Iranian control.

Since before 1600, however, the Pashtun Tribes, despite warring among themselves, had become increasingly strong. By the middle of the Eighteenth
Century, the Iranian, Ahmad Shah Durani, recognized the preeminence of the Pashto-speaking tribes and undertook a program of national unity based upon the Pashtuns. Although Shah Durani died long before unity among the tribes was achieved, in 1835 Dost Mohammad seized the throne in Kabul, and began a quest to recover lost territory while continuing the unifying work of his grandfather, Ahmad Shah Durani.

The great imperial game of modern Nineteenth Century Europe now became a factor in the nation building of Afghanistan. As early as 1809 the British agent in India, the East India Company, negotiated an Anglo-Afghan Treaty to deny the passage of foreign troops through Afghanistan and thus protect India from the armies of Napoleon or the Tsar or whomever might threaten British India. But the Anglo-Afghan association failed to operate well and by 1838 it had disintegrated into open war (the first Anglo-Afghan War, 1838-1842) in which the British were militarily successful but eventually abandoned the struggle. There followed three decades in which Afghanistan was relatively free from foreign invasion and wherein Dost Mohammad and his successor, Sher Ali, sought to complete the unification of Afghanistan.

But Afghanistan's strategic location at the confluence of Russian and British spheres of influence would not permit a continued isolation. By the first part of the 1870's the Tsar's army had pushed to the Amu Darya River and the Russians were threatening intervention below that boundary river. This brought demands by the British for a military mission in Kabul to advise the Afghans on how best to deal with Russian pressure. When Sher Ali refused to admit such a mission, the British invaded Afghanistan, deposed Sher Ali and forced the Afghans to accept British direction of their foreign policy. Thus, by the Treaty of Gandamak of May 1879, Afghanistan, in effect, became a British protectorate and gave Britain control of the Khyber Pass to ensure easy entry by British troops.

During the fifteen years following the end of the Second Anglo-Afghan War, the British, through their hand-picked Amir, Abdur Rahman, sought to define the borders of the emerging Afghan state. Thus, by 1895 the border with Sinkiang, Russia and Iran had been defined as well as the border between Afghanistan and India along the so-called "Durand Line." This border was so drawn that it split the Pashtun tribes into two parts. In almost seven centuries, therefore, the geographic entity known as Afghanistan was molded and defined. When Abdur Rahman Khan was ensconced as Amir in 1880, however, Afghanistan was little more than a geographic entity and hardly a unified, centralized national state.

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4 See Dupree, op. cit., pp. 368-401 and Fletcher, op. cit., pp. 119-141 for detailed accounts of British political and military policy toward Afghanistan in the 19th Century and the Afghan reaction.

5 See Bernier et al, op. cit., pp 48-49; an Anglo-Russian Agreement of 1873 set the Amu Darya as the boundary between Russia and the emerging Afghan state.

6 Ibid., p. 49, In 1885 the Russians attempted a further penetration into Afghanistan and an Anglo-Russian war almost materialized. But an Anglo-Russian Agreement made in St. Petersburg in July 1897 reaffirmed the border at the Amu Darya.
In the previous seven centuries the forces of history had deposited into the area around the Hindu Kush the ingredients of a future state, including the dominant Pashtun Tribes, a common language and a religious preference but little else. Abdur Rahman, with British concurrence, thereupon took up the role of tyrant to attempt to create a nation-state. He created three indispensable elements of national power, a national (as opposed to tribal levees) army, a centralized bureaucracy under his sons, and a police force. With these agencies he proceeded to expand his authority from the Kabul area, and upon his death in 1901 the first tentative steps toward a unified state had been taken.

Abdur Rahman was succeeded by his son Habibullah Khan who reigned from 1901-1919. Although Habibullah was less aggressive than his father, the circumstances preceding World War I and the war itself promoted Afghanistan's national interests. Habibullah encouraged the introduction of European education and technology and soon, Afghan intellectuals were also promoting the new national state. The destruction of Imperial Russia and the severe weakening of Britain in World War I also whetted the appetite of Afghan nationalists for complete independence.

Habibullah was assassinated in 1919 but his successor, his son Amanullah Khan, was as aggressively nationalistic as his grandfather. In May 1919, he launched the Third Anglo-Afghan War and after some bitter fighting the war-exhausted British signed the Treaty of Rawalpindi in August 1919 by which they recognized Afghanistan's complete independence.

Amanullah, seeking to capitalize on his nationalistic triumph, launched a series of social and military reforms including outlawing polygamy, establishing a national parliament and separating religious and secular authority. The new reforms were increasingly resisted until finally the Pashtun tribes revolted and deposed Amanullah. Indeed, in 1929 after Amanullah had fled, Afghanistan underwent a "time of troubles" as Kabul was seized by a bandit leader and civil authority disappeared. Tribal authority thereupon reasserted itself. An Afghan officer, Nadir Khan, secured the support of sufficient Pashtun tribes to defeat the Tajik bandit-rebels and restore the monarchy and the state.

Nadir Khan, now Nadir Shah, instituted a reactionary regime undoing the work of centralizing the authority of the national state undertaken by the three previous amirs and returning power to the several tribes. A new constitution was promulgated based on the principle of the Amir as "Chief among chiefs" wherein the Amir would rule through consultation with a council of tribal chiefs and notables. Authority was once again officially with the Pashtun tribes. Although he sought to modernize the national army, improve health care and

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7 See Fletcher, op. cit., pp. 213-225, his chapter entitled "The Afghan Revolution."

8 See Bernier et al, op. cit., p. 54, see also Dupree, op. cit., pp. 458-476 who gives Nadir Shah much credit for economic development of Afghanistan in the thirties (see Appendix II).
introduce some European ways of life in Kabul, in fact, the condition of the Afghan state retrogressed to the semi-feudal conditions of over a hundred years before in the era of Shah Durani and Dost Mohammad.

Contemporary Afghanistan: Monarchy and Republic

On November 8, 1933 Nadir Shah was assassinated and his son, Mohammad Zahir Shah, assumed the throne at 19 years of age. Zahir Shah enjoyed a long but unpretentious reign (1933-1973). Although the monarchy was severely shaken by the assassination of Nadir Shah, an uncle and cousin of Zahir Shah, actually ruled Afghanistan as Prime Minister and Foreign Minister respectively until 1953, and pursued a generally prudent course both at home and international relations.

In domestic affairs the government of Zahir Shah, like that of his father, attempted to pacify the dissident tribes, promote economic and social development, and to maintain peaceful relations with Afghanistan's immediate neighbors. The Monarchy, however, was severely challenged by the Pashtun Tribes who sought to reunite with their fellow tribemen across the Durand line in British India.

Despite these internal security and constitutional difficulties, Zahir Shah was able to continue the economic policies launched by his father, Nadir Shah. Thus, as early as 1925 a new currency, the Afghani, had been introduced by Nadir Shah to facilitate trade and commerce. In order to further promote industrialization, Nadir Shah also created an industrial monopoly system (sherkat) whereby the government through guaranteed investment capital and profits, could control production and industrial policy to ensure itself a steady income.

A new cotton industry was soon developed in Afghanistan, complete with ginning plant and pressing mill. Nadir Shah also promoted new highway construction in an attempt to further unify Afghanistan. Foreign assistance, both technical and financial, was also sought to begin a formal education system and to reinvigorate the long-dormant Helmand (Hilmand) Valley project of canal construction, irrigation, road construction and agricultural development.

When Zahir Shah inherited the throne in 1933, as we noted above, Nadir Shah's economic activities were continued. In 1934, a new investment bank (Bank-i-Meli) was chartered to support still more new industries. Since Zahir Shah's government had considerable sympathy for the Axis powers, German, Italian and Japanese technical expertise and capital were employed during the late thirties. Thus, despite continued difficulties with the various tribes, by the advent of World War II, Afghanistan had the rudiments of a modern economy.

Afghanistan remained officially neutral during World War II but GOA officials and intellectuals were outspokenly pro-German and opposed both to the British and Soviets, their traditional enemies. This brought an Anglo-Soviet demand that Afghanistan expel all nondiplomatic Axis personnel who were openly seeking to stir up the tribes against the Soviet Union and British India.

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9 See Fletcher, op. cit., pp. 229-232.

10 Dupree, op. cit., p. 472; the GOA would own up to 45 percent of a company's stock while 55 percent would be held by private investors.
Although the GOA ministers and Zahir Shah considered the demand humiliating, eventually they conceded and Afghanistan retained its neutrality.

With the end of World War II, Zahir Shah appointed a new Prime Minister, Shah Mahmud, who held relatively free elections which resulted in a so-called liberal parliament. There followed until 1953 an experiment in parliamentary democracy, the first in Afghanistan's history. A number of the western-educated members of the National Assembly attempted to curtail corruption and make the King's ministers responsible to parliament. Laws were also introduced rendering a free press.

In 1953, however, Shah Mahmud resigned as Prime Minister and was replaced by Zahir Shah's cousin, Sardor Mohamed Daoud. With Daoud's ascendancy the so-called "liberal" period in Afghanistan was terminated. The Daoud Administration endured for ten years with the King taking an increasing interest in governing. Politically, the Daoud years were "quiet" and some progress was achieved in promoting a more viable national economy and especially, in pursuit of economic development (see Appendix II).

Even prior to Daoud's assuming power, the GOA turned to the U.S. for aid in resuming the Helmand Valley project and for assistance in upgrading the Afghan educational system. The Afghans hoped to duplicate in the Helmand the American success in their TVA program. Due to a variety of reasons, including bilateral problems, the Helmand project fell into serious difficulties and production objectives were not met. Mohamed Daoud gradually became convinced that lack of realistic planning caused the Helmand Valley program to falter and soon applied this lesson to the whole Afghanistan economy. There followed then a series of five year plans, the first beginning in 1956, focussing on agriculture, transportation (road construction), communications and social services. The Soviets had by now also joined the U.S. in providing substantial financial and technical assistance to the Afghans.

During this entire period from 1946 through 1963 (Daoud's resignation) the internal weakness of Afghanistan as a national entity persisted, however. It was clear that the central government was in control of only a part of the national territory at any one time. It continued to have difficulties in governing its tribes.

When Daoud resigned in 1963, there was much criticism of his administration and of government by "family compact." Zahir Shah, long aware of this criticism, helped the new Premier, Yousuf Mohammad, and a constitutional committee draft a new constitution which was promulgated in October 1964. It represented the beginning of the second "experiment in democracy." Elections were subsequently held in September for the bicameral legislature ordained by the new constitution.

Thereafter the stirrings of parliamentary democracy foundered. Only economic development made limited progress, mainly as a result of substantial

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11 Ibid., p. 278.
12 See Background Notes: Afghanistan. Washington, D.C., Dept. of State, 1974, p. 4.
foreign aid from the U.S., U.S.S.R., West Germany and others. Even this limited economic development in the Helmand Valley, road and irrigation and communication construction did not significantly upgrade the economy. Indeed, both the trade and budgetary deficiencies continued to increase.

All of these socioeconomic problems found expression in the increasing militancy of students and workers. Student demonstrations occurred in 1964-65 and again in 1967 and 1968 while worker protests for higher wages and better working conditions also occurred in 1968 sometimes supported by students. Zahir Shah and the GOA took an increasingly hostile attitude toward these demonstrations and the freedom of the press was sharply curtailed.

It was an economic crisis which finally toppled the monarchy, however. In 1971-1972 Afghanistan was afflicted with a severe drought which was disastrous for millions of Afghans. For the first time a number of Afghans were faced with starvation conditions while thousands of head of livestock perished. These conditions, together with budgetary and trade deficits, exacerbated the already tense political conditions. While King Zahir Shah was in Italy for medical treatment in July 1973, former Prime Minister Mohammad Daoud, supported by young army officers, undertook a coup d'etat and deposed Zahir Shah. Afghanistan became a republic and Daoud became its first president and premier. The sorely tried Constitution of 1964 was abrogated. Thus ended Afghanistan's second experiment in democracy.

Elements of Afghanistan's Political Life

The Government of Afghanistan Under the Monarchy

Before the coup of July 1973, as recorded above, Afghanistan was a constitutional monarchy under a dynasty begun in 1929 by Nadir Shah. Although constitutions were promulgated by the Monarchy in 1923 and 1931, the country remained an almost absolute Monarchy until the 1964 constitution, instituted under the enlightened leadership of Mohammad Zahir Shah. Under this new constitution the King had more restricted duties and rights of a military,

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13 See Bernier et al, op. cit., p. 207 and Dupree, op. cit., pp. 584-585. The Constitution of 1964 provided universal male suffrage which was extended to women in 1965. Although the Constitution provided for the drafting of a bill setting forth the rules for creating political parties, we are not aware that such a bill ever passed parliament prior to the coup of 1973. Thus, formal political parties seemed not to have developed before 1973. Instead, most Afghans continued to give their loyalty to various tribal leaders. Nevertheless, in the first parliament elected in 1965, the Wolesi Jirgah (lower house) split into six groups: Conservatives (a laissez faire economy group); an informal National Party (a centrist group supporting the king); liberals (favoring public sector development); Afghan Marxist, Pashtun and Nationalists. These groups represented only 20 percent of the Afghan population and all groups, except perhaps the Afghan Marxists, were so loosely organized as to defy affording them the western status of political parties.
executive, judicial and legislative nature. He still appointed the Prime Minister and, on the Prime Minister's recommendation, all other Ministers. The cabinet included the Ministers from the 15 departments of the GOA. The executive, legislative and judicial authority were separate (see Table 1 below).

The legislative power was vested in a bicameral parliament (shura). The House of the People (the lower house, or Wolesi Jirgah), with 216 members, was elected from universal secret balloting for a period of four years. The House of Elders (upper house, or Meshrano Jirgah) had 87 members. Powers of the parliament included passage of laws, approval of the budget, ratification of treaties, and dispatch of armed forces into foreign territories.

The Constitution also provided for a Great Council (Loya Jirgah), composed of members of parliament and all chairmen of the provincial councils. It could be called by the king at times of national emergency or when support of an important government policy was required. Should parliament be dissolved, the members all retained their membership on the Loya Jirgah until the new government was formed.

The judiciary, an independent organ of the state, was composed of a Supreme Court and a system of subordinate courts including a high court, 29 provincial courts, seven courts of appeal, and numerous district courts. The Supreme Court consisted of eight justices and one chief justice. The country's judicial system was based on the Sharia, the religious law of Islam, which made no distinction between civil and criminal laws. Where no specific codes covered a legal question at hand, the courts were expected to follow the religious principles of the Hanafi doctrine.

The Government of the Republic

After the coup of 1973, the Constitution of 1964 was suspended and Daoud undertook the role of President, Prime Minister, Foreign Minister, and Minister of National Defense. For the past several years President Daoud has ruled through his Cabinet by decree. The parliament was abolished and the judiciary remained intact, although its position and responsibilities were altered.

Where necessary, the Ministers of the Cabinet have been replaced by those friendly to the new regime (see Table 2 below), and they now share an indeterminant amount of power with a newly organized "Central Committee" which serves as a "consultative" body to the President on most matters of state. The precise make-up of the Central Committee is unknown, although it is presumed to contain selected members of the Cabinet, military officers, and personal friends of President Daoud. The judiciary has lost its independent status and now is directly responsible to the Ministry of Justice.

Provincial and Local Government

Since 1964 Afghanistan has been divided into 29 provinces (see Figure 1 below). Heads of the provincial governments are the governors who were appointed by the king but now are subject to appointment by Daoud. The governors are responsible to the Ministry of Interior but the GOA's control of a number of provinces is questionable. Provincial assemblies and councils, elected under universal suffrage, have only advisory powers to the provincial governors.
Table 1
Structure of Afghan Government

<table>
<thead>
<tr>
<th>House of the People</th>
<th>House of the Elders</th>
</tr>
</thead>
<tbody>
<tr>
<td>(216 members -- elective)</td>
<td>(84 members -- appointive and elective)</td>
</tr>
</tbody>
</table>

**Executive**
- Council of Ministers
  - Prime Minister
  - Deputy Prime Minister
  - Foreign Affairs
  - Finance
  - Justice
  - Education
  - Commerce
  - Information and Culture
  - Public Works
  - Public Health
  - Communications
  - Agriculture and Irrigation
  - Mines and Industries
  - Interior
  - Planning
  - Department of Tribal Affairs

**Legislative**
- Loe Jirgah

**Judicial**
- Supreme Court
- Provincial Courts
- Primary Courts

**Tribal Affair**
- Provincial Jirgahs
- Provinces
  - Major Districts
  - Districts
  - Sub-Districts
Table 2
Principal Government Officials*

<table>
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<tr>
<th>Position</th>
<th>Name</th>
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<tbody>
<tr>
<td>President, Prime Minister, Minister of Foreign Affairs, and Minister of National Defense</td>
<td>Mohammad Daoud</td>
</tr>
<tr>
<td>Deputy Prime Minister</td>
<td>Hasan Sharif</td>
</tr>
<tr>
<td>Ministers:</td>
<td></td>
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<tr>
<td>Justice</td>
<td>Abdul Majid</td>
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<tr>
<td>Interior</td>
<td>Faiz Mohammad</td>
</tr>
<tr>
<td>Education</td>
<td>Nehmatullah Pazhwak</td>
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<tr>
<td>Mines and Industries</td>
<td>Abdul Qayoum</td>
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<td>Public Works</td>
<td>Ghausuddin Fayeq</td>
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<td>Public Health</td>
<td>Nazar Mohammad Sekandar</td>
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<tr>
<td>Culture and Information</td>
<td>Abdul Rahim Navin</td>
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<td>Agriculture and Irrigation</td>
<td>Ghulam Gailani Bakhtari</td>
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<tr>
<td>Commerce</td>
<td>Mohammad Khan Jalallar</td>
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<tr>
<td>Planning</td>
<td>Ali Ahmad Khurram</td>
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<td>Frontier Affairs</td>
<td>(Vacant)</td>
</tr>
<tr>
<td>Communications</td>
<td>(Vacant)</td>
</tr>
<tr>
<td>Finance</td>
<td>Sayed Abdul Ellah</td>
</tr>
</tbody>
</table>

* Background Note: Afghanistan, op. cit., p. 5, as of 1977.
Local governments headed by town mayors and town councils are elected from the people to fill the administrative sub-units in the provinces of Afghanistan.

Current Foreign Relations

A glance at a map of the Middle East and South Asia reveals the obvious strategic location of Afghanistan. It was long a buffer state between Tsarist Russia and British India and since the late forties it has assumed an important role for Iran, the U.S.S.R., Communist China, Pakistan and the United States. Surrounded as it is by more powerful neighbors the several Afghan administrations since World War II have pursued a neutralist foreign policy, eschewing the "cold war" and instead inviting technical and financial assistance from both east and west.

Indeed, the only nation since World War II with whom Afghanistan has had strained relations has been Pakistan. These adverse relations stemmed from the long-term controversy over the "Pustunistan". Thus, for almost two decades after World War II Afghan-Pakistan relations were strained, sometimes severely, as the Pashtun Tribes to the east of the Durand Line agitated for independence from Pakistan at the very least, masking their real desire for union with Afghanistan. The GOA sought to keep its own Pashtun Tribes under control but, nevertheless, supported the Pashtun contention that the Durand Line was not valid and that a separate Pashtun state should be created between the Durand Line and the Indus River. Despite border clashes and propaganda debates, semi-normal relations involving trade and transit gradually evolved in the late fifties and have been maintained. Only recently, have Afghan-Pakistan relations deteriorated once again.

To the west, Afghanistan has had generally amiable relations with Iran for many decades based in large part, of course, on the cultural and linguistic (Dari) ties between the two people. Water rights of the Helmand River have caused some friction but not serious enough to interrupt very important trade and transit agreements between the two countries.

Afghan-Soviet relations were adversely influenced in the period between World Wars I and II and immediately thereafter. Long-term Russian encroachment over the Amu Darya River boundary and the Afghan suspicion of Soviet interference with its internal tribal affairs served to strain bilateral relations. After 1954, however, the Soviets encouraged closer relations with Afghanistan by entering into a long-term aid program for the Afghans. It is believed that the Soviets have provided over $1 billion since 1954 for gas and oil development, transport, irrigation and equipment for the Afghan armed forces. Afghanistan also maintains relations with most of the Communist Bloc countries, sends students to these countries for training and receives aid from Czechoslovakia.

14 See Bernier et al., op. cit., p. 222 and Background Notes: Afghanistan, op. cit., p. 6.

15 Ibid., pp. 6-7.

Figure 1
Provincial Map of Afghanistan

Province
1. Kabul
2. Logar
3. Nangarhar
4. Konar
5. Laghmon
6. Kapisa
7. Parwan
8. Badakhshan
9. Takhar
10. Qunduz
11. Baghlan
12. Samangan
13. Balkh
14. Jozjan
15. Farlab
16. Badghis
17. Herat
18. Ghor
19. Bamyan
20. Wardak
21. Paktia
22. Ghazni
23. Urozgan
24. Farah
25. Chakhansoor
26. Helmand
27. Kandahar
28. Zabul
29. Katawaz-Orgoon

As to the other major communist power, Communist China, Afghanistan has had formal and friendly relations with it since 1955. Border agreements have been arrived at and the Chinese have provided a $28 million loan to Afghanistan for several development projects.

Formal relations between the U.S. and Afghanistan were established in 1936. Since the close of World War II these relations have become more cordial and a substantial U.S. aid program to Afghanistan developed beginning with the Helmand Valley project, and continuing with aid in the various sectors. Up to 1974, for example, the U.S. had provided more than $450 million in loans, grants and surplus agricultural commodities for projects in transportation, education, industrial and agricultural development. The U.S. Peace Corps has also been active in Afghanistan.

Relations with other Middle Eastern, Western Europe and South Asian nations have also been cordial. Afghanistan found a supporter in India against Pakistan but was careful not to become involved directly in the Indian-Pakistan disputes. Afghanistan also relied on its Islamic background to maintain good relations with Turkey, the Arab Republic of Egypt and Syria. Afghan relations with France and West Germany have also been close due to cultural and political associations, respectively. Relations with the United Kingdom were cool but correct although there remained much anti-British sentiment among Afghans resulting from long-term British imperial policy and three Anglo-Afghan wars. Finally, Afghanistan belonged both to the old League of Nations and the new UN and participates in the major UN agencies.

Since the close of World War II, then, Afghanistan's foreign policy of neutral, non-alignment in the "Cold War" and friendly cooperative relations with major and minor powers has been very advantageous to the Afghans. Not only did Afghanistan not become a source of conflict in the "Cold War" but it has been the beneficiary of substantial assistance both from east and west.

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17 Background Notes: Afghanistan, op. cit., p. 7.
APPENDIX II

The Economy of Afghanistan

The Structure of the Economy

The economy of Afghanistan is still essentially agrarian with approximately 85 percent of the population engaged in various agricultural pursuits. Although estimates vary widely as to Afghanistan's population, we have used the data provided by the USAID. Thus, about 2 million of the estimated 14.5 million Afghans are nomads tending livestock. The settled farmers are engaged in raising Afghanistan's principal crops which include fruit, cotton, corn, rice and wheat. Only about 20 percent of the land in Afghanistan is considered suitable for agriculture and only about 12 percent of the total land is actually under cultivation. Agriculture, including livestock production, provided more than 75 percent of Afghanistan's exports in the late sixties, provided material for related industry and supplied the Afghan's basic food supply except for some wheat, sugar and tea. In 1968/69 agriculture and stockraising represented 63.1 percent of GNP but by 1975/76 this had fallen to 56.0 percent of GNP.

After agriculture and stock raising, trade and services contributed about 8 percent to the GNP in the late sixties. It is believed that this percentage had not changed radically by 1975. Despite improved internal transportation, trade was largely a local affair rather than international.

Industry remained a very minor part of the Afghan economy even though it continued to expand slowly over the past two decades. Between 1968/69 and 1975/76, for example, the share of industry in the Afghan GNP increased from 5.1 percent to 6.8 percent. Handicraft industries continued to be more important than factory industry, however. In 1967/68 about 200,000 Afghans were employed in handicraft industries while only 30,000 were employed in factory enterprises.

Until recently, industrial potential considerably exceeded the ability to mobilize capital for industrial development. This condition is still prevalent but less so than in the late sixties. Still, large industrial enterprises are

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1 See Health Sector Assessment, op. cit., p. 8.
2 See Bernier et al., op. cit., pp. 257-178 for details of the Afghan economy, business activities and GOA fiscal operations; see also Dupree, op. cit., pp. 449-554 and 623-632 for similar but later economic data. See also the First Seven Year Economic and Social Development Plan, op cit., pp. 1-16.
3 Ibid., p. 3.
4 See IBRD (World Tables, January 1971) which claimed that in 1968 trade and finance represented 13 percent of the Afghan GDP.
race with industrial production confined largely to smaller plants which produce consumer goods and a few items for export.

Among the several impediments to Afghanistan's further economic development, the following should be mentioned some of which are explored in more detail below. Briefly, these impediments include:

Afghanistan is heavily dependent upon most manufactured consumer goods and has been importing these goods increasingly over the past two decades. Although exports have also increased, they have increased at a lesser rate than imports. The result has been a balance of payments deficit of about $70 million between the years 1968/69 and 1975/76.

Other hindrances to Afghan economic development also include low productivity and the weak distribution system. There is also the severely limiting factor of deficient water. Both agricultural pursuits and livestock promotion are circumscribed by lack of water which is dependent to a large extent on melting snow. This is the case even in the major river valleys where agriculture is practical. Banking development and the extent and use of credit are also severely limited in Afghanistan.

The economic development of the nation is also hampered by the social structure. Since society is based to a large extent on the tribal or extended kinship system, the structure of this society does not lend itself to industrialization. Since Afghans do not give much importance to occupational roles, there is not too much incentive to enter upon an industrial society.

Finally, there is the extremely high illiteracy rate and the lack of technological skills. Not only do these educational deterrents discourage industrial development but they also interfere with the communication of new ideas to farmers and herdsmen.

The structure of the Afghan economy remains largely as it has existed for the past two decades. Trade with various other countries, foreign assistance from multilateral agencies and on a bilateral basis and development programs by the GOA over the past decade, nevertheless, have all begun to alter the Afghan economy, albeit slowly. The changing Afghan economy will be reviewed on the following pages in the course of examining the Afghan development plans and the status of the more important sectors of the economy.

Afghanistan's Economic Progress: the Development Plans

Efforts to promote economic growth by the GOA with the cooperation of the monarchy had been initiated as early as 1933 but twenty years later the results were relatively miniscule. In the Helmand Valley efforts were really confined

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6 See First Seven Year Economic and Social Development Plan, op. cit., pp. 5-6.
7 Bernier et al, op. cit., p. 259.
by necessity to pre-development activities such as elementary and secondary schools in urban areas, creation of the University of Kabul and promoting banking institutions and small businesses.

When Daoud became prime minister in 1953 he was acutely aware of Afghanistan’s economic underdevelopment. He was also dissatisfied with inefficiencies in the Helmand Valley irrigation-agricultural program and general corruption in the GOA. He sought not only to end inefficiency and corruption but also to launch Afghanistan on a comprehensive economic development program. When the sherkats failed to accelerate economic activity, Daoud, under the influence of a General Abdul Malik, as some authorities claim, moved toward "statism" or state planning to achieve his goals. Thus, the first of several five year plans for the next two decades was initiated.

These plans were prepared in the Ministry of Planning but were implemented both by the planning and finance ministries. Very generally these plans focused on infrastructure in transportation and agriculture, on power facilities and only later, on small industries, education, health and social activities. As some critics have stressed, however, the individual projects were often unrelated.

The First Five Year Plan covering the period 1956-1962 focused largely on infrastructure. The cost of this plan was 10.5 billion afghanis or US$ 233.3 million at current prices. This plan was not considered to be especially successful although some urgently required highways were constructed during this period.

The Second Five Year Plan covered the period 1962-1967. It also focused on infrastructure but with even less funding for the private sector and the sherkats than the first plan. The second plan was funded for about 25 billion afghanis or US$ 555.6 million most of which, as noted above, was programmed for road, dam, irrigation and agricultural projects.

The Third Five Year Plan covered the period 1967-1972 and was funded at about 25 billion of which only about 20 billion afghanis were spent. This plan, in addition to funding for development of the infrastructure and agricultural products for export, also provided some funding for social services and export-import substitution industries. Climatic conditions undermined the third plan, however. A severe drought lasting through the crop years of 1969-1971 caused a serious reduction of seed grains and forced the slaughter of a large part of rural livestock. This wrecked plans for meat and livestock exports and forced the import of grains.

The Fourth Five Year Plan, covering the period 1972-1977, also programmed expenditures of somewhat more than US$ 444.4 million. It covered the same activities as the previous plan but ended disastrously. It was launched amid the depressed economic conditions of the drought which, as reported in Appendix...
I, helped launch the revolt of 1973 that deposed the monarchy and created a republic. With the demise of the monarchy the fourth plan was also dropped.

In place of the abandoned fourth plan, the new republican government introduced a Seven Year Development Plan to run from 1976 through 1983. This was a comprehensive plan covering the most important aspects of economic development from infrastructure to social and health services. There was a new focus on industrial development, however, in such products as sugar, cotton, cement, fertilizer and coal both for domestic use and export (see the section below on foreign aid for more details on the Seven Year Plan).

The difficulties experienced by the Afghan economy over the past several years are also reflected in balance of payments and foreign trade deficits and rising prices. Between 1969-70 and 1975-76, Afghanistan accumulated a balance of payments deficit of about US$ 70,600,000. During that period Afghan exports totalled US$ 1,009,300,000, or 90.7% of total receipts, while imports amounted to US$ 940,800,000 or only 79.5% of payments. Unfortunately, however, during that period the Afghans were forced to pay US$ 228,600,000 in debt services which accounted for much of the deficit.\footnote{11 (see also Table 5 below).}

Since 1970/71 Afghan exports have increased by about 5.0 percent while imports have only increased by 4.0 percent. During this period, 84 percent of the total export earnings came from the traditional sector of the economy (agriculture) and 15 percent from the sale of natural gas. This included the sale of US$ 358,300,000 of fruit and US$ 110,000,000 of cotton. Of imports, 85 percent were comprised of consumer goods while 15 percent were capital goods. Between 1968/69 and 1975/76, the Afghan money supply grew at about 11.0 percent per year. During this same period the GOA believes prices have risen on an average of 5.2 percent per year. The GOA economists blame the years of drought, 1971-1972, for the steep rise in the prices of primary food items and other consumer commodities between 1971 and 1973. By the year 1973, Afghan agriculture had regained its former levels of productivity and the price rise was sharply reduced.

Economic Sectors

Agriculture

Agriculture, by far, is the most important sector in the economy of Afghanistan.\footnote{12 See Bernier et al, \textit{op. cit.}, pp. 263-286, their comprehensive Chapter on Afghan agriculture.} In 1967 about 90 percent of the population was engaged in agriculture and a decade later that number is still about 85 percent. Much of Afghanistan's agricultural production is consumed in Afghanistan and even then, the country is not entirely self-sufficient in food production. There have been perennial shortages of wheat since 1957 and this condition was exacerbated during the drought years of 1971-1972.

\footnote{11 See First Seven Year Economic and Social Development Plan, \textit{op. cit.}, pp. 5-6.}

\footnote{12 See Bernier et al, \textit{op. cit.}, pp. 263-286, their comprehensive Chapter on Afghan agriculture.}
Afghanistan, nevertheless, is an important food producer for south Asia. The Afghans are important suppliers of fresh and dried fruit for Pakistan and India, a role they have performed for many years. Moreover, agricultural net output was valued at US$ 1.2 billion in 1975/76 at which time it represented about 56 percent of the GNP. Although the number of hectares under cultivation, 3,882,000 hectares, did not increase significantly between 1968/69 and 1975/76, the per hectare yield in grain, cotton and sugar net increased 15.5 percent, 10.8 percent and 61.3 percent, respectively.\textsuperscript{13}

Despite these encouraging data the Afghan agriculture sector still must cope with many, traditional human and physical problems which impede production. The most important of these impediments include:

1) only a very limited amount of Afghan territory is suitable for cultivation. Of the approximately 250,000 square miles, only about 3.0 percent is termed arable;

2) The general level of elevation in Afghanistan is also a severe deterrent to productive agriculture;

3) Rainfall in Afghanistan is low at about 11 inches annually. Afghan farmers, therefore, are dependent to a great extent on snowmelt for water;

4) Finally, in addition to the natural deterrents to agricultural production there are the political-socioeconomic deterrents which include: a) the generally negative attitude of many Afghans toward the sedentary life since Afghans would prefer the traditional nomadism and are indifferent towards farming; b) those who are oriented toward farming are hindered by the variety of landownership mechanisms which exclude the landless Afghan, including: private ownership (melk); joint ownership (Khalisah) by tribe; public lands (nuri khali); and religious trust lands (waqf).\textsuperscript{14}

About 90 percent of the arable land is utilized to grow cereals, the most important of which are wheat, barley, rice and corn. Cotton is also a very important cash and export crop. It is grown under irrigation in the area north of the Hindu Kush from Kunduz to Herat. Sugar beets are also another cash crop which is produced in Kunduz and Baghlan provinces. Truck gardening is also an important part of Afghan agriculture. Melons, watermelons, pumpkins, squash and cucumbers are widely grown in all irrigated areas. Orchards, vineyards, various nut trees and dates are also grown in several of the provinces. Stockraising is also widely practiced in Afghanistan and, of course, is an ancient tradition. Livestock include both dromedary and bactrian camels, horses, mules, donkeys, cattle, goats, fat-tailed and karasbill sheep, yaks, and poultry of various kinds.

Forests in Afghanistan are limited to an area between 4,000 and 12,000 feet on the eastern slopes of the Hindu Kush and Safed Koh. The limited Afghan forests are important commercially for the wild nut trees such as pistachio, the nuts from which are traded and exported. The wood from these forests is also

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\textsuperscript{13} Seven Year Development Plan, \textit{op. cit.}, p. 8.

\textsuperscript{14} See Bernier et al, \textit{op.cit.} pp. 269-281.
used for the native furniture manufacturing industry. Fish are found in all Afghan rivers but apparently are not a favorite food of Afghans.

The GOA has long sought to promote agricultural production and diversification in Afghanistan and it has solicited financial support from the U.S., the U.S.S.R. and other donors for this purpose. The GOA has engaged in extensive land reclamation and irrigation projects. Such projects have been underway for some time in the northern provinces. Since 1939, the most ambitious project has been the development of the Helmand Valley through irrigation, flood control, and land reclamation.

Although the agricultural sector is the most important to the Afghan economy its performance, like the resettlement program, has been disappointing. The majority of Afghanistan's farmers still produce only enough to maintain their families at a minimal subsistence level. Whereas there is almost no starvation there is some malnutrition due, in some measure, to low productivity. Thus, the Afghan farmers have contributed only marginally to the nation's economic development and, of equal importance, have received few benefits in return (see Table 1 below).

The task of raising agricultural production and the standard of living of the small, Afghan peasant-farmer is, of course, extremely challenging. Not only must the adverse climate and natural difficulties be remedied but a host of sociocultural problems also have to be solved. These range from land use arrangements to overcoming ancient but wasteful agricultural inefficiencies. Thus, a large measure of resources and energies are to be funnelled into the agriculture sector for the indefinite future.

| Table 1 |
|-----------------|-----------------|-----------------|-----------------|
| **Agricultural Productivity Over the Past Decade** | 1968/69 (1000 tons) | 1975/76 (1000 tons) | Percent Increase |
| Grains | 3917 | 4481 | 14.4 |
| Wheat | 2354 | 2850 | 21.1 |
| Corn | 773 | 780 | 0.9 |
| Rice | 402 | 435 | 8.2 |
| Barley | 361 | 384 | 6.4 |
| Other Grains | 27 | 32 | 18.5 |
| Industrial Crops | 190 | 320 | 68.0 |
| Cotton | 71 | 160 | 125.4 |
| Sugar Beet | 62 | 100 | 61.3 |
| Sugar Cane | 57 | 60 | 5.3 |
| Oil Seeds | 36 | 40 | 11.1 |
| Vegetables | 654 | 720 | 10.1 |
| Fruits | 834 | 880 | 5.5 |

* See Seven Year Economic and Social Development Plan, op. cit., p. 7.
Industry and Mining

At the completion of the second five year development plan in 1967, substantial progress had been achieved on hydroelectric power and the development of natural resources. There were still only about 18 factories in the western sense, however, and all modern industry, including construction, employed only about 70,000 persons.

The third five year plan focussed on the development of industrial strength by creating more plant capacity. It especially encouraged private investors to become involved in plants outside of the Sherkats, the joint government-private stock companies. The economic development plans, then, attempted to lessen Afghan dependence upon foreign imports by promoting new industrial enterprise which would use native hydroelectricity and natural gas for power.

By the time the seven year plan was launched in 1976, the GOA claimed the value of goods and services from the industrial sector amounted to about US$ 7.1 million during 1975/76, up from US$ 32.2 million in 1968/69. The industrial sector represented about 3.3 percent of the Afghan GNP with a percent industrial growth rate of over 9.0 percent (see Table 2 below).15

Afghanistan is not without natural resources and has known deposits of many minerals including chrome, copper, lead, zinc, uranium, manganese, asbestos, gold, silver, iron, sulfur, mica, nickle, slate and lapis lazuli. Afghanistan also possesses oil and oil shale in unknown quantities. There also appears to be a substantial amount of coal but as of the close of the sixties only three mines were operating. Of considerable importance is Afghanistan's supply of natural gas, estimated to be in excess of 67 billion cubic feet.

Table 2

<table>
<thead>
<tr>
<th>Industrial Production*</th>
<th>1968/69</th>
<th>1975/76</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sugar (000 tons)</td>
<td>5.3</td>
<td>13.6</td>
<td>156.6</td>
</tr>
<tr>
<td>Cotton Textiles (miles)</td>
<td>46.2</td>
<td>64.5</td>
<td>39.6</td>
</tr>
<tr>
<td>Rayon Textiles (miles)</td>
<td>2.8</td>
<td>32.4</td>
<td>10.6</td>
</tr>
<tr>
<td>Woolen Textiles (000 metres)</td>
<td>146.0</td>
<td>350.0</td>
<td>-21.0</td>
</tr>
<tr>
<td>Vegetable Oil (000 tons)</td>
<td>3.8</td>
<td>13.5</td>
<td>255.0</td>
</tr>
<tr>
<td>Cement (000 tons)</td>
<td>90.6</td>
<td>166.0</td>
<td>83.0</td>
</tr>
<tr>
<td>Ginned Cotton (000 tons)</td>
<td>13.9</td>
<td>47.1</td>
<td>239.0</td>
</tr>
<tr>
<td>Fertilizer (000 tons)</td>
<td>-</td>
<td>62.5</td>
<td>-</td>
</tr>
<tr>
<td>Natural Gas (billion cubic meters)</td>
<td>1.7</td>
<td>3.0</td>
<td>76.0</td>
</tr>
<tr>
<td>Coal (000 tons)</td>
<td>125.0</td>
<td>145.0</td>
<td>16.0</td>
</tr>
</tbody>
</table>

* Seven Year Economic and Social Development Plan, op. cit., p. 11.

15 Seven Year Economic and Social Development Plan, op. cit., p. 10.
As indicated in Table 2, Afghanistan industry, for the most part, is involved in processing agricultural and livestock products. The largest industry is cotton textiles which produced 64.5 million meters of cotton cloth in 1975/76. Other factories are operating to produce rayon and woolen products. In addition to textiles, Afghanistan also has a small tanning and leather industry, some food processing and preserving plants, a limited cement producing capacity and some very small miscellaneous industries. There are also a few food processing plants including a sugar refinery, a raisin cleaning and packaging factory in Kabul and a processing and canning plant in Kandahar. There are also two major cement plants built by the Czechs as well as miscellaneous enterprises including a furniture plant, machine shops and foundry and a marble works.

Afghanistan also has a significant handicraft industry which provides employment for thousands of Afghan citizens as well as producing essential articles and some goods for export. Included among these handicraft items are carpets and cotton, woolen and silk cloth. Leather goods such as bridles, saddles, boots and shoes are hand produced in Afghan homes as are a wide variety of pottery. Leather and wool clothing is also produced widely as a cottage industry. The most famous export, of course, are the Afghan rugs which are produced throughout the country for domestic use and in the area between Herat and Faizabad for export.

Power

Afghanistan is well gifted with mountain streams and waterfalls which provide a potential for much hydroelectric power. Since these streams are not uniform in their flow patterns, they require dams and reservoirs to assure a regular supply of water for hydroelectric and flood control purposes.

The GOA has been constructing dams for over a generation and electric power capacity has been growing accordingly. Thus, at the close of 1956 Afghanistan had an annual production of between 38 and 45 million kilowatt-hours. Ten years later this annual capacity had increased to 238.7 million kilowatt-hours. By 1968/69 this capacity had increased to 301.0 million kilowatt-hours and 716.0 million kilowatt-hours by 1975/76.

Transportation and Communication

Highway transportation is the principal means of transport in Afghanistan. With substantial assistance both by the U.S. and the U.S.S.R., the GOA has undertaken an extensive road construction program since 1956. Thus, a paved-road system connects virtually all of Afghanistan's major cities such as Kabul-Torkham, Kabul-Jabal-Seraj, Kabul-Zuand-Ahar-Spin Boldak, etc., as well as providing transportation across Afghanistan both east and west and north and south. By 1976 the GOA claimed Afghanistan had 9.2 thousand km of usable roads of which 2.6 thousand km were paved, primary roads. When the current Seven Year Plan is completed, Afghanistan is scheduled to have 11.0 thousand kms of usable roads of which 3.7 thousand kms will be paved. Nevertheless, considerable areas

16 Ibid., p. 13.
Afghanistan remain inaccessible.

The Afghanistan communications network, is severely deficient. In 1976, there were 0.12 telephones for every 100 people and only 262 post offices with each post office serving 67,000 people.

Labor

The labor force in Afghanistan probably numbers approximately 9 million people, up from about 7.5 million in 1967. About 85 percent of these people are involved in agriculture, stock raising and trading with the remaining very small minority working in all other aspects of the Afghan economy.

A decade ago the number of persons of working age residing in the cities of Afghanistan was about 715,000. About 49 percent of the urban labor force consists of women. Most of these women do domestic work but there were about 55,000 urban women working as government clerks or teachers.

Most of the labor force is employed in agricultural pursuits either on tribal lands as tenant farmers or as individual farmers operating on their own land. Large estates are not common while absentee landlords are also uncommon. The self-employed group then consists of farmers, herdsmen, artisans and traders.

Most employees are wage and salary workers in government, business, industry and construction. Others are hired agricultural workers but these are few in number. Some are also craft workers who may work at home piece-meal. Since only a limited number of factories exist the number of industrial workers employed by the sherkats is very small.

By the same token, there is very little unemployment in Afghanistan. Unemployment is occasioned by seasonal adjustments in agriculture and by factory layoffs, also due to seasonal adjustments, in the sugar refining and fur processing fields. But this unemployment is short-term. Finally, there is some small unemployment in Kabul and other urban centers simply because the people who have migrated there from the countryside lack the skills to fill the jobs.

The Afghans are essentially individualists or tribal workers and when employed as such have proven to be hard, determined workers. They apparently have difficulty adjusting to assembly line, factory work which differs so radically from the rugged, outdoor life of traditional Afghans. Except for the traditional craftsmen and agriculturalist, the Afghan work force is still very short of industrial skills.

Money is used principally in the urban areas for wage and salary compensation. The vast majority of the labor force is "compensated in kind." Agricultural workers get a share of the crop. Tenant farmers generally receive a fourth of the crop. Government employees are well paid relative to agricultural, industrial and construction workers and in addition, enjoy cooperatives with reduced prices. There is a substantial difference between skilled and unskilled workers' wages in industry.

Working conditions and wages of workers are governed by tradition and custom, medieval type guild regulations and a strict government Labor Code. Labor Unions are generally unknown and frequently an intimate relationship or
one reflecting the Chief-Tribal member relationship exists in the small shops or among agricultural workers. Strikes, of course, are unheard of.

Afghanistan Economic Data

GNP Data

The GOA maintains that the GNP grew by 18.9 percent during the period, 1968/1969 and 1975/1976, with an average annual rate of 2.4 percent. Due to the estimated increase in the population, however, no significant change occurred in the level of per capita income (see Table 3 below).

Table 3*

<table>
<thead>
<tr>
<th>GNP DATA</th>
<th>1968/69</th>
<th>1975/76</th>
<th>Overall growth rate 1968/76 (percent)</th>
<th>Average annual growth rate (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.** Net National Product</td>
<td>76.7</td>
<td>90.1</td>
<td>17.5</td>
<td>2.4</td>
</tr>
<tr>
<td>Agriculture and Livestock</td>
<td>51.0</td>
<td>53.8</td>
<td>5.0</td>
<td>0.7</td>
</tr>
<tr>
<td>Mines, Industry and Energy</td>
<td>4.1</td>
<td>6.5</td>
<td>56.9</td>
<td>6.7</td>
</tr>
<tr>
<td>Other Sectors</td>
<td>21.5</td>
<td>29.8</td>
<td>38.5</td>
<td>4.8</td>
</tr>
<tr>
<td>2.** Gross National Product (at market prices)</td>
<td>80.8</td>
<td>96.1</td>
<td>18.9</td>
<td>2.4</td>
</tr>
<tr>
<td>3. Per capita income (in Afghanis)</td>
<td>5399</td>
<td>5404</td>
<td>0.09</td>
<td>0.01</td>
</tr>
</tbody>
</table>

* Seven Year Economic and Social Development Plan, op. cit., p. 3.

** In billion Afs. at 1968/69 fixed prices.

Exchange rate 45Afs = US$1.

During the past seven years the relative share of agriculture in the GNP fell from 63.1 percent to 56.0 percent while the share of industry increased from 5.1 percent to 6.8 percent. Thus, during the past seven years the overall structure of the economy did not change significantly. The role of agriculture remained essentially as strong as it was in the composition of national output.

17 Seven Year Economic and Social Development Plan, op. cit., pp. 2-3.
Money Supply and Price Level

Money supply rose to 13.26 billion Afghanis or US$ 294.7 million in 1975/76, from 6.3 billion Afghanis or US$ 140 million in 1968/69, showing an average rate of growth of 11 percent per annum. The volume of net credit advanced by Da Afghanistan Bank to the government rose from 5.4 billion or US$ 120 million in 1968/69 to 12 billion Afghanis or US$ 266.7 million in 1975/76. Credit to the private sector rose from 2.8 billion Afghanis or US$ 62.2 million to 5.6 billion Afghanis or US$ 124.4 million during the same period, a total increase of 100 percent. The main factor responsible for the rising volume of credit to Government has been the GOA's heavy reliance on the Central Bank for financing development expenditure.

The ratio of saving deposits to the over-all volume of domestic liquidity rose from 30.2 percent in 1968/69 to 38.7 percent in 1975/76. Although this trend indicates an increase in the relative importance of the banking system in the economy, nevertheless, savings still constitute a small portion of the domestic liquidity position.

<table>
<thead>
<tr>
<th></th>
<th>Money Supply</th>
<th>General Price Index</th>
<th>Exchange Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(In million Afs.)</td>
<td>(1961/62=100)</td>
<td>(Afs per US$)</td>
</tr>
<tr>
<td>1968/69</td>
<td>6292</td>
<td>208.4</td>
<td>74.3</td>
</tr>
<tr>
<td>1969/70</td>
<td>7354</td>
<td>207.9</td>
<td>75.6</td>
</tr>
<tr>
<td>1970/71</td>
<td>7691</td>
<td>264.6</td>
<td>85.3</td>
</tr>
<tr>
<td>1971/72</td>
<td>8046</td>
<td>312.5</td>
<td>84.0</td>
</tr>
<tr>
<td>1972/73</td>
<td>9531</td>
<td>267.0</td>
<td>80.0</td>
</tr>
<tr>
<td>1973/74</td>
<td>11002</td>
<td>246.1</td>
<td>60.0</td>
</tr>
<tr>
<td>1974/75</td>
<td>12107</td>
<td>280.1</td>
<td>56.9</td>
</tr>
<tr>
<td>1975/76</td>
<td>13263</td>
<td>298.2</td>
<td>55.0</td>
</tr>
</tbody>
</table>

Average growth rate per annum (per cent) 11.2 5.2 -3.6

Seven Year Economic and Social Development Plan, op. cit., p. 4.

During the period 1968-1976 the average annual price rise was roughly 5.2 percent. During the year 1975/76 the prices of grains showed a rise of 11 percent and the general price index rose by 6.5 percent. Due to noticeable improvement in the economy which took place after 1973, the value of the Afghani

18 Ibid., pp. 3-4.
relative to the U.S. dollar showed an upward trend.

Balance of Payments and Foreign Trade

The vicissitudes of the Afghan economy during the past seven years naturally influenced and, in turn, were affected by the unfavorable position of international trade and balance of payments. During the period 1969/70 to 1975/76, foreign exchange receipts of the country amounted to US$ 1,112.3 million and payments to US$ 1,182.9 million, disclosing a deficit of US$ 70.6 million, as shown below in Table 5.

| Table 5* |
|---------------------|---------------------|
| **Balance of Payments and Foreign Trade** | |
| **Years 1969/70 - 1975/76** | (in US$ millions) |
| **Receipts** | 1,112.3 |
| Exports | 1,009.4 |
| Expenditure by Foreign Agencies | 32.8 |
| Tourism | 70.1 |
| **Payments** | 1,182.9 |
| Commercial Imports | 940.8 |
| Expenditure by Afghans abroad | 13.5 |
| Debt Services | 228.6 |
| Balance | -70.6 |

* Seven Year Economic and Social Development Plan, p. 5.

The value of exports, based on current prices increased from US$ 72.3 million in 1968/69 to US$ 226.4 million in 1975/76. On the other hand, the value of imports increased from US$ 65.5 million to US$ 226 million during the same periods. At constant prices, however, the overall value of exports and imports increased by five and four percent, respectively, during the period 1971/72 to 1975/76.

During the past seven years, 84 percent of the total export earnings came from the traditional sector of the economy and 15 percent from the sale of natural gas. During this period about 994,600 tons of dried and fresh fruits valued at US$ 358.3 million, 122,000 tons of cotton valued at US$ 110 million and 18.3 billion cubic metres of natural gas valued at US$ 153.4 million were exported.

No significant quantitative change took place with regard to the

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19 Ibid., p. 5-6.
composition of imports. The relative share of consumer goods in the total imports was 85 percent on an average. The remaining 15 percent constituted the share of capital goods.

Government Revenue and Expenditure

According to the GOA economic plan the total Government revenue for the period 1969-1976 was Afs. 73.7 billion, or US$ 1.6 billion of which 25.5 percent was foreign assistance (project loans, grants and commodity assistance). Seventy percent of the Afghan produced revenue was from domestic sources while the balance, 4.5 percent, was constituted by loans from the Central Bank.

Between 1968 and 1972 the average growth rate of revenue from domestic sources was estimated to be 8 percent. The revenue from domestic sources constituted 12.9 percent of the GNP in 1975/76, however.

| Table 6* |
| Government Revenue and Expenditure (In Million Afs) |
| Percent Increase |
| Totals for 1968/69 | 1969/70 to 1975/76 | 1975/76 | 1975/76 |
| Total Government Revenue | 8350 | 16411 | 73680 | 96.5 |
| a) Domestic revenue | 4465 | 12333 | 51741 | 176.2 |
| 1. Direct taxes | 372 | 1408 | 5131 | 278.5 |
| 2. Indirect taxes | 2083 | 5508 | 26351 | 164.4 |
| 3. Government enterprises | 1009 | 1118 | 6147 | 10.8 |
| 4. Other sources | 1001 | 4299 | 14112 | 329.5 |
| b) Incomes based on commodity assistance | 1021 | 1049 | 5637 | 2.7 |
| c) Project loans and grants | 2274 | 3029 | 13126 | 33.2 |
| d) Loans from Da Afghanistan Bank | 590 | -- | 3176 | -- |
| Total Government Expenditure | 8350 | 16411 | 73680 | 96.5 |
| a) Ordinary expenditure | 4255 | 9649 | 44505 | 126.7 |
| 1. Administrative expenses | 3286 | 5898 | 29372 | 79.5 |
| 2. Loan repayment | 601 | 1200 | 8500 | 99.7 |
| 3. Subsidy | 368 | 2551 | 6633 | 593.2 |
| b) Development Expenditure | 4095 | 6762 | 29175 | 65.1 |
| 1. From domestic sources | 1821 | 3733 | 16049 | 105.0 |
| 2. From foreign sources | 2274 | 3026 | 13126 | 33.2 |

* Seven Year Economic and Social Development Plan, p. 17.

Note: Exchange rate 45 Afs. = US$ 1.

20 Ibid., pp. 16-20.
During the last two years the trends in Government Budget demonstrated improved performance from the past. Revenue from domestic sources in that period increased on an average by about 30.5% per annum. This rate of growth was largely due to better fiscal management and improvement in the economy. Direct tax revenue recorded an increase of 63% in the last two years.

A large portion of the increase in the Government revenue in the last three years is explained by a sharp increase in the volume of indirect taxes, particularly the import taxes. The average rate of growth in this area has been about 29% per annum during the period. Within the tariff structure, a number of changes favorable to domestic industries and Government revenue took place. The rate of fixed tax on imports was increased from 4% to 6%. On the whole, effective supervision and sound administrative measures to improve tax collection from custom duties were the main reasons which explain the rapid growth of import tax revenue.

Proceeds from the sale of natural gas remained one of the most important sources of revenue. As a result of an increase in the price of gas, revenue from this source rose from US$ 17.7 million in 1972 to US$ 45.1 million in 1976.

In order to increase the relative contribution of direct taxes to Government revenue and to bring about further social justice, the GOA drafted and approved a progressive land taxation law in 1975/76. Similarly, for the purpose of operating Government enterprises more efficiently, a new law governing public enterprises was put into effect.

Parallel to an increase in revenue, the volume of Government ordinary expenditure also increased. The main factors responsible for this were an increase in Government subsidy, larger repayment of foreign loans and administrative expenditure, particularly on education, national defense and national security. Total ordinary expenditure amounted to US$ 988.9 million during the period under consideration. The yearly expenditure increasing from US$ 95.6 million in 1968 to US$ 215.6 million in 1976.

During the period 1968-1976, the GOA ordinary expenditure increased at an average rate of 8.7% per annum against the average growth of revenue from internal sources estimated at 14.8%. Consequently, Government savings, as a means of financing development expenditure, also increased.

During the last seven years, a sum of Afs. 29.2 billion or US$ 648.9 million was invested in the development sectors. The two sectors of "Agriculture and Irrigation" and "Industries, Mines and Energy" were given top priority in the allocation of funds and claimed 34.2 percent and 35.5 percent of the total outlay, respectively.
Table 7*

GOA Investment in the Development Sectors

(Million Afs.)

<table>
<thead>
<tr>
<th>Sector</th>
<th>1968-1976</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture and Irrigation</td>
<td>9976</td>
<td>34.2</td>
</tr>
<tr>
<td>Industries, Mines and Energy</td>
<td>10365</td>
<td>35.5</td>
</tr>
<tr>
<td>Transport and Communications</td>
<td>4454</td>
<td>15.3</td>
</tr>
<tr>
<td>Social Services</td>
<td>4380</td>
<td>15.0</td>
</tr>
<tr>
<td>Total</td>
<td>29175</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Seven Year Economic and Social Development Plan, p. 9.

Note: Exchange rate 45 Afs. = US$ 1.

Table 8*

GOA Sources of Investment Capital

(in Million Afs.)

<table>
<thead>
<tr>
<th>Source</th>
<th>1968/69</th>
<th>1975/76</th>
<th>Total for 1969/70 - 1975/76</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Government Investment</td>
<td>4095</td>
<td>6762</td>
<td>29175</td>
</tr>
<tr>
<td>1. Budgetary Surplus</td>
<td>210</td>
<td>2684</td>
<td>7236</td>
</tr>
<tr>
<td>2. Credit in the form of</td>
<td>1021</td>
<td>1049</td>
<td>5637</td>
</tr>
<tr>
<td>Commodity Assistance           (24.9)</td>
<td>(15.5)</td>
<td>(19.3)</td>
<td></td>
</tr>
<tr>
<td>3. Project Loans and Grants</td>
<td>2274</td>
<td>3029</td>
<td>13126</td>
</tr>
<tr>
<td>(55.5) (44.8)</td>
<td></td>
<td></td>
<td>(45.0)</td>
</tr>
<tr>
<td>4. Loan from Da Afghanistan</td>
<td>590</td>
<td>--</td>
<td>3176</td>
</tr>
<tr>
<td>Bank</td>
<td>(14.4)</td>
<td>--</td>
<td>(10.9)</td>
</tr>
</tbody>
</table>

(Figures in parenthesis represent percentages).

*Seven Year Economic and Social Development Plan, p. 20.

Note: Exchange rate: 45Afs. = US$ 1.

During the last seven years, only 24.8 percent of development expenditure
was financed by domestic savings or surplus in the ordinary Budget. The share of foreign loans, project and commodity assistance in the financing of development plans was 64.3 percent during that period. This implies that in financing her development plans, Afghanistan was heavily dependent on friendly countries and international agencies for help. Despite the existence of significant opportunities, the rate of growth has been quite low due to lack of financial resources, technical know-how and viable economic projects. The Seven Year Plan hopes to eliminate these difficulties and introduce basic reforms in the economy in order to pave the way for the establishment of a prosperous society.

Afghanistan's Economic Situation and Future Goals: A Summary

Despite the GOA efforts at economic and social development this country remains one of the least developed nations in the world. Afghan economic and social benchmarks illustrate this general condition.

The per capita income is approximately $110.00 per year but only $35.00 per year for the rural population. Life expectancy is about 40 years, literacy is extremely low, housing is generally inadequate, and environmental sanitation, including potable water is virtually non-existent.

Under the current seven year plan, the objectives of the GOA have been broadened considerably. The plan no longer focuses exclusively on infrastructure and industrial development but now embraces human resource development as well. Thus, it seeks to improve massively educational opportunities, health benefits, housing and environmental sanitation. Simultaneously, it seeks to restore/maintain price stability and cope with its balance of payments problem by import substitution, export promotion and better marketing of the country's exports. Quantitatively, the plan calls for an increase in the GNP of 53.4 percent with an annual growth rate of about 7.6 percent or an increase from 96.06 billion Afghans in 1975/76 or US$ 2.1 billion to 147.69 billion Afghans or US$ 3.3 billion in 1982/83.21

Economists, of course, are highly skeptical that the new GOA can achieve such a spectacular growth rate while ministering to the human needs of the population. The litany of Afghan problems, not all of which are economic by any means, seems to substantiate the economists' skepticism.

Basically, the GOA must find the means to increase both agricultural and industrial production so as to earn sizeable amounts of hard currency while exercising the will to reduce imports and provide import substitutions. The context within which it must do this is decidedly discouraging. There is a very limited land use, about 12 percent out of a possible 20 percent of the land is under cultivation. Virtually all of the human resources are already committed to agriculture, about 85 percent of the population. Existing agricultural technology and water resources offer little hope of an increase in productivity per acre. Prior to 1970 industrial production was rarely over 50 percent of capacity and production does not seem to have increased markedly in the last six

21 Ibid., pp. 25-30 for quantitative data on the seven year plan.
years. The GNP has been increasing at only 2.4 percent per annum, barely keeping pace with the population increase at 2.5 percent.
APPENDIX III
The Structure of Afghan Society
Background Data: Ethnic and Religious Status

As was suggested in the text, the data used in this study are tentative and must be used with caution. Much of it has been extrapolated by the USAID based on observed similarities in living conditions.

Ethnic Groups

The population of Afghanistan is formed from a mosaic of ethnic and cultural groups.1 As a result of numerous migrations and military campaigns which in the course of history have moved across the area, the population has been left with a conglomerate of racial elements living in a social order which has evolved over time.

In the second century B.C., Indo-Aryans moved into the area of present day Afghanistan followed later by other tribal groups from Central Asia including the Paktyes (the predecessors of the present day Pashtuns), Sakas, Kishans, Iranians, and Greeks. In the seventh century A.D., Arabs, spreading the Islamic faith, moved in from the south while the Turks arrived in the north. The thirteenth century saw the Mongol invasions from the east, followed by the fifteenth century advances of the Turko-Mongols. Through the course of history, each of these different populations has found its own territorial centers and in the course of time has developed its own ethno-social life style which is recognized by all groups, even in the present day, although new educational, employment and social policies in the future may tend to blur these diversities.

All citizens are called Afghans, although the Pashtuns (also written Pushtun, Pukhtun, and in Pakistan, Pathan) are sometimes referred to as the "true" or "proper" Afghans. The Pashtun's ancestors moved into the area just before the time of Christ, and they now comprise over half of the total population and since 1747, have provided the royal dynasties as well as leadership in the army and government. They have long been divided into two major tribal confederations: the Durrans, who predominate in Qandahar and to its south and southwest, and the Gilzai, who concentrate along the eastern Afghan-Pakistani border mountains. In more recent times both groups have spread to the west and northern regions of the country. Although there are varied racial elements represented in the Afghan tribes, they have been characterized as tall, slim, vigorous and mesocephalic. Their language is Pashtoo.

The second largest population group are the Tajiks (also written Tadzhiks) which comprise about 30 percent of the population. They are among the oldest settlers of the area and have not been divided into clear cut tribal groups. Mostly farmers, tradesmen, clerks and middle rank civil servants, they live

1 See Dupree, op. cit., pp. 57-65.
scattered across the entire country, although concentrated pockets are found in the northeastern areas (Kabul and Badakshan) and in the west around Herat. They speak Dari (a form of Persian).

The Hazaras constitute a third large distinct ethnic group of about 1.0 to 1.5 million people who are descended from the Mongols. Their traditional location was in the eastern central mountain region of Hazarajat, the poorest area of the country, where they engaged in agriculture and semi-nomadic stockraising. Population pressure, however, spread them to all areas of the country. Their language is Hazaragi, a modified form of Persian with numerous Turkish elements.

Related to the Hazaras are the real Mongols (Moghols) who are a distinct mass of people living in small groups in the high altitudes of Ghorat, in the Herat area and the Afghan part of Turkestan. Mongol groups have the distinguishing physical characteristics of short stature, broad foreheads with high cheek bones and epicanthial eye folds.

Turkic groups are found to the north of the Hindu Kush. They are predominantly Uzbeks and Turkmen. Uzbeks are predominantly farmers while the Turkmen are semi-nomadic herdsmen. Both groups speak several Turkic dialects.

Apart from these groups are a number of small population groups including the Kirghiz, Qizi-Bash, Karakalpaks, which live in traditional tribal areas throughout the country. In western Afghanistan live the Chara-Aimak (meaning four tribes) - the Firuzihi, Taimani, Jamshidi, Taimuri, plus a fifth, the Zuri - which number almost half a million. The Nuristani (also Nuris) live in the eastern mountain region north of Jalalabad. Ethnically and linguistically they are among the most elusive people. Formerly they were known as the Kafirs (Arabic Kafir; infidel); they were forcibly converted to Islam in the late 19th century.

Social Structure

The Family and Tribal Association

As suggested previously, apart from the Moslem religion, the most important factors in Afghanistan's social structure are the family and tribal associations. An Afghan's status is determined by his family, lineage and tribe rather than by his occupation or his affluence. In the late sixties, for example, it was reported that more than two thirds of the population had tribal connections and that the remainder regarded their family ties and obligations of primary importance.

The social structure then rests upon a kinship system whereby each person associated with a tribe is involved in an extended family, i.e., family, lineage

and tribe. Such a structure obviously places a premium on family-tribal approval and reduces the individual's loyalty to the nation-state to a minimum. The individual's support for the nation and the monarchy appears to have occurred primarily when the national interest and the tribal interests coincided.

The Tribal Society

The purest form of tribal society can be found among the estimated 2.0 million Afghan nomads. The tribal structure is the principal form of social organization among the nomads and, according to Bernier et al, the nomadic tribes, in reality are large kin groups consisting of the people allegedly descended through the male line from a common ancestor.3

These nomadic tribes are far more than kin groups, however. In effect, each tribe is a semiautonomous political unit with military appendages used to defend the particular territory occupied by that tribe. Thus, each tribe has developed its own laws, customs and mores which it enforces within its territory.

Tribal leadership among the nomads is entrusted to chiefs (khans) elected by a tribal council (jirgah). The tribal leader is expected to rule the tribe firmly but to be guided by tribal customs, mores, and precedent. He is also expected to consult with the council before taking major decisions. The members of the council are heads of lineages within the tribe and enforce the council decisions among each lineage or nomad encampment.

Status within the tribe is determined by position within the tribal lineage. Elder brothers have a higher status than younger brothers and the eldest son usually succeeds his father as head of the household. The oldest, most prestigious lineages provide the tribal leadership in the council as well as providing candidates for the role of Khan. Status then, has little to do with affluence but with lineage and kinship.4 Dupree also stresses that despite the formal patriarchal nature of Afghan society in both nomadic and village society, women, due to a strong matri-core within families, exercise more than passing influence within the family(see below for more details on the status of women in Afghan society).

Village Society

The vast majority of the Afghan population live in villages (see below) and engage in agricultural pursuits in the nearby area.5 The village is a social

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3 See Bernier et al, op. cit., p. 90.


5 See Health Sector Assessment, op. cit., p. 9; The USAID has noted that the "villages" vary widely in size, a large village consisting of 1000 people. Most villages, however, contain between 100 and 800 people. Some villages are small clusters of dwellings while others consist of several clusters scattered over several miles.
unit and its people, like their nomadic neighbors, derive their social status from the family and through their kinsmen.

The majority of the village inhabitants almost always derive from a single tribe. A man inherits both his land and social status from his father. He cultivates either his father's land or his inherited land in close proximity to his brothers. Frequently he may marry his cousin which, as Dupree has noted, keeps most females within the family group. Thus, the village is linked by a complex network of marital and extended family ties.

Moreover, in many areas, such as the Hazarajat, neighboring villages are inhabited by members of the same ethnic group. If the village is still organized along tribal lines, and we have no data which indicate how many villages this might include, the external form of the tribe prevails just as among the nomads. The tribal structure covers several villages connected by the kinship link.

Still, as Bernier et al note, the socioeconomic relationship is somewhat different among many of the villages from that of the nomads due to several factors and despite the similarity of social organization. First, the peasant-farmer regards the land as his chief source of wealth while the nomad considers it merely an area of transit. Second, a landlord-tenant relationship may develop in the villages. Finally, a greater occupational complexity is found to develop in the villages and this eventually alters social status.

Leadership in the villages is not radically different from that of the nomadic tribes. A local chief, malik, is chosen by the villagers. It is not known whether or not a council assists the malik. If the village derives from a single tribe the position of malik appears to be hereditary, passing on to the eldest son. Like the nomadic tribes, status in the village is associated with the individual's membership in a family. There are other criteria in the villages, however. Wealth in either land tenure or animals places one in a higher social status as does literacy. Unlike other Middle Eastern countries, as of the close of the sixties, there did not appear to be a significant absentee landowning class in Afghanistan.

Urban Society

Today, urban society in Afghanistan is still relatively small, although it has continued to expand slowly through the seventies. It was composed of an elite group of Afghan nobles the core of which was the royal family, the Musahiban family of the Mohammadzai line of the Durani Pashtuns together with extended family relatives. It is not known how many of this elite group survived the deposition of the monarchy in 1973 and remained in Kabul.

Immediately below the royal family and kin another, though less elite, group was also resident in Kabul and the other major cities. This upper class group consisted of professional men, intellectuals, religious leaders, high military officers, a few large landowners and government officials. This class also represents a fairly good cross section of the ethnicity of Afghanistan including Pashtuns, Tajiks, Uzbeks and Kizilbashs plus a few others.

A very small middle class has also developed in the major cities which also includes Pashtuns, Uzbeks, Turkomans, Hindus, Sikhs and a few Jews but is
largely composed of Tajiks. This class includes, middle level government and military officers, police, merchants, tradesmen, business employees and teachers.

Finally, there is also a very limited class of lower-income proletariat in the major urban centers. This class includes factory workers of various kinds, carpenters, blacksmiths and peddlers.

There appears to be little cohesion among either the middle class or proletariat. Both groups are growing very slowly, however, and may find common economic ground as urbanization grows. This may offer these classes more upward mobility in the future which has been largely non-existent until recently. Social status, as suggested above, has been determined by birth and family association. These factors still appear to be dominant social factors in urban Afghanistan of the seventies.

Extended Family, Lineage Group and Tribal Structure

In the previous descriptions of Afghan society the importance of the family has been repeatedly emphasized and with good cause. The family appears to determine the individual's social rank, religious adherence, frequently his marriage partner and behavioral conditions.6

As we noted above, the kinship system is based on the extended family which consists of a man, wife, married sons, their families and unmarried daughters. Afghans try to have their sons marry cousins. Young married people frequently live within the father's household. The father is expected to provide a strict disciplinary environment for the extended family. Although Moslem males are permitted four wives, economic conditions make monogamy the general practice. Polygamy, even among Afghan nobles, began to disappear during the early part of the Twentieth Century.

Beyond the extended family is the lineage group. The lineage group is a group of people who trace their descent in a single line from a particular ancestor over several generations. Among the Pashtuns a lineage group is termed a Kheyl. These minor lineages then combine to form the tribe the importance of which we have discussed in some detail above. Beyond the tribe are larger units, in some cases, whereby several tribes combine to form a confederation thereby making up an entire ethnic group.

Elements in the Afghan Lifestyle

It is impossible to characterize in a very succinct way the life style of such ethnically, culturally and geographically diverse populations as are found in Afghanistan. Farmers lead lives as different from urban populations as do the nomads from both other groups. Yet there are many similarities to be found in the people of Afghanistan. The following discussion of the various elements in the Afghan lifestyle is an effort to delineate these similarities.

Living Conditions

Afghan settlements are found principally along rivers and streams in the north and southeast and where water is available in oases in the southwest, and finally, along the edge of deserts and in the foothills where winter snows melt to provide water. The mountain core, southern and southwestern deserts and plateaus are sparsely populated.

Small towns of 5,000 or more population, which are not numerous in a nation the size of Afghanistan, have developed at various points along caravan routes, usually at an oasis or at some point on a river or stream. Most of these small towns are very old with ancient, narrow, winding streets, and equally aged houses, although some new government-sponsored housing has been constructed recently.

At the center of every settlement is the bazaar where goods, services and news is exchanged. Every town also has at least one simple mosque as well as its mausoleum, the grave of a saint which is a place of repose for contemplation.

Afghanistan has four major cities: Kabul, Kandahar, Herat, and Mazar-i-Sharif. Kabul, the capital, is the most modern city in Afghanistan with a population of 150,000 about 10 years ago. As the capital, it has been the recipient of considerable funding for modernizing and expansion. Kandahar is a relatively new city (nineteenth Century) and is both a manufacturing and trading center. Herat, with a population of about 90,000 in 1966, is an ancient city astride the east-west trade routes and reflects the flat, mud-walled style of dwelling evident everywhere in Afghanistan. The fourth major city, Mazar-i-Sharif, lies some 60 miles south of the Soviet border and had a population of about 50,000 in 1966. It is an agricultural center.

Houses are designed and constructed to meet the needs and to use the basic resources of the different geographic areas. Tents and yurts provide the mobile shelters of the nomads. In the high mountains where the production of air dried bricks is impossible, one may find the "cave dwellings" of the Hazaras or other extremely simple dwellings constructed of boulders, stones and compacted rock walls. In alluvial cultivation areas, the houses are often made of massively thick loam brick walls and similarly constructed roofs supported by a poplar pole framework. Purely timber buildings exist only in the wooded mountain areas of the south and east.

Characteristic of all these dwellings is their simplicity. Rooms for multiple use are few, and comparatively large. Especially in poor areas, bedrooms and kitchens may also serve as shelter for pets and stock during cold weather. In most rural areas, houses are clustered together and because family privacy is paramount, windows are few; even where they do exist, they are small or boarded up and decorated from outside. Ventilation is poor, often a simple hole in the roof over an open kitchen fire and a small low-cut door providing for the only circulation of air.

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Bernier, et al., op. cit., p. 28.
Richer compounds may have high brick walls surrounding the living quarters of one or several related family dwellings. The durability of most of these structures is extremely short and constant care must be given them.

There are reportedly few sanitary facilities in older houses. Children and animals relieve themselves when and where it is convenient, resulting in insect-attracting excrement throughout the living areas. Adults are in the habit of defecating in fields and areas away from living compounds, although it is often in or near irrigation ditches which also serve as sources of water for bathing, cooking and drinking by their own or neighboring villages. Virtually all ground and surface waters are contaminated by western standards.

Due to lack of wood or coal, heating is often inadequate during the cold winter months. Open pit fires used for cooking or simple metal basins (mangal) filled with glowing coals may provide the only heat. Entire families may huddle together with blankets pulled over their shoulders next to these fires.

Under the simple rural conditions there are few bathing facilities. Contaminated rivers or irrigation ditches may be used for a "sponge bath." The use of static water, including that in a bath, is not permitted by the Moslem religion, a tenet which is strictly adhered to by almost the entire population.

Living conditions in virtually all of Afghanistan whether rural or urban tend to be deficient in varying degrees, thereby serving as principal sources for communicable diseases.

The clothing of the Afghans corresponds to the climatic conditions. Wide linen trousers with shirts falling down over them, often beautifully embroidered waistcoats and loosely-tied turbans are worn by men. Women wear similarly constructed trousers and shirts covered by long top dresses and trailing veils (chadari). In winter, long sheepskin coats, tanned and ocher colored with decorative embroidery, provide protection against the cold.

**Literacy**

Various sources generally agree that the literacy rate in Afghanistan is extremely low, ranging between 8 and 10%. Female literacy is less than that of men at about 0.3%. This severe rate of illiteracy tends to reinforce the very real isolationism of the people both from their government and from neighboring communities. By the same token, it reinforces the existing peasant-tribal society and the kinship association in lieu of a closer relationship to the provincial and central governments.

**Nutritional Habits**

Because of limited agricultural production, the people of Afghanistan are forced into the strictest frugality with food, although malnutrition is not a widespread national problem. Unleavened or flat bread (nan) and tea (Chai) are the staple foods of the majority of the population. Because the whole grain is ground for flour, the bread is a valuable food with a full complement of grain protein, vitamin and mineral content. Refined western style flour has made its appearance in urban centers but has not been well accepted by the people. The Afghans' national dish is spiced rice prepared in many different ways with the meat of mutton or chicken.
Protein is supplied predominantly by milk and milk products. Yoghurt (maast), spice flavored sour milk (dogh), and salted, sundried cottage cheese (Krout), are popular milk products. Eggs, though cheap, are not used by local populations. Legumes such as peas also provide some source of protein.

Meat is only rarely consumed by rural people. Mutton is the preferred meat in Islamic countries. Pork is forbidden by Islamic law as unclean and beef is generally of poor quality. All meat is thoroughly cooked, either boiled or grilled on a spit (kabab) or made into patties and fried in butter (kufta). Chicken and wild fowl are found only in the homes of the well-to-do. Although rivers are well stocked with fish, they are eaten only by local tribal people.

Fresh butter is rarely used, although melted butter mixed with beef or mutton fat (roghan) is popular. The fat of sheep tails is a delicacy among rural people. Fruits and vegetables are cheap and plentiful throughout the country and during most seasons. Beverages are chiefly black and green tea which are heavily sweetened. Sour milk may be taken with meals. Only rarely are fruit juices consumed.

It is incorrect to assume that the rural population enjoys a higher standard of nutrition than the poor urban population. Rural people are forced to purchase manufactured and processed goods from their scarce resources, and frequently sell many crops that would be better advised to consume themselves. The most favorable nutritional state is found among the nomads whose stock supplies them with abundant meat and milk. Bread is also a main foodstuff for nomads, either bought in rural areas or made from grains that they grow or gather in high altitude fields. Of course, the diet of the upper class is increasingly international with increasing reliance on imported canned foods of all kinds.

The Islamic Faith and Afghan Society

The Afghan people comprise one of the most traditional of Muslim societies. As such, it is generally conservative and the people are prone to accept with fatalism the will of Allah. The local religious leaders exercise considerable political power and oppose progressive change which has a practical effect, for example, on the continued lower status of women (see below).

The fasting time (ramadan) is still widely observed during the tenth month of the Arabic lunar year. When ramadan occurs in the hot season, there can be noted a langour among people, especially at the end of the month. It is of note that experimental tests have shown only minor and temporary metabolic changes in the population during the fasting period. A low blood sugar value appears to rise quickly to the normal level once the fast is over.

Status of Women

The Islamic faith has had a profound influence on the lifestyle of Afghan women. For the most part, they adhere to purdah, which is the practice of hiding women from strangers.

Thus, Afghan society, not unlike several other Muslim societies, affords women essentially two functions: bearing and raising children and maintaining a home. For the most part they are isolated from males outside the family and, of
course, they do not work outside the home. They are permitted virtually no formal education. Moreover, they are prohibited from receiving medical care from males and are discouraged from serving as health care professionals or workers.

**Tobacco, Drugs, and Alcohol**

Tobacco, smoked in a hookah is a popular luxury of both rural and urban populations. Cigarette smoking is increasing in popularity, especially among urban people. Hashish is still smoked frequently but opium smoking has never played an important role in Afghan culture. Alcohol consumption is forbidden by Islamic law but is becoming more popular among modern urbanites.

**Social Values**

The prevailing social values in Afghanistan are those of the dominant Pashtun tribe, derived from the Islamic religion and their own traditional code of conduct, passed on verbally for centuries, known as Pashtunwali.

As has been noted, almost 99 percent of the population of Afghanistan is Moslem. Even in present times the influence of religion is extremely strong throughout the community. Ramadan, the giving of alms and a pilgrimage to Mecca are strongly felt values. The prescribed ablutions, the avoidance of "unclean" foods, the proscription of alcohol and static water are also followed by the great majority of people. Accompanying this religion is also a belief in fate and, thus, seeming indifference to hardships and disease.

Closely related to this ethos is the widespread acceptance of the existence of supernatural beings such as fairies (pari), angels (malak), spirits (jinn), and giants (div), as well as the souls of the deceased. The existence of these beings, which at times make themselves seen by people and influence current events, is in part accepted by the Koranic teachings and strongly believed by older people in the community.

Pashtunwali emphasizes family loyalty and solidarity, respect for authority, hospitality to friends and enemies alike, individual valor, pride, honor and chivalry. Values derived from the teaching of Islam are modified by this older unwritten code of the hills. Its most important elements are blood vengeance (badal), the obligation of hospitality and protection of guests (melmastia), and the right of asylum (Nanavati).

Family solidarity and loyalty to community groups far exceeds any provincial or national allegiance. The same man who deceives a stranger in business may be scrupulously honest in his relations with his family or immediate friends. Tribal loyalties and respect for authority is taught early in life, although it is tempered by the egalitarianism of Islam where all men are equal before Allah. Most strangers are viewed with suspicion but once their good intentions are recognized, he or she will receive lavish hospitality which will enhance the host's prestige among his neighbors.

Especially among rural people there is a rugged fighting spirit, a great sense of honor and dignity and a high degree of chivalry. Wrongdoing or insults are often dealt with in violent conflicts, sometimes with death and subsequent vendettas. The awesome Afghan violence is reflected in the Hindu saying, "Oh
Gods! From the venom of the cobra, the teeth of the tiger and the vengeance of the Afghan, deliver us."

Conclusions

Some of the conditions affecting Afghanistan as a nation-state which derive from the structure of Afghan society appear to be as follows:

1) It is a highly traditional society;

2) This extended, family-oriented society has only the most limited notion of, if not outright hostility toward, the nation-state concept;

3) Given the low status of women and a concomitantly low literacy-education level, the GOA will have to focus on a long-term, universal, basic education program in conjunction with its health activities if there is to be any upward mobility among female rural Afghans;

4) It is almost axiomatic that the cooperation of the local mullahs should be enlisted in the development process;

5) Given the present nature of the society, it would also appear that the GOA should establish an effective government presence among villages and nomads as rapidly as possible so as to accelerate the process of integrating Afghan society; and

6) Finally, it would seem that the GOA's experimental program of using village health workers may be one of the most effective methods to establish its presence and credibility among the rural Afghan population.
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