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KENYA

STAFF APPRAISAL OF AN INTEGRATED RURAL HEALTH AND FAMILY PLANNING PROJECT

April 14, 1982

Population, Health and Nutrition Department

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CURRENCY EQUIVALENTS

US$1.00	=	Kenyan Shillings 10.00
K.Sh. 20.00	=	K.L1.00

GOVERNMENT OF KENYA FISCAL YEAR: July 1 - June 30

ABBREVIATIONS

CBR	-	Crude Birth Rate
CDR	-	Crude Death Rate
CHW	-	Community Health Worker
CO	-	Clinical Officer
DANIDA	-	Danish Agency for International Development
ECN	-	Enrolled Community Nurse
FHFE	-	Family Health Field Educator
FHFO	-	Family Health Field Officer
FP	-	Family Planning
GDP	-	Gross Domestic Product
GOK	-	Government of Kenya
HEO	-	Health Education Officer
IDA	-	International Development Association
I&E	-	Information and Education
IUD	-	Intra-Uterine Device
MCH	-	Maternal and Child Health
MEPD	-	Ministry of Economic Planning and Development
MOH	-	Ministry of Health
MOW	-	Ministry of Works
NFWC	-	National Family Welfare Center
NGO	-	Non-Governmental Organization
NORAD	-	Norwegian Agency for International Development
ODA	-	British Overseas Development Administration
RHC	-	Rural Health Center
RHF	-	Rural Health Facility
RHU	-	Rural Health Unit
SDP	-	Service Delivery Point
SIDA	-	Swedish International Development Authority
TBA	-	Traditional Birth Attendant
UNICEF	-	United Nations Children's Fund
UNFPA	-	United Nations Fund for Population Activities
USAID	-	United States Agency for International Development

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DEFINITIONS

Crude Birth Rate	Number of live births per year per 1,000 population.
Crude Death Rate	Number of deaths per year per 1,000 population.
Rate of Natural Increase	Difference between crude birth and crude death rates; usually expressed as a percentage.
Rate of Population Growth	Rate of natural increase adjusted for (net) migration, expressed as a percentage of the total population in a given year.
Age Specific Fertility Rate	Number of live births per 1,000 women in a given age group in a given year. It is usually calculated for five-year age groups.
Total Fertility Rate	The average number of children that would be born to a woman if she were to live to the end of her childbearing years, and bear children according to a given set of age-specific fertility rates. The Total Fertility Rate serves as an estimate of the average number of children per family.
Net Reproduction Rate	The number of daughters a woman would have under prevailing fertility and mortality patterns who would survive to the mean age of childbearing.
Infant Mortality Rate	Annual number of deaths of infants under one year per 1,000 live births during the same year.
Maternal Mortality Rate	Number of maternal deaths per 1,000 births attributable to pregnancy, childbirth, or its complications (i.e. within six weeks following childbirth).
Life Expectancy	Average number of years a child born in a given year can expect to live if mortality rates for each age/sex group remain the same.
Contraceptive Prevalence Rate	The percentage of married women in the reproductive ages who are using a modern method of contraception at any given point in time.

KENYA

STAFF APPRAISAL OF AN INTEGRATED RURAL HEALTH AND FAMILY PLANNING PROJECT

BASIC DATA

Total Area	569,249 km^2
Total Population (estimated as of mid-1980)	16 million
Density per km^2 (mid-1980)	28
Rate of Natural Increase of the Population (1979)	3.9%
Crude Birth Rate (1979)	53.0/1,000
Crude Death Rate (1979)	14.0/1,000
Life Expectancy at Birth (1979)	53.0
Infant Mortality Rate (1979)	87.0/1,000
Urban Population as Percent of Total Population (1979)	14.0
Adult Literacy Rate (1976)1/	
Males	65.0%
Females	35.0%
Primary School Enrollment (1976)	93.0%
Age Structure (1979)	
0-4	20.8%
5-14	30.3%
15-49	39.0%
50+	9.7%
Population per Physician (1977)	11,950
Population per Nurse (1977)	1,120
Percentage of Married Women of Reproductive Age using a Modern Contraceptive Method (1978)	5%
Per Capita Gross National Product (1979)	US$380

1/ Rural population only (estimate from Integrated Rural Survey 2, CBS).

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MAP

IBRD 13969: Kenya--Population Density

This report is the result of a joint appraisal mission that visited Nairobi in October/November 1980. The mission consisted of Mr. H. Diaz, World Bank, Chief of Mission; Messrs. E. Pratt, G. Clarkson, H. Franckson, D. Radel, and B. Jenny (Consultant) World Bank; Mr. E. Lauridsen, DANIDA; Mr. S. Silberstein, USAID; Mr. C. Walker, UK-ODA; Mr. L. Remstrand (Consultant) SIDA; and Ms. Jane Bunnag (Consultant) UNFPA. Mr. H. W. Messenger, Division Chief, Population, Health and Nutrition Projects Department, World Bank, joined the mission for the final week of its stay.

I. POPULATION, HEALTH AND DEVELOPMENT

A. Introduction

1.01 The population of Kenya was close to 16 million in mid-1980. Its current natural rate of increase--3.9% per annum--is the highest in the world as well as the highest ever recorded for any country. Fertility appears to have increased since the 1950s. Health has improved remarkably in the last three decades, as reflected by sharp declines in the crude death rate and infant mortality and a correspondent sharp increase in life expectancy. The combination of rising fertility and falling mortality has resulted in explosive population growth. Because GDP increased at an average annual rate of 6.6% in real terms over the period 1964-73, the standard of living rose. The growth of GDP has slowed down since 1973, however, and in the last two years it has grown more slowly than population.

B. Population Size and Growth Rate

1.02 Table 1 below presents estimates of the crude birth rate, crude death rate and rate of natural increase in Kenya since the late 1940s. The rates of natural increase in Table 1 are roughly equal to population growth rates, since immigration and emigration have been negligible. The main reason for the rising rate of population increase is the steep decline in the death rate. The crude birth rate has increased only slightly since 1948.

TABLE 1

KENYA: Selected Census Data

Census Years	Census Population (millions)	Estimated Crude Birth Rate per 1,000 Population	Estimated Crude Death Rate per 1,000 Population	Rates of Natural Increase
1948	5,800,000 [a]	50	25	2.5%
1962	8,636,000	50	20	3.0%
1969	10,943,000	50	17	3.3%
1979	15,291,000	53	14	3.9%

/a Corrected for undercount.
Source: Population Censuses, Kenya, 1948, 1962, 1969, 1979.

C. Population Distribution and Density

1.03 Kenya is divided into eight provinces and 41 districts. The density of population by province according to the 1979 census is given in Table 2 below.

TABLE 2

KENYA: Area, Population and Density by Province, 1979

Provinces	Area Km^2	Population ('000s)	Density Per Km^2
Nairobi	684	835	1,220
Central	13,173	2,347	178
Coastal	83,041	1,309	16
Eastern	154,540	2,717	18
North-Eastern	126,902	373	3
Nyanza	12,525	2,634	210
Rift Valley	170,162	3,240	19
Western	8,223	1,836	223
Kenya	569,249	15,291	27

Source: Population Census, Kenya, 1979 (Provisional Results).

1.04 Before colonization there were no towns in Kenya except the coastal ports, and the great majority of Kenyans still live in rural areas (about 86% in 1979). The distribution of population chiefly reflects rainfall and soil fertility. There are three main concentrations of population: one in the west, near Lake Victoria; another in the center, around Nairobi; and a third, on the east coast (See Map IBRD 13969).

D. Fertility

1.05 Fertility in Kenya is high, was high in the past and appears to be increasing. It is estimated that at the time of the 1948 census, the total fertility rate was between 6.0 and 7.0. The censuses of 1962 and 1969 indicate total fertility rates of 6.8 and 7.6 respectively. The Kenya World Fertility Survey indicated a total fertility rate of 8.1 for 1977-78, higher than in any other country.

1.06 The Kenya World Fertility Survey also revealed wide differences in fertility between urban and rural areas. Women in the two main metropolitan areas, Nairobi and Mombasa, have a total fertility rate 2.5 lower than that of rural women, while the total fertility of the non-metropolitan urban sector is intermediate.

1.07 The relationship between education and total fertility is nonlinear. Women with one to four years of schooling are the most fertile, those with no formal education slightly less fertile, while women with five or more years of education are appreciably less fertile. Postponement of marriage is the chief cause of the lower fertility of better educated women.

1.08 Except in the case of Coast Province and the Mijikenda tribe, where fertility is relatively low, differences of fertility appear to be the result of the "modernizing" influences of education and urbanization, rather than cultural and behavioral differences due to tribal affiliation.

E. Mortality

1.09 Table 3 below shows the trends in the Crude Death Rate, the Infant Mortality Rate, and Life Expectancy. Life expectancy has risen from about 44 years in 1962 to about 53 years in 1979. Current life expectancy estimates are 61 years for the world as a whole; 72 years for developed countries; 57 years for less developed countries; and 49 years for Africa.

TABLE 3

KENYA: Mortality Trends, 1948-79

Year	Crude Death Rate	Infant Mortality Rate	Life Expectancy
1948	25	184	35
1962	20	n.a.	44
1969	17	119	49
1979	14	87	53

Source: For 1948, 1962 and 1969, Population Censuses. For 1979, CDR, from 1979 Population Census; Life Expectancy from U.S. Bureau of the Census estimates; and IMR as estimated by Frank Mott from KWFS.

1.10 The dramatic fall in infant mortality shown in Table 3 leaves the rate still more than four times higher than the average (20) for developed countries, but well below the average for developing countries (110). In Africa, Kenya is one of only eight countries (out of a total of 52) with an infant mortality rate below 100. The decline in infant mortality reflects the rise in the standard of living and the improvement in maternal and child health (MCH) services.

F. Morbidity

1.11 Information on health status in Kenya is limited. Table 4 below presents countrywide data on the number and distribution of outpatient cases at District Hospital level and below in 1978.

TABLE 4

KENYA: Outpatient Cases in District Hospitals, Health Centers, Health Sub-Centers and Dispensaries--1978

Type of Disease	Number of Cases ('000s)	% of Total Cases
Acute Respiratory Infections	5,881	31.2
Malaria	4,417	23.4
Diseases of the Skin	3,262	17.3
Diarrheal Diseases	1,664	8.8
Intestinal Worms	1,126	6.0
Accidents	1,120	5.9
Gonorrhea	507	2.7
Measles	292	1.5
Pneumonia	288	1.5
Other	358	1.7
	18,915	100.0

Source: Ministry of Health, Kenya, Health Information Bulletin, Volume 3, November 2, 1979.

1.12 The prevalence of infection and infestation reflects the widespread poverty in Kenya. Malaria, though absent at higher elevations, continues to be an important cause of morbidity and death. While the table does not show age breakdown for the different types of diseases, most of the cases of respiratory infection, diarrhea and infestation are among infants and young children.

G. Nutrition

1.13 A nutritional survey conducted by the Central Bureau of Statistics in 1977 indicates that, while the incidence of severe protein energy malnutrition is rather low in Kenya, mild and moderate protein energy malnutrition affects about a third of rural children.

1.14 There is also some evidence of malnutrition in adults. A survey conducted in 1977 concluded that 38% of road workers in Nyeri District (Central Province) and 41% in Kwale District (Coast Province) had a weight-for-height below 85% of internationally accepted standards.

H. Population Projections

1.15 It is difficult to project Kenya's future population. It is to be expected that the increase of fertility that has been proceeding for at least twenty years (see para. 1.05) will in due course cease (if it has not already done so), if for no other reason than because the biological limit has been reached. A period of several years of constant fertility would then probably follow, and finally the total fertility rate would start falling as the result of such modernizing influences as urbanization, education, and the improved status of women. This pattern has been observed in other countries. However, the precise timing of these changes cannot be predicted accurately.

1.16 For illustrative purposes, however, Table 5 below presents a possible path of Kenya's population through the year 2000. This projection assumes that a net reproduction rate equal to one (replacement level) would be achieved by 2045, so that the population would finally stabilize at about 108 million by 2150, when the average density would be 190 persons per Km^2.

TABLE 5

KENYA: Population Projections 1980-2000

	1980		1985		19890		1995		2000
Total Population ('000)	15,929		19,478		23,281		27,313		31,890
Crude Birth Rate/1		53.4		47.1		41.9		39.9	
Crude Death Rate/1		13.1		11.4		9.9		8.9	
Rate of Natural Increase/1		40.3		35.7		32.0		31.0	
TFR/1		7.8		6.8		5.9		5.3	

/1 Five-year averages.
Source: World Bank, PHRD.

1.17 The projection in Table 5 assumes that the total fertility rate will decline slightly between 1980 and 1985, and thereafter more rapidly.

The projection assumes a very considerable expansion of the family planning program. According to the Kenya World Fertility Survey, the Contraceptive Use Rate—i.e., the percentage of currently married women in reproductive ages using a modern method of contraception--was about 5% in 1977-78. A CBR of 40 per thousand by the year 2000, as assumed in the above projection, would require a Contraceptive Use Rate of about 35%. Since the number of eligible women in 2000 would be about twice as large as in 1980, the number of contraceptive users in 2000 would therefore have to be about fourteen times larger. Increases in the average age at marriage and in induced abortion would mean that a smaller increase in the number of contraceptive users would suffice. These are quite considerable behavioral changes in a short period of time. Unless vigorously pursued by the nation as a whole, they are unlikely to materialize.

I. Population Growth and Socio-Economic Development1/

1.18 The present very rapid population growth retards Kenya's socio-economic development in three main ways:

(i) By increasing pressure on land and other natural resources, and thus tending to reduce output per capita;
(ii) By increasing unemployment; and
(iii) By requiring a greater proportion of public expenditure to be devoted to meeting basic human needs.

1.19 Although Kenya is a large country, more than 80% of cultivable land has a very limited potential on the basis of present technology. In some areas, landlessness has emerged as a significant phenomenon; one study estimates that 11% of rural households are landless. Attempts have also been made to cultivate marginal lands without adequate safeguards, with the consequences of degradation of soils and deforestation.

1.20 If fertility remained constant, the number of workers would rise from 4.6 million in 1970 to 8.5 million in 1990 and to 12 million in 2000. Modern sector employment absorbed only 17% of the total labor force in 1976; the rest worked in traditional agriculture and in the informal sector. Roughly 30% of the total number of households in 1974 had incomes which made them absolutely poor. If the Kenyan economy could not provide gainful employment for all its workers during the past decade, when GDP was growing at about 6.5% per annum, acceleration in the expansion of the labor force (which would occur if fertility does not decline) is likely to complicate the problem still further, especially since GDP is expected to grow at only 4-5% per annum throughout the 1980s. Even with the declining fertility assumptions of Table 5, the annual rate of growth of the labor force would rise to about 4% in 1990-95 but it would then start to fall, reaching about 3.6% in 1995-2000.

1.21 A third important consequence of rapid population growth is the increased public expenditure required to meet basic needs for education, health, water and housing. Altogether, government outlays on all these services amounted to KL54 million (1970 prices) per year on the average during 1970-75, or about 30% of total budget expenditures. It is estimated that to provide these services for all by the year 2000, annual government expenditure for these purposes would have to increase to about KL225

1/ This section has been extracted from "Population and Development in Kenya". Report No. 2775-KE, World Bank, 1980.

million (1970 prices) during 1995-2000, if fertility remains at its present level. On the fertility assumptions of Table 5, the comparable figure would be about KL187 million (1970 prices) per year, or about 83% of the expenditure if fertility remained unchanged. In either case, these expenditures would constitute a formidable budgetary burden, and it is most unlikely that the goal of providing basic needs services for all by the year 2000 can be reached.

1.22 In summary, while substantial progress has been made in raising the standards of living of the majority of Kenyans, this very success has led to a rapid growth of population which seriously threatens to retard further improvements in the standard of living. It is unlikely that during the 1980s GDP will grow appreciably faster than population, so that there will be very little increase of per capita income. This discouraging prospect emphasizes the need to hasten a fall in fertility, a primary objective of the proposed project.

II. RURAL HEALTH SERVICES

A. The Organization of Rural Health Services

2.01 The organization of rural health services is shown in Chart 1. The MOH, where policy and administrative decisions are made, is at the center. The civil service head of the Ministry is the Permanent Secretary, and the professional branch is headed by the Director of Medical Services. At the provincial level the Provincial Medical Officer is responsible for all health services. In each district, health services are administered by a District Medical Officer of Health.

2.02 In 1970 the central government took over rural health services, which until then had been administered by local authorities, with a view to reorganizing and standardizing them. The first steps in the development of a systematic model for the provision of rural health services were taken in 1972, when the MOH introduced the concept of Rural Health Unit (RHU), a geographically defined health administration unit within the district. The country's 40 districts (i.e. excluding Nairobi district) were subdivided into 254 RHUs. The average population per RHU is presently about 54,000, but there are wide variations. Each RHU was to have one of its health facilities, preferably a Rural Health Center (RHC) or hospital, designated as the RHU headquarters. Staff at RHU headquarters were to provide technical supervision and support to the staff of the other rural health facilities[2/] (RHFs) in their RHU and hold regular clinics in those RHFs. The RHU headquarters was to serve as the immediate referral point for other RHFs in the RHU. Six rural health training centers were established in the mid-1970s to provide team training for RHU staff. To date the staff of about 30% of all RHUs have received this team training.

2.03 The MOH is upgrading selected dispensaries into RHCs in order to enable all RHUs to have a RHC or a hospital for headquarters. Presently, 57% of all RHUs have a RHC for headquarters, 23% a hospital, and the rest have dispensaries. In the typical RHU, a RHC is the center of a cluster of several dispensaries which provide first contact outpatient curative services and, in a few cases, maternal and child health (MCH) care and family planning (FP). In general dispensaries are heavily utilized. A 1973/74 MOH survey found that the number of outpatients served per month in

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2/ Comprises dispensaries, rural health centers and rural health subcenters.

dispensaries varied from 150 to 9,000, with an average of about 2,200. A dispensary is usually staffed by an Enrolled Community Nurse (ECN) and a patient attendant, but in some areas dispensaries are often staffed by patient attendants only.

2.04 RHCs provide dispensary-type services to the surrounding population and also serve as referral points for dispensary patients. They provide a wider range of outpatient curative services than dispensaries and usually a full range of MCH/FP services. RHCs also provide limited in-patient services; they have small maternity units (usually 12 beds) for normal obstetrics, and a few observation beds where patients can be held for a day or two to determine whether transfer to a hospital is necessary. Health centers perform very limited minor surgery, all other surgical cases being transferred to hospitals. Each RHC is headed by a Clinical Officer (CO)--a paramedical trained for three and a half years to perform most of the functions normally performed by physicians in developed countries. The CO is assisted by several ECNs (the exact number depends on the population served) and by one or two family health field educators (FHFEs)[3/] Each RHC is also supposed to have one public health technician and one laboratory technician but there are as yet not enough of these technicians to permit more than a few RHCs to attain a full complement of staff.

2.05 Outpatient RHC services, like those in dispensaries, are heavily utilized on the average. The 1973/74 MOH survey (para. 2.03) found that the number of outpatients served per month in RHCs varied between 300 and 18,000, with an average of about 5,000. RHC inpatient facilities, on the other hand, appear to be very little utilized. This is not surprising, because RHCs lack the physicians and inpatient back-up services (e.g. laboratories and blood banks, drug supplies) found in hospitals, so that it makes sense for patients seeking inpatient care to bypass RHCs for the district or mission hospitals.

2.06 The quality of outpatient services at RHCs and dispensaries could be substantially improved. Nurses lack diagnostic and prescribing skills and overprescribing is widespread. RHCs that are also RHU headquarters have not yet, for the most part, been able to give adequate support to their satellite dispensaries. COs are usually too busy with curative work at the RHCs to be able to spend much time visiting dispensaries. Lack of a vehicle in good operating condition is often an added constraint. Nevertheless, those RHUs whose staff have undergone team training at Rural Health Training Centers (para. 2.02), are trying to establish a routine of regular visits to dispensaries by teams usually comprising the CO, one ECN, the public health technician if one is available, and a FHFE. At present these visits are made once a month at most, but to the extent that more staff and vehicles can be provided they should be increased to about two or three a month.

2.07 The main referral points for RHFs (i.e. dispensaries and RHCs) are district hospitals, which provide a wider range of outpatient services, as well as pediatric, medical, general surgical and obstetrical and gynecological inpatient services. District hospitals have heavy patient loads.

2.08 The District Medical Officer of Health and his supporting staff are mostly preoccupied with the administration of the district hospital,

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3/ A type of educational/motivational worker whose main task is to recruit MCH and FP clients.

and pay inadequate attention to the administration of rural health centers and dispensaries. A similar situation prevails at the provincial level, which needs strengthening in the long-run to allow for greater decentralization.

2.09 In Kenya an extensive network of non-governmental facilities also provides health services. Out of a total of 1,204 RHFs in Kenya as of mid-1980, 374 (31%) were operated by Non-Governmental Organizations (NGOs). Most of these NGOs are affiliated with the Catholic and other Christian churches. Mission hospitals provide about 30% of hospital beds in rural areas. A subsidy to NGOs (amounting to about 4% of the total in FY80/81) is included every year in the MOH's budget. Revenues from service fees and drug charges currently finance about 75% of the recurrent costs of NGO RHFs and mission hospitals.

B. Proposed Changes in the Organization of Public Rural Health Services

2.10 While continuing to pursue the implementation of the basic model outlined in the previous section, the MOH is now seeking to improve the organization of public rural health services in three ways:

(a) By organizing district-level teams to be solely concerned with the supervision and support of rural health facilities;
(b) By providing two types of dispensaries instead of one and adopting more clearcut criteria for the location of RHFs; and
(c) By promoting (on an experimental basis) community-level health care outside the formal MOH network but supported by MOH.

2.11 District Rural Health Management Teams. The MOH intends to reorganize the district headquarters into a Hospital Management Team and a Rural Health Management Team. The Hospital Management Team will be composed of the Medical Officer in charge, the Hospital Secretary, and the Nursing Officer in charge. The Rural Health Management Team will be composed of the district Public Health Nurse, Clinical Officer, Public Health Officer, Nutrition Officer and Health Education Officer. The latter team does not include any new posts, but many of the posts of Nutrition and Health Education Officers are vacant. The creation of the new positions of Medical Officer in charge and Hospital Secretary is expected to free the District Medical Officer of Health from the day-to-day administration of the district hospital, thus enabling him to provide guidance to the Rural Health Management Team, which will give its fulltime help to RHF staff.

2.12 RHF Design and Location. Existing MOH dispensaries are not standardized, as many of them were built before 1970, often by self-help groups. The MOH has a standard design for new dispensaries which with a few minor adjustments would be adequate for dispensaries serving populations of roughly between 4,000 and 8,000 people. The density of population in many rural areas is increasing, so that it is not uncommon to find more than 8,000 people living within a radius of about 4 miles from a dispensary, which is considered to be in practice the maximum catchment area of such facilities. In such cases, it is more efficient to meet the increasing demand by enlarging the existing dispensaries than by building new dispensaries of the standard (or "type I") size. The MOH is therefore designing a "type II" dispensary capable of serving from 8,000 to 16,000 people. The type II dispensaries will provide services similar to those now provided in type I dispensaries, except that all type II dispensaries will be expected to provide the full range of MCH and FP services all the time,

while type I dispensaries provide this full range only when two ECNs are on duty.

2.13 Subject to financial and other constraints, the MOH will strive to deploy RHFs according to the following pattern. In areas where concentrations of 8,000+ population are found within any given 4-mile radius circle, a dispensary type II will be provided for any such circular area, or for a smaller circular area if population within 4-mile radius circles exceeded 16,000. If a dispensary already exists in the area in question, it will be upgraded to a type II. RHCs will be counted as type II dispensaries for purposes of planning dispensary deployment. Dispensaries type I will be provided in rural areas where between 4,000 and 8,000 people are found within a 4-mile radius. In areas with lower population densities the long-run goal is to provide a dispensary type I wherever more than 1,000 people live within a 4-mile radius, but MOH will give a lower priority to these dispensaries.

2.14 The present goal is to have one RHC for each RHU; in RHUs at present without a RHC or a hospital this goal will be met by upgrading a suitable dispensary. To minimize the wasteful duplication of services, the MOH will take account of existing NGO RHFs when planning the geographical distribution of its own facilities.

2.15 Community-Based Health Care. The MOH, sharing the now generally accepted view that the effectiveness of formal public health services can be enhanced by encouraging rural communities to take responsibility for meeting some of their most basic health needs, has decided to promote small experimental schemes of community-based health care.

2.16 The structure of Kenya's rural health services as modified in the ways described in this section, is sound. The actual operations of the rural health services, however, are affected by a variety of constraints, which the MOH is seeking to remove. In Sections (C) to (E) below, specific aspects of the operations of Kenya's rural health services are analyzed and their weaknesses and strengths identified.

C. Availability of Services

Accessibility

2.17 As of mid-1980, there were in Kenya 830 MOH RHFs; 182 health centers, 37 health subcenters and 611 dispensaries. There were also 374 RHFs operated by NGOs, most of them Church-sponsored, of which 28 were health centers, 7 health subcenters and 339 dispensaries. The ratio of rural population to facilities by province ranges from 7,506 in Rift Valley to 27,595 in Western Province, the average being about 11,300.

2.18 A better indication of accessibility is provided by the figures in Table 6 below, which shows by province, the percentage distribution of households (in rural areas) within given distances of a RHF. For the country as a whole about 42% of households are within 4 km. of a RHF and about 77% within 8 km, which is quite good by regional standards. The percentage of households farther than 8 km. from a RHF ranges from 7.5% in Central Province to 43.5% in Eastern Province. As might be expected, RHFs are more accessible in the three densely populated provinces (Central, Nyanza and Western) than in the three sparsely populated provinces (Coast, Eastern and Rift Valley).

TABLE 6

KENYA: PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY DISTANCE FROM A RURAL HEALTH FACILITY, BY PROVINCE

Distance	Central	Coast	Eastern	Nyanza	Rift Valley	Western	Total
0-1 KM	0.7	1.6	4.6	9.0	3.7	7.1	4.8
1-2 KM	13.4	3.2	7.3	9.1	12.7	14.0	10.7
2-4 KM	35.1	33.1	18.1	30.0	25.3	21.7	26.9
4-8 KM	43.3	29.7	26.5	33.7	31.2	28.8	34.2
8+ KM	7.5	32.6	43.5	18.2	27.1	18.5	23.5

Source: Integrated Rural Survey 2 (unpublished), 1977

Manpower and Training

2.19 Staffing Norms and Shortfalls. Table 7 below sets out the current (for RHCs and dispensaries type I) and planned (for dispensaries type II) staffing norms for RHFs. Despite considerable efforts to train staff during the last decade, substantial shortfalls of staff remain at RHFs. For the two main categories, COs and ECNs, it is estimated that by mid-1981 the shortfalls at MOH RHFs amounted to about 32% and 35% respectively. For MOH hospitals, the corresponding figures are 14% and 30%. Mission health services also have substantial shortfalls of COs and ECNs (54% and 34% respectively). MOH RHFs also suffer from substantial shortages of public health and laboratory technicians.

TABLE 7

Staffing Norms of RHFs

Staff Category	RHC 1/	D 1/	D 2/
Clinical Officer	1	-	-
Enrolled Community Nurse	5	2	3
Public Health Officer	1	-	-
Public Health Technician	1	1	1
Family Health Field Educator	2	-	-
Laboratory Technician	1	-	-
Statistical Clerk	1	-	-
Patient Attendant	3	1	2
General Attendant	5	1	3
Driver	1	-	-
Cook	1	-	-
Watchman	2	-	-
Total	24	5	9

Source: MOH

1/ Current norms, as revised in 1980. Previously dispensaries type I had a norm of one ECN and RHCs four ECNs. No Public Health Officers were previously included in the RHC staffing norms.

2/ Planned. For dispensaries type II serving populations in the upper range of the 8,000 to 16,000 bracket the norm of three ECNs is likely to prove too low.

2.20 Manpower Situation in 1985 and Beyond. Projections of overall supply and requirements of clinical officers and ECNs for all health facilities (MOH and NGOs, hospitals and RHFs) indicate that by 1985 the CO shortfall will be about the same as in mid-1981 (25%). For ECNs the shortfall would drop to about 24%. This reduction will be due to the rapid build-up of ECN schools in recent years. For other categories of staff at RHFs (public health officers, public health technicians, laboratory technicians) some narrowing of the gap between supply and need can be expected during 1981-85, but shortfalls will remain substantial. For example, by 1985 only one-third of RHCs will have a laboratory technician.

2.21 In the longer run, additional training capacity for both COs and ECNs will be needed. Assuming that the present intake of students, and rates of student attrition and manpower attrition (25% and 5% respectively for COs, and 25% and 2.5% for ECNs), remain unchanged, the growth in the number of COs would fall to about half of one percent towards the end of the century (far below the population growth rate, which is unlikely to fall below 3% by the year 2000). The annual growth of the number of ECNs would fall to about 2% in the late 1990s.

2.22 Qualitative Aspects of Manpower. While Kenya's efforts to train health manpower have been commendable, several deficiencies remain. The curriculum for the training of COs is deficient in obstetrics and gynecology and in MCH/FP. ECNs receive inadequate training in diagnosis, prescription and family planning. Patient attendants do not receive any training, although they are often left in charge of dispensaries. In-service and refresher training for all RHF health staff has hitherto been

very limited. The most effective current in-service training is theteam training program for staff of RHCs, conducted at six Rural Health Training Centers (para. 2.02).

Drug Supplies

2.23 The irregular availability of drugs at RHFs considerably affects the quality of health care services. A MOH survey found that, on an average, about 25% of public RHFs are closed on any given day because of lack of drugs, which leads to suboptimal utilization of facilities. Although some of the shortages are due to insufficient budgets, there is evidence that a more equitable distribution of drugs at different levels of the health system, a better match between needs and supply, emphasis on the use of generic drugs, and the improved monitoring of supplies would all help to make drugs more uniformly available at RHFs.

D. Support Systems

2.24 Transport. Adequate transport is essential for outreach, supervision and technical support to RHCs and dispensaries, for maintaining the flow of supplies, and the referral of patients in emergency. For these purposes, three or more 4-wheel drive vehicles are provided at district headquarters and one or two at each RHC. Dispensaries have not hitherto been provided with any vehicles. The total fleet of the MOH amounts to about 1,100 vehicles.

2.25 Although most RHCs have at least one vehicle in fair condition, these vehicles are not always available to RHC staff for two reasons. First, district health authorities tend to treat all vehicles as a pool at their disposal irrespective of their intended purpose. Secondly,maintenance procedures are cumbersome. All maintenance and repair of vehicles is contracted out to private workshops. District authorities cannot approve local purchase orders for more than K.Sh. 4,000, and vehicles requiring more expensive repairs have to be sent to the provincial level, which causes considerable delay. Drivers are inadequately trained in good driving habits and the routine care of vehicles. The MOH estimates that at any given time some 30-40% of all vehicles in the MOH fleet are non-operational, most of them in need of minor repairs only.

Maintenance of Buildings and Equipment

2.26 Although the Ministry of Works (MOW) is responsible for the maintenance of RHF buildings, the actual work is done by private contractors. For this purpose the budget of the MOW contains a yearly allocation equivalent to 2.5% of the estimated replacement value of all registered RHFs. This arrangement works reasonably well. However, un-registered facilities (mainly those constructed by self-help "harambee" groups) are not maintained by the MOW. The MOH is allocated K.Sh.50,000 per year per district for minor repairs to unregistered facilities, which is insufficient.

2.27 The maintenance of equipment in RHFs is also inadequate. It is common to find facilities without water or electricity because pump and generators have broken down and there is no one to repair them. The same is true of refrigerators, office machines, surgical instruments, and laboratory equipment. Equipment is often found which has never been used because of original defects or because no one has been instructed in its use. Although there is a large maintenance and repair workshop at Kenyatta

National Hospital, it is obviously impractical to use it for repairs of RHF equipment. Several district and provincial hospitals also have small workshops that handle some of the repairs for RHFs, but more maintenance capacity needs to be developed.

Health Information System

2.28 The rural health information system suffers from a number of weaknesses. The processing of information is usually too late, and the methods of analysis too inadequate, for it to be of any use for program operations. Many RHFs do not report regularly. While morbidity patterns are emphasized, reporting on preventive (i.e. immunization) and promotive health activities is neglected. No information is collected on staff, vehicles, or supplies at RHFs. Thus, in general, while good information is maintained on patients and recipients of MCH and family planning services, the analysis of data and feedback for operations is weak.

Research

2.29 The MOH has limited operational research capability, although it has made a few studies (e.g., on problems of drug supply and the effectiveness of the FHFEs). Outside the MOH, health research is conducted at the University of Nairobi and at the Dutch-assisted Medical Research Center. Liaison between these two institutions and the MOH is weak.

E. Government Health Spending Patterns and Priorities

2.30 Health was given high priority in the five-year Development Plan 1978/79-1982/83, which envisaged that the share of the MOH in total expenditures of ministries would increase from 6.3% in FY78/79 to 7.4% in 1982/83. Revised budget estimates for FY80/81, however, put the share of MOH at 6.2%, and current forward budget projections indicate that it should reach 6.8% by FY83/84.

TABLE 8

KENYA: Composition of Health Expenditures (Development Plus Recurrent) According to Five-Year Plan and FY80/81 Budget

	Plan and Budget 1978/79	Budget 1980/81	Plan 1982/83
	%	%	%
1. Rural Health Services			
a. RHFs	10.7	11.8	16.1
b. District Hospitals	28.0	26.1	24.3
c. Private Hospitals	2.8	3.8	2.9
d. Preventive and Promotive Services	5.1	6.7	8.7
2. Training	10.8	6.4	9.8
3. Supplies and Equipment	2.4	1.9	1.9
4. Central and/or Referral Facilities and Services	39.9	43.0	35.9
	100.0	100.0	100.0

Source: Kenya Five-Year Development Plan 1979-83, and Annual Budgets 1978/79 and 1980/81.

2.31 Table 8 above shows the composition of the MOH budget. The budget figures for FY80/81 are consistent with the Five-Year Plan insofar as the shares going to RHFs and to preventive and promotive services have been increased, while the share going to District Hospitals has been reduced. They are inconsistent with it, however, insofar as the share of Central and Referral Services has been increased, while that of Training has been reduced. The bulk of category (4) in Table 8 is accounted for by Kenyatta National Hospital and the Provincial Hospitals, which are very heavily utilized, and thus tend to benefit from political pressure. It is important, for reasons of equity and efficiency, that future additions to the MOH budget be largely directed towards rural health services and preventive/promotive services.

2.32 At present the health services do not reach a large proportion of the rural population. The extension and improvement in quality of preventive rural health services would reduce the prevalence of communicable diseases and of complications of pregnancy, with a corresponding reduction of pressure on hospitals. On the curative side, simple treatment at the local level can often reduce the severity and duration of illness (e.g. malaria, pneumonia and diarrhea). The MOH policy of emphasizing rural health services is sound and should continue to be encouraged as much as possible by external assistance agencies.

F. External Assistance

2.33 In FY80/81, the MOH development budget amounted to about US$31 million. About 18% of it (US$5.5 million) was financed by external assistance, most of which (96.7%) was earmarked for RHFs. The chief contributors were SIDA and DANIDA (68%) and the European Economic Community and the Government of the Netherlands (26%). The remaining 6% was contributed by the Government of Germany and NORAD. The funds provided by the IDA-assisted First Population Project were fully disbursed by April 1980.

G. Overall Assessment

2.34 Since MOH took over the administration of rural health services in 1970, a good deal of progress has been made in developing a service model adequate to Kenya's needs and in actually providing services in accordance with this model. The model provides a sound basis for a further expansion of services, the present scale of which has been made possible by substantial training and construction programs in the 1970s. Shortfalls of staff and drugs remain, however, and about a quarter of rural people live more than 8 km. away from a RHF, which means that most of those people would avail themselves of health services only in case of extreme emergencies. Support services, such as transport, maintenance and data collection and processing also suffer from various weaknesses. The current development plan proposes a substantial increase in the share of rural health services in total MOH expenditure and there has been some shift in this direction. External assistance agencies should continue to encourage this shift by funding sound rural health projects. Even with further increases in the share of MOH's budget going to rural health services, however, it would be unrealistic to expect a rapid improvement in the rural health situation in the near future if the present lag of GDP growth behind population continues.

III. THE FAMILY PLANNING PROGRAM

A. Introduction

3.01 By the standards of Sub-Saharan Africa, Kenya's FP program is substantial. An extensive (if incomplete) network of FP SDPs has been created. A FP training system has been established. An elaborate FP service statistics system has been set up, but not enough use is made of the data for evaluation and feedback. Efforts to provide FP information and education have been inadequate, and the proportion of eligible couples practising contraception is very small. The 1977-78 Kenya World Fertility Survey indicated that the great majority of people in Kenya desire very large families. While political support for the program is increasing, it is not likely to have much influence on family size norms in the short run. Other changes that could be expected to influence these norms--higher status of women, a shift of population towards urban areas and/or modern sector occupations--are inextricably bound up with general economic growth and will be slow in coming. In the short run, the only feasible interventions would seem to be a greatly stepped-up program of informational and educational activities, and improvements in the availability and quality of FP services for those who have already decided to limit and/or space their families.

B. Developments Before 1974

3.02 Voluntary associations began to promote FP in Nairobi and Mombasa as early as 1955. In 1961, these associations formed the Family Planning Association of Kenya. In 1966, the GOK announced that family planning would become an integral part of maternal and child health services, and set up a FP unit in the MOH. Thus Kenya became the first country in Sub-Saharan Africa to have a national family planning program. By 1973, part-time FP services were being offered in about 300 out of 900 government and non-government health facilities.

C. The Five-Year MCH/FP Plan, 1974-79

Origin and Characteristics

3.03 Early in 1971 the GOK requested the Bank's help in preparing a five-year plan to strengthen the MOH's FP program. Over the next two years Bank missions helped the GOK to prepare a plan to ease the main constraints on the expansion of the program, which were identified as: (i) paucity of adequately trained paramedical personnel; (ii) weak information and education activities; and (iii) lack of a unit for planning, monitoring and evaluating the program.

3.04 The goals of the five-year plan were a reduction in the population growth rate (from about 3.3% to 3%) and an improvement (not quantified) in the health of mothers and children. Specific plan components included: (a) the introduction of full-time MCH/FP services in 400 government health facilities, to be known as "MCH/FP service delivery points"; (b) the introduction of 17 mobile teams to provide part-time MCH/FP services at an additional 190 government health facilities; (c) the establishment of eight ECN training schools and 30 associated rural health centers (ECNs being the main dispensers of MCH/FP services); (d) in-service FP training for 600 ECNs, 46 Public Health Nurses, 55 nursing tutors, and the staff of the 17 mobile teams; (e) the introduction of a new category of 800 FHFEs and their supervisors; (f) the strengthening of the MOH,s capacity to produce health education materials; and (g) the establishment of a central planning and support unit for the MCH/FP program, the National Family Welfare Center (NFWC).

3.05 The total cost of the plan was estimated at US$38.8 million. The plan was to be financed in part by the GOK (32%), and in part by seven external assistance agencies: IDA, UNFPA, SIDA, USAID, DANIDA, the Federal Republic of Germany and ODA. The IDA credit of US$12 million equivalent, which financed mostly physical infrastructure, became effective in July 1974.

Implementation of the Five-Year Plan

3.06 In general, the execution of the plan proceeded as envisaged. By the end of 1979, 364 MCH/FP service delivery points had been established, or about 90% of the target of 400. The 17 mobile teams were deployed in 1978, but have been hampered by logistical problems, and the MOH now intends to phase them out. The numbers of health staff trained in FP considerably exceeded the plan's targets.

3.07 In stimulating demand for FP, priority was to be given to person-to-person education, provided by some 800 FHFEs, supported by an enlarged mass communication effort. Half of the productive capacity of the Health Education Unit, which was to be strengthened, was to be devoted to FP information and education materials.

3.08 By the end of 1979, about 750 FHFEs were employed, some 150 by the Family Planning Association of Kenya, and 600 by the MOH. However, the performance of the FHFEs has been disappointing, especially in recruiting FP clients. In 1978, the FHFEs recruited about 15-18 new FP acceptors per year per FHFE. Each FHFE also recruited about 70 MCH clients in that year. Several factors may have contributed to poor performance. The fact that

FHFEs are not allowed to provide any services (not even resupplying oral pills and condoms) reduces their prestige in the eyes of the public. FHFEs are regarded with misgivings by other health workers because their salaries are about the same as those of much better trained staff. This may result in inadequate attention being paid to clients referred by FHFEs. The FHFEs have received far less support than planned from mass communication activities and educational and communication materials. Finally, the idea of fertility limitation has still very limited acceptance in Kenya, and FP activities therefore tend to be given lower priority by FHFEs than MCH activities. The MOH has decided to freeze the number of FHFEs pending further study of ways to improve their performance.

3.09 The NFWC was set up as planned to provide training, information and education, research and evaluation, and to plan new services for the expanded MCH/FP program, but it was hampered by gaps in its professional staff. In particular, during the five-year plan period the Evaluation and Research division never had a head, the head of the I&E division was also the head of the Health Education Unit, and the Director of the NFWC had several other responsibilities. A fulltime Deputy Director was in place, but three persons held this position during the period. An executive officer and an accountant were never appointed. The NFWC has also found it difficult to obtain acceptance from the rest of the MOH.

3.10 Although it was intended that the NFWC should have a separate Information and Education (I&E) division which would focus on FP educational activities, the MOH has treated it as part of the Health Education Unit, with the result that much of its effort has been diverted from routine MCH/FP activities to emergencies such as epidemics. The planned professional input for the I&E division was inadequate and the division was mainly occupied in training until mid-1979. The new facilities for the Health Education Unit did not become operational until late 1979.

3.11 Nevertheless, in 1979 the I&E division produced about 30 minutes of radio programs per week, conducted about 20 seminars attended by about 900 persons, held ten exhibitions, and prepared a considerable quantity of I&E material. The division's capability for programming and software development needs to be strengthened, and it should cooperate more closely with other agencies.

3.12 The Evaluation and Research division of the NFWC was intended to monitor program progess and to recommend more effective approaches to service delivery and demand creation. In practice, it was expected to collect service statistics, carry out special studies and pretest I&E materials. Although a head was never appointed, it succeeded in setting up a service statistics system and making several studies, including a review of MCH/FP SDPs and an evaluation of FHFEs.

3.13 The five-year plan also included the establishment of a Population Studies and Research Center at the University of Nairobi to support the family planning program by conducting demographic research and training and by helping the Evaluation and Research division of the NFWC to evaluate the FP program. The Center was established with a delay of about two years. Although it has built up a teaching capability and made a number of studies, the Center does not work closely with MOH, and has therefore not been influential in shaping FP policies.

Demographic Impact

3.14 In predicting a decline in the population growth rate from 3.3% in 1974 to 3.0% by 1979, the five-year plan had assumed that the birth rate would decline from 50 to 47 per thousand and the death rate would remain at 17 per thousand. Neither of these two assumptions materialized. The 1979 Census yielded an estimated CBR of 53 per thousand. Several factors may have contributed to this increase in the CBR; improved health, reduced lactational amenorrhea, and some reduction in the incidence of polygamous unions. On the other hand, improved health services and general socioeconomic development led to a reduction in the CDR to about 14 in 1979. Thus, instead of a decline in the population growth rate, a significant increase occurred that raised the rate to about 3.9% in 1979.

3.15 The number of FP first visitors grew from 53,500 in 1975 to 72,600 in 1977, but fell to 62,400 in 1978. In 1979 it was 62,800. Preliminary figures for 1980 suggest a number close to the 1978 and 1979 figures. The reasons for the decline of performance in 1978, the first since the program began, are not clear. A comparison of provincial and district performance suggests that the decline was not localized. Except in Nairobi, the number of first visitors declined almost everywhere.

MCH Performance

3.16 MCH performance has been much more encouraging. The numbers of first visits and revisits for antenatal and child welfare services have been growing steadily. It is estimated that presently about 65-70% of pregnant women and about 55-60% of newborn children are being reached by the program.

Lessons of the Five-Year MCH/FP Plan

3.17 In retrospect, it is clear that at the time of preparation and appraisal of the Plan the Government's commitment to strengthening the FP program was overestimated. The numerous problems affecting the establishment and operation of the NFWC reflect this basic fact.

3.18 A second important point is that the Plan concentrated heavily on the supply side of family planning. However, available evidence (see para. 3.20 below) clearly indicates that the main constraint to expansion of contraception in Kenya is the almost universal desire for large families. Thus a greater emphasis on programs addressed at changing family size norms is required.

3.19 Thirdly, the Plan relied excessively on the MOH as the vehicle to achieve its objectives. Hence an opportunity was lost to tap the resources of other Government agencies and the private, non-profit sector in pursuing the Plan's MCH and FP goals. Such a broad involvement of organizations other than MOH is especially important for the achievement of fertility reduction objectives, which presupposes wide community cooperation and support (in the context of a strictly voluntary program).

D. Constraints on the Expansion of the FP Program

Desire for Large Families

3.20 The Kenya World Fertility Survey (1977-78) indicated a strong desire for large families. Only 17% of then married women stated that they wanted no more children. Among those with six living children, only 25% stated that they wanted no more; and even among those with eight children, less than half (48%) wanted no more. The mean desired family size was 7.2, which is three to four higher than the average desired family size reported in similar surveys in 18 Asian and Latin American developing countries. All this suggests that in Kenya the "unmet demand" for FP services is probably low.

Limited Availability of FP Services

3.21 The availability and quality of FP services also affect the acceptance and use rates. This is especially true in rural areas. According to the Kenya World Fertility Survey, travel times to a FP SDP were 68, 40 and 30 minutes for rural, urban and metropolitan residents respectively. About 86% of MOH RHCs offer daily FP services and an additional 3% offer non-daily FP services. However, only 12% of MOH dispensaries offer daily FP services. An additional 20% offer non-daily FP services, often only once a week. Services in part-time FP dispensaries are usually provided by mobile units and are not very reliable. Less than 1% of NGO RHFs offer daily FP services. An additional 1% offer part-time FP services.

3.22 Since the oral pill is the most widely accepted method, a FP client would have to visit a FP facility at least once every three months for resupply. Even in RHFs offering daily FP services, frequently only one nurse is trained to provide FP services, and she is on leave on the average for four months in the year. Since other RHF staff have not hitherto been allowed to resupply oral pills, the client cannot count on renewing her supply when she needs to. Kenya's rural health delivery system also continues to emphasize meeting curative demands, which take precedence over preventive and promotive services, including MCH/FP. Problems of service availability are compounded by a negative attitude on the part of health field staff towards FP services--an attitude that mirrors the attitude of the community at large.

E. Recommended Next Steps

3.23 The preceding analysis of constraints on the expansion of the FP program implicitly defines the directions in which the program should move in the next few years. On the demand side, there is an urgent need to expand the scope and depth of FP information and education activities. This is the only possible way of influencing family size norms in the short run.

3.24 On the supply side, there are several possible interventions that would considerably increase the availability and quality of FP services, notably the extension of these services to the dispensary level. NGOs operating RHFs should also be encouraged to provide FP services--even if their scope has to be limited for doctrinal reasons. In all RHFs, staff other than those ECNs that have undergone formal in-service FP training should be allowed to provide some FP services (including supply of non-medical contraceptives and resupply of orals) and trained on the job

for this purpose. In time, community health workers could be trained to perform similar duties in their communities. The marginal cost of all these extensions of FP services would be small because of the integration of FP and health services in Kenya.

IV. THE PROJECT

A. Project Concept, Objectives and Design

4.01 The proposed project would consist of two parts. "Part A" would set up a new interagency information and education program for the promotion of the small family norm. "Part B" would strengthen rural health and family planning services. The objectives of the project are twofold: (i) to continue the efforts begun under the First Project to reduce fertility; and (ii) to improve the accessibility and quality of rural health services to reduce further mortality and morbidity in rural areas. The project would have a duration of three years, from July 1982 to June 1985, and it would be the first phase of a six-year program appraised by the joint appraisal mission. A second phase (project) would follow from July 1985 to June 1988, after a re-appraisal in 1984. In the rest of the report, the word "project will refer to the 1982-85 phase, unless otherwise indicated. The word "program", on the other hand, will refer to the entire six-year program.

4.02 Project Design and Fertility Objectives. The typical pattern of demographic transition proceeds in three stages. A stage of high fertility and high mortality is followed by one of high fertility and much lower mortality. Finally, fertility also falls to a low level close to that of mortality. Kenya is presently in the second phase. No sub-Saharan country has reached the third. The timing of the transition from the second to the third stage in Kenya cannot be accurately predicted, but it is reasonable to assume that it could be hastened by means of population/FP programs of the kind that have been successful in other countries.

4.03 The design of the FP components of the project is based on two main premises. First, a large increase in contraceptive use will not occur in Kenya until the average desired family size starts to fall from its present very high level. To facilitate this decline, parents' awareness of the benefits that would accrue to their families from limiting family size needs to be enhanced. Since parental fertility decisions are also influenced by the general attitudes of society at large towards fertility, it is also necessary to educate the general public on the nature of the population problem facing the country and its serious implications for prospects of raising the standard of living. The MOH alone cannot do this. The project would therefore include a new multi-media information and education program to be conducted by a wide range of governmental and non-governmental agencies. Secondly, accessibility to family planning services in rural areas is still well below its potential. The project would extend the provision of FP services to all MOH RHFs and at the same time make them more readily available by extending the range of MOH personnel allowed to provide such services. It would also create 30 MCH/FP SDPs in existing NGO RHCs and dispensaries.

4.04 Forecasting the likely pace of expansion of the family planning program over the next six years which might be expected to occur in view of program interventions is very difficult, especially since FP performance has been stalled in recent years (paragraph 3.15). Nevertheless, it would not be unreasonable to expect an increase in the contraceptive prevalence

rate from about 5% now to between 10% and 17% by the end of 1987, depending on the strength of the short-term effects of the program's information and education activities on average desired family size. (For details, see Annex 4). This would be reflected in a decline in the CBR from about 53 per thousand now to between 51 and 48 by 1987, approximately.

4.05 Project Design and Mortality/Morbidity Objectives. With regard to its health aspects, the project represents a phase of the implementation of the present model of provision of rural health services described in Section II.A, with the proposed changes explained in Section II.B. Project health activities would be nationwide but concentrated in rural areas. The main thrust of the project in its health aspects would be to consolidate the existing network of RHFs through better staffing, improved drug supplies, and physical upgrading of substandard facilities. These efforts would result in a more efficient utilization of existing facilities and a much enlarged service capacity. Consolidation of existing RHFs would also be aided by the project's strengthening of support systems (maintenance, transport and health information), and the planned reorganization and strengthening of district-level management. Third, experimental community-based health care schemes would be promoted as a potentially important, cost-effective addition to the formal health system. These schemes, if successful, would be instrumental in promoting self-care, which makes good economic sense given the disease pattern prevailing in Kenya (paragraph 1.11). Health education through the regular MOH rural services would also be singled out for strengthening by the project for similar reasons. Finally, the project would constitute a turning point in the history of external assistance to the country's health sector in that it would involve a substantial component of assistance to NGOs, which play a vital role in the provision of rural health services.

4.06 Although it can be expected that mortality and morbidity in rural areas would be substantially lower with the project than it would be the case otherwise, no attempt has been made to measure these differentials, in view of limitations in data and the methodological difficulties of assessing impact in the context of broad, multi-component projects such as this one.

4.07 Interrelationships of Fertility and Health Objectives. Reductions in fertility and reductions in morbidity/mortality are mutually reinforcing. Reductions in fertility through reduced average family size allow for better care by households of the smaller number of children, thus resulting in lower rates of infant and child mortality. Conversely, reducing infant and child mortality allows parents to achieve their family-size desires with fewer births. Moreover, it increases the expected return to parents on investments in the quality of children, which tends to reduce average desired family size (as more parents choose to invest in quality as opposed to quantity).

4.08 Links Between Parts A and B. Important links of complementarity exist between Parts A and B of the proposed project. Both service and information programs are necessary if national population objectives are to be met. Neither is adequate alone. Before people can practice family planning they have to know that they have a choice in whether to have another child or not, and that to exercise their right to choose not to have more children is legitimate on religious or moral grounds. Beyond this they have to know how they can avoid pregnancy, where to find and how to use the best methods for them, and what benefits they are likely to gain

by having fewer rather than more children. They also have to know that their peers agree with their decisions and actions to avoid pregnancies. And they need to be informed and reassured about the safety, effectiveness, and reliability of the methods they choose. Before they can practice family planning successfully, they also have to have easy access to the materials and services that are needed for effective contraception. Demand without supply leads to personal and family frustrations and the loss of opportunities to affect the rate of population growth. Supply without demand results in wasted resources. Both are required and they should be in reasonable balance.

4.09 Project Design and Lessons of the 1974-79 MCH/FP Five-Year Plan. It was pointed out above (paragraph 3.17) that, in preparing the Plan, the Government's commitment to strengthening the FP program was overestimated. The question then arises as to whether this may not also turn out to be the case for the proposed project. While this possibility cannot be ruled out altogether, since the change of administration in 1979 there has been a marked increase in public manifestations of support for efforts to reduce the rate of population growth on the part of very senior Government officials, as exemplified by the President's latest Independence Day speech (June 1981). Government approval of plans for a high-profile population information and education program such as the one contained in the proposed project would have been unthinkable at the time of preparation of the five-year Plan. Yet, strong political support for population control measures has not yet spread widely throughout all layers of Government. Thus some resistance to implementation of parts of the proposed project is possible. This obstacle would not be unsurmountable as long as strong support from the Office of the President continues to exist. In the longer run, the activities of the proposed information and education program should in themselves have an effect in spreading political support for FP more widely. Other lessons from the Five-year Plan (paragraphs 3.18 and 3.19) have been taken into account in the design of the proposed project (paragraphs 4.03 and 4.05).

4.10 Program Size. At present, the rural health/FP services are receiving piecemeal financing from several bilateral agencies, UNFPA and UNICEF. The program would consolidate this financing, together with Bank Group lending and domestic resources, into a comprehensive package for the six-year period 1982-88 which would embody the bulk of all developmental activities in the sector during that period. It would imply an increase in real terms in the MOH's annual expenditure on rural health/FP services of about 40% by FY87/88, compared with FY80/81. The program represents the maximum developmental FP effort possible during the period. While the Government and NGOs could possibly carry out a larger expansion of rural health services in some areas than that now proposed, the program size had to be limited to a level consistent with available financing and the Government's ability to sustain incremental recurrent costs.

B. Summary Project Composition

4.11 The items that would be financed under the project are summarized below. (For further details, see Annex 1). The project's functional components are described in paragraphs (4.12 to 4.83).

(a) Construction, furnishing and equipment of new facilities consisting of one CO school and one ECN school, one RHC, four Type I dispensaries, six staff housing units

for existing dispensaries, and six maintenance training schools;
(b) Upgrading of 37 MOH Type I dispensaries to Type II, and of three NGO nursing schools and three NGO RHCs;
(c) Improvement of 25 substandard MOH dispensaries and 30 substandard NGO dispensaries and health centers;
(d) Provision of miscellaneous furniture and equipment;
(e) Vehicles, including four 30-seat buses, 49 sedans, 9 12-seat minibuses, 3 station wagons, 34 four-wheel-drive cars, 1,200 bicycles, 152 motorcycles, 24 ambulances, 4 motorboats and six pick-ups;
(f) Salaries and allowances for about 2,000 incremental staff;
(g) Sixteen man-years of advisory services; and
(h) Other miscellaneous incremental operating and maintenance costs.

C. Detailed Project Description

Family Planning Demand Creation

4.12 Part A of the project consists of a new interagency, multimedia information and education (I&E) program on population and FP matters. Various analyses of the Kenyan population situation, including the Bank's 1980 report on "Population and Development in Kenya" (No. 2775-KE), have emphasized the need for a much broader and more intensive I&E program. The 1978 Kenya World Fertility Survey found that many women are still poorly informed about family planning and the sources of services and advice. In view of the very strong continuing socio-cultural support for high fertility, however, the I&E task calls for much more than simply informing potential users about services. An intensive, long-term effort is required to change community and individual values and beliefs.

4.13 Constraints in present program. The GOK has identified the following constraints on the present I&E program:

(a) Absence of any mechanisms for coordinating the I&E activities of various ministries and NGOs;
(b) Relative neglect of certain key audiences (especially men, youth in schools, and professional and leadership groups);
(c) Over-emphasis on the health aspects, and neglect of other important aspects of family size/population growth;
(d) Even within health institutions, the insufficient use of I&E opportunities presented by "captive audiences" in clinics and maternity wards;
(e) Inadequate scope, quantity and pre-testing of I&E materials;
(f) Limited use of radio and other mass media;
(g) Insufficient use of extension workers outside the health sector and of various non-formal education programs; and
(h) Ineffective use of the schools for education in population, family life, and health.

4.14 I&E Objectives. The main objectives of the strengthened and expanded I&E program would be:

(a) To create a climate of opinion in favor of a strong population program by making people at all levels of society aware of the seriousness of the population problem;
(b) To induce professional, religious, and other influential groups to encourage the public to accept family planning;

(c) To encourage couples to reduce their family size aspirations and to practise effective family planning;
(d) To provide potential and actual family planning users with information about family planning;
(e) To encourage medical and paramedical personnel to provide effective family planning services; and
(f) To prepare youth for responsible parenthood.

4.15 I&E Policy. The detailed tactics to be followed by the I&E program are to be worked out by a new coordinating council (paragraph 4.16 below). The following broad principles, however, have already been endorsed by the GOK:

(a) The expanded I&E program would be addressed to adult men, youth of both sexes, and leadership and professional groups, as well as mothers and pregnant women;
(b) The program will make use of agencies outside as well as inside the health sector including NGOs.
(c) To reach the desired variety of audiences, interpersonal communication will have to be supplemented by a multimedia approach;
(d) Activities and materials will be based on the characteristics of the intended audiences, and all materials will be thoroughly pretested; and
(e) The planning, management, and coordination of this interagency multimedia program will be assigned to a new body to be known as the National Council on Population and Development.

4.16 The National Council on Population and Development. The Cabinet has approved the establishment of a National Council on Population and Development, that will be set up for the purpose of coordinating efforts in population information and education, including the programs under Part A of the proposed project. The Council is to be located in the Office of the Vice President and Ministry of Home Affairs.

4.17 The Council would consist primarily of representatives of agencies participating in the program. The full Council would meet only a few times a year, and most decisions would be taken on its behalf by a five-member executive committee consisting of representatives of two government departments, two NGOs and the head of the Council's Secretariat.

4.18 The day-to-day work of the Council would be performed by a Secretariat staffed by about seven professional staff, three administrative officers and accountants, and 17 secretaries and other support staff. The staffing of the following positions with full-time personnel whose experience and qualifications are acceptable to IDA will be a condition of effectiveness of the proposed Credit: Director, Financial Controller, Administrative Officer and Accountant.

4.19 The Council will determine the scope and direction of the I&E program, approve its budgets, and coordinate and support the program. It is expected, however, that as the political climate changes, the Council will begin to focus attention on such other aspects of demand creation as policies to upgrade the social status of women and pilot schemes of incentives and disincentives to promote a reduction in desired family size.

4.20 Indicative Program for the First Year. In selecting proposals from among those submitted by potential implementing agencies, priority has been given to activities that fill obvious gaps. The selected proposals

have been designated the "indicative program". To provide the Council with some flexibility in the first year of the program, funds equivalent to 10% of its estimated cost would be reserved for activities not in the indicative program which it may appear desirable to add to the program in the course of the year. The proposed indicative program consists of 16 separate activities to be implemented by two ministries and six NGOs (for details, see Annex 5).

4.21 Work plans for subsequent years. Because the content of the I&E program in later years can only be determined by evaluating its achievements in the earlier years, and because the Council has not yet come into being, only the first year's work program has so far been planned in detail. For each of the subsequent years, the Council would draw up an annual work plan and budget. An assurance has been obtained that the government will submit the draft annual work plan for the approval of the funding agencies supporting Part A, not later than March 31 of each year, beginning with March 31, 1983, for the 1983/84 program.

4.22 In-school education. Family planning education is to be included in primary and secondary school curricula. The indicative program includes curriculum preparation and teacher training by several NGOs which have already made some progress in this area. The Kenya Institute of Education, which prepares curricula for the Ministries of Basic and of Higher Education, has agreed to organize this work.

4.23 Implementation. In the light of the resources available or likely to be available, the Council will consolidate proposals submitted by the participating agencies into an annual plan, for approval by the financing agencies. The approved plan will then be translated into one-year agreements with the individual agencies.

4.24 The Council will also commission such activities as training, research, evaluation, and the preparation of I&E materials--particularly for the mass media--that will enhance the overall program or meet the common needs of two or more implementing agencies.

4.25 Funds for the Council's Secretariat and for implementing agencies which are non-governmental will be included in the budget of the Office of the Vice President and Ministry of Home Affairs. Based on the annual agreements, funds would be transferred to the implementing agencies, conditional upon satisfactory performance. For governmental implementing agencies, funds would be included in their respective budgets. The Council's Secretariat will prepare progress reports, reimbursement applications and other documentation for the funding agencies.

Family Planning Services

4.26 The project would substantially increase the availability of FP services in rural areas by increasing the number of RHFs offering FP services and widening the range of RHF personnel trained to provide such services.

4.27 Service Delivery Points (SDPs). As of mid-1980, out of a total of 830 MOH RHFs, 250 (156 RHCs, 21 health subcenters and 73 dispensaries) offered daily FP services. A further 136 (five RHCs, three health subcenters and 128 dispensaries) offered part-time FP services, usually provided by mobile teams. The remaining 444 MOH RHFs offered no FP services.

The project would help to convert an additional 300 existing MOH RHFs into MCH/FP SDPs offering full FP services daily. (It is planned that an additional 300 MOH RHFs would be converted into full MCH/FP SDPs during the 1985-88 phase, so that by the end of 1988 all MOH RHFs would be functioning as full MCH/FP SDPs). In addition, about 30 NGO health centers and dispensaries would become MCH/FP SDPs under the project.

4.28 FP services in RHFs have hitherto been provided only by ECNs who have received FP training. Other staff at RHFs, i.e. clinical officers, FHFEs, patient attendants, and ECNs untrained in FP, will be now allowed to supply non-clinical contraceptives (condoms, foams and jellies) and to re-supply orals. The new policy would allow RHFs without an ECN fully trained in FP to become limited SDPs able to supply non-clinical contraceptives and to resupply orals until they can be assigned ECNs qualified to insert IUDs and to prescribe and provide the initial supply of orals and thus become full SDPs.

4.29 An assurance has been obtained that the MOH will prepare, not later than December 31, 1982, a plan for the eventual conversion of all MOH RHFs not presently functioning as MCH/FP SDPs into full SDPs, and for their interim conversion into limited SDPs.

4.30 FP Training of ECNs and COs. At present, although ECNs are responsible for FP services at RHFs, their basic training does not adequately cover FP, and therefore needs to be supplemented by in-service FP instruction. The NFWC trains about 120 ECNs per year in FP. Under the project, this would be increased to about 300 per year, which would be required to staff the additional SDPs planned. Also, a new program for in-service FP training of COs would be started by the NFWC. About 90 COs would be trained per year for one week each. This would allow them to prescribe oral contraceptives and to supervise the FP services rendered by ECNs more effectively.

4.31 Training of Other Categories. Patient attendants at RHFs, ECNs who have not attended NFWC's in-service FP courses, and FHFEs would receive short-term on-the-job training in FP and would be allowed to re-supply orals. This training would be conducted by district health staff. NFWC would be responsible for planning and technical assistance.

4.32 Strengthening of the NFWC. The project would make provision for the required additional staff to carry out the NFWC's enlarged training, support of SDP development, and information and education functions. The MOH has also decided to appoint a full-time Director of the NFWC. This would enable the Deputy Director to double up as head of the Clinical Services Division, which is presently vacant. The position of head of the Training Division is also vacant, but the MOH is in the process of identifying a suitable person to fill this position. The position of Administrator, and that of head of the Information and Education Division, which had remained vacant for a long time, have been recently filled.

4.33 Technical Assistance, Research and Evaluation and Fellowships. The project would provide funds for about three man-years of short-term management consultant services for the NFWC. It would also provide up to about US$40,000 equivalent a year for one or two FP-related operations research studies on topics proposed by the NFWC. The MOH would set up an Evaluation and Research Committee to select study topics and contractors in connection with this and other research and evaluation financed by the project. Study topics and proposed outlines recommended by the Committee would be submitted to IDA for its approval. The project would provide

funds for attendance to short FP workshops in other developing countries (e.g. India, Indonesia, South Korea) with longer experience of FP programs by MOH staff to the extent of about six man-months.

Manpower, Drugs and Facilities

4.34 Strengthening of District Level Staff. An important element of the project would be the reorganization of the district-level management of rural health services (paragraph 2.11). To develop managerial capabilities at this level, and to facilitate implementation of the planned reorganization, four itinerant Support and Training Teams would be deployed.

4.35 Staff for Rural Health Facilities. The upgrading under the project of 37 dispensaries Type I into dispensaries Type II (paragraph 4.11) would require the deployment of about 110 additional staff of ECNs, patient attendants and other subordinate staff. In addition, the project would include deployment of other additional staff for presently understaffed RHFs through 1984. The approximate numbers involved would be 44 COs, 496 ECNs, 15 Public Health Officers, 240 Public Health Technicians, 48 Lab Technicians, 48 statistical/general purpose clerks, and 260 subordinate staff. This would substantially reduce staff shortfalls at RHFs.

4.36 Present tools of personnel management do not permit a precise count of staff of any given type allocated to the various types of facilities. In order to remedy this deficiency, an assurance has been obtained that the MOH will set up a system to show the number, type and posting by specific facility of rural health staff not later than December 31, 1982.

4.37 New School for Clinical Officers. As pointed out in paragraph 2.23 above, there is a need for additional capacity for the basic training of COs. Under the project, a new school for COs with an intake of 65 students per year (165 seats) would be established in Western Province. Even with this new school, the number of COs would be growing by only 1.5% a year by the late 1990s--well below the projected population growth rate of about 3%--assuming that attrition remains unchanged. It is therefore important to try to reduce attrition.

4.38 New School for Enrolled Community Nurse. The project would provide for a new ECN school with a yearly intake of 50 students per year (200 seats). This, however, would raise the annual rate of growth of the number of ECNs by the end of the century by only one-tenth of one percentage point (2.1% instead of 2.0%), assuming attrition remains unchanged. Clearly then, more ECN schools will have to be established unless attrition (especially student attrition) can be reduced, or the period of training shortened.

4.39 An assurance has been obtained that the MOH will complete a study of the causes of ECN and CO student attrition and possible remedies, and of the feasibility of shortening ECN training, by December 31, 1982.

4.40 An assurance has been obtained that MOH will select the locations of the planned ECN and CO schools and engage qualified architects to prepare the corresponding designs, detailed cost estimates, bid documents and priced furniture and equipment lists and to supervise construction, not later than December 31, 1982.

4.41 Training of Patient Attendants. The project would provide a one-week training course for patient attendants at the district level, concentrating on simple curative and MCH treatment. The course would be run by MOH in cooperation with district staff and the African Medical and Research Foundation. About 1,000 patient attendants would be trained during the project period, or practically all patient attendants working at RHFs.

4.42 Training of ECN Trainers. Many tutors at ECN schools are inadequately trained. The Department of Advanced Nursing of the University of Nairobi, in conjunction with the African Medical and Research Foundation, has organized two-week refresher courses of diagnosis and prescription. The project would provide for two similar courses to be held each year of the project period, each with about 15 students, which would enable tutors to update their skills, not only in diagnosis and prescription, but also in MCH and FP.

4.43 Other Training Activities. The project would provide for several other types of training which are described in other sections of this report: training of traditional birth attendants (Annex 5), inservice FP training for ECNs, COs, patient attendants and FHFEs (paragraphs 4.30 and 4.31), refresher courses for FHFEs (paragraph 4.63), and courses in diagnosis and prescription in connection with the new Drug Supply Program (paragraph 4.46). Other important training activities not included in the project, are associated with the Kenya Expanded Program of Immunization[4] and the continuation of the RHC team training program (paragraph 2.02). To assist in the design and coordination of the various inservice training programs described above, the project would provide funds for two man-years of consultant services.

4.44 Drug Supplies. The irregular availability of drugs at RHFs and its effects were mentioned in paragraph 2.23. The project would support a new program to provide MOH RHFs with a steady supply of essential drugs throughout the year. The MOH has drawn up standard lists of drugs for health centers (47 items) and dispensaries (34 items) and estimated the quantity of each drug required by each type of RHF per 1,000 attendances. Drugs for each RHF would be prepackaged in sealed kits, which would be resupplied on the basis of patient attendance reports. Contraceptives will continue to be supplied under a separate system. A new Drug Management Unit in MOH will manage the new drug supply system.

4.45 Two districtwide pilot drug supply projects are well under way and the initial results are encouraging. It is expected that the system would be extended to one-fourth of all districts by mid-1982, one-half by mid-1983, three-fourths by mid-1984 and all districts by mid-1985. After the prepackaged drugs have been delivered by the Central Medical Stores to district headquarters, the new district Rural Health Management Teams (paragraph 2.11 above) will be responsible for distribution, supervision, reporting and forecasting needs.

4.46 The project includes a series of two-week courses (first course and two refresher courses) in diagnosis and prescription for all COs, ECNs and patient attendants in RHFs, and all COs and public health nurses at

4/ A comprehensive program to immunize children against tuberculosis, poliomyelitis, diphtheria, pertussis, tetanus and measles. The program is being carried out with assistance from DANIDA. The proposed project and the Expanded Program of Immunization would be mutually supportive.

district and provincial headquarters—a total of about 4,000 staff. Training will be conducted at the Rural Health Training Centers with support from the African Medical and Research Foundation. The Drug Management Unit would monitor and evaluate the new system and take remedial action as needed.

4.47 Although a great deal of thought and planning have gone into designing the new drug supply system, two serious risks remain. First, there is a danger that patients may bring pressure to bear on RHF staff to over-prescribe drugs, with consequent shortages, or, if supplies are increased accordingly, an excessive burden on the RHF budget. An assurance has been obtained that MOH will carry out a study, on the basis of terms of reference which will be agreed upon with IDA, SIDA and DANIDA, on the options available for financing the expanding supply of drugs in government facilities. Such study will be completd by June 30, 1984.

4.48 The second serious risk relates to the possibility that drug shortages could occur in district hospitals while RHFs continue to be fully supplied. In such a situation the District Medical Officer of Health might well be under pressure to divert some of the supplies intended for RHFs to the district hospital. The MOH would have to exercise close supervision to prevent such diversion.

4.49 No diversion has occurred in the two pilot districts, but supervision in those districts has been more intensive than would be feasible on a nationwide scale. On the other hand, there is some evidence of drug overutilization in the pilot districts, which has led the MOH to increase staff training and supervision for the program (relative to initial plans).

4.50 Rural Health Facilities. The project construction program (MOH facilities) would consist of the following:

(a) The improvement of about 25 substandard dispensaries Type I, including the provision to each of three staff houses;
(b) The upgrading of about 37 dispensaries type I to type II in areas where justified by density of population. Each would have four staff houses;
(c) The construction of one RHC and four dispensaries type I in selected high-priority unserved areas; and
(d) The provision of about six sets of staff houses for dispensaries not covered by (a) or (b) above where the lack of staff housing is a serious constraint to recruitment of ECNs.

The project would also include improvement of about 30 NGO dispensaries and health centers (paragraph 4.78).

4.51 The proposed RHF construction program differs from the current program in that (i) it shifts emphasis from RHCs to dispensaries, and (ii) it goes further in relying on improvement and upgrading in preference to new construction, which makes for a more efficient utilization of scarce staff. The project's emphasis on dispensary upgrading and improving is consistent with the planned extension of MCH and FP services below the RHC level, at which these services are already well established in general.

4.52 Construction of RHFs is implemented by the MOW through private contractors. The MOH is responsible for planning of RHFs leading to identification of priority construction projects, for briefing the MOW's architects on each individual project, for reviewing the corresponding designs,

and on completion to ensure that facilities are furnished, equipped and staffed on time. The MOW produces the designs, carries out the bidding and supervises the contractors. These arrangements work satisfactorily and they would be maintained for construction of MOH RHFs under the proposed project. Because of the need to complete the existing pipeline of RHFs, there would be no construction of project-financed RHFs in 1982/83 and 1983/84.

4.53 In order to determine which RHFs are to be improved and upgraded, and the location of new RHFs, the MOH would conduct a survey of existing RHFs, and a mapping exercise using data from the 1979 Population Census. Priority in determining project RHFs locations would be given to sublocations which presently have less accessibility relative to the average, with accessibility measured according to the parameters of the RHF model described in paragraphs 2.12 to 2.14. An assurance has been obtained that the results of the above survey and mapping exercise and the consequent locational decisions will be submitted to IDA for comments, together with the corresponding RHF preliminary designs and priced lists of furniture and equipment, not later than December 31, 1982.

Support Systems

4.54 Transport for Rural Health Services. The program would provide one two-wheel drive sedan for the district rural health management teams (paragraph 2.11) in each of Kenya's 41 districts except Nairobi and eight sedans for supervision of rural health services from the provincial level. It would also provide 47 ambulances with life-saving equipment to be stationed at district and provincial hospitals. At present rural patients have to rely on *ad-hoc* arrangements to reach hospital in emergencies. Although the program would not provide any cars for RHCs, most of which have at least one car in fair condition, it would provide eight motorboats with ambulance equipment, for eight RHCs located on the coast or the lake. It would also provide about 210 motorcycles for public health technicians stationed at RHCs and subcenters, who have to rely on public transport, and about 2,400 bicycles for ECNs stationed at RHFs. About one-half of all these vehicles would be provided under the project; the rest would be provided in the 1985-88 phase.

4.55 Maintenance. The project would help to improve the maintenance of MOH buildings, equipment and vehicles in rural areas (paragraphs 2.26 and 2.27), by (i) stepping up the maintenance program for unregistered facilities, and (ii) setting up six maintenance training schools modelled after the successful pilot project at Loitokitok District Hospital.

4.56 In each province one building inspector would be assigned full-time to administer and supervise the maintenance program for unregistered RHFs. Maintenance allocations in MOH's budget would be raised to a level consonant with needs. Each inspector would be provided with a four-wheel drive vehicle to enable him to visit all unregistered RHFs in his province regularly, and to supervise maintenance projects being carried out by contractors.

4.57 The project would provide six maintenance training schools, each attached to an existing Rural Health Training Center or District hospital. Each school would be provided with workshops, an instruction room, storage, a pick-up, and living quarters for four instructors and six students. Each school would function as a maintenance unit for its district, and would provide three types of training:

(a) Six maintenance technicians would be trained each year for a full year in the maintenance and repair of health facilities and equipment and, to a lesser extent, vehicles. Upon graduation they would be employed by MOH at the district level, where they would be responsible for repairs at the hospital and RHFs.
(b) Four 15-day courses a year, for 20 trainees, would be provided for MOH drivers in: (i) driving and car maintenance; (ii) first aid; and (iii) maintenance and minor repairs. All MOH drivers would have undergone this training by the end of three years.
(c) Rural health staff participating in team training courses (paragraph 2.02) would receive three days of instruction in the use of equipment, trouble-shooting and minor repairs.

4.58 An assurance has been obtained that, the government will select the locations of the six maintenance training schools, and engage qualified architects to prepare the corresponding designs, detailed cost estimates, bid documents and priced furniture and equipment lists and to supervise construction, not later than December 31, 1982.

4.59 Health Information System. In April 1980 MOH created a Health Information System by merging the Evaluation and Research division of NFWC with the Vital Health Statistics Unit, the only two units in the MOH whose primary function was the systematic collection of data. It is intended that the Health Information System, at present a pure information system, should in due course undertake research and evaluation.

4.60 In addition to continuing to gather and process the types of information hitherto gathered by its two predecessor units, the Health Information System will seek to gather information of a kind (e.g. the physical status of health facilities, staffing patterns and qualifications, number and state of repair of vehicles) not now readily available to the MOH. It will also produce an annual report on MOH activities.

4.61 To ensure coordination with other interested government departments and to provide a forum for drawing on experience available outside MOH, a Health Information System Advisory Committee composed of representatives of MOH, Central Bureau of Statistics, Registrar General's Department, and the University of Nairobi, will be created. The Health Information System, once fully staffed, will have five sections: data analysis; evaluation and research; documentation and publication; administration; and computer programming. Its field staff will include one senior statistical officer and two statistical clerks in each district.

4.62 The project would support the consolidation of the Health Information System through the funding of required additional staff, training, fellowships, technical assistance, seminars for information users, vehicles and supplies. It would also provide funds for studies in five areas: operations research; biomedical research; quality control of the record system; knowledge, attitude and practice surveys; and impact assessment. The allocation of these funds to specific studies, as well as those earmarked for research and evaluation under other Part B project

components (paragraphs 4.33 and 4.74), would require the approval of an Evaluation and Research Committee to be chaired by the Director of Medical Services. This committee would also monitor the progress of the studies, and have the power to suspend payments. It would consist of senior staff of interested government departments and the University of Nairobi.

4.63 Health Education. The project would strengthen the existing program of health education by:

(a) Improving the use of existing resources by (i) completing the staffing of the health education production unit so that existing equipment and facilities can be adequately utilised; (ii) posting HEOs to the Rural Health Training Centers to ensure adequate attention to health education in rural health team training; (iii) providing refresher and upgrading training for HEOs and for FHFEs, inter alia in the skills necessary for their new role in resupplying oral contraceptives;

(b) Adapting health education to local cultures and languages instead of relying too exclusively on centrally designed activities and materials, by: (i) holding annual planning workshops with FHFEs (at the district level) and HEOs (at the national level) to assess and revise local health education activities; (ii) adding HEOs to districts not yet covered and posting HEOs to provincial MOH offices; and (iii) organizing health education programs (including radio) to be conducted by HEOs, FHFEs, and teams of health workers, based on local circumstances and using local languages and dialects; and

(c) Introducing more efficient forms of communication by: (i) using radio programs to support the work of village health committees; and (ii) making health education a part of the regular school curriculum.

4.64 To permit decentralization, the Health Education Division's field structure would be strengthened by establishing posts for: (a) seven provincial HEOs and (b) 41 district HEOs (many of which would be filled by district-based HEOs already in the field). District HEOs would be responsible for the technical supervision of FHFEs. An assurance has been obtained that the MOH will establish the 48 field posts listed above by June 30, 1983.

4.65 Production of materials would be carried out by the Health Education Division's production unit which would make any spare productive capacity available to meet the needs of other ministries and NGOs in Part A of the project. To ensure the full utilization of this production unit, an assurance has been obtained that the MOH will complete the interior of the building it occupies, by December 31, 1982.

Experimental Community-Based Health Care

4.66 A key element of primary health care, or of any health care system that attempts wide coverage at relatively low cost, is the use of community health workers (CHWs) with limited training to provide front-line services and to refer patients to rural health facilities and hospitals. At present, NGOs are undertaking 14 different projects in Kenya, making use of CHWs. Most of these projects have been in operation for too short a period to be properly evaluated. The present project would mark the beginning of the MOH's large-scale involvement in this potentially important area where it would, however, respect the principle that communities served by CHWs should play a decisive role in such schemes.

4.67 Characteristics of CHWs. CHWs would be part-time employees of the communities they serve, not of the GOK, and would be selected, paid and directed by those communities. The CHW would work from his house in the community.

4.68 Tasks. Although the duties of CHWs would depend to some extent on the local health situation, all would be expected to undertake the treatment of common ailments (including oral rehydration), health education, family planning counselling, motivation and client follow-up, the administration of simple vaccines, and to take part in campaigns against communicable diseases. They would not at first supply non-clinical contraceptives or resupply oral contraceptives, although they may be allowed to do so later (see paragraph 4.74 below).

4.69 Organization of the program. The program would be organized at three levels: MOH headquarters, districts, and communities. At the MOH headquarters there would be a Community-Based Health Care Development Unit, which would help to formulate policy, promote community-based health care schemes, review and approve proposals for schemes to be funded from project funds, set guidelines for CHW stipends, train staff of district Rural Health Management Teams in community-based health care, and monitor and evaluate schemes. The Development Unit would be assisted by a Resource Advisory Group from the Department of Community Medicine of the University of Nairobi, the African Medical and Research Foundation and UNICEF, who will provide technical assistance.

4.70 At the district level the Health Sub-Committee of the District Development Committee, working in close cooperation with the district Rural Health Management team, would be responsible for the promotion and follow-up of community-based health care schemes. Interested communities would be assisted to establish Community Health Committees which (with district staff assistance) would prepare proposals for MOH funding. Once a scheme is approved, the Community Health Committee would select the CHWs and would be responsible for their administrative supervision and for their payment. Technical supervision would be provided by RHFs, which would also distribute drugs and supplies to CHWs. This supervision would entail assistance in community health activities as well as on-the-job review of CHW's work. District Development Committees would oversee the work of Community Health Committees.

4.71 Training. Training required for development of the CHW program would be provided for the staff of district Rural Health Management Teams and Development Committees, RHU staff, CHW trainers, the CHWs themselves, and members of Community Health Committees (for details see Annex 6).

4.72 Phasing. There would be roughly one CHW to every 1,000 people. The program would be introduced gradually. The aim would be to cover one RHU in each project year, for a total of six RHUs by 1988. The average population of a RHU is about 54,000 (paragraph 2.02). Thus the program might be expected to cover a population of about 400,000 people by 1988 (taking into account population growth), or about 2% of the total rural population. The program would be experimental, and would have to be evaluated carefully (see paragraph 4.74 below). The RHUs chosen would have to be among those with the highest ratios of actual staff to norms, to allow for adequate supervision of CHWs.

4.73 Equipment, Supplies and Stipends. Each CHW would receive an operational manual and a small case containing drugs, medical supplies and information and education materials. These inputs would be provided through the MOH. CHW stipends would be financed by the communities from their own resources. The MOH, however, would provide the communities with technical assistance regarding various techniques for raising those resources. All incremental costs associated with the CHW program, except CHW stipends, would be financed by the project during its duration.

4.74 Evaluation. MOH would conduct two evaluations of the CHW program: one towards the end of 1983 and the other towards the end of 1985. The first of these evaluations would include a reassessment of the feasibility of allowing CHWs to distribute and/or resupply contraceptives. The project would provide funds for the first of these evaluations, including three man-years of technical assistance, part of which could also be used for general managerial assistance to the Development Unit.

4.75 Risks. The CHW component carries two main risks. First, as experience elsewhere demonstrates, it is very difficult to establish adequate linkages between the formal health services and community health workers. This difficulty is compounded by the MOH's lack of experience in this area. The proposed creation of a Resource Advisory Group and the provision of funds for technical assistance would reduce problems of organization. Secondly, there is the risk that some of the communities may not be able to pay CHWs regular stipends. Since the Government views the payment of stipends by the communities as essential, the program would be confined to communities which demonstrate their willingness to raise the necessary funds. The Development Unit would provide technical assistance in this respect.

Non-Governmental Organizations

4.76 The role of church-sponsored NGOs in the provision of rural health services was mentioned in paragraph 2.09 above. While quality of the services varies, some are of a very high standard. All suffer from some degree of shortage of staff, and very few of their dispensaries provide FP services. Unlike those of the MOH, NGO facilities rarely run out of drugs and hence maintain service throughout the year. In general, the services follow the lines laid down by the MOH. Like MOH facilities, many NGO dispensaries and health centers require physical renovation and expansion. The NGOs also have a long history of conducting nurse training programs in some of their hospitals.

4.77 The inclusion of NGOs in the project represents a big step forward in the coordination of health services in rural areas. The NGOs included in the project are coordinated by either the Kenya Catholic Secretariat or the Protestant Churches Medical Association, and in the rest of this section, they are accordingly simply described as "Catholic" or "Protestant" as the case may be.

4.78 Expansion of MCH and FP Services. The project would include upgrading of about 30 NGO dispensaries and health centers into MCH and FP SDPs. This represents about 8% of all NGO RHFs. The limitation to 30 RHFs is not due to implementation constraints but rather to a financial constraint related to considerations of project balance. The Catholic SDPs would instruct couples in natural methods of family planning, especially the ovulation method. Protestant SDPs would provide the full range of FP services.

4.79 ECN Training. NGOs are converting their nursing schools into the standard MOH type of ECN school. The project would assist in the conversion of three such schools. Each of the schools would also be provided with a rural health demonstration center for practical training. These centers would be provided by upgrading existing rural health centers.

4.80 Outreach Services. NGOs have successfully provided regular dispensary-type mobile services in communities without local health services. The project would add six mobile clinics to existing (Catholic) services. Outreach services would be further strengthened by the addition of 12 ECNs to provide community-based health services.

4.81 Implementation. The Kenya Catholic Secretariat and the Protestant Churches Medical Association would be responsible for implementing their parts of the Project. A coordinator would be appointed within the MOH's Core Project Unit to facilitate coordination between the two NGO organizations and the MOH in project implementation.

4.82 An assurance has been obtained that the Kenya Catholic Secretariat and the Protestant Churches Medical Association will, in cooperation with MOH, determine the locations of the new 30 MCH/FP service delivery points to be established, and of the three nursing schools and three RHCs to be upgraded; and that the list of these locations will be submitted to IDA for its review, together with the corresponding preliminary type designs and priced lists of furniture and equipment, not later than December 31, 1982.

Innovative Activities

4.83 A small portion (about 1.9%) of the total project cost would be reserved for selected innovative activities not identified at appraisal that would contribute to the extension of rural health and FP services. The flexibility thus provided is especially desirable in the present case, because the project would absorb practically all the external assistance available for those services during the project period. An example of activities that could be financed from this component is the extension of MCH/FP services provided by non-Church NGOs. Another example would be a critical study of the present nutritional situation and interventions. The MOH would submit proposals to fund activities from this component to the appropriate financing agency for its approval. It is suggested that proposals be required to meet the following criteria: (i) relevance to project objectives; (ii) cost-effectiveness; (iii) feasibility of administration and evaluation; and (iv) innovativeness.

V. PROJECT COST AND FINANCING

A. Cost

5.01 The total estimated base cost of the project is US$47.1 million equivalent, at prices of November 1981. To this should be added, US$2.1 million of physical contingencies and US$11.8 million of price contingencies, for a total estimated project cost of US$61.0 million equivalent.

5.02 The foreign exchange component is estimated at about 35% of total project cost. Taxes and duties included in total project cost are esti-

mated at about US$3 million. Capital costs for civil works, furniture, equipment and vehicles account for 39.4% of total base cost, and operational and maintenance costs for 45.1% of total base cost. The remaining 15.5% is accounted for by Innovative Activities (Part B) and Unprogrammed Funds (Part A), which cannot yet be divided between capital and operational and maintenance costs. Table 9 below summarizes the project cost estimates by expenditure category. (Detailed cost estimates for the entire six-year program are shown in Annex 1).

5.03 From a functional point of view, the largest share of project funds (43.4%) is allocated to manpower, drugs and facilities. The population/FP information and education activities of Part A account for 20.1% of project base cost. Direct FP services input accounts for 4.5% of base cost. The rest of the project funds are allocated to support systems (20.0%), experimental community based health care (1.6%), NGOs (9.3%), and innovative activities (1.9%). A breakdown of project costs by functional category is given in Table 10 below.

5.04 The estimated costs of construction and furniture are based on November 1981 prices and experience under the first project. Cost estimates for equipment and vehicles are also based on November 1981 prices. Salaries and training costs are based on standard Government salary and allowance scales as of October 1980, updated to November 1981 by using the rate of increase in the domestic average consumer price index. Local advisory services have been costed at an average of US$1,000 per man-month, and foreign advisory services at US$5,000 per man-month (these figures include all expenses).

5.05 The contingency allowance of US$13.9 million equivalent, representing 2 2.8% of total project costs, includes: (a) Physical contingencies for unforeseen factors estimated at 15% of the base cost of civil works, and 10% of the base cost of furniture and equipment; and (b) price contingencies averaging 24.0% of base cost and physical contingencies. Price contingencies for local costs were calculated on the assumption of a 13.0% inflation rate in 1981, 13% in 1982, 9% in 1983, and 8% annually afterwards. Price contingencies for the foreign exchange component were calculated on the assumption of an inflation rate of 9.0 for 1981, 8.5% for 1982, 7.5% in 1983 and 6% annually afterwards.

TABLE 9

KENYA II: ESTIMATED PROJECT COSTS BY EXPENDITURE CATEGORY, 1982-84

	K.Sh.'000			US$'000			% of	% of
	Local	Foreign	Total	Local	Foreign	Total	F.E.	Base Cost
I. CAPITAL COSTS (Base Costs)								
1. Civil Works								
(a) Construction	83,850	35,950	119,800	8,400	3,600	12,000	30.0	25.4
(b) Professional Fees	4,350	1,850	6,200	450	200	650	30.0	1.3
2. Furniture	9,700	2,450	12,150	950	250	1,200	20.0	2.6
3. Equipment	1,850	16,750	18,600	200	1,700	1,900	90.0	3.9
4. Vehicles	2,900	26,200	29,100	300	2,600	2,900	90.0	6.2
Subtotal (I) Base Cost	(102,650)	(83,200)	(185,850)	(10,300)	(8,350)	(18,650)	(44.7)	(39.4)
II. OPERATIONAL AND MAINTENANCE COSTS (Base Costs)								
5. Salaries	82,600	4,050	86,650	8,250	400	8,650	4.7	1.8
6. Vehicle Operating Costs	10,050	10,050	20,100	1,000	1,000	2,000	50.0	4.3
7. Other Operational Costs	49,400	56,650	106,050	4,950	5,650	10,600	53.4	22.5
Subtotal (II) Base Cost	(142,050)	(70,750)	(212,800)	(14,200)	(7,050)	(21,250)	(33.2)	(45.1)
III. UNPROGRAMMED FUNDS								
(Part A)	53,650	10,200	63,850	5,350	1,000	6,350	16.7	13.5
Innovative Activities (Part B)	4,500	4,500	9,000	450	450	900	50.0	1.9
Subtotal (III) Base Cost	(58,150)	(14,700)	(72,850)	(5,800)	(1,450)	(7,250)	20.2	(15.4)
Subtotal Base Cost (I, II, III)	(302,850)	(168,650)	(471,500)	(30,300)	(16,850)	(47,150)	(35.8)	(100.0)
CONTINGENCIES								
Physical Contingencies	13,750	7,300	21,050	1,350	750	2,100	34.7	4.5
Price Contingencies	78,800	39,000	117,800	7,900	3,900	11,800	33.1	25.0
Subtotal Contingencies	(92,550)	(46,300)	(138,850)	(9,250)	(4,650)	(13,900)	(33.4)	(29.5)
TOTAL (PARTS A AND B)	395,400	214,950	610,350	39,550	21,500	61,050	35.3	129.5

TABLE 10

KENYA II: ESTIMATED PROJECT COSTS BY FUNCTIONAL CATEGORY, 1982-84

	K.Sh.'000			US$'000			% of	% of
	Local	Foreign	Total	Local	Foreign	Total	F.E.	Base Cost
PART A, BASE COST								
Programmed	26,700	4,500	31,200	2,650	450	3,100	16.0	6.6
Unprogrammed	53,650	10,200	63,850	5,350	1,000	6,350	16.0	13.5
Subtotal (A)	(80,350)	(14,700)	(95,050)	(8,000)	(1,450)	(9,450)	(16.0)	(20.1)
PART B, BASE COST								
Family Planning	10,050	11,400	21,450	1,000	1,150	2,150	53.1	4.5
Manpower, Drugs and Facilities	(119,150)	(85,650)	(204,800)	(11,900)	(8,550)	(20,450)	(41.8)	(43.4)
Manpower and Training	81,800	20,450	102,250	8,200	2,050	10,250	20.0	21.7
Drug Supplies	5,250	50,100	55,350	500	5,000	5,500	90.5	11.7
Rural Health Facilities	32,100	15,100	47,200	3,200	1,500	4,700	32.0	10.0
Support Systems	(54,000)	(35,500)	(89,500)	(5,450)	(3,550)	(9,000)	(39.7)	(20.0)
Transport	6,500	19,600	26,100	650	1,950	2,600	75.1	5.5
Maintenance	26,350	10,850	37,200	2,650	1,100	3,750	29.2	7.9
Health Information System	8,300	3,900	12,200	850	400	1,250	31.9	2.6
Health Education	12,850	1,150	14,000	1,300	100	1,400	8.3	3.0
Experimental Comm.—Based H.C.	3,850	3,900	7,750	400	400	800	50.1	1.6
Church-Related NGOs	30,950	13,000	43,950	3,100	1,300	4,400	29.6	9.3
Innovative Activities	4,500	4,500	9,000	450	450	900	50.0	1.9
Subtotal (B)	(222,500)	(153,950)	(376,450)	(22,300)	(15,400)	(37,700)	(40.9)	(79.8)
Subtotal (A & B) Base Cost	(302,850)	(168,650)	(471,500)	(30,300)	(16,850)	(47,150)	(35.8)	(100.0)
Contingencies								
Physical Contingencies	13,750	7,300	21,050	1,350	750	2,100	34.7	4.5
Price Contingencies	78,800	39,000	117,800	7,900	3,900	11,800	33.1	25.0
Subtotal Contingencies	(92,550)	(46,300)	(138,850)	(9,250)	(4,650)	(13,900)	(33.4)	(29.5)
TOTAL (PARTS A AND B)	395,400	214,950	610,350	39,550	21,500	61,050	35.3	129.5

B. Financing

5.06 Project Financing Plan. A project financing plan is needed at the present time for the 1982-85 project only: the financing plan for the 1985-88 project would be prepared subsequent to the corresponding appraisal mission in mid-1984. The financing of project costs (1982-85) would be shared as follows (a detailed financing plan is given in Annexes 8 and 9):

	K.Sh.	US$	%
	---Million---		
Net Project Cost, excluding Taxes and Duties and Project Preparation Advance Expenditures	580	58.0	
Project Preparation Advance Expenditures	3	0.3	
Net Project Cost, including Project Preparation Advance Expenditures	583	58.3	100.0
Government of Kenya	105	10.5	18.0
IDA	230	23.0	39.5
SIDA	98	9.8	16.8
DANIDA	85	8.5	14.6
USAID	40	4.0	6.9
ODA	12	1.2	2.1
UNICEF	7	0.7	1.2
UNFPA	6	0.6	1.0
	583	58.3	100.0
Taxes and Duties	30	3.0	
Total Project Cost, including Taxes and Duties and Project Preparation Advance Expenditures	613	61.3	

5.07 The proposed Credit of US$23 million (SDR 20.5 million) to the Kenya Government would beon standard IDA terms. The contributions of the remaining external assistance agencies would be in the form of grants. Total foreign financing would cover about 82% of net project cost, including 100% of foreign exchange cost and about 71% of local expenditures.

5.08 Financing of Parts A and B items by IDA, SIDA, DANIDA, USAID, ODA, UNICEF and UNFPA would be on a parallel basis (see Annexes 8 and 9 for details). As a condition of credit effectiveness, the Government will make arrangements satisfactory to the Association to obtain external assistance amounting to not less than US$24.8 million equivalent. The specific Part A items to be financed by each donor and government have been identified for the first project year only (see Annex 8). For the second and third project years, the determination of specific Part A items to be financed by each of the donors and government will be made at the time of the review by donors of the corresponding annual work plans, in consultation with the Council.

5.09 Part A expenditures associated with activities to be carried out by the Secretariat of the National Council on Population and Development, or by non-governmental organization, will be allocated to the budget of the Office of the Vice President and Ministry of Home Affairs. Part A expenditures associated with activities to be carried out by other government agencies will be allocated to the budgets of those agencies. All Part B expenditures would be allocated to the MOH's budget. Expenditures related to the NGO component would appear in MOH's budget as a grant to the NGOs, separate from the ongoing annual grant

already included in the MOH's budget. The NGOs would retain title to project assets beyond the project period, and would commit themselves to the adequate maintenance and operation of those assets.

5.10 Fiscal Feasibility. The bulk (about 80%) of project costs relate to Part B and would have to be included in the MOH budget. The total MOH budget allocation for FY80/81 was about K.Sh. 1,046 million (of which 78.5%, or about K.Sh. 821 million, was for recurrent expenditures). The GOK's contribution to annual Part B project expenditures would represent about 2.5% of the total MOH's budget in FY80/81 on the average for 1982-84.

5.11 The increase in MOH's operating and maintenance costs due to the program would continue beyond the program period. Incremental operating and maintenance costs arising from Part B program activities are estimated at about K.Sh. 125 million in FY87/88 (at 1981 prices). Most of these costs would recur in subsequent years, when they would have to be met entirely from local funds. An assessment of whether it would be realistic to expect that these costs could be absorbed in the MOH's recurrent budget has been made based on the following assumptions: (a) Kenya's GNP grows in real terms at an average annual rate of between 4 and 5% in the seven-year period 1980/81-1987/88; (b) the share of the total expenditures of all Ministries to GNP remains constant at the FY80/81 level; (c) the share of MOH's budget (development plus recurrent) in the total expenditures of Ministries grows from 6.2% in FY80/81 to 6.8% in FY83/84 (as assumed in the Forward Budget 1981/82-1983/84) and remains constant at that level through FY87/88; and (d) the share of recurrent expenditures in the MOH's budget remains constant at the FY80/81 level. Under these assumptions, the MOH's recurrent budget would grow (at constant 1981 prices) from K.Sh. 821 million in FY80/81 to between K.Sh. 1,178 million and K.Sh. 1,260 million in FY87/88, depending on whether GNP grows at 4 or 5%. Thus, incremental operational and maintenance costs arising from the program in FY87/88 would represent between 35 and 28% of the total increase in the MOH's recurrent budget in the period. Relevant subvotes of the MOH's budget under which program expenditures would be classified comprised 24.3% of MOH's recurrent budget in FY80/81. Moreover, other developmental activities in the period outside the program and under these subvotes are expected to be of relatively minor magnitude. It can be then concluded that under the above assumptions the program would imply a modest shift in the composition of expenditures within the MOH's recurrent budget in favor of rural health and preventive services. This shift is consistent with the Government's stated policies and in the interest of the majority of the country's population (paragraph 2.32).

5.12 Project Preparation Facility. An advance of US$332,000 equivalent has been granted by IDA to the GOK to finance certain expenditures necessary to complete the preparation of the project. (For details see Annex 7).

VI. PROJECT IMPLEMENTATION

A. Implementation

6.01 There would be separate arrangements for the implementation of Parts A and B of the project (See Chart 2). For Part A, the actual information and education activities would be carried out by the participating agencies (Ministries and NGOs). Coordination and monitoring, common support activities, the preparation of overall annual workplans, procurement of goods for NGOs, progress reports and reimbursement applications and the transfer of funds would be carried out by the Secretariat of the National Council (paragraph 4.18), whose chief executive would be appointed as Project Director, Part A, and would report to the Permanent Secretary in the Office of the Vice President and

Ministry of Home Affairs. Each of the participating government agencies would procure its own goods and services. Part B of the project would be carried out by the MOH, with the NGO component carried out jointly by MOH and the NGOs. Details of the implementation of specific components of Part B are described in Section IV.C. above and are summarized in Annex 2.

6.02 Although the MOH project components would be mainly carried out by existing MOH units with appropriate strengthening through the project (e.g. NFWC, Planning and Implementation Unit, Drug Management Unit, Health Education Unit, Health Information System, district staff), or by a new ad hoc unit in the case of the community-based health care component, a strong Core MOH Project Unit would be appointed for (i) the monitoring and supervision of Part B activities; (ii) keeping Part B project accounts; (iii) preparing Part B disbursement applications; and (iv) preparing Part B progress reports for donors. For the NGO component, functions (ii) and (iv) would be based on information provided by NGO staff.

6.03 The head of the Core MOH Project Unit would also be Project Director, Part B. Ideally he should be an experienced manager with sufficient seniority to be able to deal effectively with the heads of participating MOH units and NGOs. The Project Director, Part B would report to the Director of Medical Services. Besides the director, the Core Staff would include twelve professional-level staff plus several support staff.

6.04 The staffing of the following positions in the MOH's Core Project Unit with full-time personnel whose experience and qualifications are acceptable to IDA will be a condition of Credit effectiveness: Director, Financial Controller, Senior Program Evaluator, Procurement Officer, and Administrative Secretary.

6.05 The implementation of Part B components would be overseen by a Steering Committee comprised of the Permanent Secretary of MOH (Chairman), the Director of Medical Services, the Chief Nursing Officer, the Deputy Secretary, for Development in MOH, and the Director of the Core Project Unit (Secretary). The Steering Committee would meet quarterly to review project progress and to solve any problems of intra-ministerial coordination that may arise in the course of project implementation.

6.06 As the MOH is about to embark on a new phase of building up its rural-health services, the time seems propitious for an indepth review of the MOH's organizational structure and administrative procedures, especially as they may affect project implementation. To this effect, the MOH has agreed to a comprehensive management study to be undertaken by independent consultants. The study, to be financed by SIDA, is expected to start in early 1982. The final report of the study would be discussed among the MOH, IDA and the donor agencies participating in the proposed project. An assurance has been obtained that the MOH will prepare a timetable to implement those recommendations of the consultants' report to which MOH, SIDA and IDA agree, not later than three months after the completion of the final version of the consultants' report. Implementation of these recommendations would be reviewed at the time of appraisal of the 1985-88 project.

B. Procurement

6.07 Financing of Part A expenditures by IDA, USAID, ODA, and UNFPA would be on a parallel basis. Specific items to be financed by government and external financing agencies are known at this time for the first project year only (see Annex 8). Part A entails no civil works and the amount of hardware (equipment and vehicles) to be procured annually would be small. The Secretariat of the National Council on Population and Development and each of

the participating agencies would procure their own goods and services, except that goods for activities to be carried out by NGOs will be procured by the Secretariat. Financing of Part B expenditures by IDA, SIDA, DANIDA, USAID, UNICEF and ODA would also be on a parallel basis (see Annex 9). Procurement of Part B goods and civil works would be carried out by MOH and the Central Tender Board, including those goods and civil works associated with the NGO component.

6.08 For Parts A and B goods financed by IDA, the following procurement procedures would be followed:

(a) Civil Works: The civil works to be financed by IDA consist of small projects scattered throughout the country. Moreover, the bulk of these civil works constitute upgrading and improvement rather than new construction. Civil works contracts over US$2 million would be let through international competitive bidding. Contracts below US$2 million would be awarded after local competitive bidding following government procedures, which are acceptable to the Association. Procurement of civil works would be based on bid packages, prepared in such a way as to encourage competition. Packaging would be subject to IDA's approval. In remote areas where insufficient competition and unreasonable prices would be likely to result from bidding, the MOW's force account may be used, subject to the prior approval of the Association.

(b) Vehicles and Equipment: Contracts above US$100,000 equivalent would be let through international competitive bidding. Contracts below US$100,000 equivalent, but in aggregate not exceeding US$1,000,000, would be let through local competitive bidding. Procurement of vehicles and equipment would be based on bid packages, prepared in such a way as to encourage competition. Packaging would be subject to IDA's approval. For small purchases up to US$50,000 equivalent each, but in aggregate not exceeding US$500,000, prudent shopping could be used, but at least three quotations would have to be obtained.

(c) Furniture: Contracts for US$50,000 equivalent or more would be let through local competitive bidding, which proved appropriate in previous experience. Appropriate packaging, subject to IDA's approval, would be conducted. For purchases for less than US$50,000 equivalent, but in aggregate not exceeding US$250,000, prudent shopping could be used, but at least three quotations would have to be obtained.

6.09 For items procured under international competitive bidding, preference may be accorded at GOK's request to local manufacturers of furniture and equipment at 15% of the c.i.f. bid price of such goods, or the amount of customs duty and other import taxes levied on a non-exempt importer, whichever is lower. The procurement rules of paragraph 6.08 would apply to all of Parts A and B, including the NGO components.

6.10 Contract Review. All bidding packages for works estimated to cost over US$80,000 equivalent and bidding packages for goods over US$50,000 equivalent would be subject to the Bank's prior review of procurement documentation resulting in a coverage of about 95% of the total estimated value of works contracts and about 88% of goods contracts. The balance of contracts would be subject to random post-review by the Bank after contract award.

C. Accounting, Auditing and Disbursements

Disbursements

6.11 Funds from the Credit account would be disbursed according to the following schedule:

Category	Amount of Credit Allocated (US$ Equivalent)	% of Expenditures to be Financed
(1) Part A of the Project:		
(a) Vehicles, furniture and equipment	30,000	100% of foreign expenditures, 100% of local expenditures ex-factory, 70% of local expenditures for imported goods procured locally
(b) Consultants' services	20,000	100%
(c) Incremental salaries and allowances	100,000	90%
(d) Incremental operating and maintenance costs	150,000	70%
(e) Unallocated and to be allocated to categories 1(a) through (d) based on annual plans	4,300,000	
(2) Part B of the Project:		
(a) Civil works for new MOH rural health facilities (incluing staff housing), upgrading of 25 MOH dispensaries, and upgrading of NGO facilities	5,000,000	80% of total
(b) Furniture, equipment and materials accessory to the civil works in Category (a) and equipment and materials for provincial and district rural health teams, MOH's Drug Management Unit, the NFWC, the MOH's health information system, health education, and the establishment of 300 maternal and child health and family planning service delivery points	1,300,000	100% of foreign expenditures, 100% of local expenditures ex-factory, and 70% of local expenditures for imported goods procured locally

(c) Vehicles	1,400,000	100% of foreign expenditures, 100% of local expenditures ex-factory, and 70% of local expenditures for imported goods procured locally
(d) Consultants' services	800,000	100%
(e) Incremental salaries and allowances	7,300,000	90%
(3) Refunding of the Project Preparation Advance	332,000	Amounts due
(4) Unallocated[1/]	2,268,000	
Total	23,000,000	

1/ The "Unallocated" figure was arrived at by taking 50% of total contingency financing by IDA. The remaining 50% was included with the corresponding expenditure categories.

6.12 Disbursements against categories 2(a), 2(b), 2(c) and 2(d) would be fully documented. Disbursements against category 2(e) would be made against statements of expenditure. For categories 1(a) and (b), disbursements would be fully documented. Disbursements against categories 1(c) and (d) would be made against statements of expenditure. An estimated time schedule of IDA disbursements is given in Annex 3. The documentation for statements of expenditure under categories 1 and 2 would not be submitted to IDA but would be retained by the Borrower for inspection by supervision missions.

Accounts and Audit

6.13 Part A. The Secretariat of the coordinating Council (para. 4.15) will maintain separate detailed project accounts for expenditures incurred by the Council itself and its Secretariat. The participating agencies (Ministries and NGOs) will keep similar accounts for their corresponding project expenditures. Summaries of these accounts will be submitted quarterly to the Secretariat, which will use them to prepare consolidated project accounts for Part A. The Secretariat's and the participating agencies' project accounts will be audited by the Auditor General.

6.14 Part B. The Core MOH Project Unit (para. 6.02) working in close co-operation with the Accounting division and other relevant MOH units, will maintain separate detailed project accounts for all Part B expenditures except those related to NGOs. The latter will maintain their own detailed project accounts and will submit quarterly summaries to the Project Director--Part B. MOH and NGO project accounts will be audited by the Auditor General.

Financial Reporting

6.15 The Project Directors of Parts A and B would be responsible for preparing an annual report summarizing all project financial transactions in the period, and the state of project accounts by the end of the period, starting

with FY82/83. These financial reports, accompanied by suitable auditors' reports, should be submitted to IDA not later than December 31 of each year, starting with December 31, 1983, for FY82/83 operations.

VII. PROJECT JUSTIFICATION, RISKS AND EVALUATION

A. Justification

7.01 The justification of the project lies in its expected impact on (i) fertility, and (ii) the health of the rural population.

7.02 Fertility Impact. The project would more than double the number of RHFs offering daily full FP services (para 4.27). It would also greatly increase the regularity of FP services in existing SDPs by making it possible to use for FP services several categories of RHF personnel who have not hitherto taken part in this work (para. 4.28). This would also allow provision of limited FP services in non-SDP RHFs. Moreover, the project would assist in the creation of greater demand for FP services through its information and education activities. The likely impact of all these project activities, and of the similar activities planned for the 1985-88 phase, on the number of FP users and on the CBR was indicated in paragraph (4.04) in the form of a range: a "low" projection where the CBR would fall from about 53 per thousand at present to 51 per thousand in 1987, and a "high" projection where the CBR would fall to 48 per thousand in 1987. The "low" projection would require the number of contraception users to increase by a factor of about 2-1/2 times over the 1980 level, while the "high" projection would require a four-fold increase.

7.03 In addition to its short-term impact on the number of FP users, the improvement of FP services makes good sense from a medium to long term point of view. Without continuous building up of FP services a situation could develop in which an increase in demand for FP services, due to the start of a downward trend in desired family size could not be adequately met. Since experience shows that it takes a long time to increase FP services substantially, and since the marginal cost of providing these services in an integrated health system as in Kenya is low, it seems reasonable to increase FP capacity beyond what would be justified in terms of present demand alone.

7.04 It is important, however, that the GOK should not confine itself to providing an effective service delivery network and then wait passively for demand to increase in response to socio-economic modernizing influences. A strong population/family planning information and education drive is needed to increase awareness of the benefits of limiting family size. Part A activities would therefore constitute a key element in Kenya's population program in the 1980s. During 1982-88, at least 75% of the population over the age of six would be exposed to direct program communication, and many of them will pass on to others what they have learned. Although it is difficult to forecast the change in demand for FP that would result from the proposed information and education activities of Part A, experience elsewhere strongly suggests that a well-organized information and education program is a necessary, if not a sufficient, condition of a successful FP program.

7.05 Impact on Rural Health. Health benefits that would be generated by the project can be classified in three categories:

(a) Some rural people that without the project would not be provided with any primary-level health services within the next three years, would be so provided with the project.[5] Existing surveys indicate that rural people living further than five miles away from a RHF do not avail themselves of primary-level health services, except in cases of extreme emergencies, because the costs of doing so are perceived to outweigh benefits. This condition could be called "total primary-level service inaccessibility". About 23% of the rural population, or 2.8 million people, were in this category in 1977 (Table 6).

(b) Some rural people that without the project would not be provided within the next three years with certain important primary-level health services (e.g. MCH, FP) would be so provided because of the project.

(c) Some rural people that without the project would be provided with primary-level health services at a certain average annual frequency, with the project would be provided with such services at a higher frequency, or would be provided with a higher quality of services at the same frequency, or both.

7.06 Benefits type (a) would be generated by the project construction of new facilities [para. 4.50(c)]. This would allow provision of rural health services to between 30,000 and 40,000 people. This is a very modest effort relative to the needs, but consolidation of the existing dispensary network is a higher priority because of its implications for expansion of MCH/FP services to the bulk of the rural population.

7.07 The impact of the project would be pronounced with regard to type (b) benefits. This refers mainly to MCH and FP services. Presently few dispensaries provide either type of services. Under the project, daily MCH/FP services would be introduced in 300 MOH RHFs, mostly dispensaries, and in 30 NGO RHFs, and this would benefit a population of up to about 2,500,000 people. The extension of MCH services made possible through project inputs, combined with the Kenya Expanded Program of Immunization (see paragraph 4.43), would be expected to raise the percentage of fully immunized children under five years of age from about 25% currently to 60-70% by the mid 1980s.

7.08 The project would also generate very substantial benefits type (c). Since MOH RHFs are closed on an average about 25% of the time due to lack of drugs, the annual per capita frequency of use of RHFs would be expected to increase by at least that much once the new drug supply program for RHFs is in place nationwide (some of this increase would be a diversion from use of district hospital facilities, but it would be an efficient diversion). Frequency of use would be also expected to increase on account of better staffing of RHFs (paragraph 4.35). Quality of services provided would increase with both better drug availability and better staffing and training (paragraphs 4.41 to 4.43) provided through the project.

5/ Benefits arising from capital goods provided through the project would, of course, continue to be forthcoming well beyond the project period.

B. Risks

7.09 Part A. Part A is subject to the serious risk that, because the members of the Council who, as such, must choose among competing proposals for the allocation of resources, would be representatives of the agencies submitting these proposals, quid pro quo considerations would prevail instead of impartial evaluation. During the project period, this risk would be reduced by requiring the annual plans to be approved by the external financing agencies.Beyond the project period, the experience by then acquired by the staff of the Council's Secretariat should serve to ensure an adequate degree of quality control of proposals.

7.10 Part B. The principal risk regarding Part B is whether the MOH has the capacity to utilize project resources effectively and to meet the exacting administrative requirements of so complex a project. The deployment of a strong core project staff (paragraph 6.02), and the provisions in the project for the additional staff and consultants estimated to be needed for prompt implementation of MOH project components, would lessen this risk to an acceptable low level. The general implementation capabilities of MOH are also likely to improve following implementation of the recommendations of the planned management study (paragraph 6.06).

7.11 The risks associated with the more innovative components of Part B, drug supplies and community-based health care, have been pointed out in paras. 4.47, 4.48 and 4.75. One factor that might jeopardize the success of the manpower and training component is the almost certainty that, given present incentives, ECNs and COs will continue to prefer hospital to rural health posts. Thus, in order to achieve the planned distribution of staff (paragraph 4.35), the MOH would have to monitor carefully job offers in both sectors, using the personnel monitoring system recommended in paragraph 4.36. The remaining Part B components consist mainly of extensions of current activities, and therefore do not carry the same degree of risk as the more innovative components of the project.

C. Evaluation

7.12 Project evaluation would cover inputs, processes and outputs. Input evaluation compares actual with planned inputs. Process evaluation measures the progress of the project in terms of the attainment of intermediate objectives--e.g. in the present case, increase of number of SDPs and trained personnel, contraceptive prevalence rate, percentage of married women with knowledge of modern FP methods--necessary to reach the final objectives. The values of these variables at any stage of the project are compared with the corresponding values before the project and with those it was planned that the project should achieve. Output evaluation applies similar comparisons to the variables whose changes in desired directions constitute the ultimate objectives of the project. In the present case, output would have to be measured in terms of fertility (CBR, total fertility rate), mortality (CDR, life expectancy) and morbidity (incidence of major diseases, average annual days of sickness by sex and age group).

7.13 The evaluation of Part A activities would be the responsibility of the Coordinating Council. The evaluation of Part B activities would be the responsibility of the Core MOH Project Staff, assisted by other MOH units as appropriate. For the drug supplies and community-based health care components, special evaluation provisions have been built into the project (paras. 4.46 and 4.74 respectively).

7.14 Input evaluation, which would form the main part of project progress reports to be prepared by MOH and the Coordinating Council, is not expected to present difficulties. Process evaluation of Part A would include measurement of how far I&E messages are acceptable and comprehensible to the audiences. The Council would also conduct periodic surveys of public knowledge, attitudes and practices concerning population and FP and compare the results with the preproject situation as reflected in the Kenya World Fertility Survey. Process evaluation of Part B would be based on the MOH's system of service statistics (which would be strengthened through the project).

7.15 The most important form of evaluation is that of outputs--in the present case, declines in fertility, mortality and morbidity. In countries with a well-developed vital statistics system, changes in fertility and mortality can normally be detected through that system. This is not the case in Kenya, where reliable data on fertility and mortality can only be obtained through surveys. A good baseline is provided by the 1977-78 Kenya World Fertility Survey and the 1979 Population Census. An assurance has been obtained that the government will engage a qualified institution to conduct a fertility/mortality survey during the course of the project, to allow an assessment of progress towards the goals of declines in fertility and mortality. There are as yet no useful baseline morbidity data and one of the main tasks of the new Health Information System would be to define appropriate indicators of morbidity and to design cost-effective ways of measuring them. Thus progress towards a reduction of morbidity would be measurable for at least part of the project period.

VIII. RECOMMENDATIONS

8.01 During negotiations, agreement with the government was reached on the following points:

(a) The government will appoint the members of the National Council on Population and Development, and will issue appropriate policy and procedural guidelines, by October 1, 1982. The Council will submit by March 31 of each year (beginning with March 31, 1983) the draft annual work-plan for the following year for the interagency I&E program to the funding agencies supporting Part A for their approval (paragraph 4.21), and will subsequently agree with those agencies on a detailed financing plan for the activities in the work-plan (paragraph 5.08);

(b) The MOH will prepare a detailed timetable for the conversion of all Government RHFs not presently functioning as MCH/FP SDPs into full SDPs, and for their interim conversion into limited SDPs supplying non-medical contraceptives and resupplying oral contraceptives, by December 31, 1982 (paragraph 4.29);

(c) The MOH will set up a system to show the number, type and posting by specific facility of rural health staff, by December 31, 1982 (paragraph 4.36);

(d) The MOH will conduct a study of the causes of ECN and CO student attrition and possible remedies, and of the feasibility of shortening ECN training, not later than December 31, 1982 (paragraph 4.39);

(e) The MOH will conduct a study, the terms of reference of which would be agreed upon with IDA, SIDA and DANIDA, of the options available for financing the expanding supply of drugs in government facilities, by June 30, 1984.

(f) The MOH will establish the following posts: (i) seven provincial health education officers; and (ii) 41 district health education officers, by June 30, 1983 (paragraph 4.64);

(g) The MOH will complete the interior of the building housing its health education production unit, by December 31, 1982 (paragraph 4.65);

(h) The MOH will prepare a timetable for implementation of those recommendations of the management consultants' report to which MOH, SIDA and IDA agree, not later than three months after completion of the final version of the report (paragraph 6.06);

(i) The Project Directors of Parts A and B will each submit to IDA an annual report summarizing all project financial transactions in the period, and the state of project accounts by the end of the period, accompanied by suitable auditors' reports, not later than December 31 of each year, starting with December 31, 1983 (paragraph 6.15);

(j) The MOH will engage a qualified institution to conduct a fertility/mortality survey during the course of the project (paragraph 7.15);

(k) The MOH should select the locations for the new CO, ECN, and maintenance training schools to be built under the project, and select and appoint qualified architects to prepare the corresponding designs, detailed cost estimates, bid documents and priced furniture and equipment lists, and to supervise construction, not later than December 31, 1982 (paragraphs 4.40 and 4.58);

(l) The MOH should conduct a survey of its existing RHFs and with the help of this survey and criteria agreed with the appraisal mission, determine the locations of the approximately 25 dispensaries to be improved, 37 dispensaries to be upgraded, and the one new RHC and four new dispensaries Type I and six sets of dispensary staff houses to be built. Details of the above should be submitted to IDA for its review, together with the corresponding preliminary type designs and priced lists for furniture and equipment, not later than December 31, 1982 (paragraph 4.53);

(m) The Kenya Catholic Secretariat and the Protestant Churches Medical Association should, in cooperation with MOH, determine the locations of the new 30 MCH/FP service delivery points to be established, and of the three nursing schools and three RHCs to be upgraded. The list of these locations should be submitted to IDA for its review, together with the corresponding preliminary type designs and priced lists of furniture and equipment, not later than December 31, 1982 (paragraph 4.82).

8.02 Conditions of Effectiveness. The following will be conditions of effectiveness of the proposed IDA credit:

(a) The government will fill the following positions in the Secretariat of the National Council on Population and Development with full-time personnel whose experience and qualifications are acceptable to IDA: Director, Financial Controller, Administrative Officer, and Accountant (paragraph 4.18). The government will also fill the following positions in the MOH's Core Project Unit with full-time personnel whose experience and qualifications are acceptable to IDA: Director, Financial Controller, Senior Program Evaluator, Procurement Officer, and Administrative Secretary (paragraph 6.04).

(b) The government will make arrangements satisfactory to the Association to obtain external assistance amounting to no less than US$24.8 million equivalent (paragraph 5.08).

KENYA II, PART A: INTERAGENCY INFORMATION AND EDUCATION PROGRAM ON POPULATION AND DEVELOPMENT

Detailed Cost Estimates 1/

(In '000s of Kenyan Shillings)

	1982/83	1983/84	1984/85	Subtotal 1982/83 - 1984/85	1985/86	1986/87	1987/88	Subtotal 1985/86 - 1987/88	Total	% F.E.
I. CAPITAL COSTS										
1. CIVIL WORKS (none)	-	-	-	-	-	-	-	-	-	
2. FURNITURE										
2.1. National Council for Population and Development										
2.1.1. Furniture for rented offices	(157)	(10)	-	(167)	-	-	-	-	(167)	
2.2. MEPD: Population Documentation and Clearinghouse										
2.2.1. Furniture for offices	(84)	-	-	(84)	-	-	-	-	(84)	
2.3. KCS: Family Life Education Program										
2.3.1. Furniture for rented offices	(20)	-	-	(20)	-	-	-	-	(20)	
2.4. MyWO: MCH/FP I&E Services										
2.4.1. Furniture for headquarters and five rented district offices	(34)	-	-	(34)	-	-	-	-	(34)	
2.5. PCMA: Adolescent Health and FP I&E Program										
2.5.1. Furniture for rented offices	(12)	-	-	(12)	-	-	-	-	(12)	
Subtotal (2) Base Cost	(307)	(10)	-	(317)	-	-	-	-	(317)	20
Physical Contingencies 10%	31	1	-	32	-	-	-	-	32	
Price Contingencies	44	2	-	46	-	-	-	-	46	
Subtotal Contingencies	75	3	-	78	-	-	-	-	78	
Total (2)	382	13	-	395	-	-	-	-	395	20

1/ Note that all components of the Indicative Program are costed for the first year only; continuation of activities will be dependent upon negotiated extensions worked out with the National Council on Population and Development.

	1982/83	1983/84	1984/85	Subtotal 1982/83 - 1984/85	1985/86	1986/87	1987/88	Subtotal 1985/86 - 1987/88	Total	% F.E.
3. EQUIPMENT										
3.1. National Council for Population and Development										
3.1.1. Office equipment (typewriters, copying machines, calculators, etc.)	246	101	-	347	-	-	-	-	347	
3.1.2. Audio-visual equipment (e.g., equipment pools at district level)	706	706	706	2,118	-	-	-	-	2,118	
Subtotal (3.1)	(952)	(807)	(706)	(2,465)	-	-	-	-	(2,465)	
3.2. MEPD: Population Documentation and Clearinghouse										
3.2.1. Office equipment typewriters, duplicating machine, and microform reader	(128)	-	-	(128)	-	-	-	-	(128)	
3.3. MOH: Strengthening of FP In-clinic and Extension Education by Health Workers										
3.3.1. Equipment for pilot post-partum education program (continuous type cassette playback machines: K.Sh. 1,300 x 10)	13	-	-	13	-	-	-	-	13	
3.3.2. Equipment for pilot program of using existing local groups by FHFEs (cassette tape recorders/radios: K.Sh.1,710 x 30)	51	-	-	51	-	-	-	-	51	
3.3.3. Still cameras to support overall program K.Sh.6,600 x 2)	13	-	-	13	-	-	-	-	13	
Subtotal (3.3)	(77)	-	-	(77)	-	-	-	-	(77)	
3.4. MOH: Mass Media Support for FP Interpersonal Communication by Health Workers										
3.4.1. Reel-to-reel tape recorders (two sizes) and radio to monitor broadcasts (1)	(44)	-	-	(44)	-	-	-	-	(44)	
3.5. FPAK: Motivation and Support for TBAs										
3.5.1. Simple midwifery kits for TBAs (K.Sh. 215 x 160)	(34)	-	-	(34)	-	-	-	-	(34)	
3.6. KCS: Family Life Education Program										
3.6.1. Office equipment (duplicating machine and calculator)	29	-	-	29	-	-	-	-	29	
3.6.2. A/V Equipment	71	-	-	71	-	-	-	-	71	
Subtotal (3.6)	(100)	-	-	(100)	-	-	-	-	(100)	
3.7. MyWO: MCH/FP I&E Services										
3.7.1. Office equipment (duplicating machine and typewriters)	94	-	-	94	-	-	-	-	94	
3.7.2. A/V Equipment (K.Sh. 400 x 6)	2	-	-	2	-	-	-	-	2	
Subtotal (3.7)	(96)	-	-	(96)	-	-	-	-	(96)	
3.8. NCCK: Family Life Education Program										
3.8.1. Office equipment (duplicating machine and typewriter)	53	-	-	53	-	-	-	-	53	
3.8.2. A/V equipment (still cameras and writing screens)	38	-	-	38	-	-	-	-	38	
Subtotal (3.8)	(91)	-	-	(91)	-	-	-	-	(91)	
3.9. PCMA: Adolescent Health and FP I&E Program										
3.9.1. Office equipment (duplicating machine, typewriter, calculator, etc.)	56	-	-	56	-	-	-	-	56	
3.9.2. A/V equipment for central office (projectors, generator, screen and easel)	58	-	-	58	-	-	-	-	58	
3.9.3. A/V equipment for area coordinators (K.Sh. 1,300 x 5 coordinators)	7	-	-	7	-	-	-	-	7	
3.9.4. Safari equipment for use of central office staff	4	-	-	4	-	-	-	-	4	
Subtotal (3.9)	(125)	-	-	(125)	-	-	-	-	(125)	

	1982/83	1983/84	1984/85	Subtotal 1982/83 - 1984/85	1985/86	1986/87	1987/88	Subtotal 1985/86 - 1987/88	Total	% F.E.
3.10. SA: Family Planning I&E Program										
3.10.1. FP service equipment for use by nurses (K.Sh. 1,300 x 10 locations)	(13)	-	-	(13)	-	-	-	-	(13)	
Subtotal (3) Base Cost	(1,660)	(807)	(706)	(3,173)	-	-	-	-	(3,173)	90
Physical Contingencies 10%	166	81	71	318	-	-	-	-	318	
Price Contingencies	173	157	194	524	-	-	-	-	524	
Subtotal Contingencies	339	238	265	842	-	-	-	-	842	
Total (3)	1,999	1,045	971	4,015	-	-	-	-	4,015	90
4. VEHICLES										
4.1. National Council for Population and Development										
4.1.1. Four-wheel drive vehicles (K.Sh. 160,000 x 2)	320	-	-	320	-	-	-	-	320	
4.1.2. Two Sedan Cars (K.Sh. 143,000 x 2)	143	143	-	286	-	-	-	-	286	
Subtotal (4.1)	(463)	(143)	-	(606)	-	-	-	-	(606)	
4.2. MEPD: Population Documentation and Clearinghouse										
4.2.1. Four-wheel drive vehicle (K.Sh. 160,000 x 1)	(160)	-	-	(160)	-	-	-	-	(160)	
4.3. FPAK: Motivation and Support for TBAs										
4.3.1. Four-wheel drive vehicle for coordinator and supervisor (K.Sh. 160,000 x 1)	160	-	-	160	-	-	-	-	160	
4.3.2. Motorcycles for trainers (K.Sh. 20,000 x 8)	160	-	-	160	-	-	-	-	160	
Subtotal (4.3)	(320)	-	-	(320)	-	-	-	-	(320)	
4.4. KCS: Family Life Education Program										
4.4.1. One Sedan Car (K.Sh. 143,000)	(143)	-	-	(143)	-	-	-	-	(143)	
4.5. MyWO: MCH/FP I&E Services										
4.5.1. Minibus for central office (K.Sh. 203,000 x 1)	203	-	-	203	-	-	-	-	203	
4.5.2. Motorcycles for district supervisors (K.Sh. 20,000 x 5)	100	-	-	100	-	-	-	-	100	
Subtotal (4.5)	(303)	-	-	(303)	-	-	-	-	(303)	
4.6. NCCK: Family Life Education Program										
4.6.1. Four-wheel drive vehicles (K.Sh. 160,000 x 3)	(480)	-	-	(480)	-	-	-	-	(480)	
4.7. PCMA: Adolescent Health and FP I&E Program										
4.7.1. One Sedan Car (K.Sh. 143,000)	(143)	-	-	(143)	-	-	-	-	(143)	
4.8. SA: Family Planning I&E Program										
4.8.1. Motorcycles for field trainers (K.Sh. 20,000 x 10)	(200)	-	-	(200)	-	-	-	-	(200)	
Subtotal (4) Base Cost	(2,212)	(143)	-	(2,355)	-	-	-	-	(2,355)	90
Price Contingency	210	25	-	235	-	-	-	-	235	
Total (4)	2,422	168	-	2,590	-	-	-	-	2,590	90
II. OPERATIONAL AND MAINTENANCE COSTS										
5. SALARIES										
5.1 National Council for Population and Development										
5.1.1. Professional staff (7)	608	634	658	1,900	683	710	738	2,131	4,031	
5.1.2. Administrative staff (3)	80	82	85	247	89	92	96	277	524	
5.1.3. Secretarial and other support staff (13 + 4)	184	233	243	660	253	263	274	790	1,450	
5.1.4. Gratuities (25% of salaries) and sundry personnel costs	245	264	273	782	283	294	306	883	1,665	
Subtotal (5.1)	(1,117)	(1,213)	(1,259)	(3,589)	(1,308)	(1,359)	(1,414)	(4,081)	(7,670)	
5.2 MEPD: Population Documentation and Clearinghouse										
5.2.1. Professional staff (7)	246	-	-	246	-	-	-	-	246	
5.2.2. Clerical and other support staff (6)	98	-	-	98	-	-	-	-	98	
5.2.3. Gratuities (25% of salaries)	86	-	-	86	-	-	-	-	86	
Subtotal (5.2)	(430)	-	-	(430)	-	-	-	-	(430)	
5.3. FPAK: Motivation and Support for TBAs										
5.3.1. Professional staff (9)	185	-	-	185	-	-	-	-	185	
5.3.2. Gratuities (25% of salaries)	46	-	-	46	-	-	-	-	46	
Subtotal (5.3)	(231)	-	-	(231)	-	-	-	-	(231)	
5.4. KCS: Family Life Education Program										
5.4.1. Professional staff (3)	164	-	-	164	-	-	-	-	164	
5.4.2. Secretarial staff (2)	33	-	-	33	-	-	-	-	33	
5.4.3. Gratuities (25% of salaries)	49	-	-	49	-	-	-	-	49	
Subtotal (5.4)	(246)	-	-	(246)	-	-	-	-	(246)	
5.5. MyWO: MCH/FP I&E Service										
5.5.1. Professional staff (31)	423	-	-	423	-	-	-	-	423	
5.5.2. Clerical and other support staff (13)	111	-	-	111	-	-	-	-	111	
5.5.3. Gratuities (25% of salaries)	133	-	-	133	-	-	-	-	133	
Subtotal (5.5)	(667)	-	-	(667)	-	-	-	-	(667)	
5.6. PCMA. Adolescent Health and FP I&E Program										
5.6.1. Professional staff (6)	198	-	-	198	-	-	-	-	198	
5.6.2. Clerical staff (1)	22	-	-	22	-	-	-	-	22	
5.6.3. Gratuities (25% of salaries)	55	-	-	55	-	-	-	-	55	
Subtotal (5.6)	(275)	-	-	(275)	-	-	-	-	(275)	
5.7. SA: Family Planning I&E Program										
5.7.1. Professional staff (20)	(167)	-	-	(167)	-	-	-	-	(167)	

	1982/83	1983/84	1984/85	Subtotal 1982/83 - 1984/85	1985/86	1986/87	1987/88	Subtotal 1985/86 - 1987/88	Total	% F.E.
Subtotal (5) Base Cost	(3,133)	(1,213)	(1,259)	(5,605)	(1,308)	(1,359)	(1,414)	(4,081)	(9,686)	0
Price Contingencies	429	286	422	1,137	579	762	973	2,314	3,451	
Total (5)	3,562	1,499	1,681	6,742	1,887	2,121	2,387	6,395	13,137	0
6. VEHICLE OPERATING COST										
6.1. National Council for Population and Development										
6.1.1. For 4.1.1. (K.Sh. 98,000 per year each--2)	196	196	196	588	196	196	196	588	1,176	
6.1.2. For 4.1.2. (K.Sh. 44,000 per year each--2)	44	88	88	220	88	88	88	264	484	
Subtotal (6.1)	(240)	(284)	(284)	(808)	(284)	(284)	(284)	(852)	(1,660)	
6.2. MEPD: Population Documentation and Clearinghouse										
6.2.1. For 4.2.1. (K.Sh. 98,000 per year each--1)	98	-	-	98	-	-	-	-	98	
Subtotal (6.2)	(98)	-	-	(98)	-	-	-	-	(98)	
6.3. FPAK: Motivation and Support for TBAs										
6.3.1. For 4.3.1. (K.Sh. 98,000 per year each--1)	98	-	-	98	-	-	-	-	98	
6.3.2. For 4.3.2. (K.Sh. 2,000 per year each--8)	16	-	-	16	-	-	-	-	16	
Subtotal (6.3)	(114)	-	-	(114)	-	-	-	-	(114)	
6.4. KCS: Family Life Education Program										
6.4.1. For 4.4.1. (K.Sh. 44,000 per year each--1)	44	-	-	44	-	-	-	-	44	
Subtotal (6.4)	(44)	-	-	(44)	-	-	-	-	(44)	
6.5. MYWO: MCH/FP I&E Service										
6.5.1. For 4.5.1. (K.Sh. 68,000 per year each--1)	68	-	-	68	-	-	-	-	68	
6.5.2. For 4.5.2. (K.Sh. 2,000 per year each--5)	10	-	-	10	-	-	-	-	10	
Subtotal (6.5)	(78)	-	-	(78)	-	-	-	-	(78)	
6.6. NCCK: Family Life Education Program										
6.6.1. For 4.6.1. (K.Sh. 98,000 per year each--6)/1	588	-	-	588	-	-	-	-	588	
Subtotal (6.6)	(588)	-	-	(588)	-	-	-	-	(588)	
6.7. PCMA: Adolescent Health and FP I&E Program										
6.7.1. For 4.7.1. (K.Sh. 44,000 per year each--1)	44	-	-	44	-	-	-	-	44	
Subtotal (6.7)	(44)	-	-	(44)	-	-	-	-	(44)	
6.8. SA: Family Planning I&E Program										
6.8.1. For 4.8.1. (K.Sh. 2,000 per year each--10)	20	-	-	20	-	-	-	-	20	
(K.Sh. 44,000 per year each--9)/1	396	-	-	396	-	-	-	-	396	
Subtotal (6.8)	(416)	-	-	(416)	-	-	-	-	(416)	
Subtotal (6)	(1,622)	(284)	(284)	(2,190)	(284)	(284)	(284)	(852)	(3,042)	50
Price Contingencies	186	58	82	326	108	136	166	410	736	
Total (6)	1,808	342	366	2,516	392	420	450	1,262	3,778	50

/1 Includes incremental operating costs for existing vehicles, i.e. for vehicles not supplied through the project.

	1982/83	1983/84	1984/85	Subtotal 1982/83 - 1984/85	1985/86	1986/87	1987/88	Subtotal 1985/86 - 1987/88	Total
7. OTHER INCREMENTAL OPERATING COSTS									
7.1. National Council for Population and Development									
7.1.1. Rental of office space (K.Sh. 800 x 320 m^2 x 6 years)	256	256	256	768	256	256	256	768	1,536
7.1.2. Consumable office supplies	133	133	133	399	133	133	133	399	798
7.1.3. Utilities and postage	213	213	213	639	213	213	213	639	1,278
7.1.4. Maintenance of equipment and furniture	27	27	27	81	27	27	27	81	162
7.1.5. Housing allowances for staff (23-27-27-27)	200	219	219	638	219	219	219	657	1,295
7.1.6. Staff development (short courses, international conferences, visits to I&E programs in other countries, etc.: (K.Sh. 22,000 x 6 trips x 6 years)	132	132	132	396	132	132	132	396	792
7.1.7. Local travel (per diem, etc.)	44	44	44	132	44	44	44	132	264
7.1.8. Consultants (K.Sh. 48,600 per month for 6-6-4-2-2-2 months)	292	292	194	778	97	97	97	291	1,069
7.1.9. Development and introduction of I&E program (workshops, special publicity, etc.)	222	-	-	222	-	-	-	-	222
7.1.10. Mass media activities and development of support materials (subcontracts)	444	377	111	932	111	111	111	333	1,265
7.1.11. Training programs for staff of participating agencies (subcontracts)	111	111	111	333	111	111	111	333	666
7.1.12. Research and evaluation in support of overall program and specific agencies (subcontracts)	444	222	222	888	222	222	222	666	1,554
7.1.13. Documentation/resource materials	44	44	44	132	44	44	44	132	264
7.1.14. Expenses for board and committee meetings	22	22	22	66	22	22	22	66	132
Subtotal (7.1)	(2,584)	(2,092)	(1,728)	(6,404)	(1,631)	(1,631)	(1,631)	(4,893)	(11,297)
7.2. MEPD: Population Documentation and Clearinghouse									
7.2.1. Consumable office supplies	39	-	-	39	-	-	-	-	39
7.2.2. Postage	17	-	-	17	-	-	-	-	17
7.2.3. Housing allowance for staff (13)	121	-	-	121	-	-	-	-	121
7.2.4. Staff development (short courses, international conferences, visits to documentation programs in other countries, etc.)	11	-	-	11	-	-	-	-	11
7.2.5. Consultants (K.Sh. 49,000 x 4 months)	196	-	-	196	-	-	-	-	196
7.2.6. Printing of manuals, guides, newsletters, etc.	39	-	-	39	-	-	-	-	39
7.2.7. Workshop to prepare curriculum in population documentation									
a. Per diem (K.Sh. 278 x 6 days x 35 persons)	58	-	-	58	-	-	-	-	58
b. Travel (K.Sh. 222 x 35 persons)	8	-	-	8	-	-	-	-	8
c. Meeting space, materials, etc. (K.Sh. 10 x 6 days x 35 persons)	2	-	-	2	-	-	-	-	2
7.2.8. Subcontracts to develop manuals, directories, curricula, etc. or to carry out research and evaluation	78	-	-	78	-	-	-	-	78
7.2.9. Documentation/resource materials	11	-	-	11	-	-	-	-	11
Subtotal (7.2)	(580)	-	-	(580)	-	-	-	-	(580)
7.3. MOH: Motivation of Support for FP on Part of MOH Staff									
7.3.1. Production of videotape recording (VTR)	111	-	-	111	-	-	-	-	111
7.3.2. Production of booklet to accompany VTR presentations (K.Sh. 10 x 500 copies)	5	-	-	5	-	-	-	-	5
7.3.3. Newsletter on FP for health workers--pilot issue 1st year--(K.Sh. 3 x 4,000 copies)	12	-	-	12	-	-	-	-	12
Subtotal (7.3)	(128)	-	-	(128)	-	-	-	-	(128)

	1982/83	1983/84	1984/85	Subtotal 1982/83 - 1984/85	1985/86	1986/87	1987/88	Subtotal 1985/86 - 1987/88	Total	% F.E.
7.4. MOH: Strengthening of FP In-clinic and Extension Education by Health Workers										
7.4.1. Audio cassettes										
a. For pilot postpartum education program (K.Sh. 10 x 5 x 10 hospitals)	2	-	-	2	-	-	-	-	2	
b. For pilot program to use existing groups by FHFEs (K.Sh. 10 x 5 x 30 locations)	5	-	-	5	-	-	-	-	5	
7.4.2. Batteries for cassette playback machines used with existing groups (K.Sh. 2 x 4 x 50 changes x 30 machines)	12	-	-	12	-	-	-	-	12	
7.4.3. Film for still cameras (K.Sh. 50 x 72 rolls x 2 cameras)	7	-	-	7	-	-	-	-	7	
7.4.4. Workshop to strengthen FP I&E content in MOH training										
a. Per diem (K.Sh. 280 x 3 days x 20 persons)	17	-	-	17	-	-	-	-	17	
b. Travel (K.Sh. 220 x 20 persons)	4	-	-	4	-	-	-	-	4	
7.4.5. Workshops to permit FHFEs to identify local promoters (K.Sh. 110 x 30 workshops)	3	-	-	3	-	-	-	-	3	
7.4.6. Core I&E materials for use in health facilities and by FHFEs										
a. Exhibits and displays (K.Sh. 2,800 x 600 SDPs)	1,680	-	-	1,680	-	-	-	-	1,680	
b. Flipbooks (K.Sh. 11 x 1,500 users/locations)	17	-	-	17	-	-	-	-	17	
c. Handouts (K.Sh. 1.1 x 1,500 users/locations x 1,000 recipients)	1,650	-	-	1,650	-	-	-	-	1,650	
7.4.7. I&E material for pilot postpartum education program										
a. Booklets for parents (K.Sh. 2.2 x 1,000 births x 2 parents x 10 hospitals)	44	-	-	44	-	-	-	-	44	
b. Greeting cards to new parents (K.Sh. 2.2 x 72,000 births in hospitals)	158	-	-	158	-	-	-	-	158	
c. Charts and posters for maternity wards (K.Sh. 150 x 10 hospitals)	2	-	-	2	-	-	-	-	2	
Subtotal (7.4)	(3,601)	-	-	(3,601)	-	-	-	-	(3,601)	
7.5 MOH: Mass Media Support for FP Interpersonal Communication by Health Workers										
7.5.1. Special local campaigns to publicize openings of new SDPs (K.Sh. 550 x 100)	55	-	-	55	-	-	-	-	55	
7.5.2. Utilization of local media by HEOs (e.g. campaigns to counter rumors) (K.Sh. 1,100 x 30 districts with HEOs)	33	-	-	33	-	-	-	-	33	
Subtotal (7.5)	(88)	-	-	(88)	-	-	-	-	(88)	
7.6. MOH: Production of Mass Media Materials on FP										
7.6.1. Production of films (K.Sh. 11,000 x 2 films)	22	-	-	22	-	-	-	-	22	
7.6.2. Production of cinema slides giving locations and times of local FP services (K.Sh. 50 x 25 x 1 slide)	1	-	-	1	-	-	-	-	1	
7.6.3. Pilot program of billboards at sports fields etc. to reach men (K.Sh. 2,200 x 10 sites)	22	-	-	22	-	-	-	-	22	
Subtotal (7.6)	(45)	-	-	(45)	-	-	-	-	(45)	
7.7. FPAK: Involvement of Private Medical Practitioners in FP										
7.7.1. Workshop for selected private practitioners										
a. Participant costs:										
i. Per diems (K.Sh. 280 x 30 persons x 1 day)	8	-	-	8	-	-	-	-	8	
ii. Travel (K.Sh. 3.3 x 200 km x 30 persons)	20	-	-	20	-	-	-	-	20	
b. Other costs:										
i. Honoraria for resource persons (K.Sh. 1,000 x 3 persons)	3	-	-	3	-	-	-	-	3	
ii. Per diem for resource persons (K.Sh. 250 x 3 persons x 1 day)	1	-	-	1	-	-	-	-	1	
iii. Travel for resource persons (K.Sh. 3 x 200 km x 3 persons)	2	-	-	2	-	-	-	-	2	
iv. Workshop materials, etc.	2	-	-	2	-	-	-	-	2	
v. Follow-up costs	7	-	-	7	-	-	-	-	7	
Subtotal (7.7)	(43)	-	-	(43)	-	-	-	-	(43)	
7.8 FPAK: I&E Program for Members of Parliament										
7.8.1. Seminar for Members of Parliament										
a. Participant costs										
i. Special honoraria (K.Sh. 110 x 60 persons x 5 days)	33	-	-	33	-	-	-	-	33	
ii. Per diem (K.Sh. 330 x 60 persons x 5 days)	99	-	-	99	-	-	-	-	99	
iii. Travel (K.Sh. 3.3 x 500 km x 60 persons)	99	-	-	99	-	-	-	-	99	
b. Other costs										
i. Per diem for resource persons (K.Sh. 125 x 3 persons x 1 day + K.Sh. 250 x 4 persons x 3 days + K.Sh. 250 x 2 persons x 5 days)	6	-	-	6	-	-	-	-	6	
ii. Travel for resource persons (K.Sh. 3.3 x 200 kms x 9 persons)	6	-	-	6	-	-	-	-	6	
iii. Seminar materials, etc.	9	-	-	9	-	-	-	-	9	
iv. Follow-up costs	11	-	-	11	-	-	-	-	11	
Subtotal (7.8)	(263)	-	-	(263)	-	-	-	-	(263)	
7.9 FPAK: Motivation and Support for Traditional Birth Attendants										
7.9.1. Supervisory visits by staff										
a. Per diem for coordinator (K.Sh. 220 x 5 days x 8 trips)	9	-	-	9	-	-	-	-	9	
b. Travel by coordinator (K.Sh. 200 x 8 trips)	2	-	-	2	-	-	-	-	2	
c. Field visits by trainer/supervisors (K.Sh. 167 x 48 days x 8 persons)	64	-	-	64	-	-	-	-	64	
7.9.2. Housing allowances for staff (9)	79	-	-	79	-	-	-	-	79	
7.9.3. Training of trainer/supervisors										
a. Training fee and materials	6	-	-	6	-	-	-	-	6	
b. Per diem (K.Sh. 220 x 20 days x 8 persons)	35	-	-	35	-	-	-	-	35	
c. Travel (K.Sh. 200 x 8 persons)	2	-	-	2	-	-	-	-	2	
7.9.4. Training of TBAs										
a. Charges for training space (K.Sh. 22 x 12 days x 160 persons)	42	-	-	42	-	-	-	-	42	
b. Per diem (K.Sh. 55 x 12 days x 160 persons)	106	-	-	106	-	-	-	-	106	
c. Travel (K.Sh. 10 x 160 persons)	2	-	-	2	-	-	-	-	2	
d. Manuals and training materials (K.Sh. 90 x 160 persons)	14	-	-	14	-	-	-	-	14	
Subtotal (7.9)	(361)	-	-	(361)	-	-	-	-	(361)	
7.10. FPAK: In-service Training in I&E for Selected Staff										
7.10.1. Refresher training for field educators										
a. Participant costs										
i. Per diem (K.Sh. 110 x 14 days x 40 persons)	62	-	-	62	-	-	-	-	62	
ii. Travel (K.Sh. 170 x 40 persons)	7	-	-	7	-	-	-	-	7	

	1982/83	1983/84	1984/85	Subtotal 1982/83 - 1984/85	1985/86	1986/87	1987/88	Subtotal 1985/86 - 1987/88	Total	% F.E.
b. Other training costs										
i. Per diem for resource persons (K.Sh. 220 x 14 days x 6 persons)	18	-	-	18	-	-	-	-	18	
ii. Travel for resource persons (K.Sh. 150 x 6 persons)	1	-	-	1	-	-	-	-	1	
iii. Training materials etc.	3	-	-	3	-	-	-	-	3	
7.10.2. Refresher training for senior staff										
a. Participant costs										
i. Per diem (K.Sh. 220 x 12 days x 20 persons)	53	-	-	53	-	-	-	-	53	
ii. Travel (K.Sh. 220 x 20 persons)	4	-	-	4	-	-	-	-	4	
b. Other training costs										
i. Per diem for trainers (K.Sh. 220 x 12 days x 2 persons)	5	-	-	5	-	-	-	-	5	
ii. Travel for trainers (K.Sh. 220 x 2 persons)	1	-	-	1	-	-	-	-	1	
iii. Honoraria for trainers (K.Sh. 1,100 x 2 persons)	2	-	-	2	-	-	-	-	2	
7.10.3. In-service training for clerical staff from field offices										
a. Per diem (K.Sh. 170 x 6 days x 25 persons)	26	-	-	26	-	-	-	-	26	
b. Travel (K.Sh. 220 x 25 persons)	6	-	-	6	-	-	-	-	6	
c. Training materials etc.	1	-	-	1	-	-	-	-	1	
Subtotal (7.10)	(189)	-	-	(189)	-	-	-	-	(189)	
7.11. FPAK: Production of Support Materials for Field Use										
7.11.1. Pretesting materials	22	-	-	22	-	-	-	-	22	
7.11.2. Production of printed materials (booklets: K.Sh. 9 x 100,000 copies + K.Sh. 6 x 100,000 copies; brochures: K.Sh. 1.5 x 200,000 copies; posters: K.Sh. 2 x 20,000 copies; bumper stickers: K.Sh. 0.80 x 40,000 copies)	2,078	-	-	2,078	-	-	-	-	2,078	
Subtotal (7.11)	(2,100)	-	-	(2,100)	-	-	-	-	(2,100)	
7.12. FPAK: Evaluation of On-going I&E Programs										
7.12.1. Evaluation of youth program (subcontract)	200	-	-	200	-	-	-	-	200	
7.12.2. Evaluation of lay educators program										
a. Training of research assistant	45	-	-	45	-	-	-	-	45	
b. Data collection	45	-	-	45	-	-	-	-	45	
c. Data analysis	22	-	-	22	-	-	-	-	22	
Subtotal (7.12)	(312)	-	-	(312)	-	-	-	-	(312)	
7.13. KCS: Family Life Education Program										
7.13.1. Rental of office space (covered by expected income and contributions from KCS)										
7.13.2. Consumable office supplies	11	-	-	11	-	-	-	-	11	
7.13.3. Utilities and postage	20	-	-	20	-	-	-	-	20	
7.13.4. Housing allowance for staff	51	-	-	51	-	-	-	-	51	
7.13.5. Staff development (short courses, international conferences, etc.)	45	-	-	45	-	-	-	-	45	
7.13.6. Local travel (per diem, etc.)	22	-	-	22	-	-	-	-	22	
7.13.7. Consultants										
a. Honoraria (K.Sh. 800 x 15 days x 2 persons)	24	-	-	24	-	-	-	-	24	
b. Per diem (K.Sh. 330 x 15 days x 2 persons)	10	-	-	10	-	-	-	-	10	
c. Travel (K.Sh. 17,000 x 2 persons)	34	-	-	34	-	-	-	-	34	
7.13.8. National workshop on family life education										
a. Per diem (K.Sh. 220 x 2 days x 45 persons)	20	-	-	20	-	-	-	-	20	
b. Travel (K.Sh. 220 x 45 persons)	10	-	-	10	-	-	-	-	10	
c. Materials, etc.	1	-	-	1	-	-	-	-	1	
7.13.9. Regional workshop on family life education										
a. Per diem (K.Sh. 170 x 1 day x 60 persons)	10	-	-	10	-	-	-	-	10	
b. Travel (K.Sh. 170 x 60 persons)	10	-	-	10	-	-	-	-	10	
c. Materials	1	-	-	1	-	-	-	-	1	
7.13.10. Course to train teachers on natural family planning method										
a. Per diem (K.Sh. 110 x 10 days x 60 persons)	66	-	-	66	-	-	-	-	66	
b. Travel (K.Sh. 220 x 60 persons)	13	-	-	13	-	-	-	-	13	
c. Training materials	2	-	-	2	-	-	-	-	2	
7.13.11. Production of I&E materials	67	-	-	67	-	-	-	-	67	
Subtotal (7.13)	(417)	-	-	(417)	-	-	-	-	(417)	
7.14. MyWO: MC/FP I&E Service										
7.14.1. Rental of office space (K.Sh. 1,100 x 12 months x 5 field offices)	66	-	-	66	-	-	-	-	66	
7.14.2. Consumable office supplies (also for workshops) (K.Sh. 9,000 x 5 field offices)	45	-	-	45	-	-	-	-	45	
7.14.3. Utilities and postage (K.Sh. 22,000 for headquarters + K.Sh. 11,000 x 5 field offices)	77	-	-	77	-	-	-	-	77	
7.14.4. Housing allowances for staff (44)	215	-	-	215	-	-	-	-	215	
7.14.5. Local travel (per diem) (K.Sh. 270 x 20 days x 1 person + K.Sh. 220 x 20 days x 1 person + K.Sh. 170 x 100 days x 5 persons)	95	-	-	95	-	-	-	-	95	
7.14.6. Production of I&E materials (K.Sh. 22,000 x 5 districts)	110	-	-	110	-	-	-	-	110	
7.14.7. Data processing services for coupon scheme	22	-	-	22	-	-	-	-	22	
7.14.8. District workshops to train women leaders										
a. Per diem (K.Sh. 110 x 5 days x 40 persons x 5 workshops)	110	-	-	110	-	-	-	-	110	
b. Travel (K.Sh. 55 x 40 persons x 5 workshops)	11	-	-	11	-	-	-	-	11	
c. Resource persons (K.Sh. 170 x 5 days x 1 person x 5 workshops)	4	-	-	4	-	-	-	-	4	
7.14.9. Divisional workshops to train women leaders										
a. Per diem (K.Sh. 110 x 3 days x 80 persons x 25 workshops)	660	-	-	660	-	-	-	-	660	
b. Travel (K.Sh. 33 x 80 persons x 25 workshops)	66	-	-	66	-	-	-	-	66	
7.14.10. Locational workshops to inform and motivate members										
a. Per diem (meal only) (K.Sh. 28 x 100 persons x 100 workshops)	280	-	-	280	-	-	-	-	280	
b. Travel (K.Sh. 11 x 100 persons x 100 workshops)	110	-	-	110	-	-	-	-	110	
Subtotal (7.14)	(1,871)	-	-	(1,871)	-	-	-	-	(1,871)	
7.15. NCCK: Family Life Education Program										
7.15.1. Audio-visual supplies (audio cassettes: K.Sh. 10 x 100 + rolls of film: K.Sh. 50 x 50 + transparencies: K.Sh. 7.40 x 500)	7	-	-	7	-	-	-	-	7	
7.15.2. Consumable office supplies (K.Sh. 2,200 x 5 regions)	11	-	-	11	-	-	-	-	11	
7.15.3. Local travel (20 staff)	33	-	-	33	-	-	-	-	33	
7.15.4. Production of A/V and printed materials (booklets: K.Sh. 6 x 1,000 copies + guides: K.Sh. 10 x 1,000 copies x 4 guides + posters: K.Sh. 2 x 250 copies x 8 posters + covers: K.Sh. 8 x 2,000 copies + calendars: K.Sh. 8 x 1,000 + other reports: K.Sh. 10 x 500 copies x 2 reports + other items: (K.Sh. 10 x 5,000 copies)	148	-	-	148	-	-	-	-	148	

	1982/83	1983/84	1984/85	Subtotal 1982/83 - 1984/85	1985/86	1986/87	1987/88	Subtotal 1985/86 - 1987/88	Total	% F.F.
7.15.5. Workshop to develop guidelines										
a. Per diem (K.Sh. 220 x 3 days x 15 persons)	10	-	-	10	-	-	-	-	10	
b. Travel (K.Sh. 220 x 15 persons)	3	-	-	3	-	-	-	-	3	
c. Honoraria (K.Sh. 110 x 3 days x 15 persons)	5	-	-	5	-	-	-	-	5	
7.15.6. Workshops to train tutors from teacher training institutions										
a. Per diem (K.Sh. 170 x 3 days x 60 persons x 7 workshops)	214	-	-	214	-	-	-	-	214	
b. Travel (K.Sh. 110 x 60 persons x 7 workshops)	46	-	-	46	-	-	-	-	46	
7.15.7. Workshops to train heads of secondary schools										
a. Per diem 220 x 2 days x 60 persons x 5 workshops)	132	-	-	132	-	-	-	-	132	
b. Travel (K.Sh. 170 x 60 persons x 5 workshops)	51	-	-	51	-	-	-	-	51	
7.15.8. Workshops to orient provincial officers and leaders to program (2 provinces in 1st. year)										
a. Per diem (meal only) (K.Sh. 83 x 25 persons x 2 workshops)	4	-	-	4	-	-	-	-	4	
b. Travel (K.Sh. 110 x 25 persons x 2 workshops)	6	-	-	6	-	-	-	-	6	
7.15.9. Workshops to orient district officers and leaders to program (10 districts in 1st year)										
a. Per diem (meal only) (K.Sh. 83 x 25 persons x 10 workshops)	21	-	-	21	-	-	-	-	21	
b. Travel (K.Sh. 55 x 25 persons x 10 workshops)	14	-	-	14	-	-	-	-	14	
Subtotal (7.15)	(705)	-	-	(705)	-	-	-	-	(705)	
7.16. <u>PCMA: Adolescent Health and FP I&E Program</u>										
7.16.1. Rental of office space (K.Sh. 800 x 40 m^2)	32	-	-	32	-	-	-	-	32	
7.16.2. Consumable office supplies	7	-	-	7	-	-	-	-	7	
7.16.3. Utilities and postage	11	-	-	11	-	-	-	-	11	
7.16.4. Housing allowances for staff (7)	72	-	-	72	-	-	-	-	72	
7.16.5. Staff development (visit to programs in other countries)	13	-	-	13	-	-	-	-	13	
7.16.6. Local travel by program staff	19	-	-	19	-	-	-	-	19	
7.16.7. Consultants (K.Sh. 440 x 60 days)	26	-	-	26	-	-	-	-	26	
7.16.8. Production costs for I&E materials	2	-	-	2	-	-	-	-	2	
7.16.9. Workshop for heads of cooperating institutions										
a. Per diem (K.Sh. 220 x 2 days x 20 persons)	9	-	-	9	-	-	-	-	9	
b. Travel (K.Sh. 220 x 20 persons)	4	-	-	4	-	-	-	-	4	
7.16.10. Training of area coordinators										
a. Per diem (K.Sh. 170 x 64 days x 5 persons)	54	-	-	54	-	-	-	-	54	
b. Travel (K.Sh. 220 x 2 trips x 5 persons)	2	-	-	2	-	-	-	-	2	
c. Resource persons (K.Sh. 55 x 80 hours)	4	-	-	4	-	-	-	-	4	
d. Training materials	2	-	-	2	-	-	-	-	2	
7.16.11. Workshop for headmasters of schools in program areas										
a. Per diem (K.Sh. 170 x 5 days x 10 persons)	8	-	-	8	-	-	-	-	8	
b. Travel (K.Sh. 50 x 10 persons)	1	-	-	1	-	-	-	-	1	
c. Materials	1	-	-	1	-	-	-	-	1	
7.16.12. Workshops for teachers from schools in program areas										
a. Per diem (K.Sh. 110 x 3 days x 20 persons x 5 workshops)	33	-	-	33	-	-	-	-	33	
b. Travel (K.Sh. 30 x 20 persons x 5 workshops)	3	-	-	3	-	-	-	-	3	
c. Materials	1	-	-	1	-	-	-	-	1	
7.16.13. Annual review and objective-setting workshop										
a. Per diem (K.Sh. 220 x 2 days x 15 persons)	7	-	-	7	-	-	-	-	7	
b. Travel (K.Sh. 220 x 15 persons)	3	-	-	3	-	-	-	-	3	
Subtotal (7.16)	(314)	-	-	(314)	-	-	-	-	(314)	
7.17. <u>SA: Family Planning I&E Program</u>										
7.17.1. Guides for field staff (K.Sh. 110 x 10 staff)	1	-	-	1	-	-	-	-	1	
7.17.2. Production of support materials	22	-	-	22	-	-	-	-	22	
7.17.3. Local travel (per diem for existing staff to supervise program staff) (K.Sh. 110 x 360 days)	40	-	-	40	-	-	-	-	40	
7.17.4. Incentive payments to nurses to provide FP services (K.Sh. 1,000 x 12 months x 2 nurses)	24	-	-	24	-	-	-	-	24	
7.17.5. Training course for field trainers										
a. Per diem (K.Sh. 170 x 20 days x 10 persons)	34	-	-	34	-	-	-	-	34	
b. Travel (K.Sh. 220 x 10 persons)	2	-	-	2	-	-	-	-	2	
c. Resource persons (K.Sh. 270 x 4 resource persons)	1	-	-	1	-	-	-	-	1	
Subtotal (7.17)	(124)	-	-	(124)	-	-	-	-	(124)	
Subtotal (7) Base Cost	(13,725)	(2,092)	(1,728)	(17,545)	(1,631)	(1,631)	(1,631)	(4,893)	(22,438)	0
Price Contingencies	1,482	408	477	2,367	587	742	902	2,231	4,598	
Total (7)	15,207	2,500	2,205	19,912	2,218	2,373	2,533	7,124	27,036	0
III. <u>UNPROGRAMMED FUNDS /1</u>										
Base Cost (8)	(1,715)	(29,500)	(32,624)	(63,839)	(33,750)	(33,750)	(33,750)	(101,250)	(165,089)	16
Physical Contingencies	-	-	-	-	-	-	-	-	-	
Price Contingencies	226	6,756	10,570	17,552	14,411	1F,253	22,376	55,045	72,597	
Total III	1,941	36,256	43,194	81,391	48,161	52,003	56,126	156,295	237,686	
<u>Total Part A</u>										
Base Cost (1-8)	(24,374)	(34,049)	(36,601)	(95,024)	(36,973)	(37,024)	(37,079	(111,076)	(206,100)	
Physical Contingencies	197	82	71	350	-	-	-	-	350	
Price Contingencies	2,750	7,692	11,745	22,187	15,685	19,858	24,417	60,000	82,187	
Subtotal Contingencies	2,947	7,774	11,816	22,537	15,685	19,858	24.417	60,000	82.537	
GRAND TOTAL PART A (I, II & III)	27,321	41,825	48,417	117,561	52,658	56,922	61,496	171,076	288,637	

/1 Based on the following formula: (a) for 1982, 10% of the Indicative Program which includes all programmed funds for 1982, excluding funds for the National Council for Population and Development; (b) for 1983, 80% of the 1982 program (including the 10% from (a) above) plus K.Sh. 10 million for new activities; (c) for 1984, 60% of the 1982 program plus 80% of the new funds for 1983 plus K.Sh. 10 million for new activities; (d) for 1985, 40% of 1982 program plus 60% of the new funds for 1983 plus 80% of the new funds for 1984 plus K.Sh. 10 million for new activities; and (e) for 1986 and 1987, assumed to be equal to the 1985 level.

KENYA II, PART B: RURAL HEALTH SERVICES

Detailed Cost Estimates

(In 000s of Kenyan Shillings)

		1982/83	1983/84	1984/85	Subtotal 1982/83 1984/85	1985/86	1986/87	1987/88	Subtotal 1985/86 1987/88	Total	% F.E.
I.	CAPITAL COSTS										
1.	CIVIL WORKS										
1.1.	Manpower and Training										
1.1.1.	Clinical Officers School (1)										
	a. Construction and site works		12,073	8,073	20,146	-	-	-	-	20,146	
	b. Professional fees (design and supervision)	1,150	480	284	1,914	-	-	-	-	1,914	
1.1.2.	ECN School (1)										
	a. Construction and site works		12,380	8,379	20,759	-	-	-	-	20,759	
	b. Professional Fees (design and supervision)	1,180	490	302	1,972	-	-	-	-	1,972	
	Subtotal (1.1)	(2,330)	(25,423)	(17,038)	(44,791)	-	-	-	-	(44,791)	
1.5.	Rural Health Facilities										
1.5.1.	Improvement of 100 dispensaries (x K.Sh. 477,000)	-	-	11,925	11,925	11,925	11,925	11,925	35,775	47,700	
1.5.2.	Upgrading of 150 dispensaries I to II (x K.Sh. 555,000)	-	-	20,535	20,535	21,090	20,535	21,090	62,715	83,250	
1.5.3.	Construction of three RHCs (x K.Sh. 3,570,000)	-	-	3,570	3,570	3,570	3,570	-	7,140	10,710	
1.5.4.	Construction of 15 dispensaries (x K.Sh. 890,000)	-	-	3,560	3,560	3,560	3,560	2,670	9,790	13,350	
1.5.5.	Construction of 25 staff houses units (x K.Sh. 170,000)	-	-	1,020	1,020	1,020	1,020	1,190	3,230	4,250	
1.5.6.	Professional Fees	980	300	300	1,580	300	300	300	900	2,480	
	Subtotal (1.5)	(980)	(300)	(40,910)	(42,190)	(41,465)	(40,910)	(37,175)	(119,550)	(161,740)	
1.7.	Maintenance										
1.7.1.	a. Construction and site work of six maintenance training schools (x K.Sh. 1,830,000)		10,980	-	10,980	-	-	-	-	10,980	
	b. Professional fees (design)	770	-	-	770	-	-	-	-	770	
	Subtotal (1.7)	(770)	(10,980)	-	(11,750)	-	-	-	-	(11,750)	
1.10.	CRNGOs										
1.10.1.	Upgrading of RHFs to MCH/FP SDPs (50 RHFs x K.Sh. 570,000)		11,400	5,700	17,100	5,700	5,700	-	11,400	28,500	
1.10.2.	Upgrading of RHCs to RHDCs (Five RHCs x K.Sh. 2,000,000)		4,000	2,000	6,000	2,000	2,000	-	4,000	10,000	
1.10.3.	Upgrading of five nursing schools (K.Sh. 1,400,000 each)	.	2,800	1,400	4,200	1,400	1,400	-	2,800	7,000	
	Subtotal (1.10)		*(18,200)*	*(9,100)*	*(27,300)*	*(9,100)*	*(9,100)*	-	*(18,200)*	*(45,500)*	
	Subtotal (1a) Construction, Base Cost	.	(53,633)	(66,162)	(119,795)	(50,265)	(49,710)	(36,875)	(136,850)	(256,645)	
	Physical Contingencies (15%)		8,045	9,924	17,969	7,540	7,456	5,531	20,327	38,496	
	Price Contingencies		13,507	23,586	37,093	23,584	29,498	(26,758)	79,840	116,933	
	Subtotal Contingencies		21,552	33,510	55,062	31,124	36,954	32,289	100,367	155,429	
	Total (1a) Construction		75,185	99,672	174,857	81,389	86,664	69,164	237,217	412,074	30
	Subtotal (1b) Professional Fees, Base Cost	(4,080)	1,270	(886)	(6,236)	(300)	(300)	(300)	(900)	(7,136)	
	Price Contingencies	586	320	316	1,222	141	178	218	537	1,759	
	Total (1b) Professional Fees	4,666	1,590	1,202	7,458	441	478	518	1,437	8,895	30
	Total (1a) + (1b)	4,666	76,775	100,874	182,315	81,830	87,142	69,682	238,654	420,969	30
2.	FURNITURE										
2.1.	Manpower and Training										
2.1.1.	Clinical Officers School (12% of construction cost)	-	483	1,935	2,418	-	-	-	-	2,418	
2.1.2.	ECN School (10% of construction cost)	-	415	1,661	2,076	-	-	-	-	2,076	
2.1.3.	Office furniture for Provincial and District Rural Health Management Teams										
	a. National level (4 STT offices)	50	-	-	50	-	-	-	-	50	
	b. Provincial level (IRHFPP Coordinator)	70	-	-	70	-	-	-	-	70	
	c. District level	480	360	360	1,200	-	-	-	-	1,200	
	Subtotal (2.1)	(600)	(1,258)	(3,956)	(5,814)	-	-	-	-	(5,814)	
2.3.	Community-Based Health Care										
2.3.1.	CBHC Development Unit	22	-	-	22	-	-	-	-	22	
	Subtotal (2.3)	(22)	-	-	(22)	-	-	-	-	(22)	
2.5.	Rural Health Facilities										
2.5.1.	New Dispensaries Type I (K.Sh. 75,000 each)	-	-	300	300	300	300	225	825	1,125	
2.5.2.	New RHCs (K.Sh. 350,000 each)	-	-	350	350	350	350	-	700	1,050	
2.5.3.	Upgrading Dispensaries Type I to Type II (K.Sh. 46,000 each)	-	-	1,702	1,702	1,748	1,702	1,748	5,198	6,900	
2.5.4.	Improvement of Dispensaries (K.Sh. 18,000 each)	-	-	450	450	450	450	450	1,350	1,800	
2.5.5.	Staff houses (K.Sh. 10,000 each)	-	-	60	60	60	60	70	190	250	
	Subtotal (2.5)	-	-	(2,862)	(2,862)	(2,908)	(2,862)	(2,493)	(8,263)	(11,125)	
2.7.	Maintenance										
2.7.1.	Maintenance Training Schools (K.Sh. 36,000 each)	-	216	-	216	-	-	-	-	216	
	Subtotal (2.7)	-	(216)	-	(216)	-	-	-	-	(216)	
2.8.	Health Information System										
2.8.1.	For eight senior and three secretarial posts, HQs (11 posts x K.Sh. 5,500)	33	22	5	60	-	-	-	-	60	
2.8.2.	For 40 senior staff, field (40 posts x K.Sh. 4,400)	62	35	35	132	44	-	-	-	176	
	Subtotal (2.8)	(95)	(57)	(40)	(192)	(44)	-	-	(44)	(236)	
2.10.	CRNGOs										
2.10.1.	Upgrading of RHFs to MCH/FP SDPs (10% of construction cost)		1,140	570	1,710	570	570	-	1,140	2,850	

	1982/83	1983/84	1984/85	Subtotal 1982/83 1984/85	1985/86	1986/87	1987/88	Subtotal 1985/86 1987/88	Total	% F.E.
2.10.2. Upgrading of RHCs to RHDCs (10% of construction cost)		400	200	600	200	200	-	400	1,000	
2.10.3. Upgrading of Nursing Schools (10% of construction cost)		280	140	420	140	140	-	280	700	
Subtotal (2.10)		(1,820)	(910)	(2,730)	(910)	(910)	-	(1,820)	(4,550)	
Subtotal (2) Base Cost	(717)	(3,351)	(7,768)	(11,836)	(3,862)	(3,772)	(2,493)	(10,127)	(21,963)	20
Physical Contingencies 10%	72	335	777	1,184	386	377	249	1,012	2,196	
Price Contingencies	103	833	2,734	3,670	1,793	2,215	1,793	5,801	9,471	
Subtotal Contingencies	175	1,168	3,511	4,854	2,179	2,592	2,042	6,813	11,667	
Total (2)	892	4,519	11,279	16,690	6,041	6,364	4,535	16,940	33,630	20
3. EQUIPMENT										
3.1. Manpower and Training										
3.1.1. Clinical Officers School (8.5% of construction cost)	-	342	1,370	1,712	-	-	-	-	1,712	
3.1.2. ECN School (11% of construction cost)	-	456	1,827	2,283	-	-	-	-	2,283	
3.1.3. Equipment for Provincial and District Rural Health Management Teams										
a. National level, office equipment	48	-	-	48	-	-	-	-	48	
b. Provincial level, office equipment	25	-	-	25	-	-	-	-	25	
c. District level, office equipment	173	130	130	433	-	-	-	-	433	
d. Educational equipment	36	36	36	108	-	-	-	-	108	
Subtotal (3.1)	(282)	(964)	(3,363)	(4,609)	-	-	-	-	(4,609)	
3.2. Drug Supplies										
3.2.1. Drug Management Unit	336	114	114	564	-	-	-	-	564	
Subtotal (3.2)	(336)	(114)	(114)	(564)	-	-	-	-	(564)	
3.3. Community-Based Health Care										
3.3.1. CBHC Development Unit	26	-	-	26	-	-	-	-	26	
Subtotal (3.3)	(26)	-	-	(26)	-	-	-	-	(26)	
3.4. Family Planning										
3.4.1. Audio-visual equipment for ECN training	49	-	-	49	-	-	-	-	49	
3.4.2. Conversion of Government RHFs into MCH/FP SDPs (600 RHFs x K.Sh. 15,600)	1,560	1,560	1,560	4,680	1,560	1,560	1,560	4,680	9,360	
3.4.3. Office equipment for NFWC (copiers, duplicators, typewriters, calculators)	125	-	-	125	-	-	-	-	125	
Subtotal (3.4)	(1,734)	(1,560)	(1,560)	(4,854)	(1,560)	(1,560)	(1,560)	(4,680)	(9,534)	
3.5. Rural Health Facilities										
3.5.1. New dispensaries Type I (K.Sh. 48,000 each)	-	-	192	192	192	192	144	528	720	
3.5.2. New RHCs (K.Sh. 312,000 each)	-	-	312	312	312	312	-	624	936	
3.5.3. Upgrading dispensaries Type I to Type II (K.Sh. 25,000 each)	-	-	925	925	950	925	950	2,825	3,750	
3.5.4. Improvement of dispensaries (K.Sh. 9,600 each)	-	-	240	240	240	240	240	720	960	
Subtotal (3.5)	-	-	(1,669)	(1,669)	(1,694)	(1,669)	(1,334)	(4,697)	(6,366)	
3.7. Maintenance										
3.7.1. Maintenance Training Schools	-	1,128	-	1,128	-	-	-	-	1,128	
Subtotal (3.7)	-	(1,128)	-	(1,128)	-	-	-	-	(1,128)	
3.8. Health Information System										
3.8.1. For HQs: one programmable calculator, eight desk calculators, one duplicator and four typewriters	48	48	24	120	-	-	-	-	120	
3.8.2. For field. 40 desk calculators	58	-	-	58	-	-	-	-	58	
Subtotal (3.8)	(106)	(48)	(24)	(178)	-	-	-	-	(178)	
3.9. Health Education										
3.9.1. Audio-visual production and utilization equipment for seven MOH Provincial Offices, six RHTCs and 41 MOH District Offices										
a. Duplication machines (13 x K.Sh. 26,000)	338	-	-	338	-	-	-	-	338	
b. Cassette tape recorders (13 x K.Sh. 1,600)	21	-	-	21	-	-	-	-	21	
c. Side projectors (13 x K.Sh. 5,400)	70	-	-	70	-	-	-	-	70	
d. Overhead projectors (13 x K.Sh. 6,000)	78	-	-	78	-	-	-	-	78	
e. Motion picture projectors (13 x K.Sh. 30,000)	390	-	-	390	-	-	-	-	390	
f. Portable screens (26 x K.Sh. 2,600)	68	-	-	68	-	-	-	-	68	
g. Portable generators (13 x K.Sh. 13,000)	169	-	-	169	-	-	-	-	169	
h. Cassette tape recorders (41 x K.Sh. 1,600)	60	-	-	66	-	-	-	-	66	
Subtotal (3.9)	(1,200)	-	-	(1,200)	-	-	-	-	(1,200)	
3.10. CRNGOs										
3.10.1. Upgrading of RHFs to MCH/FP SDPs (50 RHFs x K.Sh. 16,000)		320	160	480	160	160	-	320	800	
3.10.2. Upgrading of RHCs to RHDCs (5 RHCs x K.Sh. 66,000)		132	66	198	66	66	-	132	330	
3.10.3. Equipment for five upgraded nursing schools (K.Sh. 168,000 each)		336	168	504	168	168	-	336	840	
Subtotal (3.10)		(788)	(394)	(1,182)	(394)	(394)	-	(788)	(1,970)	
Subtotal (3) Base Cost	(3,684)	(4,602)	(7,124)	(15,410)	(3,648)	(3,623)	(2,894)	(10,165)	(25,575)	90
Physical Contingencies 10%	368	460	712	1,541	365	362	289	1,016	2,557	
Price Contingencies	385	896	1,959	3,240	1,300	1,625	1,569	4,494	7,734	
Subtotal Contingencies	753	1,356	2,671	4,781	1,665	1,987	1,858	5,510	19,291	
Total (3)	4,437	5,958	9,795	20,191	5,313	5,610	4,752	15,675	35,866	90
4. VEHICLES										
4.1. Manpower and Training										
4.1.1. For Department of Advanced Nursing, University of Nairobi: (two buses with 30 seats x K.Sh. (200,000)	400	-	-	400	-	-	-	-	400	
4.1.2. For new CO school:										
a. Two sedans x K.Sh. 143,000	-	-	286	286	-	-	-	-	286	
b. Two buses of 30 seats x K.Sh. 200,000	-	-	400	400	-	-	-	-	400	
c. Two minibuses of 12 seats x K.Sh. 127,000	-	-	-	-	254	-	-	254	254	

		1982/83	1983/84	1984/85	Subtotal 1982/83 1984/85	1985/86	1986/87	1987/88	Subtotal 1985/86 1987/88	Total	% F.E.
4.1.3.	For new ECN school:										
	a. Two sedans x K.Sh. 143,000	-	-	286	286	-	-	-	-	286	
	b. Four minibuses of 12 seats x K.Sh. 127,000	-	-	-	-	508	-	-	508	508	
	Subtotal (4.1)	(400)	-	(972)	(1,372)	(762)	-	-	(762)	(2,134)	
4.2.	Drug Supplies										
4.2.1.	Drug Management Unit (five sedans x K.Sh. 143,000)	286	286	143	715	-	-	-	-	715	
	Subtotal (4.2)	(286)	(286)	(143)	(715)	-	-	-	-	(715)	
4.3.	Community-Based Health Care										
4.3.1.	For CBHCDU										
	a. Three station wagons x K.Sh. 202,000	202	202	202	606	-	-	-	-	606	
	b. Three four-wheel-drive vehicles x K.Sh. 160,000	160	160	160	480	-	-	-	-	480	
	Subtotal (4.3)	(362)	(362)	(362)	(1,086)	-	-	-	-	(1,086)	
4.4.	Family Planning										
4.4.1.	Two minibuses of 12 seats x K.Sh. 127,000	254	-	-	254	-	-	-	-	254	
4.4.2.	NFWC, general pool										
	a. Six sedans x K.Sh. 143,000	858	-	-	858	-	-	-	-	858	
	b. Two four-wheel-drive vehicles x K.Sh. 160,000	320	-	-	320	-	-	-	-	320	
	Subtotal (4.4)	(1,432)	-	-	(1,432)	-	-	-	-	(1,432)	
4.6.	Transport for Rural Health Services										
4.6.1.	Bicycles (2,400 x K.Sh. 1,800)	-	2,160	-	2,160	2,160	-	-	2,160	4,320	
4.6.2.	Cycles (210 x K.Sh. 20,000)	-	2,100	-	2,100	2,100	-	-	2,100	4,200	
4.6.3.	Two-wheel drive sedans (48 x K.Sh. 143,000)	-	3,432	-	3,432	3,432	-	-	3,432	6,864	
4.6.4.	Ambulances (47 x K.Sh. 232,000)	-	5,568	-	5,568	5,336	-	-	5,336	10,904	
4.6.5.	Motorboats (8 x K.Sh. 860,000)	-	3,440	-	3,440	3,440	-	-	3,440	6,880	
4.6.6.	Sedans for STTs (4 x K.Sh. 143,000)	572	-	-	572	-	-	-	-	572	
	Subtotal (4.6)	(572)	(16,700)	-	(17,272)	(16,468)	-	-	(16,468)	(33,740)	
4.7.	Maintenance										
4.7.1.	Six four-wheel-drive vehicles x K.Sh. 160,000	-	960	-	960	-	-	-	-	960	
4.7.2.	Six pick-ups x K.Sh.103,000	-	618	-	618	-	-	-	-	618	
	Subtotal (4.7)	-	(1,578)	-	(1,578)	-	-	-	-	(1,578)	
4.8.	Health Information System										
4.8.1.	Vehicles for HIS-HQs										
	a. Two four-wheel-drive vehicles x K.Sh. 160,000	320	-	-	320	-	-	-	-	320	
	b. Two sedans x K.Sh. 143,000	286	-	-	286	-	-	-	-	286	
	Subtotal (4.8)	(606)	-	-	(606)	-	-	-	-	(606)	
4.10.	CRNGOs										
4.10.1.	Conversion of EN Schools to ECN Schools										
	a. Five four-wheel-drive vehicles x K.Sh. 160,000	-	480	-	480	320	-	-	320	800	
4.10.2.	Conversion of RHCs to RHDCs										
	a. Five four-wheel-drive vehicles x K.Sh. 160,000	-	480	-	480	320	-	-	320	800	
4.10.3.	Mobile clinics										
	a. Eight four-wheel-drive vehicles x K.Sh. 160,000	1,280	-	-	1,280	-	-	-	-	1,280	
4.10.4.	Community-Based ECNs										
	a. Twenty-four ECNs x one motorcycle x K.Sh. 20,000	480	-	-	480	-	-	-	-	480	
	Subtotal (4.10)	(1,760)	(960)	-	(2,720)	(640)	-	-	(640)	(3,360)	
Subtotal (4) Base Cost		(5,418)	(19,886)	(1,477)	(26,781)	(17,870)	-	-	-	(44,651)	
Price Contingencies		514	3,520	369	4,403	5,790	-	-	-	10,193	
Total (4)		5,932	23,406	1,846	31,184	23,660	-	-	-	54,844	90

II. OPERATIONAL AND MAINTENANCE COSTS

5. SALARIES, ALLOWANCES AND CONSULTING EXPENSES

5.1. Manpower and Training

		1982/83	1983/84	1984/85	Subtotal 1982/83 1984/85	1985/86	1986/87	1987/88	Subtotal 1985/86 1987/88	Total	% F.E.
5.1.1.	*Staff for DRHMTs*										
	a. One District CO x K.Sh. 27,800 per year	14	28	28	70	28	28	28	84	154	
	Plus housing allowance K.Sh. 10,000 per year	5	10	10	25	10	10	10	30	55	
	Plus per diem allowance K.Sh. 6,000 per year	3	6	6	15	6	6	6	18	33	
	b. One District PHN x K.Sh. 27,800 per year	14	28	28	70	28	28	28	84	154	
	Plus housing allowance K.Sh. 10,000 per year	5	10	10	25	10	10	10	30	55	
	Plus per diem allowance K.Sh. 6,000 per year	3	6	6	15	6	6	6	18	33	
	c. Twelve District Nutrition Officers x K.Sh. 27,800 per year	83	167	250	500	334	334	334	1,002	1,502	
	Plus housing allowance K.Sh. 10,000 per year	30	60	90	180	120	120	120	360	540	
	Plus per diem allowance K.Sh. 6,000 per year	18	36	54	108	72	72	72	216	324	
	d. Support staff										
	a. National level (STTs): one secretary x K.Sh. 18,700 per year, one typist x K.Sh. 13,700 *per year, and 4 drivers x K.Sh. 7,200 per* year each	61	61	61	183	61	61	61	183	366	
	b. Provincial level: 7 secretaries for Project Coordinators x K.Sh. 18,700 per year each	131	131	131	393	131	131	131	393	786	
	c. District level: 40 secretaries for DRHMTs x K.Sh. 18,700 per year each	748	748	748	2,244	748	748	748	2,244	4,488	
5.1.2.	Staff for RHFs										
	a. One CO x three new RHCs x K.Sh. 20,800 per year each	-	-	21	21	42	63	63	168	189	
	Plus per diem allowance K.Sh. 2,200 per year each	-	-	2	2	4	6	6	16	18	
	b. Five ECNs x three new RHCs x K.Sh. 10,500 per year each	-	-	52	52	105	157	157	419	471	
	Plus *per diem allowance K.Sh. 280 per year each*	-	-	1	1	3	4	4	11	12	
	c. One PHO x three new RHCs x K.Sh. 20,800 per year each	-	-	21	21	42	63	63	168	189	

	1982/83	1983/84	1984/85	Subtotal 1982/83 1984/85	1985/86	1986/87	1987/88	Subtotal 1985/86 1987/88	Total	% F.E.
d. One PHT x three new RHCs x K.Sh. 9,600 per year each	-	-	10	10	19	29	29	77	87	
e. One lab technician x three new RHCs x K.Sh 9,600 per year each	-	-	10	10	19	29	29	77	87	
f. One statistical/general purpose clerk x three new RHCs x K.Sh. 9,600 per year each	-	-	10	10	19	29	29	77	87	
g. Twelve subordinate staff x three new RHCs x K.Sh. 5,800 per year each	-	-	70	70	139	239	209	557	627	
h. Two ECNs x 15 new DI x K.Sh. 10,500 per year each	-	-	84	84	168	252	315	735	819	
Plus per diem allowance K.Sh. 280 per year each	-	-	1	1	2	3	4	9	10	
i. One PHT x 15 new DI x K.Sh. 9,600 per year each	-	-	38	38	77	115	144	336	374	
j. Two subordinate staff x 15 new DI x K.Sh. 5,800 per year each	-	-	46	46	93	139	174	406	452	
k. One ECN x 150 DI converted to DII x K.Sh. 10,500 per year each	-	-	388	388	788	1,176	1,575	3,539	3,927	
Plus per diem allowance K.Sh. 280 per year each	-	-	10	10	21	31	42	94	104	
l. Two subordinate staff x 150 DI converted to DII x K.Sh. 5,800 per year each	-	-	429	429	870	1,239	1,740	3,909	4,338	
m. Ninety-six COs for other existing RHFs x K.Sh. 20,800 per year each (9 in 1982, 27 in 1983, 44 in 1984, 61 in 1985, 78 in 1986, and 96 in 1987)	187	562	915	1,664	1,268	1,622	1,996	4,886	6,550	
Plus housing allowance K.Sh. 8,600 per year each	77	232	378	687	524	670	826	2,020	2,707	
Plus per diem allowance K.Sh. 2,200 per year each	20	59	97	176	134	172	211	517	693	
n. Eight hundred and ninety-seven ECNs for other existing RHFs x K.Sh. 10,500 per year each (182 in 1982, 364 in 1983, 496 in 1984, 629 in 1985, 759 in 1986, and 897 in 1987)	1,911	3,822	5,208	10,941	6,604	7,970	9,418	23,992	34,933	
Plus housing allowance K.Sh. 4,600 per year each	837	1,674	2,282	4,793	2,893	3,491	4,126	10,510	15,303	
Plus per diem allowance K.Sh. 250 per year each	46	91	124	261	157	190	224	571	832	
o. Thirty PHOs for other existing RHFs x K.Sh. 20,800 per year each (5 in 1982, 10 in 1983, 15 in 1984, 20 in 1985, 25 in 1986 and 30 in 1987)	104	208	312	624	416	520	624	1,560	2,184	
p. Four hundred and eighty PHTs for other existing RHFs x K.Sh. 9,600 per year each (80 in 1982, 160 in 1983, 240 in 1984, 320 in 1985, 400 in 1986, and 480 in 1987)	768	1,536	2,304	4,608	3,072	3,840	4,608	11,520	16,128	
q. Ninety-six lab technicians for other existing RHFs x K.Sh. 9,600 per year each (16 in 1982, 32 in 1983, 48 in 1984, 64 in 1985, 80 in 1986, and 96 in 1987)	154	307	461	922	614	758	922	2,304	3,226	
r. Ninety-six statistical/general purpose clerks for existing RHFs x K.Sh. 9,600 per year each (16 in 1982, 32 in 1983, 48 in 1984, 64 in 1985, 80 in 1986, and 96 in 1987)	154	307	461	922	614	758	922	2,304	3,226	
s. Three-hundred and sixty subordinate staff (patient attendants, general attendants, drivers, watchmen, cooks) for other existing RHFs x K.Sh. 5,800 per year each (120 in 1982, 240 in 1983, 260 in 1984, 290 in 1985, 320 in 1986, and 360 in 1987)	696	1,392	1,508	3,596	1,682	1,856	2,088	5,626	9,222	
t. Housing allowances for (o) to (s) above, K.Sh. 4,200 per year per person	995	1,990	2,566	5,551	3,184	3,831	4,460	11,445	16,996	
5.1.3. Patient Attendant Training										
Fees and expenses for AMREF staff	85	256	256	597	256	256	256	768	1,365	
5.1.4. Basic training of ECN tutors, University of Nairobi										
a. Additional faculty members (2 x K.Sh. 70,000 per year each)	70	70	140	280	140	140	140	420	700	
Plus travel allowance K.Sh. 5,500 per year each	5	5	11	21	11	11	11	33	54	
b. Additional tutors at K.Sh. 30,000 per year each (5 in 1984, 10 in 1985, 15 in 1986, and 20 in 1987)	-	-	150	150	300	450	600	1,350	1,500	
5.1.7. Refresher course for ECN tutors										
a. Faculties' fees (four faculties x K.Sh. 220 per hour x 20 hours per course x 2 courses per year	35	35	35	105	35	35	35	105	210	
Plus travel allowance K.Sh. 170 per course per faculty (4 faculties x 2 courses x K.Sh. 170)	1	1	1	3	1	1	1	3	6	
Plus living expenses K.Sh. 170 per day per faculty (4 faculties x 2 courses x 12 days x K.Sh. 170)	16	16	16	48	16	16	16	48	96	
5.1.8. Technical Assistance										
a. Two man-years of consulting services (K.Sh. 600,000 per man-year)	300	300	-	600	300	300	-	600	1,200	
5.1.9. Core Project Team										
a. Project Manager (Part B) (K.Sh. 78,000 per year)	78	78	78	234	78	78	78	234	468	
b. Deputy Project Manager (K.Sh. 62,000 per year)	62	62	62	186	62	62	62	186	372	
c. Administrative Secretary (K.Sh. 51,000 per year)	51	51	51	153	51	51	51	153	306	
d. Financial Controller (K.Sh. 78,000 per year)	78	78	78	234	78	78	78	234	468	
e. Senior Accountant (K.Sh. 51,000 per year	51	51	51	153	51	51	51	153	306	
f. Accountant I (K.Sh. 42,000 per year)	42	42	42	126	42	42	42	126	252	
g. Senior Nursing Officer (K.Sh. 51,000 per year)	51	51	51	153	51	51	51	153	306	
h. Senior Public Health Nurse (K.Sh. 51,000 per year)	51	51	51	153	51	51	51	153	306	
i. Senior Public Health Officer (K.Sh. 51,000 per year)	51	51	51	153	51	51	51	153	306	
j. Senior Clinical Officer (K.Sh. 51,000 per year)	51	51	51	153	51	51	51	153	306	
k. Senior Program Evaluator (K.Sh. 51,000 per year)	51	51	51	153	51	51	51	153	306	
l. Shorthand Typist I (K.Sh. 26,800 per year)	27	27	27	81	27	27	27	81	162	
m. Copy-typist I (K.Sh. 16,600 per year)	17	17	17	51	17	17	17	51	102	
n. Clerical Officer (K.Sh. 13,000 per year)	13	13	13	39	13	13	13	39	78	
o. Accounts Assistant (K.Sh. 26,800 per year)	27	27	27	81	27	27	27	81	162	
p. Procurement Officer (K.Sh. 35,000 per year)	35	35	35	105	35	35	35	105	210	
Subtotal (5.1)	(8,312)	(14,890)	(20,576)	(43,778)	(26,922)	(32,771)	(38,357)	(98,050)	(141,828)	0
5.2. <u>Drug Supplies</u>										
5.2.1. Drug Management Unit										
a. Additional MOH staff	516	688	860	2,064	860	860	860	2,580	4,644	
b. Expatriate staff	600	600	600	1,800	600	600	600	1,800	3,600	100
5.2.2. Consulting services for CBHDU										
a. Two man-years at K.Sh. 600,000 each	300	300	300	900	300	-	-	300	1,200	100
Subtotal (5.2)	(1,416)	(1,588)	(1,760)	(4,764)	(1,760)	(1,450)	(1,460)	(4,680)	(9,444)	46
5.3. <u>Community-Based Health Care</u>										
5.3.1. Staff of CBHCDU (additional)										
a. One evaluation and research officer at K.Sh. 38,500 per year	38	38	38	114	38	38	38	114	228	
Plus travel allowance (170 K.Sh. x 75 days a year)	13	13	13	39	13	13	13	39	78	
b. One information and education officer at K.Sh. 32,100 per year	32	32	32	96	32	32	32	96	192	
Plus travel allowance (170 K.Sh. 75 days a year)	13	13	13	39	13	13	13	39	78	
c. One community health physician at K.Sh. 47,800 per year	48	48	48	144	48	48	48	144	288	
Plus travel allowance (170 K.Sh. x 150 days a year)	26	26	26	78	26	26	26	78	156	

	1982/83	1983/84	1984/85	Subtotal 1982/83 1984/85	1985/86	1986/87	1987/88	Subtotal 1985/86 1987/88	Total	% F.E.
d. One PHN at K.Sh. 32,100 per year	32	32	32	96	32	32	32	96	192	
Plus travel allowance (170 K.Sh. x 150 days a year)	26	26	26	78	26	26	26	78	156	
e. One clinical officer at K.Sh. 20,800 per year	21	21	21	63	21	21	21	63	126	
Plus travel allowance (170 K.Sh. x 150 days a year)	26	26	26	78	26	26	26	78	156	
f. One health planner at K.Sh. 32,100 per year)	32	32	32	96	32	32	32	96	192	
Plus travel allowance (170 K.Sh. x 150 days a year)	26	26	26	78	26	26	26	78	156	
g. One secretary at K.Sh. 14,200 per year	14	14	14	42	14	14	14	42	84	
h. One copy-typist at K.Sh. 11,800 per year	12	12	12	36	12	12	12	36	72	
i. Six drivers at K.Sh. 7,200 per year each	14	29	43	86	43	43	43	129	215	
5.3.2. Consulting services for CBHCDU										
a. Four person-years at K.Sh. 600,000 each	600	600	600	1,800	600	-	-	600	2,400	100
Subtotal (5.3)	(973)	(988)	(1,002)	(2,963)	(1,002)	(402)	(402)	(1,806)	(4,769)	46
5.4. Family Planning										
5.4.1. In-service FP training of ECNs (NFWC) Eight nurse trainers x K.Sh. 39,700 per year	318	318	318	954	318	318	318	954	1,908	
5.4.2. Strengthening of NFWC										
a. Clinical Services Division										
(One CO (J) x K.Sh. 39,700 per year)	40	40	40	120	40	40	40	120	240	
(One PHN (H/J) x K.Sh. 39,700 per year)	40	40	40	120	40	40	40	120	240	
b. Administrative Unit										
a. One Administrator (K/L) x K.Sh. 57,800 per year	58	58	58	174	58	58	58	174	348	
One Accountant II (H/J) x K.Sh. 39,700 per year	40	40	40	120	40	40	40	120	240	
One Transport Officer (H) x K.Sh. 33,200 per year	33	33	33	99	33	33	33	99	198	
One Housekeeper (G) x K.Sh. 23,200 per year	23	23	23	69	23	23	23	69	138	
One Pharmaceutical Technologist (H/J) x K.Sh. 39,800 per year	40	40	40	120	40	40	40	120	240	
c. Training Division Head (L) x K.Sh. 57,800 per year	58	58	58	174	58	58	58	174	348	
One Librarian (G) x K.Sh. 23,200 per year	23	23	23	69	23	23	23	69	138	
5.4.3. Consulting Services for NFWC (four person-years of consulting services x K.Sh. 600,000 each)	600	600	600	1,800	600	-	-	600	2,400	100
Subtotal (5.4)	(1,273)	(1,273)	(1,273)	(3,819)	(1,273)	(673)	(673)	(2,619)	(6,438)	33
5.5. Rural Health Facilities Construction										
5.5.1. Additional staff for MOW:										
a. One Mechanical Engineer x K.Sh. 67,000 per year	-	67	67	134	67	67	67	201	335	
b. One Drainage Engineer x K.Sh. 67,000 per year	-	67	67	134	67	67	67	201	335	
c. Two Quantity Surveyors x K.Sh. 44,000 per year each	-	88	88	176	88	88	88	264	440	
Subtotal (5.5)	-	(222)	(222)	(444)	(222)	(222)	(222)	(666)	(1,110)	0
5.6. Transport for Rural Health Services										
5.6.1. MOH's Transport Section, Headquarters										
a. One Administrator	67	67	67	201	67	67	67	201	402	
b. Two Transport Officers	80	80	80	240	80	80	80	240	480	
c. One Accountant	40	40	40	120	40	40	40	120	240	
d. One Procurement Officer	40	40	40	120	40	40	40	120	240	
e. Two Secretaries	44	44	44	132	44	44	44	132	264	
f. Four Clerks	44	44	44	132	44	44	44	132	264	
g. Travel Allowances	33	33	33	99	33	33	33	99	198	
h. Supplies	33	33	33	99	33	33	33	99	198	
5.6.2. Consulting Services (6 man-months)	300	-	-	300	-	-	-	-	300	100
Subtotal (5.6)	(681)	(381)	(381)	(1,443)	(381)	(381)	(381)	(1,143)	(2,586)	9.9
5.7. Maintenance										
5.7.1. One team leader x K.Sh. 67,000 per year x 6 MTSs	-	201	402	603	402	402	402	1,206	1,809	
5.7.2. Three instructors x K.Sh. 44,000 per year x 6 MTSs	-	132	264	396	264	264	264	792	1,188	
5.7.3. One building inspector x K.Sh. 44,000 per year x 6 MTSs	132	264	264	660	264	264	264	792	1,452	
5.7.4. MOH's Implementation, Planning, Procurement and Maintenance Section:										
a. Planning:										
One Planner/Architect	89	89	89	267	89	89	89	267	534	50
Three Assistant Planners	120	120	120	360	120	120	120	360	720	
b. Implementation:										
One Architect/Planner	89	89	89	267	89	89	89	267	534	100
One Architect/Engineer	51	51	51	153	51	51	51	153	306	
One Land Surveyor	44	44	44	132	44	44	44	132	264	
Two Draftsmen	80	80	80	240	80	80	80	240	480	
c. Minor Improvements:										
One Architect/Engineer	67	67	67	201	67	67	67	201	402	100
Two Architects/Building Engineers	103	103	103	309	103	103	103	309	618	
Two Draftsmen	80	80	80	240	80	80	80	240	480	
One Quantity Surveyor	44	44	44	132	44	44	44	132	264	
One Quantity Surveyor Assistant	40	40	40	120	40	40	40	120	240	
d. Building Inspection:										
Two Architects (MOW)	89	89	89	267	89	89	89	267	534	100
e. Maintenance:										
One Maintenance Engineer	56	56	56	168	56	56	56	168	336	50
One Maintenance Training Expert	-	56	56	112	56	56	56	168	280	50
f. Procurement:										
One Procurement Officer	56	56	56	168	56	56	56	168	336	
One Procurement Assistant	40	40	40	120	40	40	40	120	240	
g. Administration:										
One Administrator	67	67	67	201	67	67	67	201	402	
One Assistant Administrator	40	40	40	120	40	40	40	120	240	
One Accountant	47	47	47	141	47	47	47	141	282	
One Commissioning Engineer	47	47	47	141	47	47	47	141	282	
Four Secretaries	88	88	88	264	88	88	88	264	528	
Four Clerks	44	44	44	132	44	44	44	132	264	
Four Drivers	28	28	28	84	28	28	28	84	168	
Subtotal (5.7)	(1,541)	(2,062)	(2,395)	(5,998)	(2,395)	(2,395)	(2,395)	(7,185)	(13,183)	15.5
5.8. Health Information System										
5.8.1. Headquarters:										
a. One position level M x K.Sh. 85,000 per year	85	85	85	255	85	85	85	255	510	
b. Three positions level L x K.Sh. 68,500 per year	205	205	205	615	205	205	205	615	1,230	
c. Three positions level K x K.Sh. 57,000 per year	171	171	171	513	171	171	171	513	1,026	
d. One position level J x K.Sh. 47,500 per year	47	47	47	141	47	47	47	141	282	
e. Travel Allowance	33	33	33	99	33	33	33	99	198	
5.8.2. Field:										
a. Seven positions level H x K.Sh. 40,100 each per year	241	241	241	723	281	281	281	843	1,566	
b. Thirty-three positions level G x K.Sh. 31,700 each per year	254	508	762	1,524	1,046	1,046	1,046	3,138	4,662	
c. Twenty positions level D x K.Sh 15,700 each per year	78	156	235	469	314	314	314	942	1,411	
5.8.3. Consulting Services:										
a. Senior Program Advisor x two years x K.Sh. 600,000 per year	300	600	300	1,200	-	-	-	-	1,200	100
b. Senior Systems Analyst x two years x K.Sh. 600,000 per year	-	600	600	1,200	-	-	-	-	1,200	100
c. One person-year of local technical assistance x K.Sh. 120,000	40	40	40	120	-	-	-	-	120	0
Subtotal (5.8)	(1,454)	(2,686)	(2,719)	(6,859)	(2,182)	(2,182)	(2,182)	(6,546)	(13,405)	15.4

	1982/83	1983/84	1984/85	Subtotal 1982/83 1984/85	1985/86	1986/87	1987/88	Subtotal 1985/86 1987/88	Total	% F.E.
5.9. Health Education										
5.9.1. HEOs and other professional staff for headquarters, including the I and E division of NFWC (Total: 18 staff):										
a. Deputy Chief Health Education Officer (L), K.Sh. 55,200 per year	55	55	5	165	55	55	55	165	330	
b. Six Senior HEOs (K) x K.Sh. 45,100 per year each	270	270	270	810	270	270	270	810	1,620	
c. One Senior HEO for NFWC (K) x K.Sh. 45,100 per year	45	45	45	135	45	45	45	135	270	
d. Three HEOs (J) for NFWC x K.Sh. 37,500 per year each	112	112	112	336	112	112	112	336	672	
e. One Information Officer for NFWC (H) x K.Sh. 30,200 per year	30	30	30	90	30	30	30	90	180	
f. Six Electronic Technicians for NFWC x K.Sh. 23,000 per year each	138	138	138	414	138	138	138	414	828	
5.9.2. Production Technicians for Health Education Division (30):										
a. One Graphic Artist (J) x K.Sh. 37,500 per year	37	37	37	111	37	37	37	111	222	
b. One Assistant Graphic Artist (H) x K.Sh. 30,200 per year	30	30	30	90	30	30	30	90	180	
c. One Lithographer (J) x K.Sh. 37,500 per year	37	37	37	111	37	37	37	111	222	
d. One Photographer (H) x K.Sh. 30,200 per year	30	30	30	90	30	30	30	90	180	
e. Three Assistant Photographers (G) x K.Sh. 23,000 per year each	69	69	69	207	69	69	69	207	414	
f. Eight Electronic Technicians (G) x K.Sh. 23,000 per year each	184	184	184	552	184	184	184	552	1,104	
g. Two Audio-Visual Technicians (G) x K.Sh. 23,000 per year each	46	46	46	138	46	46	46	138	276	
h. Two Radio Program Producers (H) x K.Sh. 30,200 per year each	60	60	60	180	60	60	60	180	360	
i. Two Video Program Producers (H) x K.Sh. 30,200 per year each	60	60	60	180	60	60	60	180	360	
j. One Assistant Video Program Producer/Cameraman (F) x K.Sh. 17,100 per year	17	17	17	51	17	17	17	51	102	
k. Two Scriptwriters (F) x K.Sh. 17,100 per year each	34	34	34	102	34	34	34	102	204	
l. Two Composers (F) x K.Sh. 17,100 per year each	34	34	34	102	34	34	34	102	204	
m. Four Collators (B) x K.Sh. 7,100 per year each	28	28	28	84	28	28	28	84	168	
5.9.3. Field Staff (34):										
a. Seven Provincial HEOs (K) x K.Sh. 45,100 each per year	158	210	316	684	316	316	316	948	1,632	
b. Seven Assistant Provincial HEOs (H) x K.Sh. 30,200 each per year	105	140	211	456	211	211	211	633	1,089	
c. Fourteen District HEOs (J) x K.Sh. 37,500 each per year	262	350	525	1,137	525	525	525	1,575	2,712	
d. Six HEOs for RHTCs (H) x K.Sh. 30,200 each per year	90	120	181	391	181	181	181	543	934	
Subtotal (5.9)	(1,931)	(2,136)	(2,549)	(6,616)	(2,549)	(2,549)	(2,549)	(7,647)	(14,263)	0
5.10. CRNGOs										
5.10.1. Service Delivery Points: One ECN, one FHFE and one subordinate staff per SDP. Ten SDPs established each year, 1982-1986.										
ECNs: Salary, K.Sh. 10,500 per year; housing allowance, K.Sh. 4,600 per year; per diem, K.Sh. 280 per year. Total, K.Sh. 15,380 per year each	77	308	461	846	615	769	769	2,153	2,614	
FHFEs: Same as ECNs	77	308	461	846	615	769	769	2,153	2,614	
Subordinate staff: Salary, K.Sh. 5,800 per year; housing allowance, K.Sh. 4,600 per year; total, K.Sh. 10,400 per year each	104	208	312	624	416	520	520	1,456	2,080	
5.10.2. Conversion of EN Schools to ECN Schools: Five schools to be converted; additional staff per school, two RNs, eight ECNs, four subordinate staff and two drivers.										
- RNs: Salary K.Sh. 27,800 per year; housing allowance K.Sh. 10,000 per year; per diem allowance, K.Sh. 6,000 per year. Total: K.Sh. 43,800 per year	-	88	175	263	263	374	468	1,105	1,368	
- ECNs: Salary, K.Sh. 10,500 per year; housing allowance, K.Sh. 4,600 per year; per diem, K.Sh. 270 per year. Total per ECN: K.Sh. 15,370	-	123	246	369	369	492	615	1,476	1,845	
- Subordinate staff: Salary, K.Sh. 5,770 per year; housing allowance, K.Sh. 4,600 per year. Total per subordinate staff: K.Sh. 10,370 per year	-	41	82	123	123	164	205	492	615	
- Drivers: Salary, K.Sh. 7,200 per year; housing allowance, K.Sh. 4,600. Total per driver: K.Sh. 11,800 per year	-	24	47	71	71	94	118	283	354	
5.10.3. Demonstration Health Centers: Four RHCs to be converted into RHDCs. Additional staff per RHDC: two ECNs, two FHFEs, one Statistical Clerk, two subordinate staff and one driver.										
- ECNs: K.Sh. 15,370 per year each (see 5.10.3.)	-	30	61	91	92	123	123	338	429	
- FHFEs: K.Sh. 15,370 per year each	-	30	61	91	92	123	123	338	429	
- Statistical Clerks: K.Sh. 9,600 salary, K.Sh. 4,600 housing allowance	-	14	28	42	42	57	57	156	198	
- Subordinate staff: K.Sh. 10,370 per year each	-	20	41	61	62	83	83	228	289	
- Drivers: K.Sh. 11,800 per year	-	12	24	36	35	47	47	129	165	
5.10.4. Mobile Clinics: Eight mobile clinics. Additional staff per clinic: two ECNs, one FHFE, one subordinate staff, one driver:										
- ECNs: K.Sh. 15,370 per year each	61	123	184	368	246	246	246	738	1,106	
- FHFEs: K.Sh. 15,370 per year each	30	61	92	183	123	123	123	369	552	
- Subordinate staff: K.Sh. 10,370 per year each	21	41	62	124	83	83	83	249	373	
- Drivers: K.Sh. 11,800 per year each	24	47	71	142	94	94	94	282	424	

	1982/83	1983/84	1984/85	Subtotal 1982/83 - 1984/85	1985/86	1986/87	1987/88	Subtotal 1985/86 - 1987/88	Total	% F.E.
5.10.5. Community-Based ECNs:										
- Twenty-four ECNs x K.Sh. 15,370 per year each	61	123	184	368	246	307	369	922	1,290	
Subtotal (5.10)	(455)	(1,601)	(2,592)	(4,648)	(3,587)	(4,468)	(4,812)	(12,867)	(17,515)	0
Subtotal (5) Base Cost	(17,936)	(27,727)	(35,369)	(81,032)	(42,173)	(47,403)	(53,333)	(142,909)	(223,941)	5.4
Price Contingencies	2,457	6,543	11,848	20,848	18,682	26,593	36,693	81,968	102,816	5.4
Total (5)	20,393	34,270	47,217	101,880	60,855	73,996	90,026	224,877	326,757	5.4
6. VEHICLE OPERATION COSTS (POL + MAINTENANCE)										
6.1. Manpower and Training										
6.1.1. For 4.1.1. (K.Sh. 136,000 per year each)	68	272	272	612	272	272	272	816	1,428	
6.1.2. For 4.1.2.:										
a. (K.Sh. 44,000 per year each)	-	-	88	88	88	88	88	264	352	
b. (K.Sh. 136,000 per year each)	-	-	-	-	272	272	272	816	816	
c. (K.Sh. 68,000per year each)	-	-	-	-	136	136	136	408	408	
6.1.3. For 4.1.3.:										
a. (K.Sh. 44,000 per year each)	-	-	88	88	88	88	88	264	352	
b. (K.Sh. 68,000 per year each)	-	-	-	-	272	272	272	816	816	
Subtotal (6.1)	(68)	(272)	(448)	(788)	(1,128)	(1,128)	(1,128)	(3,384)	(4,172)	
6.2. Drug Supplies										
6.2.1. For 4.2.1. (K.Sh. 44,000 per year each)	44	176	220	440	220	220	220	660	1,100	
Subtotal (6.2)	(44)	(176)	(220)	(440)	(220)	(220)	(220)	(660)	(1,100)	
6.3. Community-Based Health Care										
6.3.1. For 4.3.1.:										
a. (K.Sh. 68,000 per year each)	34	136	204	374	204	204	204	612	986	
b. (K.Sh. 98,000 per year each)	49	196	294	539	294	294	294	882	1,421	
Subtotal (6.3)	(83)	(332)	(498)	(913)	(498)	(498)	(498)	(1,494)	(2,407)	
6.4. Family Planning										
6.4.1. For 4.4.1. (K.Sh. 68,000 per year each)	68	136	136	340	136	136	136	408	748	
6.4.2. For 4.4.2.:										
a. (K.Sh. 44,000 per year each)	132	264	264	660	264	264	264	792	1,452	
b. (K.Sh. 98,000 per year each)	98	196	196	490	196	196	196	588	1,078	
Subtotal (6.4)	(298)	(596)	(596)	(1,490)	(596)	(596)	(596)	(1,788)	(3,278)	
6.6. Transport for Rural Health Services										
6.6.1. For 4.6.1. (K.Sh. 240 per year each)	-	288	288	576	576	576	576	1,728	2,304	
6.6.2. For 4.6.2. (K.Sh. 1,900 per year each)	-	200	200	400	400	400	400	1,200	1,600	
6.6.3. For 4.6.3. (K.Sh. 44,000 per year each)	-	1,056	1,056	2,112	2,112	2,112	2,112	6,336	8,448	
6.6.4. For 4.6.4. (K.Sh. 68,000 per year each)	-	1,632	1,632	3,264	3,264	3,264	3,264	9,792	13,056	
6.6.5. For 4.6.5. (K.Sh. 136,000 per year each)	-	544	544	1,088	1,088	1,088	1,088	3,264	4,352	
6.6.6. For 4.6.6. (K.Sh. 44,000 per year each)	88	176	176	440	176	176	176	528	968	
Subtotal (6.6)	(88)	(3,896)	(3,896)	(7,880)	(7,616)	(7,616)	(7,616)	(22,848)	(30,728)	
6.7. Maintenance										
6.7.1. For 4.7.1. (K.Sh. 98,000 per year each)	-	588	588	1,176	588	588	588	1,764	2,940	
6.7.2. For 4.7.2. (K.Sh. 58,000 per year each)	-	348	348	696	348	348	348	1,044	1,740	
Subtotal (6.7)	-	(936)	(936)	(1,872)	(936)	(936)	(936)	(2,808)	(4,680)	
6.8. Health Information System										
6.8.1. For 4.8.1.										
a. (K.Sh. 98,000 per year each)	98	196	196	490	196	196	196	588	1,078	
b. (K.Sh. 44,000 per year each)	44	88	88	220	88	88	88	264	484	
Subtotal (6.8)	(142)	(284)	(284)	(710)	(284)	(284)	(284)	(852)	(1,562)	
6.10. CRNGOs:										
6.10.1. For 4.10.2. (K.Sh. 98,000 per year each)	294	294	294	882	490	490	490	1,470	2,352	
6.10.2. For 4.10.3. (K.Sh. 98,000 per year each)	294	294	294	882	490	490	490	1,470	2,352	
6.10.3. For 4.10.4. (K.Sh. 98,000 per year each)	392	784	784	1,960	784	784	784	2,352	4,312	
6.10.4. For 4.10.5. (K.Sh. 1,900 per year each)	23	46	46	115	46	46	46	138	253	
Subtotal (6.10)	(1,003)	(1,418)	(1,418)	(3,839)	(1,810)	(1,810)	(1,810)	(5,430)	(9,269)	
Subtotal (6) Base Cost	(1,726)	(7,910)	(8,296)	(17,932)	(13,088)	(13,088)	(13,088)	(39,264)	(57,196)	50
Price Contingencies	198	1,621	2,406	4,225	4,973	6,282	7,656	18,911	23,136	
Total (6)	1,924	9,531	10,702	22,157	18,061	19,370	20,744	58,175	80,332	50
7. OTHER INCREMENTAL OPERATIONAL COSTS										
7.1. Manpower and Training										
7.1.1. Patient Attendant Training: Trainees' board and travel	70	210	210	490	210	210	210	630	1,120	
7.1.2. Refresher Course for ECN tutors										
a. Per diem (30 tutors x K.Sh. 170 x 12 days)	61	61	61	183	61	61	61	183	366	
b. Travel costs (30 tutors x K.Sh. 170)	5	5	5	15	5	5	5	15	30	
c. Supplies	2	2	2	6	2	2	2	6	12	
7.1.3. Per diem and travel costs for STT Workshop	136	187	65	388	65	65	65	195	583	
Subtotal (7.1)	(274)	(465)	(343)	(1,082)	(343)	(343)	(343)	(1,029)	(2,111)	0
7.2. Drug Supplies										
7.2.1. Incremental drug cost (RHFs)	7,982	14,668	23,722	46,372	35,794	36,212	39,008	111,014	157,386	100
7.2.2. Training Costs	144	288	360	792	440	440	440	1,320	2,112	
7.2.3. Health Education associated with drug program	144	288	360	792	440	440	440	1,320	2,112	
7.2.4. Office supplies and travel expenses	250	330	330	910	330	330	330	990	1,900	
Subtotal (7.2)	(8,520)	(15,574)	(24,772)	(48,866)	(37,004)	(37,422)	(40,218)	(114,644)	(163,510)	95
7.3. Community-Based Health Care										
7.3.1. CBHCDU:										
a. Supplies (office consumables, I&E materials, CHW manuals)	35	35	35	105	35	35	35	105	210	
b. Funds for evaluation	-	-	360	360	-	-	360	360	720	
7.3.2. CHW Kits:										
a. Kit boxes K.Sh. 9 each (CHWs: 60 in place at the beginning of second year, 120 at beginning of third year, 180 in fourth, 240 in fifth, and 300 in sixth)	3	-	-	3	-	-	-	-	3	

No.	Item	1982/83	1983/84	1984/85	Subtotal 1982/83 1984/85	1985/86	1986/87	1987/88	Subtotal 1985/86 1987/88	Total	% F.E.
7.3.3.	Training of RHU staff:										
	a. Per diem for trainers (K.Sh. 170 x five days x four courses x one RHU x three trainers)	10	10	10	30	10	10	10	30	60	
	b. Per diem for trainees (K.Sh. 170 x five days x four courses x one RHU x five trainees)	17	17	17	51	17	17	17	51	102	
7.3.4.	Training of CHW trainers:										
	a. Per diem of CHW trainers (K.Sh. 170 x 28 days x 3 trainers x one RHU)	13	13	13	39	13	13	13	39	78	
7.3.5.	Training of CHWs:										
	a. Per diem for CHW trainers (K.Sh. 220 x 60 days x 3 trainers x one RHU)	40	40	40	120	40	40	40	120	240	
	b. Per diem for CHWs (K.Sh. 100 x 60 days x 60 CHWs x one RHU)	360	360	360	1,080	360	360	360	1,080	2,160	
7.3.6.	Training of CHC members: (Assuming four CHCs per RHU)										
	a. Per diem of trainers (K.Sh. 220 x five days x four CHCs x three trainers x one RHU)	13	13	13	39	13	13	13	39	78	
	b. Per diem of trainees (K.Sh. 220 x five days x four CHCs x five trainees x one RHU)	22	22	22	66	22	22	22	66	132	
	Subtotal (7.3)	(513)	(793)	(1,436)	(2,742)	(1,359)	(1,642)	(2,285)	(5,286)	(8,028)	0
7.4.	Family Planning:										
7.4.1.	Incremental Contraceptive Supplies for new SDPs	364	730	1,094	2,188	1,460	1,824	2,190	5,474	7,662	100
7.4.2.	Incremental Supplies of Disposable Gloves for new SDPs	54	108	162	324	216	270	324	810	1,134	100
7.4.3.	NFWC--Funds for operations research and evaluation	290	290	290	870	290	290	290	870	1,740	
7.4.4.	Fellowships for FP Observational Tours	-	120	120	240	120	120	-	240	480	100
7.4.5.	In-Service ECN Training:										
	a. Course materials (K.Sh. 2,200 x 11 courses x one year)	24	24	24	72	24	24	24	72	144	
	b. Per diem of trainees (K.Sh. 220 x 28 days x 300 trainees x one year)	1,848	1,848	1,848	5,544	1,848	1,848	1,848	5,544	11,088	
	c. Travel of trainees to/from Nairobi (300 trainees x K.Sh. 390 x one year)	117	117	117	351	117	117	117	351	702	
7.4.6.	In-service CO Training:										
	a. Course materials (K.Sh. 2,200 x three courses x one year)	7	7	7	21	7	7	7	21	42	
	b. Per diem for trainees RHTCs (K.Sh. 67 x seven days x 90 trainees x one year)	42	42	42	126	42	42	42	126	252	
	c. Per diem for trainers, RHTCs (K.Sh. 67 x seven days x three courses x four trainers x one year)	5	5	5	15	5	5	5	15	30	
	d. Travel to RHTCs--trainees (90 trainees x K.Sh. 330 x one year)	30	30	30	90	30	30	30	90	180	
	e. Travel to RHTCs--Trainers (four trainers x three courses x K.Sh. 330 x one year)	4	4	4	12	4	4	4	12	24	
	Subtotal (7.4)	(2,785)	(3,325)	(3,743)	(9,853)	(4,163)	(4,581)	(4,881)	(13,625)	(23,478)	42
7.7.	Maintenance										
7.7.1.	Expenditures for Minor Improvements Program	2,775	5,550	5,550	13,875	5,550	5,550	5,550	16,650	30,525	20
7.7.2.	Student Allowances MTSs (six students x six MTSs x K.Sh. 6,700 per year)	-	-	120	120	241	241	241	723	843	
7.7.3.	Student and teacher travel allowance MTSs (six MTSs x 365 days x K.Sh. 55)	-	-	120	120	240	240	240	720	840	
7.7.4.	Training materials MTSs (six MTSs x K.Sh. 55,000)	-	-	165	165	330	330	330	990	1,155	
7.7.5.	Maintenance training of ECNs and COs at MTSs										
	a. Allowance (20 students x four courses a year x three days x K.Sh. 55 x 6 MTSs)	-	-	79	79	79	79	79	237	316	
	b. Materials (20 students x four courses x K.Sh. 110 x six MTSs)	-	-	52	52	52	52	52	156	208	
7.7.6.	Drivers' training										
	a. Allowance (20 drivers x three courses per year x five days x K.Sh. 55 x 6 MTSs)	-	-	99	99	99	99	99	297	396	
	b. Travel Allowances (20 drivers x three courses per year x K.Sh. 220 x six MTSs)	-	-	79	79	79	79	79	237	316	
	c. Materials (20 drivers x three courses per year x K.Sh. 110 x six MTSs)	-	-	40	40	40	40	40	120	160	
	Subtotal (7.7)	(2,775)	(5,550)	(6,304)	(14,629)	(6,710)	(6,710)	(6,710)	(20,130)	(34,759)	17.6
7.8.	Health Information System:										
7.8.1.	Refresher/retraining course for clerical field workers (40 participants x one week course--two courses in 1982, three in 1983, and one per year thereafter)	100	150	50	300	50	50	50	150	450	
7.8.2.	Orientation for new senior field staff	33	19	19	71	23	23	23	69	140	
7.8.3.	Annual field seminar for senior field staff	-	17	22	39	30	30	30	90	129	
7.8.4.	One-day annual seminar for 30 non-HIS senior MOH staff	-	3	3	6	3	3	3	9	15	
7.8.5.	Fellowship for Senior HIS staff	243	243	243	729	243	243	243	729	1,458	100
7.8.6.	Office Supplies--HIS	200	200	200	600	200	200	200	600	1,200	
7.8.7.	Funds for Studies										
	a. Operational Research	-	168	168	336	168	168	168	504	840	
	b. Biomedical Research	-	28	28	56	28	28	28	84	140	
	c. Quality Control of HIS operations	-	52	52	104	52	52	52	156	260	
	d. KAP/Intervention Studies	-	527	527	1,054	527	527	527	1,581	2,635	
	e. Impact Studies	-	168	168	336	168	168	168	504	840	
	Subtotal (7.8)	(576)	(1,575)	(1,480)	(3,631)	(1,492)	(1,492)	(1,492)	(4,476)	(8,107)	18
7.9.	Health Education										
7.9.1.	Strengthening of Health Education Planning and Strategy Formulation										
	a. Planning and Strategy Workshop with HEOs (K.Sh. 1,100 x 50 participants per year)	-	55	55	110	55	55	55	165	275	
	b. Planning and Strategy Workshop with FHFEs (K.Sh. 220 x 800 participants per year)	-	178	178	356	178	178	178	534	890	
7.9.2.	Upgrading of Health Education Skills of MOH Staff										
	a. Diagnostic and Planning Workshops with HEOs (K.Sh. 1,100 x 50 participants x one year)	-	55	-	55	-	-	-	-	55	
	b. Refresher training for HEOs (K.Sh. 2,200 x 35 participants x one year)	77	-	-	77	77	-	-	77	154	
	c. Refresher training for FHFEs (K.Sh. 550 x 800 participants x one year)	440	-	-	440	440	-	-	440	880	
	d. Fellowship in management for selected HEOs (K.Sh. 55,000 x one recipient per year)	55	55	55	165	55	55	55	165	330	100
	e. Reference materials for HEOs (K.Sh. 2,200 x 47 HEOs x one year)	103	-	-	103	-	-	-	-	103	
	f. Handbook on Health Education for service delivery staff (K.Sh. 11 x 40,000 copies)	-	440	-	440	-	-	-	-	440	
7.9.3.	Support for Decentralized Health Education Activities										
	a. Films for health education vans										
	- Production (K.Sh. 150,000 x two 15-minute films + K.Sh. 50,000 x four 5-minute films)	200	50	200	450	50	-	-	50	500	
	- Reproduction (K.Sh. 750 x two 15-minute films x 70 copies + K.Sh. 250 x four 5-minute films x 70 copies)	70	18	70	158	18	-	-	18	176	50

	1982/83	1983/84	1984/85	Subtotal 1982/83 - 1984/85	1985/86	1986/87	1987/88	Subtotal 1985/86-1987/88	Total	% F.F.
b. Fortnightly 15-min. radio broadcasts for regional services of the Voice of Kenya (K.Sh. 3,000 x three VOK services x 26 programs per year)	234	234	234	702	234	-	-	234	936	
c. Special radio broadcasts for village health committees and similar groups (K.Sh. 3,000 x 12 programs per year)	36	36	36	108	36	36	36	108	216	
d. Localized health education activities conducted by teams based on RHTC training (K.Sh. 4,000 x eight teams x six RHTCs per year)	192	192	192	576	192	192	192	576	1,152	
e. Production of materials by or for provinces in support of Provincial Health Education Programs (K.Sh. 25,000; K.Sh. 50,000; K.Sh. 75,000; K.Sh. 100,000 per year x seven Provinces)	175	350	525	1,050	700	700	700	2,100	3,150	
7.9.4. *Strengthening of in-school health education*										
a. Design workshop (K.Sh. 1,500 x 25 participants)	38	-	-	38	-	-	-	-	38	
b. Preparation of manuscripts (K.Sh. 2,000 x five persons)	10	-	-	10	-	-	-	-	10	
c. Printing of handbook (K.Sh. 15 x 20,000 copies)	-	300	-	300	-	-	-	-	300	
d. Workshops on Health Education for teachers (K.Sh. 500 x six workshops x seven provinces x 50 participants per year)	-	-	1,050	1,050	1,050	-	-	1,050	2,100	
Subtotal (7.9)	(1,630)	(1,963)	(2,595)	(6,188)	(3,085)	(1,216)	(1,216)	(5,517)	(11,705)	3.6
7.10. CRNGOs:										
7.10.1. MCH/FP SDPs:										
a. Miscellaneous (office supplies, medical supplies, etc.)	155	310	465	930	620	775	775	2,170	3,100	
7.10.2. Conversion of EN Schools into ECN Schools:										
a. Miscellaneous expenses	-	66	132	198	198	264	330	792	990	
7.10.3. Conversion of RHCs into RHDCs:										
a. Miscellaneous expenses	-	30	80	110	100	100	100	300	410	
7.10.4. Mobile Units										
a. Miscellaneous expenses	-	-	134	134	134	134	134	402	536	
7.10.5. Community-Based ECNs										
a. Miscellaneous expenses	26	62	82	170	96	96	96	288	458	
Subtotal (7.10)	(181)	(468)	(893)	(1,542)	(1,148)	(1,369)	(1,435)	(3,952)	(5,494)	0
Subtotal (7) Base Cost	(17,254)	(29,713)	(41,566)	(88,533)	(55,304)	(54,775)	(58,580)	(168,659)	(257,192)	64
Price Contingencies	1,863	5,794	11,472	19,129	19,909	24,922	32,394	77,225	96,354	
Total (7)	19,117	35,507	53,038	107,662	75,213	79,697	90,974	245,884	353,546	

	1982/83	1983/84	1984/85	Subtotal 1982/83 - 1984/85	1985/86	1986/87	1987/88	Subtotal 1985/86-1987/88	Total	% F.F.
III. INNOVATIVE ACTIVITIES										
a. *Base Cost*	(3,000)	(3,000)	(3,000)	(9,000)	(3,000)	(3,000)	(3,000)	(9,000)	(18,000)	50
b. Price Contingencies	345	615	870	1,830	1,140	1,440	1,755	4,335	6,165	
Total III	3,345	3,615	3,870	10,830	4,140	4,440	4,755	13,335	24,165	
TOTAL SUMMARY PART B (I, II AND III)										
Base Cost	(53,815)	(151,092)	(171,648)	(376,555)	(189,510)	(175,671)	(170,563)	(535,744)	(912,299)	
Physical Contingencies	440	8,841	11,413	20,694	8,291	8,195	6,069	22,555	43,249	
Price Contingencies	6,451	33,649	55,560	95,660	77,312	92,753	108,836	278,901	374,561	
TOTAL CONTINGENCIES	6,891	42,490	66,973	116,354	85,603	100,948	114,905	301,456	417,810	
TOTAL PART B (I, II AND III)	60,706	193,582	238,628	492,909	275,113	276,619	285,468	837,200	1,330,109	

KENYA II—PROJECT IMPLEMENTATION ARRANGEMENTS

Component/Activities	SAR para.	Primary Responsibility for Implementation	Supervisory Responsibility for Monitoring	Project Accounts	Procurement of Goods	Preparation of Disbursement Applications for Loans/Grants for	Progress Reports for Donors
Part A	4.12 to 4.25	NCPD and Agencies	Project Director, Part A	NCPD and Agencies	NCPD and Agencies	NCPD	NCPD
Part B:						Core MOH Project Staff	
1. Family Planning Services:							
a. Extension of SDPs	4.27	Clinical Services Division, NFWC	Project Director, Part B	Core MOH Project Staff	MOH/CTB 1/		Core MOH Project Staff
b. Training of ECNs and COs	4.30	Training Division, NFWC	"	"	"		"
c. Training of Other Staff	4.31	Training Division, NFWC/ District Health Staff	"	"	"		"
d. Strengthening of NFWC	4.32	NFWC	"	"	"		"
e. Technical Assistance, Research and Evaluation and Fellowship	4.33	NFWC/MOH Research and Evaluation Committee	"	"	"		"
2. Manpower:							
a. Strengthening of District-level Staff	4.34	Core MOH Project Staff/Support and Training Teams/ District Medical Officers of Health	"	"	"		"
b. Staff for RHFs	4.35 - 4.36	Core MOH Project Staff	"	"	"		"
c. New schools for ECNs and COs	4.37 - 4.38	Core MOH Project Staff/ MOH Planning and Implementation Unit/MOW	"	"	"		"
d. Training of Patient Attendants	4.41	Core MOH Project Staff/ District Health Staff/ African Medical and Research Foundation	"	"	"		"
e. Training of ECN Trainers	4.42	Core MOH Project Staff/ University of Nairobi/ African Medical and Research Foundation.	"	"	"		"

1/ CTB = Central Tender Board

Component/Activities	SAR para.	Primary Responsibility for Implementation	Supervisory Responsibility for Monitoring	Project Accounts	Procurement of Goods	Preparation of Disbursement Applications for Loans/Grants	Progress Reports for Donors
3. Drug Supplies	4.44 - 4.49	Drug Management Unit, MOH	Project Director, Part B	Core MOH Project Staff	MOH/CTB[1]/		Core MOH Project Staff
4. Rural Health Facilities	4.50 - 4.53	Core MOH Project Staff/ MOH Planning and Implementation Unit/MOW	"	"	"		"
5. Transport for Rural Health Services	4.54 - 4.56	Core MOH Project Staff	"	"	"		"
6. Maintenance:							
a. Minor RHFs Maintenance Program	4.58	Core MOH Project Staff/ Provincial Health Staff	"	"	"		"
b. Six Maintenance Training Schools	4.59	Core MOH Project Staff/ Rural Health Training Center Staff/District Health Staff	"	"	"		"
7. Health Information System	4.61 - 4.64	Core MOH Project Staff HIS	"	"	"		"
8. Health Education	4.65 - 4.67	Core MOH Project Staff/ Health Education Unit	"	"	"		"
9. Community-Based Health Care	4.68 - 4.77	Core MOH Project Staff/ Community Health Care Development Unit/ District Health Staff	"	"	"		"
10. Support to NGOs	4.78 - 4.84	NGO Project Units	"	NGO Project Units			NGO Project Units
11. Innovative Activities	4.85	Core MOH Project Staff	"	Core MOH Project Staff			Core MOH Project Staff

KENYA

INTEGRATED RURAL HEALTH AND FAMILY PLANNING PROJECT

Estimated Time Schedule of IDA Disbursements

IDA Fiscal Year and Quarter	Cumulative Disbursements at Quarter End (US$'000)
1981-82	
June 30, 1982[b]	100[a]
1982-83	
September 30, 1982	332[a]
December 31, 1982	332[a]
March 31, 1983	332[a]
June 30, 1983	900
1983-84	
September 30, 1983	1,600
December 31, 1983	2,500
March 31, 1984	3,600
June 30, 1984	5,000
1984-85	
September 30, 1984	6,600
December 31, 1984	8,400
March 31, 1985	10,400
June 30, 1985[c]	12,600
1985-86	
September 30, 1985	15,000
December 31, 1985	17,000
March 31, 1986	19,000
June 30, 1986	21,000
1986-87	
September 30, 1986	23,000
December 31, 1986[d]	23,000

a/ Disbursements from PPF advance.
b/ Expected Date of Effectiveness: October 1, 1982.
c/ Expected Date of Project Completion.
d/ Closing Date.

KENYA--Projection of Family Planning Users and New Acceptors, 1982-1987

Forecasting the likely pace of expansion of the family planning program over the next six years which might be expected to occur in view of project interventions is very difficult, especially since program performance has been stalled in recent years (paragraph 3.15). Nonetheless, an attempt is made below (see attached table) to forecast a likely range of FP users for the period 1981-87. Implications in terms of estimated numbers of new acceptors needed are also shown. According to the 1977-78 Kenya World Fertility Survey, 17% of married women stated that they wanted no more children (paragraph 3.20). This figure provides a rough estimate of the proportion who in principle would be willing to practice FP permanently, although probably on the high side, since it has been observed in other countries that there is usually a gap between attitude and practice of FP. On the other hand, at any given point in time there would also be a number of women who would be willing to practice FP on a temporary basis for spacing purposes. These considerations suggest that it would not be unreasonable to expect the improvement of FP services to be effected through the project (which includes an almost doubling of FP SDPs) to be associated with an increase in the contraceptive prevalence rate from about 5% now to about 10% by 1987, even assuming no substantial short-term effect of the project's information and education activities on average desired family size. If the latter assumption is relaxed, a

larger expansion could take place. Experience from other countries in Asia and Latin America shows that very rarely the pace of decline in the CBR has exceeded one per thousand point per year. Hence we could assume that the maximum increase to be expected in the CPR in Kenya from 1982 to 1987 would be an increase that is consistent with a decline in the CBR of about five per thousand points, from about 53 in 1982 to about 48 in 1987. This would correspond to a CPR of about 17% by 1987. In the low projection case, in which the CPR attains a value of 10% by 1987, the corresponding value of the CBR would be 51 per thousand.

KENYA--Alternative Projections of FP Users and Acceptors, 1980-1987

Year	MWRA 1/ (000s)	Low Projection			High Projection		
		CPR 2/ %	U 3/ (000s)	A 4/ (000s)	CPR %	U (000s)	A (000s)
1980	2,743/5	5%/6	137	81/7	5%/6	137	81/7
1981	2,850	5%	142	84	5%	142	84
1982	2,961	5%	148	87	5%	148	87
1983	3,076	6%	185	109	7%	215	126
1984	3,196	7%	224	132	9%	288	169
1985	3,321	8%	266	156	12%	398	234
1986	3,451	9%	310	182	15%	518	305
1987	3,585	10%	359	210	17%	609	358

1/ Married Women of Reproductive Age.
2/ Contraceptive prevalence rate, i.e. the number of married women of reproductive age practising a modern method of contraception at a given point in time divided by the total number of married women of reproductive age at that time.
3/ Users, i.e. the number of married women of reproductive age using a modern method of contraception at mid-year.
4/ Acceptors, i.e. the number of married women of reproductive age who become acceptors of a modern method of contraception during the year.
5/ Actual figure.
6/ Estimated; includes program (80%) and non-program (20%) users.
7/ Estimated; includes program (80%) and non-program (20%) acceptors.

KENYA--INDICATIVE PROGRAM FOR INFORMATION AND EDUCATION, FIRST YEAR

The proposed indicative program consists of the following 16 activities to be implemented by two ministries and six NGOs:

(a) The Ministry of Economic Planning and Development (MEPD), Rural Services Coordination and Training Unit: Population Documentation and Clearinghouse--This unit would assemble the data-base required for program coordination and implementation (e.g. inventories of resources, research findings, data on program audiences) and would encourage its utilization through a training program. The project would provide office furniture and equipment, a vehicle, salaries and housing allowances for staff, vehicle operating and maintenance costs, office operating costs, a curriculum preparation workshop, resource materials, and funds for subcontracts.

(b) MOH, National Family Welfare Center

(i) Motivation of MOH Staff Support for FP. During the first year, the NFWC would test the impact of a newsletter about FP for MOH service staff and would produce a videotape and associated handouts on population and development, with special reference to health, aimed at senior MOH staff.

(ii) Strengthening of FP In-clinic and Extension Education. This activity would consist of four main elements: the identification of ways to strengthen FP I&E content in MOH

training programs, the production of support materials for use by MOH service and health education staff, a pilot scheme to stimulate local groups to discuss FP using audio cassettes, and a pilot post-partum education program. The project would provide equipment, supplies, two preparatory workshops, and production of materials.

(iii) Mass Media Support for FP Interpersonal Communication. This would consist of the decentralized use of mass media, mainly by HEOs and, as such, would be closely coordinated with the health education component of Part B. The project would provide funds for local campaigns to publicize the opening of new SDPs and for such purposes as countering rumors.

(iv) Production of Mass Media Materials on FP. It is planned to produce two films on FP and cinema slides giving details about local FP services and, as an experiment, to use bill-boards at places frequented by men (e.g. sportsfield).

(c) Family Planning Association of Kenya (FPAK):

(i) Private Medical Practitioners. The project would support one workshop to be organized by FPAK during the first year to encourage private doctors to offer FP services.

(ii) I&E Program for Members of Parliament. The FPAK will organize a workshop to inform MPs about, and to enlist their support for Kenya's population program.

(iii) Training of Traditional Birth Attendants. Traditional birth attendants (TBA) still deliver nearly three-fourths of the

babies in Kenya. This program would eventually train 320 a year in FP, I&E, improved delivery techniques, and basic maternal and child health. The project will provide equipment, vehicles, salaries and housing allowances for supervisory and training staff, vehicle operating and maintenance costs, and per diems for trainees and for field supervision.

(iv) In-service Training in I&E for FPAK Staff. FPAK is the only NGO in Kenya devoted solely to the promotion of FP. The project will provide FPAK with funds to conduct in-service courses in I&E for its own field educators, senior management, and clerical staff (who have considerable contact with the public).

(v) Production of Support Materials for Field Use. The project would provide for the designs, pre-testing and production of materials for use by FPAK's field educators.

(vi) Evaluation of On-going I&E Programs. During the first year, the FPAK would carry out or subcontract evaluations of its lay educator and youth programs with a view to requesting the Council to finance expansions of these programs.

(d) Kenya Catholic Secretariat: Family Life Education Program. This program is designed to increase understanding of the population problem among Catholics and to educate couples in the ovulation method of FP, which has been found to be acceptable to Catholic couples because of its similarity to traditional child spacing

methods. The project would provide office furniture, office and audio-visual equipment, a vehicle, salaries and housing allowances for a small staff, vehicle operation and maintenance costs, office operating costs, staff development, per diem, consultants, training materials, and national and regional workshops to train diocesan leaders, tutors in Catholic paramedical training schools, and laymen in various facets of the program.

(e) Maendeleo ya Wanawake Organization: Maternal and Child Health/FP I&E Services. Training in MCH/FP and I&E would be provided for field staff, leaders, and 10,000 members of Maendeleo ya Wanawake, the largest women's organization in Kenya. The project would provide office furniture, office and audio-visual equipment, vehicles, salaries and housing allowances for staff, vehicle operating and maintenance costs, office rental and other operating costs, domestic travel, production of I&E materials, and an extensive program of training workshops.

(f) National Christian Council of Kenya: Family Life Education Program. The Council conducts a program of curriculum development and training of teachers in family life education methods. The project would provide office furniture, office and audio-visual equipment, vehicles, audio-visual and office supplies, domestic travel, production of materials, and workshops for tutors in teacher training schools, headmasters of secondary schools, and officials and leaders at the provincial and district level.

(g) Protestant Churches Medical Association: Adolescent Health and FP I&E Program. The PCMA intends to encourage its members to reach in- and out-of-school youth in their areas. The project would provide office furniture, audio-visual and office equipment, a vehicle, salaries and housing allowances for staff, vehicle operation and maintenance costs, office operating costs, staff development, domestic travel, consulting services, production of I&E materials, and workshops and training courses for heads of participating institutions, headmasters, and teachers.

(h) Salvation Army: FP I&E Program. The Salvation Army intends to carry out a program, aimed primarily at men, with the help of male workers who would be recruited and trained by trainer/supervisors. Complementary FP services would be provided, where needed, by Salvation Army health staff. The project would provide equipment for these services, vehicles, salaries, incentive payments for nurses, production of guides and other materials, domestic travel, and training costs.

ANNEX 6

Training Courses for Community-Based Health Care Program

Trainees	Trainers	Duration of Training	Location
a. Staff of District Rural Health Management Teams and district Development Committee.	Development Unit Staff	Four weeks	District Headquarters
b. RHU Staff	Teams of three (Public health nurse, public health officer, and CO)1/	Five days	RHFs
c. CHW Trainers	Rural Health Training Center Staff	Four weeks	Rural Health Training Centers
d. CHWs	Teams of three (CO, ECN and Public Health Technician)2/	Two months	Nearby Community Centers (e.g. farmers' training centers)
e. Members of Community Health Committees	Same as for RHU staff, assisted by staff of Rural Health Management teams.	Five days	Same as for CHWs

1/ Recruited from existing staff of Rural Health Training Centers.
2/ One team for each RHU. Trainers would be selected from existing RHC staff.

ANNEX 7

Project Preparation Facility Advance

1. An advance of US$332,000 equivalent has been granted to the GOK by IDA from the project preparation facility fund. The activities to be financed from this advance, the types of expenditures covered and the estimated costs are specified in the table below.

	Activity	Types of Expenditures	Cost (US$)
a.	Finalization of mapping exercise for determination of locations of project's rural health facilities (MOH and NGOs)	Printing, consulting fees, data processing	45,000
b.	Finalization of new type designs for dispensaries Type I and II and rural health centers for each of the four climatic zones	Consultant fees, secretarial assistance	72,000
c.	Start-up expenditures of Support and Training Teams (to develop District and Provincial Rural Health Management Teams)	Purchase of four cars, purchase of office equipment, per diem, travel allowances, miscellaneous operational costs	91,000
d.	Development of the Health Information System	Salaries, per diem, travel allowances, office supplies, purchase of three desk calculators, miscellaneous operational costs.	8,000
e.	Non-Governmental Organizations (NGOs)		61,000
	i. NGOs Project Start-up expenditures	Salaries, travel allowances, purchase of a car, miscellaneous operational costs	(25,000)
	ii. Preparation of site-specific drawings and detailed cost estimates for construction work to be carried out during the first year of the project.	Consultant fees and related expenses	(36,000)
f.	Initial Project Management Costs and Contingencies	Contingencies on (a) to (e) above; consultant fees, miscellaneous operational expenses	55,000
	TOTAL		332,000

KENYA INTEGRATED RURAL HEALTH AND FAMILY PLANNING PROJECT
ANNEX 8: PROJECT FINANCING PLAN, PART A

(K.Sh. ´000s)

Financing Agent[1]/	Items Financed	Absolute Amounts Financed				Percentage Financed			
		1982/83	1983/84	1984/85	Total	1982/83	1983/84	1984/85	Total
Government	All items	11,000	12,000	8,000	31,000	41	29	17	26
IDA	"	3,000	15,000	30,000	48,000	11	36	62	41
USAID	"	12,000	12,000	7,000	31,000	44	29	15	26
UNFPA	"	-	3,000	3,000	6,000	-	7	6	5
UK-ODA[2]/		1,000	-	-	1,000	4	-	-	1
TOTAL COST PART "A"	"	27,000	42,000	48,000	117,000	100	100	100	100

1/ Financing of all items in Part A would be on a parallel basis. The specific items to be financed by each donor and government have been identified at this point for the first project year only. For the second and third project years, the determination of specific items to be financed by each of the donors and government will be made at the time of the review by donors of the corresponding annual work plans, also in consultation with council.

2/ UK-ODA also intends simultaneously to provide approximately 500 kits of visual learning aids, especially designed for semi-literate and illiterate audiences, at a cost of about ¢100,000. The kits would cover a wide spectrum of health/FP topics. This component was not included in the cost estimates of this appraisal report, hence it is not shown here as part of ODA´s contribution to project financing. However, they are likely to be channeled through one of the implementing agencies of Part A, and would be complementary with other project inputs.

KENYA INTEGRATED RURAL HEALTH AND FAMILY PLANNING PROJECT
ANNEX 8: PROJECT FINANCING PLAN FOR FIRST YEAR ACTIVITIES, PART A

Agency:	Items to be Financed[1]
ODA	4.3.1., 4.6.1. and 4.3.2.
USAID	2.1., 2.3., 2.5., 3.1., 3.5., 3.6., 3.9., 5.1., 5.3., 5.4., 5.6., 5.7., 6.1., 6.3., 6.4., 6.7., 6.8., 7.1., 7.7., 7.8., 7.9., 7.10., 7.11., 7.12., 7.13., 7.16., and 7.17.
IDA	2.2., 2.4., 3.2., 3.7., 5.2., 5.5., 6.2., 6.5., 7.2., and 7.14.
Government	All remaining items

1/ Code numbers correspond to Annex 1, Part A.

KENYA INTEGRATED RURAL HEALTH AND FAMILY PLANNING PROJECT

ANNEX 9: PROJECT FINANCING PLAN, PART B

(K.Sh. '000s)

Financing Agent and Description of Item Financed	Code Number of Item Financed 1/	Absolute Amounts Financed 2/				Percentage of Item Financed 3/
		1982/83	1983/84	1984/85	Total	
SIDA						
1. Construction, Furnishing and Equipping of three maintenance schools						
a. Civil Works	1.7.1.	399	7,681	-	8,080	100%
b. Furniture	2.7.1.	-	148	-	148	100%
c. Equipment	3.7.1.	-	733	-	733	100%
Subtotal (1)		(399)	(8,562)	-	(8,961)	
2. Construction, Furnishing and Equipping of a 165-seat school for Clinical Officers						
a. Civil Works	1.1.1.	1,370	17,484	12,943	31,797	100%
b. Furniture	2.1.1.	-	660	2,868	3,528	100%
c. Equipment	3.1.1.	-	444	1,905	2,349	100%
Subtotal (2)		(1,370)	(18,588)	(17,716)	(37,674)	
3. Drugs Incremental Drug Cost, Rural Health Services	7.2.1.	(6,251)	(12,474)	(21,587)	(40,312)	72%
4. Innovative Activities (Part B)	III	(3,345)	(3,615)	(3,870)	(10,830)	100%
TOTAL SIDA Financing		11,365	43,239	43,173	97,777	

1/ As per detailed cost estimates for Part B (Annex 1).
2/ Includes physical and price contingencies.
3/ I.e., ratio of the amount of a given item financed by an agency to the total cost of that item as per detailed cost estimates in Annex 1 of Appraisal Report.

KENYA INTEGRATED RURAL HEALTH AND FAMILY PLANNING PROJECT
ANNEX 9: PROJECT FINANCING PLAN, PART B

(K.Sh. '000s)

Financing Agent and Description of Item Financed	Code Number of Item Financed	Absolute Amounts Financed				Percentage of Item Financed
		1982/83	1983/84	1984/85	Total	
DANIDA						
1. Construction, Furnishing and Equipping of a 200-seat ECN School						
a. Civil Works	1.1.2.	1,320	17,636	13,157	32,113	100%
b. Furniture	2.1.2.	-	562	2,429	2,991	100%
c. Equipment	3.1.2.	-	596	2,557	3,153	100%
Subtotal (1)		(1,320)	(18,794)	(18,143)	(38,257)	
2. Salaries and Consultant Expenses of MOH's Drug Management Unit						
a. Salaries	5.2.1.	1,227	1,555	1,904	4,686	100%
b. Consulting services	5.2.2.	329	363	392	1,084	100%
Subtotal (2)		(1,556)	(1,918)	(2,296)	(5,770)	
3. Construction, Furnishing and Equipping of three maintenance schools						
a. Civil Works	1.7.1.	399	7,681	-	8,080	100%
b. Furniture	2.7.1.	-	148	-	148	100%
c. Equipment	3.7.1.	-	733	-	733	100%
Subtotal (3)		(399)	(8,562)	-	(8,961)	
4. Improvement of 25 Substandard MOH Dispensaries						
a. Civil Works	1.5.1.	366	124	18,604	19,094	100%
b. Furniture	2.5.4.	-	-	666	666	100%
c. Equipment	3.5.4.	-	-	334	334	100%
Subtotal (4)		(366)	(124)	(19,604)	(20,094)	

KENYA INTEGRATED RURAL HEALTH AND FAMILY PLANNING PROJECT

ANNEX 9: PROJECT FINANCING PLAN, PART B

(K.Sh. '000s)

Financing Agent and Description of Item Financed	Code Number of Item Financed	Absolute Amounts Financed 1982/83	1983/84	1984/85	Total	Percentage of Item Financed
5. Upgrading of 12 MOH Dispensaries Type I to Dispensaries Type II						
a. Civil Works	1.5.2.	213	68	10,389	10,670	100%
b. Furniture	2.5.3.	-	-	817	817	100%
c. Equipment	3.5.3.	-	-	418	418	100%
Subtotal (5)		(213)	(68)	(11,624)	(11,905)	
TOTAL DANIDA Financing		3,854	29,466	51,667	84,987	
USAID						
1. In-service FP training of ECNs and COs						
a. Equipment	3.4.1.	56	-	-	56	100%
b. Vehicles	4.4.1.	267	-	-	267	100%
c. Salaries	5.4.1.	343	382	413	1,138	100%
d. Other Operational Costs	7.4.5., 7.4.6	2,243	2,492	2,700	7,435	100%
TOTAL USAID Financing (Part B)		2,909	2,874	3,113	8,896	

KENYA INTEGRATED RURAL HEALTH AND FAMILY PLANNING PROJECT
ANNEX 9: PROJECT FINANCING PLAN, PART B

(K.Sh. '000s)

Financing Agent and Description of Item Financed	Code Number of Item Financed	Absolute Amounts Financed				Percentage of Item Financed
		1982/83	1983/84	1984/85	Total	
UNICEF[1]/						
1. All expenditures in Community-Based Health Care component except salaries						
a. Furniture	2.3.1.	27	-	-	27	100%
b. Equipment	3.3.1.	33	-	-	33	100%
c. Vehicles	4.3.1.	394	428	458	1,280	100%
d. Consulting expenses	5.3.2.	653	709	758	2,120	100%
e. Vehicle Operation Costs	6.3.1.	91	402	650	1,143	100%
f. Other Operational Costs	7.3.1. to 7.3.6.	574	634	1,172	2,380	100%
TOTAL UNICEF Financing		1,772	2,173	3,038	6,983	
UK-ODA						
1. Twenty-two four-wheel drive cars	4.7.1., 4.8.1.(a), 4.10.1., 4.10.2., 4.10.3.	2,777	1,133	-	3,910	100%
2. Twenty-four ambulances	4.6.4	-	6,600	-	6,600	100%

1/ The figures in this table are based on the program phasing assumed in this appraisal report. UNICEF, however, hopes a faster expansion of the program would be feasible. In that event, UNICEF's contribution would amount to about US$1.7 million.

KENYA INTEGRATED RURAL HEALTH AND FAMILY PLANNING PROJECT
ANNEX 9: PROJECT FINANCING PLAN, PART B

(K.Sh. '000s)

Financing Agent and Description of Item Financed	Code Number of Item Financed	Absolute Amounts Financed 1982/83	1983/84	1984/85	Total	Percentage of Item
3. Twenty-four Motorcycles	4.10.4	552		-	552	100%
4. Two Land Rovers (KCS, PCMA)		460			460	100%
TOTAL ODA Financing (Part B)		3,789	7,733	-	11,522	
IDA						
1. Upgrading of 25 MOH Dispensaries Type I to Type II						
a. Civil Works	1.5.2.	358	115	17,453	17,926	80%
b. Furniture	2.5.3.	-	-	1,545	1,545	90%
c. Equipment	3.5.3.	-	-	613	613	70%
Subtotal (1)		(358)	(115)	(19,611)	(20,048)	
2. Construction, Furnishing and Equipping of new MOH Rural Health Facilities (One RHC, four Type I dispensaries, and six staff house units)						
a. Civil Works	1.5.3.	89	30	4,455	4,574	80%
	1.5.4.	89	30	4,443	4,562	80%
	1.5.5.	25	10	1,271	1,306	80%
b. Furniture	2.5.2.	-	-	466	466	90%
	2.5.1.	-	-	400	400	90%
	2.5.5.	-	-	80	80	90%
c. Equipment	3.5.2.	-	-	302	302	70%
	3.5.1.	-	-	186	186	70%
Subtotal (2)		(203)	(70)	(11,603)	(11,876)	

KENYA INTEGRATED RURAL HEALTH AND FAMILY PLANNING PROJECT
ANNEX 9: PROJECT FINANCING PLAN, PART B

(K.Sh. '000s)

Financing Agent and Description of Item Financed	Code Number of Item Financed	Absolute Amounts Financed2/				Percentage of Item Financed3/
		1982/83	1983/84	1984/85	Total	
3. Upgrading of thirty NGO Rural Health Facilities to MCH/FP Service Delivery Points						
a. Civil Works	1.10.2.	-	12,386	7,062	19,448	80%
b. Furniture	2.10.1.	-	1,332	760	2,092	90%
c. Equipment	3.10.1.	-	291	166	457	70%
Subtotal (3)		-	(14,009)	(7,988)	(21,997)	
4. Upgrading of three NGO Rural Health Centers to Rural Health Demonstration Centers						
a. Civil Works	1.10.2.	-	4,346	2,478	6,824	80%
b. Furniture	2.10.2.	-	468	266	734	90%
c. Equipment	3.10.2.	-	116	64	180	70%
Subtotal (4)		-	(4,930)	(2,808)	(7,738)	
5. Upgrading of three NGO Enrolled Nursing Schools						
a. Civil Works	1.10.3.	-	3,043	1,734	4,777	80%
b. Furniture	2.10.3.	-	326	186	512	90%
c. Equipment	3.10.3.	-	294	164	458	70%
Subtotal (5)		-	(3,663)	(2,084)	(5,747)	
6. Miscellaneous Equipment						
a. For Provincial and District Rural Health Management Teams	3.1.3.	236	151	161	548	70%
b. For MOH's Drug Management Unit	3.2.1.	282	104	111	497	70%
c. For conversion of 300 Government Rural Health Facilities into MCH/FP SDPs	3.4.2.	1,306	1,418	1,518	4,242	70%
d. Office equipment for NFWC	3.4.3.	150	-	-	150	70%
e. For HIS, Headquarters	3.8.1.	40	43	21	104	70%
f. For HIS, Field	3.8.2.	49	-	-	49	70%
g. Audiovisual production and utilization equipment for health education	3.9.1.	1,005	-	-	1,005	70%
h. For KCS and PCMA		160			160	70%
Subtotal (6)		(3,228)	(1,716)	(1,811)	(6,755)	

KENYA INTEGRATED RURAL HEALTH AND FAMILY PLANNING PROJECT
ANNEX 9: PROJECT FINANCING PLAN, PART B

(K.Sh. ´000s)

Financing Agent and Description of Item Financed	Code Number of Item Financed	Absolute Amounts Financed				Percentage of Item Financed
		1982/83	1983/84	1984/85	Total	
7. Vehicles						
a. For Department of Advanced Nursing						
Two 30-seat buses	4.1.1.	305	-	-	305	70%
b. For new CO school						
Two sedans	4.1.2.a	-	-	253	253	70%
Two 30-seat buses	4.1.2.b	-	-	354	354	70%
Two 12-seat minibuses	4.1.2.c	-	-	225	225	70%
c. For new ECN school						
Two sedans	4.1.3.a	-	-	253	253	70%
Four 12-seat minibuses	4.1.3.b	-	-	450	450	70%
d. For Drug Management Unit						
Five sedans	4.2.1.	218	236	126	580	70%
e. For NFWC						
Six sedans	4.4.2.a	654	-	-	654	70%
Two four-wheel drive cars	4.4.2.b	356	-	-	356	70%
f. For Rural Health Services						
Twelve Hundred bicycles	4.6.1.	-	1,786	-	1,786	70%
Twenty-four sedans	4.6.3.	-	2,838	-	2,838	70%
Four Motorboats	4.6.5.	-	2,844	-	2,844	
Four sedans for STTs	4.6.6.	435	-	-	435	70%
One Hundred and Five Motorcycles	4.6.2	-	2,480	-	2,480	70%
g. For maintenance						
Six pickups	4.7.2.	-	511	-	511	70%
h. For Health Information System						
Two sedans	4.8.1.b	218	-	-	218	70%
Subtotal (7)		(2,186)	(10,695)	(1,661)	(14,542)	
8. Consultant Expenses						
a. For Training						
One man-year	5.1.8.a	326	354	-	680	100%
b. For NFWC						
Three man-years	5.4.3.	653	709	758	2,120	100%
c. For transportation management						
One-half man-year	5.6.2.	326	-	-	326	100%

KENYA INTEGRATED RURAL HEALTH AND FAMILY PLANNING PROJECT

ANNEX 9: PROJECT FINANCING PLAN, PART B

(K.Sh. ´000s)

Financing Agent and Description of Item Financed	Code Number of Item Financed	Absolute Amounts Financed 1982/83	1983/84	1984/85	Total	Percentage of Item Financed
8. cont´d.						
d. For Health Information System						
Senior Program Advisor, 2 man-years	5.8.3.a	326	709	379	1,414	100%
Senior Systems Analyst, 2 man-years	5.8.3.b	-	709	758	1,467	100%
Local technical assistance, one man-year	5.8.3.c	45	50	54	149	100%
Subtotal (8)		(1,676)	(2,531)	(1,949)	(6,156)	
9. Salaries and Allowances						
a. All salaries and allowances in Part B except consultant expenses and items 5.2.1. and 5.4.1.	5	(14,604)	(27,512)	(39,308)	(81,424)	90%
Total IDA Financing (Part B)		22,255	65,241	88,823	176,319	
GOVERNMENT						
a. All Part B items not listed above and residual of items which are not 100% foreign-financed		14,762	42,856	48,807	106,425	
TOTAL COST PART B		60,706	193,582	238,621	492,909	

SELECTED DOCUMENTS AND DATA AVAILABLE IN THE PROJECT FILE

Section A:

A.1 The Ministry of Health Staffing Structure, by A Gunnarson and B. Jenny, Nairobi, July 1979. Mimeographed.

A.2 Appraisal Report on the Kenya Expanded Program of Immunization, Ministry of Health/DANIDA, Nairobi, November 1978. Mimeographed.

A.3 Integration and Relationships of Activities in the Rural Health Unit, by A. Gadison, S. Ong'ayo and C. Thube, Nairobi, 1979. Mimeographed.

A.4 Kenya Fertility Survey: Major Highlights, Central Bureau of Statistics, Ministry of Economic Planning and Development, Nairobi, 1979. Mimeographed.

Section B:

B.1 Consultants' Report for an Information and Education Program on Population and Development in Kenya, by L. Saunders and P. Mbithi, 2 vols., Nairobi, April 1980. Mimeographed.

B.2 Proposal Document for the Integrated Rural Health and Family Planning Program, Ministry of Health, Nairobi, July 1980. Mimeographed.

Section C:

C.1 Working Papers of the Appraisal Mission

C.2 Implementation Volume

CHART 1
Simplified Organization of Rural Health and Family Planning Services in Kenya

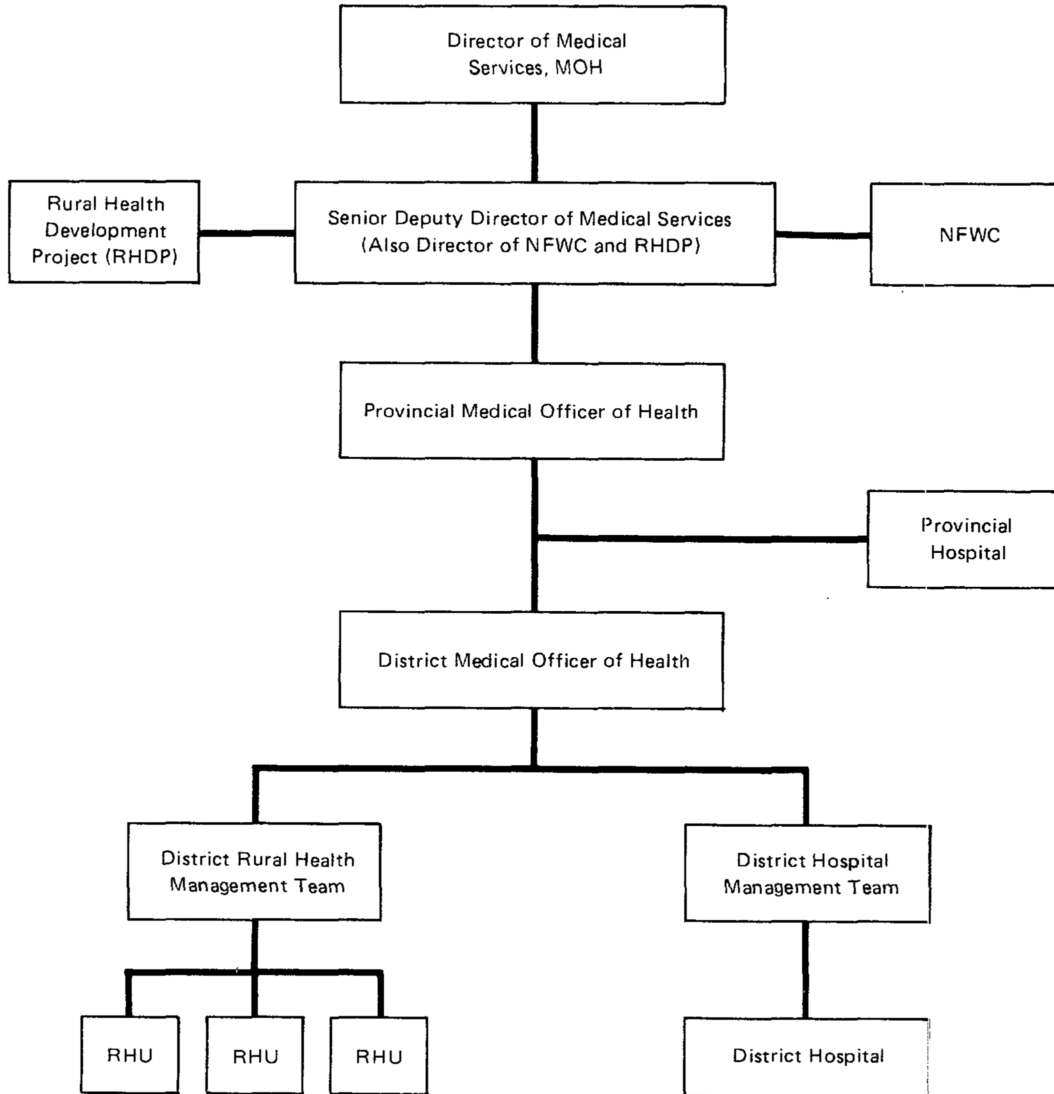

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CHART 2
Project Organization
Part A

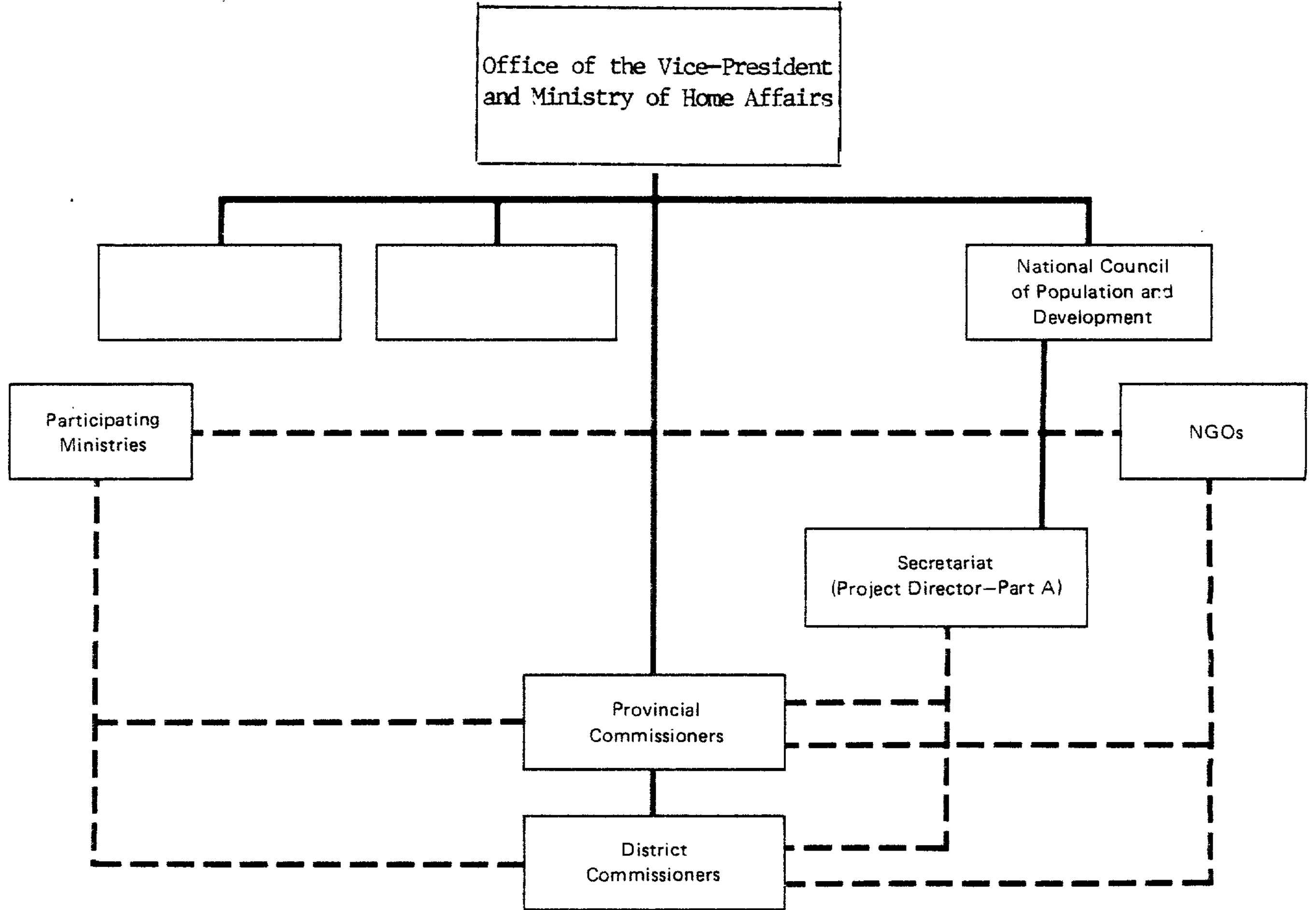

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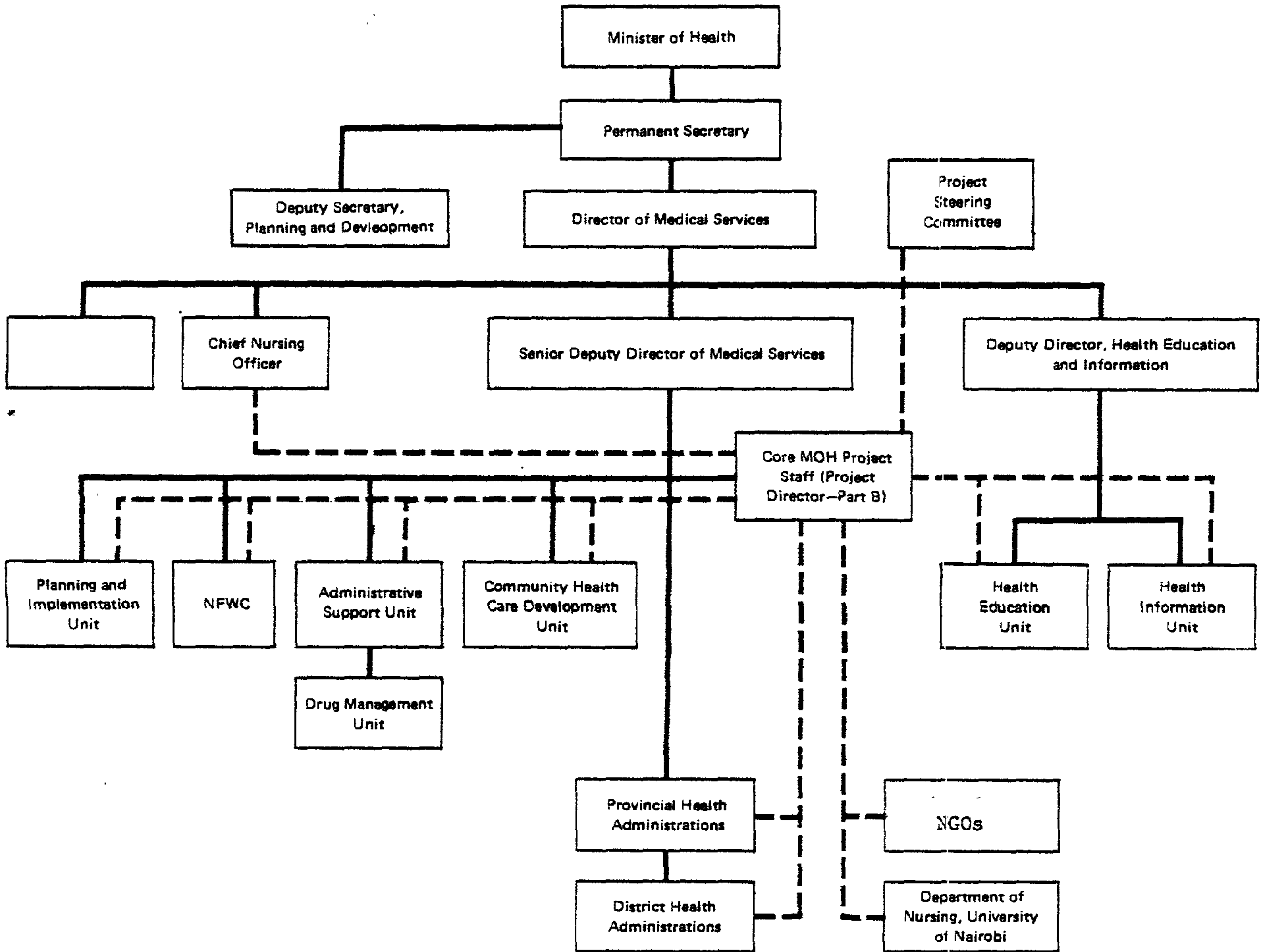
CHART 2
Project Organization
Part B



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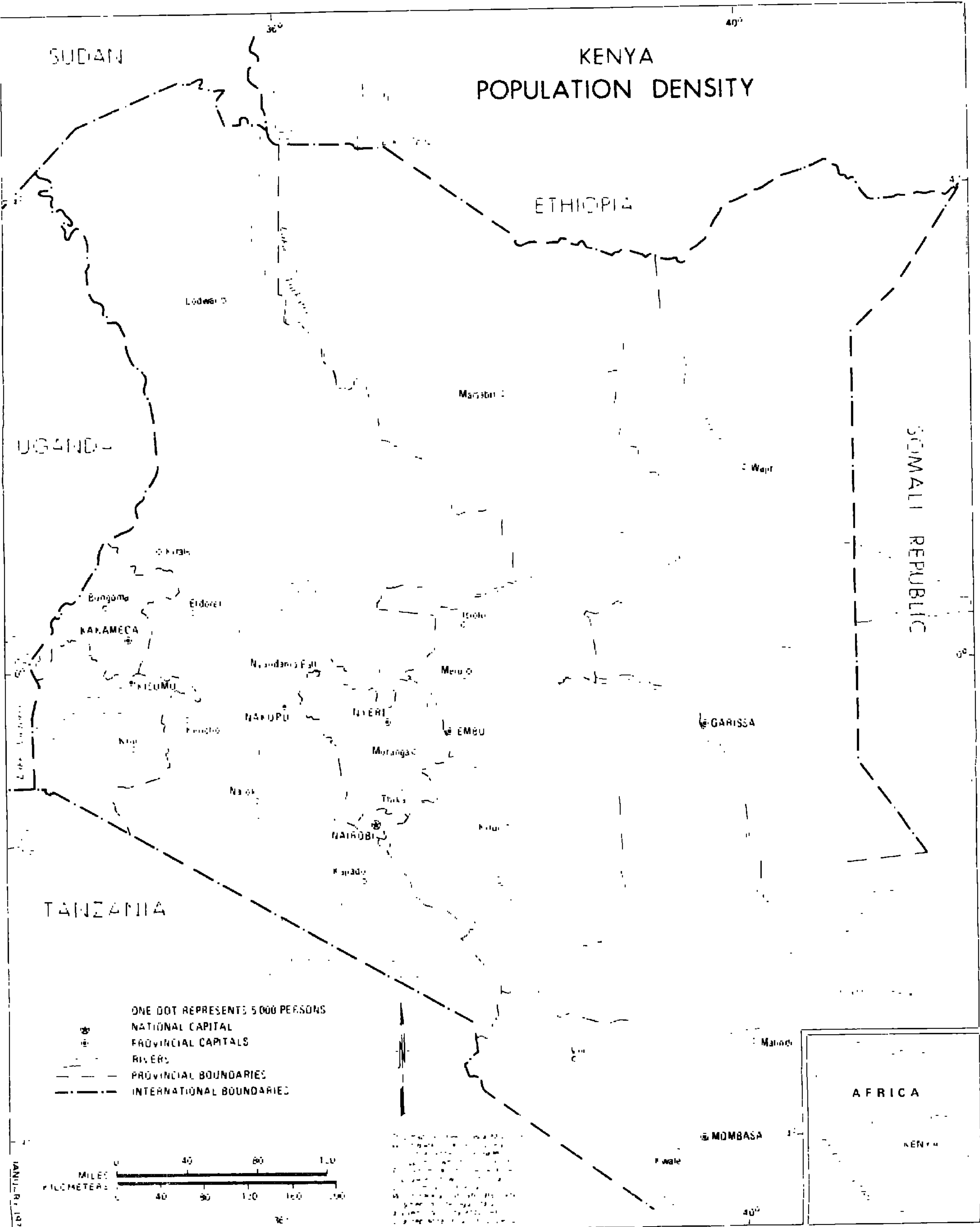

KENYA
POPULATION DENSITY
SUDAN
ETHIOPIA
UGANDA
SOMALI REPUBLIC
TANZANIA
Lodwar
Marsabit
Wajir
Kitale
Bungoma
Eldoret
KAKAMEGA
KISUMU
Isiolo
Meru
NAKURU
NYERI
EMBU
GARISSA
Kericho
Muranga
Narok
Thika
NAIROBI
Kajiado
ONE DOT REPRESENTS 5,000 PERSONS
NATIONAL CAPITAL
PROVINCIAL CAPITALS
RIVERS
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