STATUS OF POPULATION POLICY IN AFRICA WITH SPECIAL EMPHASIS ON ZAMBIA

by

Greata Penias Alikipo Banda

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BY

GREATA PENIAS ALIKIPO BANDA

A Thesis submitted to the Faculty of Graduate Studies of the University of Manitoba in partial fulfillment of the requirements of the degree of

DOCTOR OF PHILOSOPHY

Dedicated to Yona, Zakeyo, Thamson and my family.

I hereby declare that I am the sole author of this thesis.

Greata Penias Alikipo Banda.

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This thesis is based on both secondary data gathered in Canada, the United States and Zambia and a household survey conducted in Zambia. There were approximately 70 respondents and 796 for unstructured and structured interviews respectively. Such a task would not have been accomplished without the competent assistance of many persons.

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ABSTRACT

This thesis examines population policies in Africa in general and Zambia in particular. Two theoretical approaches are used: the *cross-national* and the *institutional* approach. African countries are categorized into four groups: anti-natalist, pro-natalist, non-committal with anti-natalist sentiments and non-committal countries with pro-natal sentiments. Reasons why certain countries have taken particular positions regarding their population problems and conditions under which population policies are adopted and implemented are examined. An analysis of whether or not Zambia's socio-economic environment, which is characterized by a poor economy, desire for large numbers of children, high malnutrition related child-mortality rate and poor infrastructure for the implementation of population policy which was adopted on May 17, 1989 is conducted.

Progress in the development of population programs and policies has been made following the 1974 Bucharest World Population Conference and especially since the 1984 Mexico City World Population Conferences. African countries have benefited from demographic information about attitudes towards fertility and contraceptive knowledge. Nevertheless, African countries continue to encounter problems in implementing family planning programs because of deeply entrenched pro-natalism. This pro-natalism falls into two broad categories: *'cultural pro-natalism'*, which has its roots in the traditional African socio-economic systems and *intensified 'pro-natalism'*, which emanates from poverty, high infant and child mortality, religious and political contacts African societies have had with the outside world, and ethnic tension.

This thesis emphasizes that high fertility rates in Africa in general and in Zambia in particular could be curbed through improvements to the status of women, mainly through education, as well as the use of a decentralized system in the provision of family planning services. It also recommends the provision of serious family planning education programs, greater government commitment to anti-natalist population policies and experimentation with inexpensive family planning programs. Intensification of research regarding all facets of the value and costs of children, including community level variables is also recommended.

LIST OF ABBREVIATIONS

AAPCPD.....	All-African Parliamentary Conference on Population and Development
ABIS.....	Average Birth Spacing
AFM.....	Action Familie Mauritius
AIDS.....	Acquired Immune Deficiencies
ALLO.....	Allocation
ANC.....	African National Congress
BBPWA.....	Botswana Business and Professional Women's Association
BCC.....	Botswana Council of Churches
BCW.....	Botswana Council of Women
BFTU.....	Botswana Federation of Trade Unions
BRCS.....	Botswana Red Cross Society
BWPC.....	Bucharest World Population Conference
BYWCA.....	Botswana Youth Women Christian Association
CC.....	Church of Christ
CCZ.....	Christian Council of Zambia
CDRs.....	Crude Death Rates
CHIHH.....	Children in the household
CIDA.....	Canadian International Development Agency
CMM.....	Cervical Mucus Method
CSAs.....	Census Supervisory Areas
CSO.....	Central Statistical Office
CDRs.....	Crude Birth Rates
CMR.....	Child Mortality Rates
CPS.....	Contraceptive Prevalence Survey
CR.....	Conseils Regionaux
CSO.....	Central Statistical Office
CSP.....	Conseil Superieur de la Population
CYP.....	Commonwealth Youth Programme
DF.....	Degrees of Freedom
DHSP.....	Demographic and Health Survey programs
DNCH.....	Desired number of children
EBFM.....	Extended Breast Feeding Method
ECA.....	Economic Commission for Africa
EDUATT.....	Education attainment
EPL.....	Europa Publication Limited
FAO.....	Food and Agricultural Organization
FF.....	Ford Foundation
FG.....	Futures Group
FLMZ.....	Family Life Movement of Zambia
FPAB.....	Family Planning Association of Botswana
FPAL.....	Family Planning Association of Liberia

FPAM.....	Family Planning Association of Mauritius
FPAT.....	Family Planning Association of Tanzania
FPMZ.....	Family Planning Movement of Zambia
GDP.....	Gross Domestic Product
GNP.....	Growth National Product
GRR.....	Gross Reproduction Rate
GRZ.....	Government of the Republic of Zambia
HHINCO.....	Household income
ILO.....	International Labour Organization
IMR.....	Infant Mortality Rate
IPFFLP.....	International Population Federation of Family Life Promotion
IPPF.....	International Planned Parenthood Federation
IRDP.....	Integrated Rural Development Project.
IUSSP.....	International Union of Scientific Study of Population.
JWs.....	Jehovah's Witnesses .
KDFPP.....	Kabwe Docus Family Planning Programme.
KDMG.....	Kabwe Docus Mothers Group
LBW.....	Low Birth Weight
LDCs.....	Less Developed Countries
LEOSU.....	Length of stay in urban Areas
LPA.....	Lagos Plan of Action
LPCZ.....	Life Promotion Committee of Zambia
MCHP.....	Maternal Child Health Program
MCHC.....	Maternal and Child Health Care
MWPC.....	Mexico World Population Conference
NAC.....	New Apostolic Church
NATU.....	Natural Increase (As abbreviated for the SAS program in this study).
NC.....	Non-Christians
NCDP.....	National Commission for Development Planning
NCP.....	National Committee on Population
NFNC.....	National Food and Nutrition Commission (NFNC)
NFPAZ.....	National Family Planning Association of Zimbabwe
NFPC.....	Nigerian Family Planning Council
NFPPO.....	National Family Planning and Population Office
NGOs.....	Non-governmental Organizations
NI.....	Natural Increase
NPC.....	National Population Council
NUHSISSZ.....	National Urban Household Size and Income Status Survey of Zambia
OAU.....	Organization for African Unity
ONPFP.....	Office National du Planning Familial et de la Population
PBN.....	Population Bureau of Nigeria
PC.....	Population Council

PCC.....	Population Crisis Committee
PCC.....	President Citizen College (PCC)
PCPD.....	Parliamentary Council on Population and Development
PDUNDIESA.....	Population Division of the United Nations Department of International Economic and Social Affairs
PHC.....	Primary Health Care
PMOs.....	Provincial Medical Officers
POPU.....	Population (mid-1987) (As abbreviated for the SAS program in this study)
PPAZ.....	Planned Parenthood Association of Zambia
PRB.....	Population Reference Bureau
RC.....	Roman Catholic
RCZ.....	Reformed Church in Zambia
UCZ.....	United Church in Zambia and non-Christians
UNIP.....	United National Independence Party
SA.....	Salvation Army
SCPFP.....	Supreme Council of Population and Family Planning
SDA.....	Seventh Day Adventist
SDPs.....	Service Delivery Points
SEAs.....	Standard Enumeration Areas
SIDA.....	Swedish International Development Authority
SNFPMs.....	Scientific Natural Family Planning Methods.
STM.....	Sympto-Thermal Method
TFR.....	Total Fertility Rate
TM.....	Temperature Method
UN.....	United Nations
UNDP.....	United Nations Development Program
UNESCO.....	United Nations Educational Scientific and Cultural Organization
UNFPA.....	United Nations Fund for Population Activities
UNICEF.....	United Nations International Children Emergency Fund
UNZA.....	University of Zambia
UNZAFPWA.....	University of Zambia and Family Planning and Welfare Association
UPP.....	United Progressive Party
US.....	United States
USAID.....	United States Aid for International Development
WAY.....	World Assembly of Youths
WB.....	World Bank
WFS.....	World Fertility Survey
WHO.....	World Health Organization
YCAZ.....	Young Christian Association of Zambia
ZAK.....	Zambian Kwacha
ZAMPOPCOMU.....	Zambia Population Communication

ZCCM.....	Zambia Consolidated Copper Mines
ZCSD.....	Zambia Council for Social Development
ZCTU.....	Zambia Congress of Trade Unions
ZEC.....	Zambia Episcopal Conference
ZEMs.....	Zambia Enroled Midwives
ZENs.....	Zambia Enroled Nurses (ZENs)
ZI.....	Zionist

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CHAPTER ONE

INTRODUCTION

1.1. Introduction

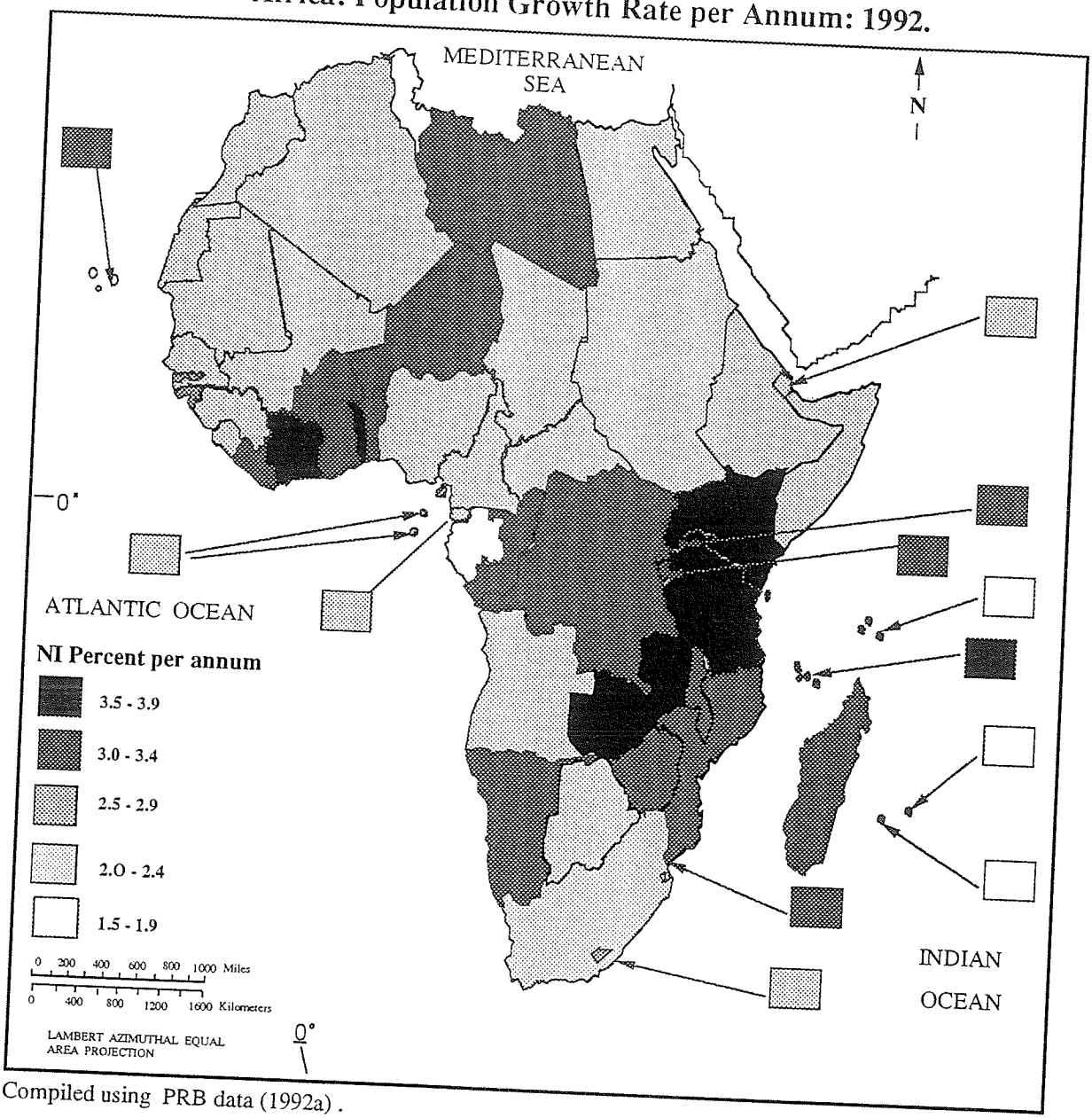
There is no doubt that one of the obstacles to economic development in Africa in general and Zambia in particular is high population growth rate. If current trends do not change significantly degradation of the environment and poverty are likely to increase to worse levels than they are. Efforts by African governments to implement population policies are still meeting with resistance by some individuals and societies.

This study examines population policies in Africa in general and Zambia in particular. The socio-economic and cultural background of resistance to anti-natal attitudes is also examined as it provides some of the reasons for the current status of population policies in Africa. Primary data collected through a survey formed the basis of the analysis of the dilemma pertaining to the implementation of Zambia's population policy. Data for Africa in general and some aspects of Zambia's population policies were derived from secondary sources.

1.2. Realities of population growth in Africa

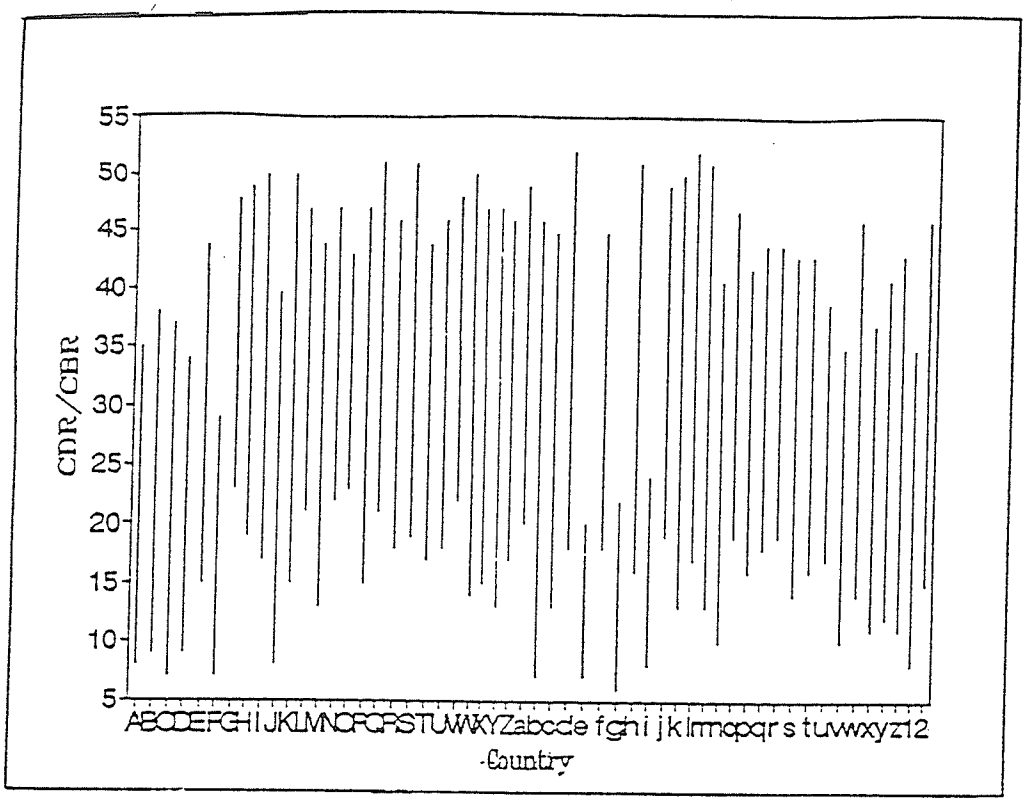
World population growth rates have fallen in the past twenty years from approximately 2.0 percent to 1.7 percent per annum. In contrast, Africa's growth rate has increased from 2.0 percent to 3.0 percent in the same period. Currently, Africa has the world's highest rates of population growth. Of all African countries, 85.2 percent have a natural increase of at least 2.5 percent per annum and above and approximately 50 percent of these have a natural increase ranging from 3.0 to 3.8 percent per annum (PRB, 1992a). Figures 1.1 and 1.2 summarize Africa's current natural increase.

Figure 1.1:
Africa: Population Growth Rate per Annum: 1992.



Compiled using PRB data (1992a) .

Figure 1.2:
Africa: Crude Birth Rates, Crude Death Rates
and Natural Increase: 1992.[1]



Legend to the X axis

A. Algeria	B. Egypt	C. Libya	D. Morocco.
F. Tunisia	G. W/Sahara	H. Benin	I. Burkina Faso.
J. C/Verde	K. C/de'Ivoire	M. Gambia	N. Ghana
O. Guinea	P. G/Bissau	Q. Liberia	R. Mali
S. Maurintania	T. Niger	U. Nigeria	V. Senegal
W. S/Leone	X. Togo	Y. Burundi	Z. Comoros
a. Djibouti	b. Ethiopia	c. Kenya	d. Malawi
e. Mauritius	f. Madagascar	g. Reunion	h. Rwanda
i. Seychelles	j. Somalia	k. Tanzania	l. Uganda
m. Zambia	n. Zimbabwe	o. Angola	p. Cameroon
q. CAR	r. Chad	s. Congo	t. E/Guinea
u. Gabon	v. ST & Princ.	w. Zaire	x. Botswana
y. Lesotho	z. Namibia	1. S/Africa	2. Swaziland.

Source: PRB (1992a).

[1] Note that in Figure 1.2 each vertical line represents NI for individual countries. The upper end of each line when related to the scale on the left of the graph indicates the CBR while the lower end represents CDR. Since the length of each line is equivalent to the difference between CBR and CDR it equals NI; hence CBR - CDR = NI (%).

Zambia, Kenya and Tanzania are among the countries having the highest growth rates on the continent (see Figures 1.1 and 1.2). These high rates are continuing to rise mainly as a result of high Crude Birth Rates (CBRs) while Crude Death Rates (CDRs) are comparatively lower. CDRs declined throughout the world, but a decrease in CBRs, which results from changing socio-economic conditions, has not yet been achieved in many African countries. These growth rates exceed the high rates experienced in certain South and Central American states in the 1950s and 1960s and are some three times higher than the maximum growth rates experienced in West European countries at the height of their demographic transition (*Rogge, 1982*).

Both the drastic decline in CDR since 1950 and the increase in growth rates are attributed to improvements in medical technology, hygiene and feeding standards. More and more children than before the 1950s now live beyond five years.

1.3. Consequences of the demographic structure among African countries

Due to the demographic characteristics outlined above, the population structure of most African countries is characterized by broad-based pyramids where those in the 0-15 age cohort make up well over 40 percent of total population. Such a population structure means that the population will continue growing rapidly as the youthful population ages into the reproductive age cohorts. Rondinelli (*1985*) predicted that growth rates would remain at or near two percent per annum in three North African countries, Algeria, Libya and Morocco, and would increase in most of the sub-Saharan African countries between 1984 and 2000. As can be deduced from Table 1.1, this was a nearly accurate prediction, in that the majority of African countries experienced increases in population growth rate between 1950 and 1992. The increase is likely to continue in Western Sahara, Burkina Faso, Ivory Coast, Gambia, Mauritania, Niger, Nigeria, Senegal, Togo, Burundi, the Comoros, Djibouti, Ethiopia, Chad, Congo, Equatorial Guinea, Sao Tome and Principe, Zaire, Namibia, South Africa, Swaziland, Malawi, Mozambique, Tanzania, Uganda and Zambia.

Table 1.1:
Growth Rate (%) per annum among African countries: 1950-1992.

Country	1950	1985	1992
Group 'A'			
Burkina Faso	1.7	2.7	3.3
Burundi	2.3	2.5	3.2
Cameroon	1.4	2.6	3.2
Cape Verde	2.1	2.9	3.3
Chad	1.7	2.3	2.5
Comoros	2.6	2.9	3.5
Congo	1.9	2.3	2.5
Djibouti	2.1	2.5	2.9
Equatorial Guinea	2.0	2.4	2.9
Ethiopia	1.8	2.6	2.8
Gabon	1.8	2.0	2.3
Gambia	1.2	2.1	2.6
Guinea	1.6	2.5	2.6
Ivory Coast	2.1	3.0	3.6
Lesotho	2.0	2.7	2.9
Malawi	2.2	3.1	3.5
Mauritania	1.7	2.4	2.8
Mozambique	2.1	2.5	2.7
Namibia	2.3	2.9	3.1
Niger	2.3	2.9	3.2
Nigeria	2.2	2.4	3.0
RSA	2.3	2.5	2.6
Senegal	2.3	2.7	2.8
ST Principe	2.0	2.3	2.5
Swaziland	2.3	2.5	2.7
Togo	2.5	3.5	3.7
Uganda	2.5	3.3	3.7
Western Sahara	1.9	2.1	2.7
Zaire	2.4	2.9	3.1
Zambia	**3.4**	**3.5**	**3.8**
Group 'B'			
Angola	2.5	2.8	2.8
CAR	1.2	2.6	2.6
Ghana	2.3	3.2	3.2

Table 1.1: continued.

Country	1950	1985	1992
Group 'B' continued			
Guinea Bissau	1.8	2.0	2.0
Liberia	1.9	3.2	3.2
Madagascar	2.1	3.2	3.2
Somalia	2.3	2.9	2.9
Tanzania	2.3	3.5	3.5
Group 'C'			
Algeria	3.0	3.1	2.4
Benin	2.1	3.3	3.1
Botswana	3.3	3.7	2.7
Kenya	2.3	4.1	3.7
Libya	3.0	3.1	3.0
Morocco	3.0	3.3	2.4
Rwanda	2.1	4.1	3.4
Sierra Leone	2.2	2.8	2.6
Sudan	2.2	3.1	2.9
Zimbabwe	2.5	3.5	3.1
Group 'D'			
Egypt	2.4	2.2	2.4
Mali	3.0	2.8	3.0
Mauritius	2.5	1.3	1.5
Group 'E'			
Reunion	2.5	1.9	1.8
Seychelles	2.4	1.8	1.6
Tunisia	2.4	2.3	2.2

Group 'A': NI has increased continually since 1950.
Group 'B': NI increased between 1950 and 1985 but remained constant in the 1985-1992 period.
Group 'C': NI increased between 1950 and 1985 but declined in the 1985-1992 period.
Group 'D': NI declined between 1950 and 1985 but increased in the 1985-1992 period.
Group 'E': NI declined continually since 1950.
Sources: Various UNFPA country reports of Mission Assessments on needs for

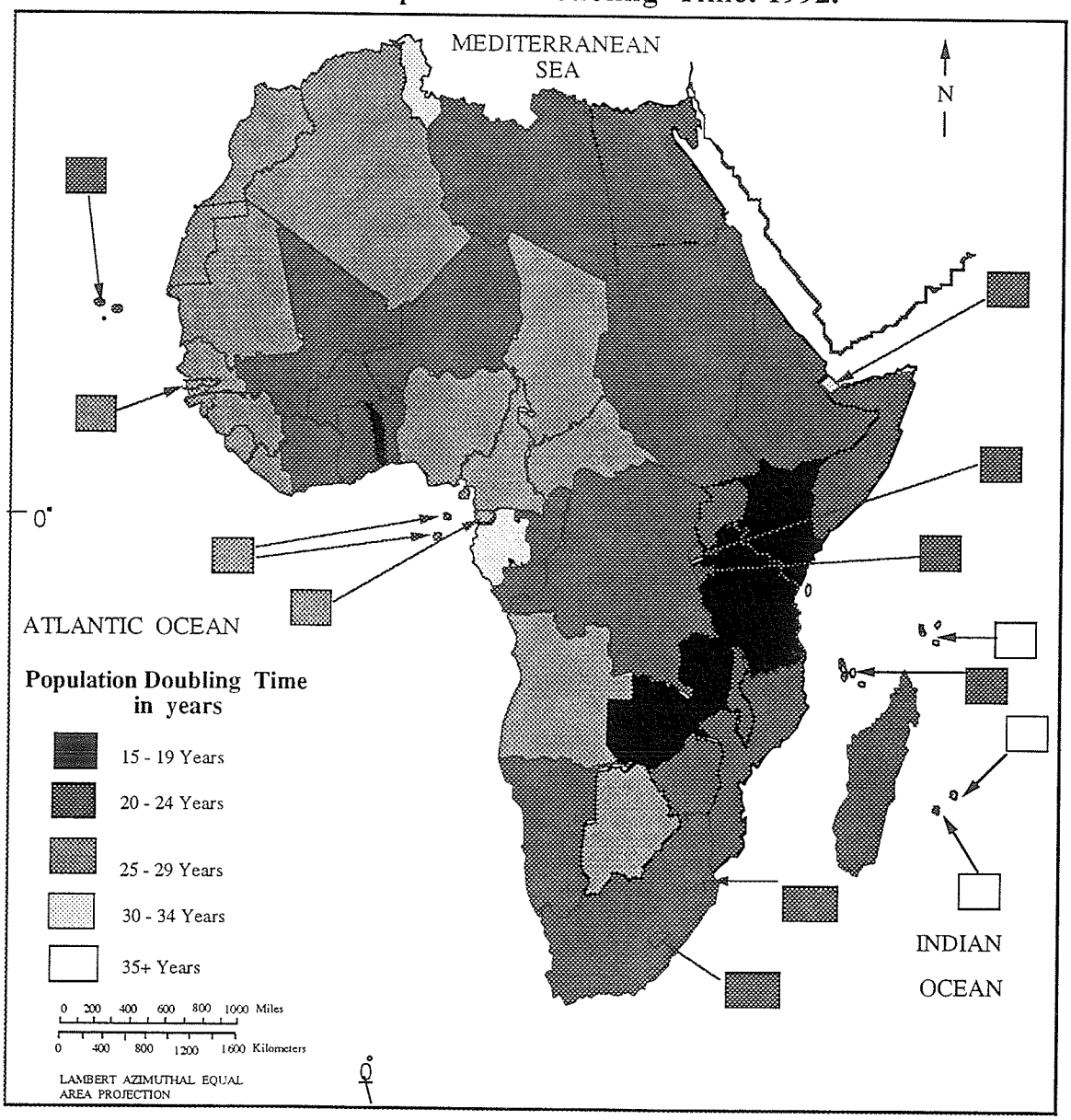
population assistance (*1978a-1987m*); UN (*1987b; 1989b; 1990*); PRB (*1992a*); Futures group (*1983-1988*).

If these growth rates remain high, population will double in less than 20 years in Ivory Coast, Kenya, Tanzania, Togo and Zambia which consist of 10.5 percent of Africa's total population; between 20 and 24 years in twenty-seven countries inhabited by 45.6 percent of Africa's total population; between 25 and 29 years in seventeen countries which account for 36.0 percent of Africa's total population; between 30 and 34 years in Gabon and Tunisia which together consist of 7.5 percent of Africa's total population; and in over 34 years in Mauritius, Reunion and Seychelles which together are inhabited by 0.4 percent of Africa's total population and are small islands (see Figure 1.3). The likelihood of significant declines in fertility in the near future appears very slim in most African countries. Some exceptions to this are Botswana, Mauritius, Reunion, Tunisia and Zimbabwe which are genuinely making concerted efforts to reduce their growth rate through anti-natalist policies.

The populations of most African countries will be much larger over the next generation even if CBR decline. This continued growth over the next generation is due to the age composition of the population. At any given time, a relatively small proportion of the population end their reproductive years, while a much larger proportion enter their reproductive years. In fifteen years, today's children will be in their reproductive years and contribute to the large bulge in the age pyramid. Even if couples had only two children each from now on, population would still continue to grow. Thus, an irresistible momentum for future growth is built into the age structure of the population.

The short-term problem facing most African states is that they cannot adequately provide their populations with the essential social services. If the economies of most African countries remain stagnant and continue declining in some (Ethiopia, Somalia and Zambia) the impact of high growth rates upon rates of socio-economic development will become even more severe.

Figure 1.3:
Africa: Population Doubling Time: 1992.



Compiled using PRB data (1992a)

1.4. Perception of growth rates and population policy

Since the 1974 Bucharest World Population Conference a number of African governments have accepted the notion that high population growth rates are a negative factor in economic development but some have not actively supported family planning programs. Rogge (*1982*) and Goliber (*1989*) among others, have contended that African governments have taken quite diverse positions on population policies, ranging from totally pronatalist to committed antinatalist. Others have had no official policy whatsoever.

An examination of the literature led me to group African states into four categories:

a) Anti-natalist countries: These are countries which recognize the need to limit population growth for demographic reasons. Their governments sponsor and finance family planning programs. At the time of the Bucharest World Population Conference, only Egypt, Ghana, Kenya, Mauritius, Morocco, and Tunisia belonged in this category (*UN, 1989*a; 1989b). As will be indicated in Chapter Five, a few more countries have joined this group since then.

b) Pro-natalist countries: These are countries which prohibit anti-natalist services or even information on contraception. Gabon and Libya are the best examples. These countries maintain that their growth rates are too low to be reduced.

c) Countries with no discernible policy but which are developing anti-natalist sentiments: These states have no discernible official policy. However, the interest and efforts of private agencies are crucial to the availability or non-availability of family planning services. Governments give non-demographic objectives for providing family planning services, including the improvement of the status of women, improving infants' and mothers' health, and the better provision of education opportunities. Many African countries are still in this category but Nigeria and Zambia have now moved into the first group (*Fadayomi, 1986; GRZ, 1989b*).

d) Countries with no discernible policy but which have pro-natalist sentiments: Countries in this group may not have officially adopted pro-natalist population policies but maintain pro-natal attitudes. They do not necessarily prohibit the availability of anti-

natal services, which may be provided by non-government organizations, but neither do they support them. Chad, Ivory Coast, Mauritania, Senegal and Sudan are among the countries in this group.

Available data indicate that before the Bucharest World Population Conference very few countries supported anti-natalist policies, maintaining that they had more than enough land to support their populations. The consensus was that the rudimentary technologies employed by subsistence farmers (e.g. hand-hoeing) meant that the amount of land that could be farmed was limited by the labour supply. In their view labour shortage rather than high population growth rate held back their economies. The increase in population was encouraged because more workers could bring new land into production or farm existing land more effectively (*Jaffe, 1974; Frinkle and Crane, 1975; Hofsten, 1980a; Demeney, 1984*).

Most pronatal countries maintained that population problems emanated from inequality in the distribution of global wealth and resources, which resulted in poverty, poor health, high mortality and lack of education. Some favoured rapid population growth on the assumption that it was a positive force for economic and social development. Countries like Ghana, Guinea and Tanzania which adopted a Marxist ideology immediately after attaining independence, maintained that population problems never existed and that Third World countries were facing a population-resource imbalance because of the capitalist mode of production. Colonialism, neo-colonialism and imperialism also shouldered the blame for population problems in the Third World in general and in Africa in particular. In the view of Marxist countries, peripheral underdeveloped nations were dominated by a huge developed centre composed of Europe and North America which plundered their resources. To date, a number of African countries strongly maintain that they are poor not because of high population growth rates but because of regular income loss by repayment of debts and unfavourable foreign trade. Souza and Okojo (*1974*) summarizes this stand by indicating that:

> They see the process of poverty as part of a worldwide network of intrusion by the rich countries into the poor, of neo-imperialist penetration which forecloses most opportunities for development. They emphasize that the

> solution to high growth rate lies in the proper social structure and the redistribution of world wealth from the rich to the poor countries through a new international economic order (*Souza and Okojo, 1974:2*).

Although no African country had a discernible pro-natalist policy at the end of the 1960s, Cameroon, CAR, Chad, Equatorial Guinea, Ethiopia, Gabon, Guinea-Bissau, Libya, Malagasy, Malawi, Mali, Mauritania, Niger, Rwanda and Senegal each had un-official pro-natal sentiments. By the 1974 World Population Conference a number of the countries in the Sahel region - namely, Chad, Mali and Mauritania mostly former French colonies - started including pro-natal statements in their national development plans (*UN, 1987b; 1989b; 1990*). This reflects the influence of French pro-natalist policies on some African countries.

However, by the time of the 1984 Mexico World Population Conference, a number of developing countries had changed their pro-natal position in order to boost economic growth. Since then, several more countries have acknowledged the need for curbing rapid population growth. All the countries in the Magreb, except Libya, and most of the countries in sub-Saharan Africa accept that the population problem now goes beyond merely a pre-industrial Malthusian race between food and population, but is a complex multifaceted interdisciplinary structure of social, economic, biological, political and environmental factors (*Demeney, 1985*).

Although the majority of African countries have now recognized that their population growth rates are too high relative to available resources, many except Algeria, Botswana, Egypt, Ghana, Kenya, Liberia, Mauritius, Morocco, Nigeria, Reunion, Rwanda, Tanzania, Tunisia, Zambia and Zimbabwe have been reluctant to either design and implement relevant policies or actively support family planning programs which would affect population trends. Some of the countries which have definite official discernible anti-natal policies have not performed as well as Mauritius and Tunisia by reducing their growth rates from above 3 percent to below 2.2 per annum.

To date only six countries - Chad, Ivory Coast, Gabon, Guinea-Bissau, Libya and Mauritania, whose populations together account for about 4.3 percent of Africa's population - still take pro-natalist positions or show virtually no support for family

planning (*UN, 1990*). In 1974 this list also included Cameroon and Central African Republic, Malawi, Malagasy and Rwanda. Therefore, there has been some improvement in the progress of anti-natalism in Africa.

1.5. Rationale of this study

With high population growth rates, escalating rural to urban migration, environmental degradation and deteriorating economies, a number of African countries need to think more positively than ever about the type of population policies they should adopt. Consequently, attempts at analysing population policies should go beyond mere identification and classification, and should explore the circumstances which motivate countries in adopting them. Geographers must play an active role in studying the variations in population policies and their determinants. Such studies would be very helpful to planners, especially in Africa.

If anti-natal population policies are not seriously implemented, a number of African countries will increasingly face problems of development resulting from their high population growth rates and low levels of economic expansion. The majority of the world's poorest countries are now in Africa, and of the total 654 million Africans, 209.8 million (32.1 percent) live in countries with a per capita Gross National Product (GNP) of less than US $300 per annum (*PRB 1992a*). Another 276 million (42.2 percent) live in countries with a capita GNP of between US $300 and US $880 per annum (*PRB, 1992a*). Only 168.2 million (25.7 percent) live in countries with a per capita GNP of more than US $800.00. Despite this gloomy economic situation, most of these countries' population growth rates have remained at or near three percent per annum.

What is more disturbing is that Africa's population is expected to continue to increase rapidly while economic growth remains sluggish. There is enough evidence to show that economic conditions in many African countries have deteriorated in the past few years. This trend has also slowed social progress. The World Bank (*1991*) asserts that during the 1970s and 1980s, disposable per capita income in sub-Saharan countries declined remarkably, with the exception of Nigeria, an oil producing country. Gross

Domestic Product (GDP) has hardly grown in most countries.

Approximately half of national income in most African countries is from agriculture. Between 50 and 80 percent of the economically active population in each of these countries is engaged in agricultural production (*World Bank, 1991*). African countries would logically benefit by improving their agriculture sector but in most countries, the agricultural sector has been declining. A decline in agriculture causes a decline in capital formation in other sectors and in the near stagnation in overall development (*Meire, 1984; Herrick and Kindleberger (1983*). Employment opportunities have also declined because they depend on the expansion of the agricultural industry. Growing unemployment reduces both net cash incomes for the entire population and the demand for industrial goods, which is essential for industrial expansion.

This situation is partially caused by rapid population growth since approximately 50 percent of the population is under the age of 15 years and therefore of nominal school age. This large proportion of the nominal age group inflates enrolment numbers. To overcome this problem would require a doubling in the number of teachers every 15-20 years. This is difficult with declining capital expenditure by African governments on education. The problem is more acute at higher levels of the education system. A very small proportion of primary school leavers are able to secure places in secondary schools and hence creating a truncated structure, which is partly attributed to shortage of infrastructure and personnel (see Table 1.2). Most African countries, for example, currently lack enough qualified teachers hence the average number of pupils per teacher is very high. The situation has worsened in recent years resulting in reduction in the quality of education as teachers are less able to give individual attention to their pupils.

In African countries the economically active age group, which is defined as the population aged 15 to 64 ranges from 48 to 60 percent (*World Bank, 1984d; UN, 1987b; 1989b; 1990*). Overall, employment trends for this age group are rather disturbing in most African countries. Available data show that the working age group is growing more rapidly than the number of jobs created. As population continues to increase, the working age group also grows. In Kenya, Malawi, Rwanda, Sudan and Tanzania for example, the working age group by 3.5, 2.6, 2.8, 2.8 and 2.9 percent respectively between 1980 and

1985 (*World Bank, 1987*).

Table 1.2:
Percentage of age group enrolled in education and primary students/teacher ratio among African countries as compared to selected developed countries: 1965-1985.

	Primary		Secondary		Tertiary		Primary Students/ teacher ratio.	
Country	**1965**	**1987**	**1965**	**1987**	**1965**	**1987**	**1965**	**1987**
North Africa								
Algeria	60	97	7	55	1	9	43	29
Egypt	75	90	26	69	7	20	39	40
Libya	78	71	14	-	1	10	31	35
Morocco	57	71	11	37	1	10	39	26
Sudan	29	49	4	20	1	2	48	55
Tunisia	91	116	16	40	2	6	56	31
W.Sahara	-	-	-	-	-	-	-	-
West Africa								
Benin	34	63	3	16	0	3	43	33
B/Faso	12	32	1	6	0	1	47	65
C/Verde	-	-	-	-	-	-	-	-
I/Coast	60	70	6	19	0	-	47	50
Gambia	21	-	-	-	-	-	-	-
Ghana	69	71	13	40	1	2	32	24
Guinea	31	30	5	9	0	1	-	-
G/Bissau	26	-	-	-	-	-	-	-
Liberia	41	35	5	-	1	3	-	-
Mauritania	13	52	1	16	-	3	57	58
West Africa								
Niger	11	29	1	6	-	1	42	45
Nigeria	32	77	5	-	0	-	33	35
Senegal	40	60	7	15	1	3	43	54
S/Leone	29	-	5	-	0	-	32	35
Togo	55	101	5	24	0	3	50	52

Table 1.2: continued.

	Primary		Secondary		Tertiary		Primary Students/ teacher ratio.	
Country	**1965**	**1987**	**1965**	**1987**	**1965**	**1987**	**1965**	**1987**
East Africa								
Burundi	26	67	1	4	0	1	40	42
Comoros	24	-	-	-	-	-	-	-
Djibouti	-	-	-	-	-	-	-	-
Ethiopia	11	37	2	15	0	1	41	44
Kenya	54	96	4	23	0	1	34	38
Madagascar	65	-	8	21	1	4	71	69
Malawi	44	66	2	4	0	1	-	-
Mali	24	23	4	6	0	1	46	38
Mauritius	101	106	26	51	3	1	34	23
Mozambique	37	68	3	5	0	0	-	-
Reunion	148	-	-	-	-	-	-	-
Rwanda	53	67	2	6	0	0	67	65
Seychelles	-	-	-	-	-	-	-	-
Somalia	10	15	2	9	0	3	-	-
Tanzania	32	66	2	4	0	0	52	33
Uganda	67	70	4	13	0	1	-	-
Zambia	**53**	**97**	**7**	**17**	**-**	**1**	**53**	**55**
Zimbabwe	110	136	6	45	0	4	39	45
Middle Africa								
Angola	39	-	5	-	0	-	-	-
Cameroon	94	109	5	26	0	3	47	51
CAR	56	66	2	12	-	1	54	63
Chad	48	51	6	-	0	83	-	-
Congo	114	-	10	-	1	7	60	62
Middle Africa								
E/Guinea	67	-	-	-	-	-	-	-
Gabon	134	-	11	-	-	5	-	-
S/Principe	-	-	-	-	-	-	-	-
Zaire	70	76	5	22	0	2	37	42

Table 1.2: continued.

	Primary		Secondary		Tertiary		Primary Students/ teacher ratio.	
Country	1965	1987	1965	1987	1965	1987	1965	1987
South Africa								
Botswana	65	114	3	32	-	3	40	45
Lesotho	94	113	4	-	0	-	57	59
Namibia	-	-	-	-	-	-	-	-
S/Africa	90	-	15	-	4	-	-	-
Swaziland	74	85	-	-	-	-	-	-
Selected Developed countries								
Canada	105	105	56	104	26	28	26	23
France	134	113	56	92	18	31	30	25
Italy	112	95	47	75	11	24	22	21
Sweden	95	100	62	91	13	31	20	20

Sources: World Bank (*1986a; 1987; 1989; 1990*), Individual Futures' Group country reports on Population and Development (*1980-1988*).

Thus, African governments are concerned with being able to create remunerative employment for young people entering the labour market. This problem will become more acute as the demand for formal sector employment increases. As these young people move from school to the labour force they expect to find remunerative employment. Few are willing to return to the subsistence sector, which, in any event, would be an under-utilization of the skills derived from their education. Consequently, many young girls, are forced into early marriage because of the lack of alternatives.

High population growth rates have also had negative effects on savings and productive capacity of a number of African nations, since a large portion of any nation's investments have been on health, education and housing, which are not directly

productive. A high youth dependency ratio strains the resources of individual households since children must be supported until they complete their education and secure employment or until they marry.

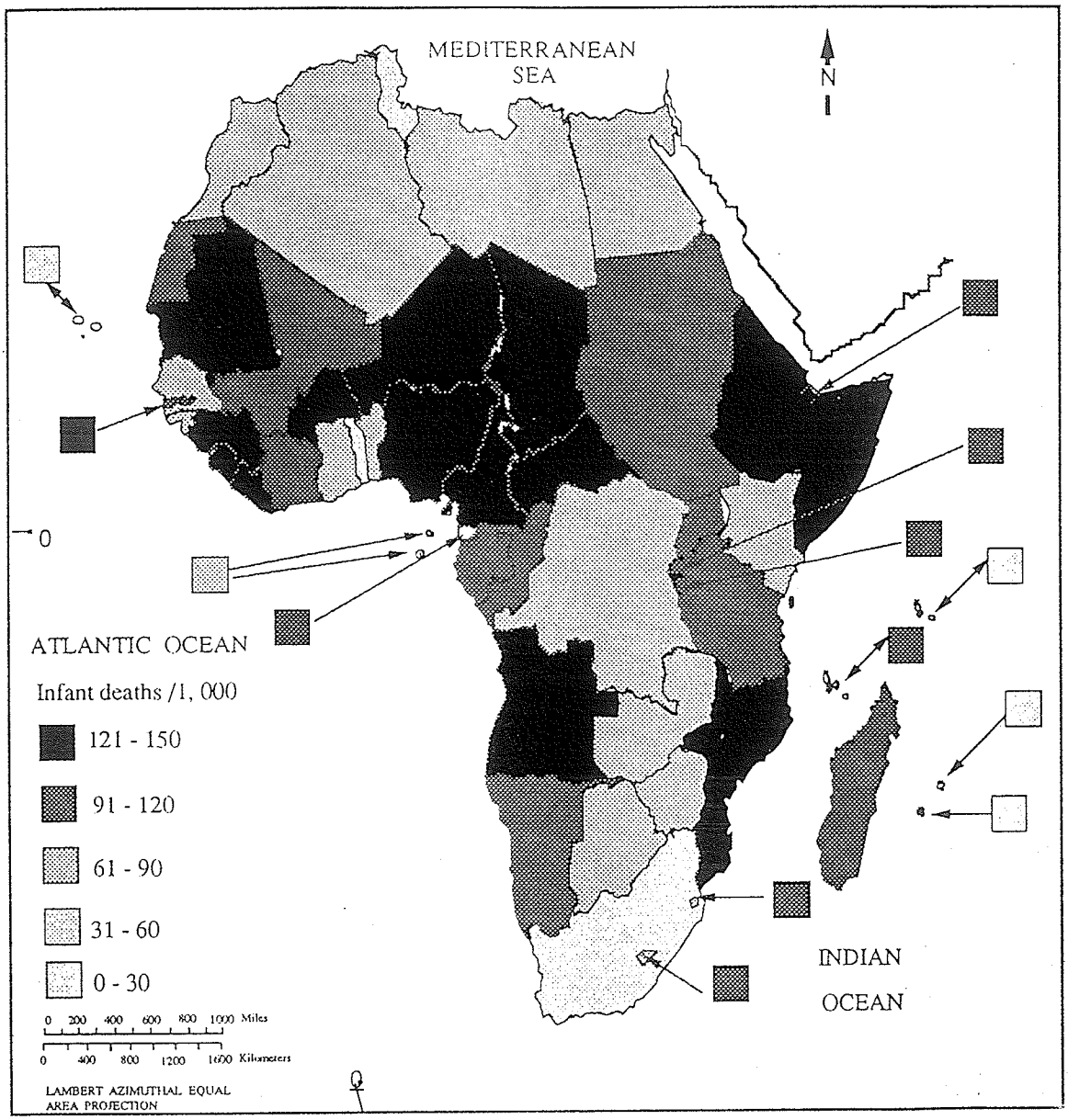
The improvement of health facilities is also affected by rapid population growth in at least three ways. Firstly, high rates of sickness and death among mothers and children tend to be related to high fertility. Secondly, the rate of population growth determines the number of women in their childbearing years and children under the age of five; these segments of the population are at highest risk and thus most likely to require health services. Thirdly, high population growth rates also increase the need for health infrastructure, personnel and funding.

Maternal, infant and child morbidity remains high in most African countries south of the Sahara. For example, African infant mortality rates remain among the world's highest, despite some notable recent declines. An average of 79 of every 1,000 infants die before attaining the age of one. By way of comparison, the infant mortality rates for other regions are 68 per 1,000 for Asia, 52 per 1,000 for Latin America, 24 per 1,000 for Oceania, 11/1,000 for Europe and 9/1,000 for North America (*PRB, 1992*). Figure 1.4 illustrates different categories within which each African country falls in terms of IMR.

The level of infant mortality is also related to the age of the mother at the time of the child's birth. The optimal period in which a woman should bear children is between 20 and 35. Pregnancies to women under the age of 20 or over the age of 35, especially if repeated at short intervals, increase the risk of death to both mother and child. The risk is further aggravated by poor health conditions, malnutrition, or lack of access to pre-natal care. In a number of African countries, more than 40 percent of all births are to women under the age of 20 or over the age of 35. Most of the births are closely spaced. Interval of pregnancies is very important to the health of both mother and child. Incidence of fetal loss, stillbirth, prematurity and early childhood death are very high for birth intervals of less than one year and, to a lesser degree birth intervals of between one year and two years. When a mother is very young and birth intervals are short, the risk to a child is even greater. Frequent pregnancies also tend to exacerbate maternal malnutrition, which in turn leads to a reduction in the volume of breast milk available for a baby. A short

interval may also lead to a premature cessation in breast feeding, which is an important contributor to childhood malnutrition.

Figure 1.4:
Africa: Infant Mortality Rate: 1992.



Compiled using PRB data (1992a).

Infant mortality is also related to the birth sequence and the preceding number of births. It is high for the first birth, a pattern associated with the fact that first births are often to young women. Infant mortality is then much lower for second, third and fourth children but rises steeply for fifth and later births (*Futures Group, 1989e*). Since African women have on average 6.1 births (*PRB, 1992a*) the health risks associated with a large number of previous births are considerable. This relationship between high fertility and high rates of morbidity and mortality for young children appears to be stronger in more impoverished social and economic settings where fertility rates are relatively high.

Another area of concern is agricultural production. Most African countries have two major problems related to agricultural production. Firstly, although they have enough arable land to be self-supporting in food and other raw materials, production techniques are limited. Production techniques can be improved by providing adequate extension services and agricultural inputs to peasant farmers who form the largest proportion of farming communities and provide the bulk of local food and raw materials to various industries. But any county's ability to provide such support requires investments in training of agricultural personnel and manufacturing of agricultural inputs on a scale that is not feasible in most of African countries, at least in the short run. Secondly, the rate of population growth sets the minimum target for food production if self-sufficiency is to be attained. Many African countries have the potential to feed populations much larger than their present ones; nonetheless, food production must continuously increase at a pace equal to or greater than the rate of population growth if each nation is to achieve its goals of food self-sufficiency and security. Unfortunately, given current production and marketing systems, this is not possible in a number of African countries. Per capita output of food has, instead, been declining.

All the above problems have resulted in deterioration of the standards of living in most African countries. At the family level, as per capita income falls (partly due to growing families), parents find it more and more difficult to provide their dependents with the essentials of education, housing and health care. Thus, the onus of maintaining high standards of living falls on the public sector, which is forced to heavily subsidise these needs. The problem becomes a vicious circle as the government is forced to cut

expenditures on other programs to provide for social needs. The problem of high fertility is, therefore, not a problem of individual families alone.

There is no single solution to the problems outlined above. Nevertheless, it is believed that explicit anti-natal population policies would help alleviate some of them. A decline in the dependency ratio may have favourable consequences at both the household and national levels. More could be invested per child for the improvement of nutrition, schooling, health and other services.

Information on progress in population policies in Africa is scanty, and cross-national studies of population policies, such as this one, can contribute to the enrichment of data sources. The expansion of this field requires not only the differentiation of policies, but also the identification of policy intentions and impacts. This has not been adequately done for Africa. There is need for research to establish which of the many forces affecting fertility behaviour government and non-government organizations should focus on. This is only possible if studies are able to determine the factors that lead to the adoption of population policies. In most instances, these include awareness among individuals and governments of population levels and trends and pragmatic as opposed to dogmatic approaches to population problems. Forces which impede the smooth implementation of population policy need to be identified and analyzed.

Although it might rightly be argued that Zambia is not representative of all African countries, its demographic situation, especially its high fertility, has characteristics which are typical of most sub-Saharan countries. It is necessary to investigate the steps the Zambian government has taken in trying to formulate and implement a population policy. Most important, it is also necessary to identify the problems the Zambian government is likely to encounter in implementing its newly adopted policy.

This study is a contribution to the existing literature, especially as it puts the Zambian policy into the African context. As well as helping Zambian planners to decide how to apportion resources for population activities, this study will also help readers to appreciate why the majority of African countries have lagged behind in the adoption and implementation of population policies despite their high growth rates and declining economies.

Sensitive issues which might affect the smooth implementation of the population policy which Zambia adopted on May 17, 1989 are highlighted. Results from interviews carried out in selected Zambian rural and urban areas will enlighten planners and other readers of the unmet family planning needs among the Zambian population. This being the first comprehensive study on Zambia's population policies, it will be a background for subsequent studies. It is hoped that both negative and positive lessons from other African countries will be important guidelines for the Zambian planners.

1.6. Organization of the thesis

This thesis contains seven additional chapters. Literature related to this thesis is reviewed in Chapter Two. Specific objectives and working hypothesis, which were derived from the reviewed literature are presented in this chapter. Methods for collecting, analysing and presenting data used in this study are presented in Chapter Three. Chapter Four reviews pro-natalist policies in Africa. Pro-natalist countries are identified and explanations for pro-natalist stances taken by the countries concerned are discussed in this chapter. Chapter Five concentrates on the identification of anti-natalist approaches in Africa. Factors which have induced countries to take this stance are explored. African countries which have no explicit official population policies are also identified and discussed and reasons for their approaches to population problems are briefly analyzed. Chapter Six looks at the demographic and socio-economic situation in Zambia and determinants of the population and economic trends since the 1960s are examined. Among other things, this chapter analyses determinants of the demographic and population policy situations since independence. Chapter Seven critically analyses foreseen impediments to the implementation of a population policy which was adopted on May 17, 1989. Finally, conclusions and recommendations are drawn in Chapter Eight.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

Before the 1974 Bucharest World Population conference there was no general agreement as to what constituted a comprehensive *population policy* or what its content would be (*Schroeder, 1975*). The concept of population policy was too broad and encompassed many meanings. This implied that there were many definitions of *population policy* as there were sovereign nations. The problem of definition was further amplified when pronatal or anti-natalist policies were implemented by government without being officially declared as policies. With this in mind, a review of literature is undertaken to explore the extent and limits of population policies.

2.2. Extent and limits of population policies

The UN defines *population policy* as "efforts to affect the size, structure, distribution or characteristics of population" (*UN, 1987*). This definition can be broadly interpreted to mean efforts to regulate economic and social conditions which are likely to have demographic consequences. The UN (*1987*) argues that a national population policy is essentially a response of a government to changing demographic, economic or social conditions. Since individual countries perceive problems differently, the content and purpose of any population policy can be viewed either narrowly or broadly. Consequently, the obvious problem is that of classifying population policies. The situation becomes more confusing when *policy* is identified with *programs* and the two terms are used interchangeably. Attempts to clarify the situation have indicated that *population policy* refers to the adoption of an explicit set of objectives by a government; while *population programs* include the means and measures devised to achieve the intended objectives (*Schroeder, 1975; UN, 1981; Myrdal, 1987*). In 1974, the UN World Population Conference took the first steps towards a universal definition of *population*

policy. Three possible strategies were identified:

1. Explicit population policies, aimed at directly influencing demographic variables are adopted. Under this situation a government is compelled to spearhead, by disseminating family planning information, as well as support population programs.[2]

2. Social and economic policies which indirectly influence variables such as tax laws, urban and rural development schemes, health, welfare, public education and income redistribution programs are adopted. The adption of such programs can be achieved in the absence of an official population policy.

3. A government resolutely resists the adoption of any over-all population policy which is in itself a population stance. Demeney (*1984*), Heckel, (*1986*) and Myrdal (*1987*) regard this as a traditional pro-natal position.

Whatever population policy is selected, it is rare for any government to adopt it abruptly. Rather, a series of laws are enacted over a period of time and a variety of social policies in response to specific demographic and social conditions are promulgated. A viable national population policy can, therefore, stem only from the decision of a government to deal with its own population situation, and to devise solutions to problems on the basis of its perception of national needs. The degree to which governments are able or willing to deal with population problems depends largely on their internal social and political conditions. The measures adopted by countries vary in form, content, and intensity in both time and space.

It should be emphasized that it is much easier to adopt and implement policies aimed at reducing mortality than those aimed at reducing fertility. This is because human beings are naturally willing to prolong life. On the other hand, control of fertility is difficult because to a larger extent it affects individual choice. Regulation of births, if conducted through official policies, touches intensely on personal attitudes and

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[2] Demeny (1984), UN (1981) and Myrdal (1987) also argue that a government may choose to issue a carefully prepared statement of population policy without creating a program structure to carry it out.

relationships by affecting either individual partners' or deeply rooted social norms. In certain situations they also involve strongly held religious beliefs and ethical issues. It is worth adding that the values that parents and families set on having children *vis a vis* the cost of raising them, especially in subsistence agrarian economies, also play a very important role as constraints in the control of fertility (*Espenshade, 1977; McNicoll, 1984; Caldwell and Caldwell, 1985; 1987).*

During the 19th century there was bitter confrontation between the advocates and adversaries of Malthusianism (*Petersen, 1964; 1969; 1988; Polgar, 1971; Veil, 1978; McQillan, 1979*). Stycos (*1968*) argues that opposition to family planning among decision makers in Latin America stems primarily from three overlapping sources, namely the church, marxists and nationalists.

Veil (*1978*) argues that issues outlined above this raise a number of questions, namely:

. is population policy a legitimate concern of the state?

. what real objectives are silhouetted against the backdrop of population goals? . to what other goals are population policy subordinated?

. in the case of conflict among objectives, how does one measure their relative importance? and

. in which other ways can a national policy be entirely consistent in terms of its population objectives?

Related to these questions is the fact that there are considerable problems associated with the methods used in pursuing population policy objectives, with respect both to their efficacy and to their legitimacy. Even when a population policy has been adopted, fresh questions arise, namely:

. to what extent can the state provide incentives or be repressive?

. how far can the state go without infringing on the basic rights of the individuals? and

. can the end, in certain circumstances at least, justify the means, in the name of efficacy and necessity?

Any government wishing to adopt and implement a population policy must address these questions.

Caldwell (*1980a*; *1986*), Myrdal (*1987*), Demeny (*1988*) and Wrigley (*1988*) insist that an educated and a well informed public is important in any government's efforts to implement a population policy. But as, Berelson and Lieberson., (*1979*), Bondestam (*1980*) and Hammel (*1990*) emphasize, the very idea of the state's intervention in the area of reproduction, considered to belong to the private domain of couples, poses a problem. Unless the most basic rights of the individual are rejected, the state will never be able to force individuals to procreate against their will. This view is strongly supported by the 1948 United Nations universal declaration of human rights which emphasizes that "All human beings, at birth and throughout their lives, are free and share equally the basic human rights to life, liberty, property and raising a family." The implication of this declaration is that any anti-natalist action by the state therefore presents a dilemma. It must avoid offending the profound convictions of a segment of a population, yet in so doing, by the multiplicity of laws required in different areas, it runs the risk of introducing inconsistent and even conflicting legislations. This is a more serious problem in many African countries where the traditional culture which emphasizes the importance of a large family still prevails than it is in the west where large families are not valued any more.

The foregoing implies that there are different views about the effect of population growth on the well-being of people in any society. These can be analyzed within the context of the demographic transition theory.

2.3. The demographic transition theory.

Population policies rest primarily on a body of observations and explanations known as demographic transition theory. Demographic transition is a process of permanent change in a society's population from high to low vital rates. It is a process with four major stages each with a beginning, middle, and end. Keeping catastrophes such as war constant, once a society's population moves from one stage of the process to the next it does not revert to an earlier stage. The demographic transition theory has

been reconsidered by a number of scholars. Caldwell (*1982*) testifies that the modern demographic theory was born almost in mature form in a paper written by Frank Notestein in 1945 in which he managed to offer a two fold explanation (social and economic) for why fertility had began to decline in those regions it did.

In 1980 Caldwell restated the demographic transition in order to incorporate the role of culture in the regulation of fertility in developing countries (*Caldwell, 1980b*). Developing this theme further, Caldwell (*1982*) contends that there are only two types of fertility regimes; one in which no economic gain exist to individuals from restricting their fertility and another where there is eventual economic gain from such restriction. Caldwell adopts this form of demographic transition theory in his discussion of the fertility situation in sub-Saharan Africa. He argues that future decline in fertility will largely depend on the reversal of relative magnitudes of costs and benefits of children. His *wealth flow* theory stresses that in Africa, wealth flows from children to adults and that the direction of inter-generation wealth flows are a function of two modes of production, namely, familial and capitalist. Since children are economically beneficial to their parents as the flow of wealth is in favour of parents within the familial mode of production, the norm is to have a large family. Caldwell further believes that in subsistence economies, while children are producers for the market and household consumption, they also provide subsistence services to the older people. Most elders in these societies receive economic gain which is believed to increase with family size.

Caldwell indicates that under the capitalist system the reverse is the case. Production is outside the family unit and children no longer significantly contribute to production. Family nucleation and westernization are the factors that will eventually trigger fertility decline in sub-Saharan Africa. Caldwell seems not to agree with the notion advanced by Davis (*1949*) and Stolnitz (*1964*) who attribute high fertility in traditional societies of the developing countries to lack of rational family planning among parents. Caldwell (*1982*) argues that maximum and minimum family sizes in these societies are determined by personal, social, and physiological reasons. As a consequence of this they will also move from a condition of high mortality and fertility to low

mortality and fertility followed by decrease in population growth, if not replaced by immigrants, as the aged die off. Stolnitz (*1964*), Sauvy (*1969*) and Caldwell (*1982*) describe the demographic transition as the most sweeping and best-documented historical trend of modern times.

Since the conventional wisdom of this theory has had a deep impact on the work programs of international organizations and anti-natalist decisions by governments to derive their guidelines from this theory an examination of each of the four stages of the demographic transition is conducted below.

The main-stream arguments of the original demographic transition theory are that fertility is high in poor, traditional societies because of high mortality, the lack of opportunities for individual advancement, and the high economic value of children. It is believed that all these change with improvement in education, standard of living and the status of women.

Freeman et al., (*1959*) note that macro-development variables, including literacy, urbanization, industrialization and improved communication, encouraged people in Europe during the 19th century to opt for smaller numbers of children. Because of such changes, the cost of children increased due to the rise in the cost of education and standard of living, while the labour utility of children was reduced. Parents developed new aspirations which could be more easily attained if they had fewer children. Stolnitz (*1964*) observed that due to urbanization during the transition period, large numbers of children became costly. They brought less income to parents and interfered with the earning capacity of their parents, especially their mothers. This in turn motivated parents to have fewer children. These arguments become clearer as each stage of the demographic transition is examined in the next four sections.

2.3.1. Stage I of demographic transition

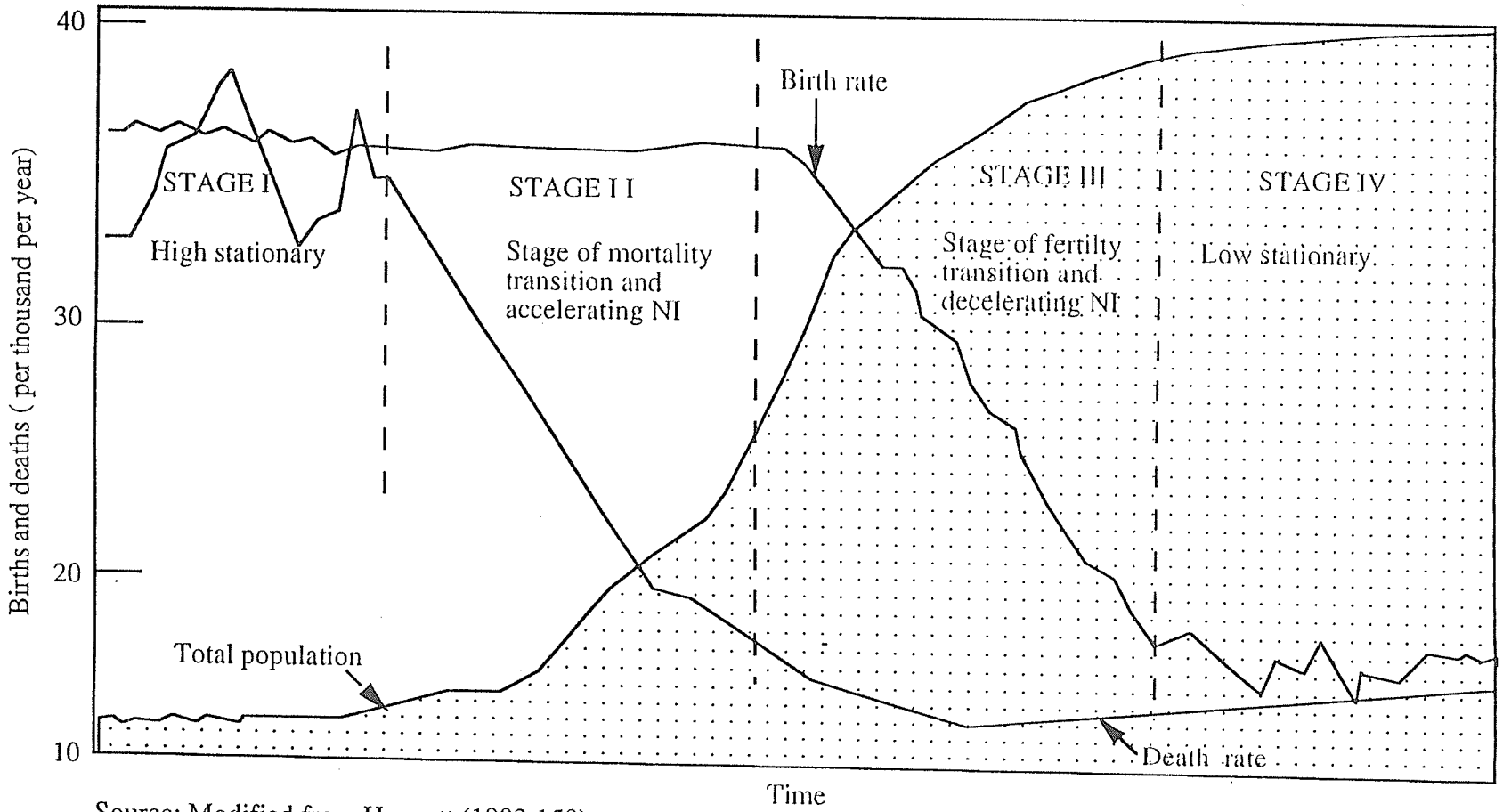
Stage I, which is the pre-transitional stage, consists of high CBRs and high CDRs. Standards of living are very low, and population change is primarily a function of mortality. Population increases when food is plentiful and decreases when food is scarce. Fluctuating CDRs are also a function of epidemic diseases, and death rates are also

affected by wars. This is the stage where Malthus's three positive checks - wars, famine and pestilence are dominant (*Malthus, 1890; Petersen, 1964*). Survival rates of infants and children are low and consequently families have a large number of babies to ensure some survive to adulthood. High fertility is therefore a product of the need for a population to survive. While birth rates fluctuate somewhat, death rates are able to fluctuate dramatically. The net results is very low NI (see Figure 2.1). All societies were once at this stage of demographic transition but have now moved from it to at least the second stage (*Stolnitz, 1964; Caldwell, 1982*).

2.3.2. Stage II demographic transition

Figure 2.1 shows that during Stage II of demographic transition, CDRs fall while CBRs remain at roughly the same level as in Stage I. Since differences between CBRs and CDRs are high during this stage, the NI (which is defined by this difference) is also very high. CDRs decline during this stage due to new technology and social change which both increase the food supply and lead to control of diseases. The development or introduction of improved medical technology, for example, greatly improves the probability of infant survival. Stage II of demographic transition is, therefore, the period of mortality transition and the period of accelerating NI. CBRs remain high while CDRs consistently continue to drop.

Figure 2.1:
Demographic Transition



Source: Modified from Haggett (1983:159)

Most European and North American countries entered Stage II of demographic transition during the nineteenth century. African, Asian and Latin American countries have been experiencing this change in the twentieth century (*Beaver, 1975; Aird, 1978; Bouvier, 1979*). This indicates that most Third World countries have lagged behind developed countries by almost 100-150 years.

2.3.3. Stage III of demographic transition

A country moves into Stage III of the demographic transition when the CBRs also begin to drop. Death rates may still be continuing their decline or may have reached very low rates. However, population continues to grow because the CBR remains higher than the CDR. But, the rate of NI begins to slacken in Stage III countries as the gap between CBR and CDR shrinks: it is a period of decelerating NI. Unlike in Stage II, where changes in NI are a product of the introduction of new technology into the society, in Stage III it is mainly due to societal changes which affect fertility behaviour. Parents choose to have fewer children because raising many prevents the family from improving its standard of living (*Stonlitz, 1964; Caldwell; 1982; 1983*). Therefore the gap between vital rates begins to narrow.

Economic change induces people to change their attitudes towards desiring large numbers of children. Children are viewed less and less as economic assets to their parents because they cease to be significant sources of labour or a vital source of security in old age. A household's standard of living is also partly determined by its size. Raising a large number of children increases the burden of large families in terms of clothing, feeding, educating and health. It should be emphasized that there are differences in the experiences of 19th/early 20th century Europe and those Third World countries today, such as Thailand, China, Cuba and Mexico, which are now in Stage III of Demographic Transition. In 19th/early 20th century Europe, fertility decline was clearly associated with urbanization and industrialization but Thailand, China, Cuba and Mexico have experienced declines in fertility without necessarily being industrialized. This has been achieved through improvements in the general standard of living and through the

widespread access to education, health care facilities, family planning technology and the improvements in the status of women (*Boserup, 1985; 1989; 1990; Greenhalgh, 1986*). Whether African countries in general and Zambia in particular can achieve this is a crucial question in this thesis.

In the 19th century Britain the main factor was the change in life style which influenced couples to avoid being part of extended families. The old family system was replaced by individualism marked, above all, by growing personal aspirations. Large families became a progressively difficult undertaking; expensive and difficult for a population increasingly freed from older taboos regarding family planning and increasingly willing to solve problems of larger families rather than accept them. Davis (*1949*), Stolnitz (*1964*) and Mueller (*1972*) argue that the urban industrial society in Europe was the crucible of demographic transition and conclude that the development of technology is essential for the demographic changes to take place. Today, this generalization is, however, rendered inaccurate because there are a number of non-industrialised societies, some of which have already been alluded to, which are now well into Stage III of demographic transition.

The countries in Europe (except Albania) generally moved from Stage II to Stage III of demographic transition in the late 19th and early 20th century. In contrast, only a few countries in Africa (for example Tunisia and Mauritius) have moved into Stage III while the majority, including Zambia, remain firmly entrenched in Stage II. This study will subsequently provide reasons for this state of affairs.

2.3.4. Stage IV of demographic transition

Stage IV of the demographic transition is attained when the CBR declines to the point where it once again equals the CDR. At this stage, NI approaches zero. This demographic condition is known as the *zero growth* condition. In some countries, CBRs drop even lower than the CDRs, leading to population decline. Two overriding reasons for the *zero growth* situation in Stage IV can be cited:

1) continued increasing costs of raising children, and

2) continued change in life style - people (especially women) want more freedom

from childrearing in order to participate fully in the workforce.

All industrialized countries have entered into Stage IV, although CBRs may still remain high in some sections of their societies. The United States is a good case in point because recent immigrants from Latin America and parts of Asia still place greater values on large families (*Rubenstein, 1989*).

2.3.5. General observation on demographic transition

Four demographic characteristics are basic to the process of demographic transition:

. at the beginning of the demographic transition, both CBR and CDR are high, ranging from 30 to 40 per 1000.

. at the end of the process, both rates range around 10 to 12 per 1000,

. the population changes from being dominated by the young to being dominated by the middle aged and the aged and

. while passing through demographic transition the population experiences a period of sustained increase.

What seems to be crucial to any analysis of population policies is that demographic transition involves two big breaks with the past, namely, the drop in both CDR and CBR due primarily to changing socio-economic conditions.

The demographic transition theory has not been free from criticisms. Graff (*1979*) and Caldwell (*1980a*) have insisted that there have been marked differences in the trend of less-developed countries' vital rates and hence there has been considerable deviation from the generalized model of demographic transition theory. Empirical findings suggest that even those countries which conform to a complete transition from high vital rates to low vital rates show considerable variations in the timing of transition which cannot be predicted from the generalized model. Modern scholars, including Hofsten (*1980b*), Caldwell (*1982*) and Demeny (*1988*), agree that crucial differences between contemporary underdeveloped countries and pre-industrial Europe have become apparent:

. population densities are far higher in the majority of contemporary developing countries compared to the developed ones in the 19th century, forcing governments

to take more drastic steps in reducing their fertility rates than those taken during the 19th century in Europe, and

. mortality declined slower in Western European countries in the 19th century than in most contemporary developing countries.

Common to many interpretations of demographic theory is a solid consensus about the critical role which education and/or literacy play in changing values and cultural norms which lead to increase in diffusion of family planning information and techniques. Education appears to be crucial to demographic transition and thus deserves a special review here. In addition to reviewing the effect of education on fertility the influence of occupation, income and status of women are also examined in sections 2.5, 2.6 and 2.7.

2.4. Effect of education

Evidence from the west shows that marital fertility began its fall following the introduction of compulsory education viz; after 1839 in Denmark; after 1863 in Prussia; between 1865 and 1880 in Belgium; between 1870 and 1890 in the US, Canada and New Zealand; between 1871 and 1881 in England, Wales and the Netherlands; after 1881 in Portugal; between 1881 and 1891 in Austria and before the end of the 19th century in Italy and Spain (*Petersen, 1969; Caldwell, 1980b*). The cultural changes which resulted from education and were reinforced by a vast increase in literature on family planning in books, newspapers, and magazines made high fertility uneconomic.

Education also contributed indirectly by increasing access to salaried employment which forced parents to allocate their time for both childrearing and employment and hence changed their attitudes to large numbers of children. Children became increasingly more expensive in both material terms and in terms of parents' time required for their upkeep.

Spengler (*1966*) and Bogue (*1969*) maintain that throughout the world there seems to be a strong inverse correlation between the amount of education attainment by women and the level of fertility. They later conclude that rising educational levels, increased school attendance, and elimination of early marriage are much more powerful in promoting fertility reduction than simple urbanization and rising levels of income.

Overall, a major driving force behind fertility control appears to be education. In Bogue's study, education alone accounted for 56 percent of the total variance in the demographic transition. A woman's education appears to be the main driving force in regulating fertility behaviour.

Notwithstanding the above account, not all scholars feel strongly about the effect of education on fertility. While recognizing the importance of the education factor in fertility analysis, Kasarda (*1971*) and Davis (*1984*) relegate it to the position of a *background variable* along with urbanization because they are uncertain whether its contribution is one of causation or correlation. In their opinion, formal education is important because of its influence on the quality and quantity of women's work. They argue that the more years of formal education women have, the more likely they are to be in the modern sector of the work force. They are likely to be salaried employees in factories, office or other blue colour jobs. Education prepares and channels female workers into more modern kinds of work, leaving them with less time to raise large families.

Caldwell (*1980a*) also argues that the primary determinant of timing of the on-set of fertility transition is the effect of mass education on the family economy. Education changes the relationship between members of the family because the tradition governing those relationships changes. This in turn influences the direction of wealth flow. Demographic change is unlikely if mass schooling does not occur. Neither can it take place if mass schooling is confined largely to males as has been the case in much of the Muslim world.

Heer (*1972*), Graff (*1979*) and Gomes (*1984*) consider the high cost of children's schooling to be a direct factor which contributes to fertility decline. Time spent in school and doing homework reduces a child's capacity to work inside and outside the home. In the absence of schooling all members of the family are clearly producers, but when children begin attending school the household labour force declines. This reduces the economic value of children, the desire for large numbers of children and, in the long run, fertility rates.

Education also has an indirect effect on fertility because it increases the cost of

children through fees, uniforms, and stationary demanded by school. In addition to providing school children with fees, uniforms and stationary there is need for better clothing, better physical appearance, better feeding and other extras that will enable the child to compete effectively with other school children (*Michael, 1973; Ketkar, 1978; Caldwell, 1980a*).

Education can play a very important role in regulating fertility behaviour among African couples, hence family planning programs intended for African countries should include methods for improving the education levels, especially among women.

2.4.1. Education and dissemination of fertility-control information

In a study of modernization conducted in three relatively less-developed non-western countries (Bangladesh, India and Nigeria), Michael (*1973*), found a high correlation between education/literacy and use of modern family planning methods. Education was shown to contribute to the dissemination of fertility-control information and more widespread acceptance of use of contraceptive technology. It also increases consciousness of family planning. Westoff (*1964*), Caldwell (*1980a*) and Hobcraft et al., (*1983; 1985*) have maintained that increased education spreads rationality and secularism, which are crucial to the acceptance of family limitation. Education, along with mass media, lowers the cost of fertility regulation by providing information, altering cultural norms, challenging traditional beliefs, and encouraging the problem-solving approach in life (*Michael, 1973; Amy and Bogue., 1978; Caldwell, 1980a; 1980b; Ahmed, 1981; Bulatao, 1984*). They act as a catalysts and major motivators of social and economic transformation. In this way, traditional attitudes to high fertility are modified.

Ketkar (*1978*), Caldwell (*1980b*), Ahmed (*1981*) and Dow et al., (*1983*) testify that the impact of formal education is greater at secondary and higher levels than at lower levels, and that attitudes begin to become affected as the age of students increases and they become more knowledgeable about other cultures vis-a-vis their own. Therefore, education serves as a major instrument for propagating the values of the western middle class. Local traditional family morality is questioned. Caldwell (*1980a*) and Dow et al.,

(*1983*) believe that this effect is felt more by women than by men.

Fawcett (*1978*) stresses that although its effect on fertility might not be direct, since in most cases children are not taught in school to have small families, the attitudes, values, and behaviour learnt in school interact with subsequent life experience to produce an overall trend towards lower fertility.

2.4.2. Education's effect on infant and child mortality

High infant and child mortality rates are two of the major determinants of fertility behaviour in developing countries. Infant and child mortality must decline before couples in less developed countries risk opting for a smaller number of children and thus reduce their fertility (*Scrimshaw, 1978; Jones, 1981; Jean, 1982; Trussell and Pobley., 1985; Bongaarts, 1987*). However, the effect of infant and child mortality on desired number of children is not well understood and remains a controversial issue requiring more detailed research. There are different schools of thought concerning this issue. These include:

. ***the assurance response to infant and child mortality***: This school of thought maintains that high infant and child mortality increases the desired number of births in order to obtain a target number of survivors to adulthood (*Ketkar, 1978; Bulatao, 1979a; Ahmed, 1981*);

. ***the negative effect of infant and child mortality on desired number of children***: This school of thought contends that high child mortality encourages parents to improve the standard of raising of children in order to reduce mortality. The cost involved in this reduces the demand for more children (*Caldwell, 1968*); and

. ***the low infant and child mortality and less children school of thought***: this school of thought contends that under conditions of low mortality, parents might find it unnecessary to produce more children for insurance sake. Parents may instead invest more of their emotional energy in each child. This may reduce the emotional resources to raise additional children (*Ketkar, 1978; Jones, 1981*).

On the whole, high infant and child mortality rates generally lead to high desired

number of children among parents. Hobcraft et al., (*1985*) used cross-national data from some West African countries (Benin, Ivory Coast, Mauritania and Senegal) and concluded that parents tend to respond to loss of children either in anticipation of children's deaths or by attempting to replace children who die.

Parents' education, especially the mother's, also determines a child's chance of survival. Child survival can be ensured indirectly in that education may reduce the desire for large number of children by encouraging new lifestyles that compete with traditional values of large family size as well as by "liberating" women. Education may contribute to higher standards of child care and childrearing, by both raising the cost of children and emphasizing quality over sheer numbers (*Spengler, 1966; Caldwell, 1980b; Tan and Michael., 1984*). Education also improves knowledge of personal hygiene and balanced diet. Since education/literacy improves care and survival of infants it affects the incidence of child mortality (*Caldwell, 1979; Dyson and Morre., 1983; Safilios-Rothchild, 1985*).

Mason (*1975*), Veil (*1978*) and Potter (*1988*) argue that the relationship between fertility and prior mortality reduction is difficult to assess. After defining the 'replacement rate' as the ratio of additional births to additional deaths he concludes that there is no population where as many as 50 percent of child deaths have been replaced by additional births. Muhuri and Preston., (*1991*) discovered that, in Bangladesh, there was no significant difference in the birth intervals between women who experienced at least one child death and those who had not. They also argue that at least in the case of Pakistan and Bangladesh, both with moderately high levels of fertility and mortality, there is no evidence that child deaths generate a desire to replace children. Notwithstanding these contradictory views there is more empirical evidence to show that traditional African parents' fertility behaviour is partly a function of infant and child mortality than the contrary (*Dow 1975; Bouvier 1979; Caldwell 1979; Banda 1983; Bhat 1989*).

Despite the ongoing debate about the effect of education on fertility there is no doubt that in countries which are in the early stages of fertility transition, or apparently nearing fertility decline, the most marked fertility differentials appear to be associated

with educational ones. In developing countries or states that have achieved widespread education before achieving western level economic development, such as in Sri Lanka, Kerala (in India), Java and Thailand, fertility transition has been remarkable (*Baldwin, 1977; Hull et al., 1977; Caldwell, 1980a*).

2.5. Effects of economic activity

Studies conducted by Snyder (*1974*), Baldwin (*1977*), Oyamade and Ogunmuyiwa., (*1981*) and others have shown that individuals' economic activities are capable of transforming cultural values and practices regarding family size. Those persons who are involved in primary activities, especially in rural areas, namely farming, fishing, hunting and pastoralism desire large numbers of children because these activities benefit from child labour. The opposite is the case with modern wage earning activities where children do not contribute to a parent's input at work. A physician does not need a son's or daughter's assistance in order to practice medicine. Neither does a lawyer or a professor require such assistance to practice law or to teach. This implies that unless the economic activities or production systems of most Africans change, couples may continue desiring large families.

2.6. Effects of household income

Petersen (*1964*) and Easterlin (*1975*) maintain that desired fertility levels vary with absolute household income. A rise in family income might initially encourage couples to desire more children, but as their prosperity changes they may want fewer children (*Amy and Bogue., 1978; Bulatao 1979b*). For example, they may prefer to invest in buying a house or going on expensive vacations or buying a car or raising high quality children to raising an additional child. This is true among those families whose income is positively correlated with education levels. Restricting the number of children is also common among parents with low education levels whose children are expected to share their deceased parent's property. The smaller the number of children the larger the share each child is expected to receive.

2.7. Status of women

Dixon (*1978*), Cain et al., (*1979*), Safilios-Rothschild (*1982a; 1982b*) and Dyson and Morre., (*1983*) maintain that status of women is a multidimensional concept which refers to women's access to material and social resources. It also refers to women's power and autonomy reflected in their ability to control important events in their lives or their freedom from control by others, either in the household, the family or society.

There is general consensus in the literature that inequality exists between men and women in terms of the key dimensions of prestige, wealth and power especially in low income Third World countries (*Cain, 1978; Abdullah and Zeidenstein., 1982; Boserup, 1989; 1990*). This inequality results from the existing social hierarchies based on a system of sex stratification which in turn influences the distribution of resources within a family, a household or a society. Women have less access to resources than men and therefore hold a lower status (*Safilios-Rothschild 1982b; Gaisie and Giorgis., 1988*).

Loutfi (*1980*) and Safilios-Rothschild (*1985*) hypothesize that the lower the level of socioeconomic development in a society, the scarcer are the resources and the less access women have to them. In low income societies, gender and age become the important allocative criteria. In Pakistan, Northern India and Bangladesh the unequal distribution of resources starts in childhood. In these areas it is more rational to give food more and health care to male children as compared with female children and to educate boys rather than girls since boys are believed to have better chances than girls of earning an income and helping families survive. The same principle is followed at later ages. For example, the scarcer the opportunities for paid employment, the greater is there a male bias in the distribution of employment. This originates from the basic premise that men are financially responsible for women and children (*Loutfi, 1980; Safilios-Rothschild, 1982b; 1985*). Cain (*1981*) and Boserup (*1990*) maintain that women's economic dependence on men should be viewed as a consequence of patriarchal structure which restricts the economic independence of women.

Women's economic dependence is crucial because it influences fertility. Utas (*1983*), Cain (*1981*), Boserup (*1989; 1990*), Lloyd (*1990*) and Obermeyer (*1992*) argue

that in societies where women are more dependent on men, women will place a great premium on children, especially sons. Widowhood, divorce, separation and incapacitating illness of the husband threaten women's livelihood and lead them to believe that sons are their major sources of insurance against economic risks. Marriage therefore represents a prospect of greater financial security for a woman and her children, not only through access to a man's superior employment opportunities and earnings but also through the anticipated earnings of her sons. These perceived benefits encourage women to marry early. A few examples of societies in which the status of women is low and fertility levels are high will suffice.

In some areas of Bangladesh, women are largely excluded from all the most important sources of wage employment and from activities that would permit them to cultivate or supervise cultivation of their own land (*Abdullah and Zeide., 1982; Cain, 1981; Muhuri, 1991*). Women seldom have the opportunity of directly owning paddies on which cash crops are produced. Neither do they have many opportunities of working for wages on such paddies which provide the bulk of wage employment in rural Bangladesh. Their responsibilities are still primarily confined to food processing and preparation, home maintenance, cultivation of vegetables and other crops located near or in homesteads, as well as animal husbandry. Women are severely restricted from moving outside their immediate homestead (bari) (*Cain, 1978; 1981; Muhuri and Preston., 1991*). These restrictions engender a powerful element of patriarchal control over women, thereby reinforcing their dependence upon men by denying them direct access to income-earning opportunities. Abdullah and Zeidenstein., (*1982*), and Cain (*1981*) maintain that male dominance in Bangladesh is rooted in control of material resources. It is also supported by interlocking and reinforcing elements of the kinship, political, religious and economic systems.

It should be emphasized that this system is not confined to Bangladesh alone. In the majority of societies in Pakistan, North Africa and most of the Middle East the patriarchal system is reinforced by Islam. In all these areas under Islam, man is the earner and women are the servers of man (*Chamie 1981; Adegbole, 1988*).

The inferiority of women is also manifested in the inheritance system. In Bangladesh, for example, the law of inheritance is the manifestation of 'Purdah' which secludes women from spheres of influence. Muslim inheritance laws allow a daughter one-half of the share received by a son. Women frequently receive less than their rightful share under the secular law. Cain (*1981*) and Abdullah and Zeidenstein., (*1982*) attest that in some cases women tend to yield their share of inheritance to their brothers as a way of gaining favour and generating good will. If a woman inherits land, her brother or husband cultivates it as if it were his own.

In the majority of sub-Saharan African societies, women have little or no control over their own reproduction. Decisions on reproduction are a responsibility of the kin group rather than that of one's own or a couple's, as is the case in western societies (*Safilios-Rothschild, 1985; Caldwell and Caldwell., 1985; Munachonga, 1988; 1989; Boserup, 1990*). Suffice it to say that the patriarchal structure conditions the potential for change in women's educational attainment, their work patterns, and flexibility of age at marriage. This forces women to continue depending upon their husbands and later their children for survival and hence the justification for high fertility (*Oppong, 1974; Boserup, 1990*).

Some theories maintain that women can be emancipated by improving the society's economy, regulating the rate of population growth, and reducing the inequality of income distribution between men and women. It is believed that this can enhance women's access to education, food, medical amenities and other socioeconomic resources (*Loutfi, 1980; Boserup, 1990*). The improvement of women's education is a very useful tool for enhancing their status. As indicated earlier, education contributes to social structural changes and in turn invalidates the basic premise of a sex stratification system, namely: women's socioeconomic dependence on men. Once women's education improves, their access to salaried employment also improves. Improvement in their economic status accords them more power in household as well as societal decision making. This also contributes to fertility decline because parents become more indifferent to large numbers and the sex of off spring for insurance and security, especially when they become more

economically secure.

In rural areas, women's status can be enhanced by according them the chance to participate in income-generating agriculture and cooperative enterprises. But these become available to women only when the social stratification system becomes less rigid and employment opportunities are not reserved for men.

Safilios-Rothschild (*1985*) insists that a low population growth rate weakens the operation of sex stratification and enhances women's access to paid employment. This explains why Jamaica, Trinidad and Tobago, and Uruguay, though Third World countries, characterized by high female access to employment and relatively lower fertility rates than Bangladesh and many sub-Saharan African countries.

When gender stratification is not as rigid and there is a greater extent of social development and more equal income distribution in society, the larger part of the population has access to resources to meet its needs. Most households, therefore, can allocate resources to both men and women of all ages. Gender ceases to be a crucial criterion for allocating resources (*Safilios-Rothschild, 1982a*).

Dyson and Morre (*1983*), Zachariah (*1984*) and Zachariah Sulekha., (*1984*) attest that in Maharashtra and Andra Pradesh (southern India), where historically there has been less control of women's sexuality and where kinship structure and social organization permit women greater economic independence and freedom, there is greater flexibility of age at marriage and hence relatively lower fertility rates than in Pakistan, northern India and Bangladesh. Because the control of women is not at stake (to the same degree as in Pakistan, northern India and Bangladesh), female age at marriage is relatively responsive to new educational and economic opportunities. Non-marriage and marital dissolution are also high in those areas where women are liberated. African countries in general and Zambia in particular have a lot to learn from Maharashtra and Adra Pradesh.

It should be emphasized that unless women's literacy, educational attainment and labour force participation are accompanied by higher and more secure pay for women, anti-natal population policies will be difficult to implement. Fertility will not decline as quickly as anticipated.

2.8. Politics of population control

Unlike mortality, fertility is subject to religious controversy and deep rooted ethical, social and individual debate, within the household, the community and the world at large. There has been more controversy about policies aimed at curbing fertility than there has been at ones aimed at reducing mortality in that methods for reducing high mortality can be applied in the form of public health, sanitation and mass programs. Although some health and sanitation methods can be resisted through ignorance or superstition, given enough funds and personnel, methods for reducing mortality rates can be superimposed by governments upon populations that are technologically backward in most other respects. Stamper (*1973*), Caldwell (*1982*), World Bank (*1986a*) and Myrdal (*1987*), for example, suggest that for fertility transition to occur the following requirements must be met:

. shift of attitudes from the traditional fatalism typical of peasant societies to a belief that one's destiny can be affected by one's deeds, in child bearing as in other spheres of behaviour;

. use of secular education for refashioning old attitudes and proposing new values, and

. creating fresh opportunities for putting the proposed new values to work.

In order to understand current politics of population control it is necessary to put them within an historical context.

2.8.1. Effect of religion and ideology

In some countries progress in anti-natal policies has been slowed due to religion or Marxist/socialist ideologies. These factors were central in discussions regarding population control at both the Bucharest (*1974*) and Mexico (*1984*) World Population Conferences (*Demeny, 1984; 1985; Frinkle and Crane., 1984*). A review of the religious and socialist stances on the regulation of population growth is worth understanding as these stances have considerable influence on the overall global World population politics. They are important for understanding population policies in Africa or Zambia where both foreign religions and socialist ideas have been diffused.

2.8.1. Religion and politics of population

Religion is known to have effect on fertility behaviour. Chamie (*1977*) suggests that religion is a useful variable, specifically:

. ***In relation to fertility***: Since an individual's or a couple's religious status connotes a system of values which can influence fertility both

(a) directly, by restricting the use of contraceptive methods, and,

(b) indirectly by indoctrinating followers with a moral social philosophy of marriage and family which emphasizes the virtues of reproduction.

Both Clark (*1968*) and Chamie (*1977*) argue that there are three major hypotheses explaining different attitudes toward fertility, namely: "the theology proposition", "the minority group status hypothesis", and "the interaction or assimilation hypothesis". A review of these three hypotheses as they are relevant to anti-natal population policy is worthwhile because in later chapters this thesis will examine the effects of religion on anti-natal policies in Africa.

. ***The theology proposition***: This proposition maintains that fertility differentials due to religion are largely dependent on each church's doctrine. Those religious groups whose church doctrines do not support the use of contraceptives and abortion are likely to stress the values of having many children and strongly preach against population policies which emphasize the use of artificial contraception.

. ***The minority group status hypothesis***: Advocates of this hypothesis view the effect of religion on fertility within the larger context of social organization. Under such conditions the desired number of children is expected to be high in those societies which are traditional, religious and are in a minority position (*Chamie, 1977*).

. ***The interaction or assimilation hypothesis*** maintains that the influence of any religion on fertility depends on the strength of other socio-economic variables which are also likely to orient individuals towards procreation and fertility control. Chamie argues that:

By the time a society reaches a full-blown modernization stage, the role of religion in shaping fertility patterns becomes almost inconsequential. The

> transition from a high fertility plateau to a low one will vary among different religious groups depending on the degree of adjustment of a religion to the socioeconomic changes. Among those sub-groups where a religious doctrine produces a lag in adjustment, fertility will remain high, whereas in the sub-group whose doctrine allows its members to respond appropriately to the new order, fertility will fall (*1981*).

This is a strong assumption which might be true in certain situations, as will be discussed in Chapter Five in relation to the Roman Catholics in Mauritius. It might not be true in the case of the Jehovas Witnesses as will be discusseded in Chapter Seven in the case of Zambia.

Many major studies, including Chamie's (*1977; 1981*), Greig's (*1973*), McQillan's (*1979*) and Adegbola's (*1988*) have concluded that overall Catholics attain higher birth rates than Protestants. Changes in positions on fertility regulation among Christians in general and Catholics in particular are worth reviewing as Christianity claims dominion over the spiritual beliefs of approximately 1,644 million people. This amounts to 33 percent of the world inhabitants. Of these, 56.3 percent are Roman Catholic, 24.5 percent are Protestants, 9.7 percent are Orthodox, and 9.5 percent belong to other Christian groups (see Table 2.1). It is worth examining whether on not religion has some influence on fertility behaviour in Zambia where approximately 85 percent of the population are Christians, forty-eight percent of whom are Roman Catholics.

The Christian tradition tries to protect two fundamental values: the advantage of procreation and the rectitude of marital intercourse (*Fagley, 1960; Campbell, 1968*). The Christian stance has its roots in the early Christian teachings drawn from the Old Testament. The Old Testament stresses that it is God who created man and woman and blessed them saying:

> Be fruitful, and replenish the earth, and subdue it; and have dominion over the fish of the sea, and over the fowl of the air and over every thing that moveth over the earth (*Genesis, 1:27-28*).

The Old Testament contains many other verses encouraging reproduction.

Among early Christians, there were at least three grounds for favouring population growth. First, the Christians themselves were few while the pagans (non-Christians) were many, and the Church could grow through natural increase and conversions (*Noonan,*

1966).

Table 2.1:
Estimated membership (in millions) of the principal religions of the world.

	Africa	East Asia	Europe	Latin America	North America	Oceania	South Asia	Former USSR	Total
Christian	**271**	**78**	**414**	**396**	**232**	**21**	**129**	**103**	**1644**
Roman Catholics	*103*	*9*	*257*	*372*	*91*	*7*	*82*	*5*	*926*
Protestants	*94*	*32*	*110*	*15*	*102*	*13*	*26*	*9*	*402*
Orthodox	*25*	*a*	*36*	*1*	*6*	*1*	*3*	*89*	*160*
Other	*49*	*36*	*12*	*8*	*32*	*a*	*18*	*b*	*156*
Moslems	245	24	9	1	3	a	547	32	860
Buddhist	b	155	a	a	a	b	154	a	310
Hindus	1	b	1	1	1	a	652	c	656
Confucians	c	6	c	c	b	d	c	d	6
Shintoists	d	3	d	c	c	c	d	d	3
Chinese Taoists	b	179	b	a	a	b	8	d	188
Jews	a	c	1	1	8	a	4	3	18
Animists	68	1	d	1	a	a	25	0	95
Other	1	55	1	8	2	a	89	a	156
Non religion	2	779	69	16	22	3	26	145	1061
Total	**589**	**1279**	**495**	**423**	**268**	**25**	**1634**	**284**	**4998**

Note: a = fewer than 500,000; b = fewer than 50,000; c = fewer than 5,000; d = fewer than 500.
Source: Rubenstein (*1989:162*).

Secondly, under-population was a social menace in those empires where Christianity was being practised, especially in Rome; more men were needed for political/defence reasons. Thirdly, it was imperative to increase the population of 'heaven'.

The RC church is opposed to the regulation of fertility through artificial methods (*Noonan, 1966; Callan, 1969; Sommer, 1970; Adegbole, 1988*). At international population conferences there have been frequent clashes in opinion between delegates from the RC Church and proponents of artificial methods of regulating births.

2.8.1.1. The Pill and the Roman Catholic Church

One of the most hostile reactions of the Roman Catholic Church in the contemporary demographic debate came in the early 1960's when a new means of birth control, the anti-fertility pill called Hesperidin appeared on the market (*Pyle, 1968*). In many Western countries RCs were also prominent in resisting any attempts to liberalize or repeal laws restricting the provision of contraceptive information or penalizing their sale or distribution. Moreover this opposition was not limited to Western countries. In Rome, the Second Vatican Council which had been formed by Pope John XXIII in January 1959 continued its debate on birth control and resulted in 1964 in the Vatican stressing that procreation was the sole purpose of marriage (*Bromley, 1965*). This doctrine later spread to Africa.

2.8.1.2. The Humanae Vitae Encyclical

On 29th July 1968 Pope Paul VI issued his encyclical Humanae Vitae which condemned all mechanical and medical methods of birth control and emphasized five points:

. human life is sacred,

. married life has a special dignity and value of its own,

. human sexuality is a precious value in married life, in fact, one of the most precious values,

. an irresponsible, selfish contraceptive mentality is wrong, and

. there is great need of self-denial and discipline in achieving human dignity in any sphere of life, and especially in marriage (*Noonan, 1966; 1967*).

RC resistance to *artificial* means of birth control and a tendency on the part of the

church leaders to extol large families, are among the explanations frequently advanced for high rates of fertility in Latin America (*Beaver, 1975; Levine et al, 1991*). Studies in the Burundi and Mauritius have also left little doubt that both religious affiliation and religiosity are important factors in high fertility rates (*Adegbole, 1988*).

In summary it is quite evident from the above discussion that the RC Church has continued to proscribe the use of artificial population control measures such as the use of the pill, IUDs and sterilization. This proscription has been diffused in those African countries, including Zambia, where Catholicism is predominant.

2.8.1.3. Islam and fertility

Among the five Moslem countries of North Africa, birth rates range from 29-48 per 1,000 (*PRB, 1992a*). In Europe, Albania and the neighbouring Moslem areas of the former Yugoslavia (Kosovo and Metokija) report birth rates of about 25 per 1,000. In brief, it can be argued that fertility is almost universally higher in the majority of countries where the majority of the population are muslims (*Obermeyer, 1992*).

There are two major factors which favour high birth rates in Moslem countries. First, the Islam doctrine favours high fertility which is consistent with the pro-natal social forces that generally exist in peasant and pastoral societies. Among Muslims, sons are valued for many reasons, such as for the continuity of the family and its landownership, for contribution to agricultural labour, to strengthen family numbers in village rivalry, and for support of parents in old age. As in other developing societies, particularly in Southern Asia and North Africa, the extended family system in Islam encourages parents to have large numbers of children. Adegbole (*1988*) reports that Muslems of all age categories desire a larger number of children than Christians. In some Moslim countries, for example Algeria, Morroco and Libya, pre-arranged marriages involving very young women are common.

Second, Islamic influence is strongly conservative. Children are considered the richest blessing that Allah bestows. Moslems believe that Allah permits souls to come into the world and that he provides for them. The Moslem doctrine holds that the

pleasures of the flesh, and specifically sexual intercourse, are a God-given virtue to be enjoyed and conjugal obligation to be fulfilled.

In sum, the traditional Islamic way of life favours high fertility and discourages voluntary restriction of births within marriage. Though the Islamic doctrine does not prohibit birth control, as a militant religion it has historically pressured men to produce numerous children and especially sons. The rise of Islamic fundamentalism, especially since the early 1980s, has contributed to the rise in fertility in Algeria, Morocco and Libya.

2.8.2. Marxist and Socialist position on population control

Both Marx and Engels contributed to the population debate during the latter 19th century (*UN, 1953*). Marx argued that there could be no universal law of population. He contended that the source of existing over-population was not to be found in man's supposed biological productivity but in the prevailing capitalist mode of production. In Marx's opinion, over-population arose because the capitalist mode of production created its own relative surplus population independently of actual rates of population increase. According to Marx's economic theory, competition under capitalism drives entrepreneurs to increase their efficiency by installing more and more machinery. This leads to the steady decline in the organic composition of capital; the capitalists progressively replace skilled labourers by less skilled, adult labour by juveniles, males by females which finally creates unemployment.

Commenting on conditions of the working class in England in 1845, Engels wrote:

> The advent of the machine brought unemployment as well as want, wretchedness, and crime. Industrial areas witnessed a gigantic expansion of population for the reason specified in the principle of population; Malthus's theory had a good deal of truth in it under the existing circumstances (*1958:95*).

Engels insisted that population control was not urgent because the world had a superabundance of land capable of cultivation and awaiting the labour of "a fresh hundred million". He further emphasized that it was only the economic productive system, not nature, which rendered people surplus. This is also the key issue in Marxist theory on

population. In 1880, Kautsky, one of principal Socialist theorists of his time, stressed that:

> Malthus was wrong in his main thesis, that population always tends to increase faster than the supply of food on which it must subsist. But he was right in his assertion that every improvement in the state of the lower classes is accompanied by an increase in their numbers. Improvements in methods of production might postpone the danger of over-population (*cited in Petersen, 1988*).

Like Marx, Lenin also opposed Malthusianism. He denied that the law of diminishing returns applied under conditions of technological progress and changing methods of production. He maintained, for example, that abortion would not prevent the suffering of future offspring. The notion that excess fertility can be the cause of working-class misery was, in Lenin's view, reactionary. Lenin concurred with Marx that the organization of society was crucial to the relationship between population and the economy. He further argued that the growth of human numbers was a factor of social progress. However, Petersen (*1988*) argues that since neither Lenin nor Stalin, nor indeed, any of the other early Bolsheviks were specifically interested in population control, the few writings which appeared during this period were essentially paraphrases of Marx's earlier work.

The orthodox Soviet doctrine held that in a country with a socialist economy, control of fertility was not essential. It argued that in capitalist countries private ownership of wealth resulted in an excessive decline in fertility, but that the Soviet Union was immune from such social disease and the consequent economic disorganization. Unlimited human reproduction was therefore favoured throughout the 1940s, 1950s, 1960s and 1970s.

When representatives of opposing ideologies formally met for the first time in the UN Population Commission in 1947 to debate the problem of world population, the Ukrainian delegate (backed by other Soviet delegates) maintained that:

> I would consider it barbaric for the commission to contemplate a limitation of marriages or legitimate births, and this for any country what so ever, at any period what so ever. With adequate social organization, it is possible to face any increase in population (*Sauvy, 1969:525*).

Although after Stalin's death in 1953 the demographic cold war eased a little, there were still signs that some leaders retained in high esteem strict Marxist doctrine on population. In 1955, for example, Khrushchev said:

> Bourgeois ideology invented many cannibalistic theories, among them the theory of over-population. The concern is to cut down the birth rate and reduce the rate of population increase. It is quite different with us comrades. If about 100 million people were added to our 200 million, even that would not be enough (*cited in Petersen, 1988*).

Besemeres (*1980*), Feshbach (*1982*) and Petersen (*1988*) all argue that since mid-1940s support for population growth became a standard element of Soviet propaganda. At the 1954 World Population Conference in Rome, Riabushkin, the principal Soviet delegate, argued that birth control was the dominant issue that divided the East from the West. He asserted that:

> There is a struggle between two trends in the underlying questions of theory and practice of population statistics; the reactionary one connected with neo-Malthusian ideas, and the progressive one, led by the delegates of the Soviet Union and the people's democracies (*cited in Petersen, 1988*).

Sauvy (*1969*) showed that when in 1959 the UN Population Commission was listing words to be included in a projected demographic dictionary, Riabushkin objected to "Malthusianism" and "birth control" on the ground that such mistaken concepts should not find a place in an official dictionary.

A review of Marxist or socialist position on anti-natalist population policies is very relevant to the current discussion because the Malthusian-Marxist population debate spread to the less developed countries, especially during the 1960, 1970s and 1980s. This diffusion is attributable to these countries' alignment with either the Western capitalist or the former Eastern block countries and the USSR and the adoption of their political philosophies. Most African countries which have resisted anti-natal policies have not only done so because such policies are in conflict with their culture, but also because they have been influenced by outside forces. Reference can be made to Francophone countries in West Africa, Ghana (under Nkrumah's socialist regime), Ethiopia (during the time of Mengistu) and Tanzania (during the early days of Nyerere's rule) to cite just a few examples. The split between Malthusian and Marxist ideologies was very evident at the

1974 Bucharest conference.

2.8.3. The Bucharest World Population Conference

The UN World Population Conference, the focal point of the World Population Year, was held in Bucharest from 19-30 August, 1974. It set the stage for real focus on the importance of population growth to the well-being of humankind. Among the main objectives of the World Population Year were:

. to improve knowledge of and information about population trends,

. to sharpen awareness of population problems and their implications,

. to stimulate consideration of alternative policies in the population and development field, and

. to expand international cooperation in the population field and supply increased technical assistance to countries needing and desiring it (*Tabal, 1975; Hofsten, 1980a*).

The 1974 Bucharest World Population Conference was one of the early ones of its kind held by government representatives to consider the relationship between basic demographic problems on the one hand and socio-economic development on the other (*Tabal, 1975*). Held concurrently with the conference was the Population Tribune, a forum where private individuals and representatives of non-governmental organizations (NGOs) exchanged views on socio-economic development. The emphasis on the relationship between population growth and socio-economic development was reflected in the World Population Plan of Action, which was approved by 136 member states of the UN at the conference (*Tabal, 1975*). Since then, there has been special focus on population policies and action programs needed to promote human welfare and development.

The major deliberations of the conference were characterized by an emphasis on political idealism, the need to improve the status of women, and heated debates about the relationship between socio-economic development and family planning. Jaffe (*1974*), Tabah (*1975*), Hofsten (*1980a*) and Demeny (*1985*) attest that the major weakness of the

conference was that there was no discussion of successful family planning programs nor of the future roles of private, national and international organizations concerned with population control. Neither were directives given to professionals active in the field of population. Tabah (*1975*) attributes this to the fact that the conference was dominated by delegates from countries that did not consider population to be a major factor in their development plans or policies. Nevertheless the conference recommended that go should create population growth awareness.

One way of measuring the world successes in the field of population control is by examining how some Third World countries have changed their positions on the relationship between population growth and socio-economic development since the Bucharest conference. This is a central concern of this thesis as it can give us some insight into the changing status of population policies in African countries generally, and in Zambia in particular.

2.8.3.1. Positions taken by different countries at the 1974 Bucharest World Population conference

Four basic positions were taken by countries on the relationship between population growth and socio-economic development, namely;

(a) the position of the Francophone countries (sub-Saharan Africa), and Albania, Algeria, Argentina, China, Peru and Romania,

(b) the position of Egypt, India, Italy, Mexico, Yugoslavia and some Latin American and African countries,

(c) the position of most of Asia (excluding China and India), most of Western Europe (excluding France and Italy), Australia, Canada, Iran, New Zealand, the US and some Latin American states, and

(d) the position of Eastern Europe (excluding Romania and Yugoslavia).

A review of the concerns of each of these groups as regards the relationship between population growth and socio-economic development is crucial to our understanding of the politics of population policies.

(a) Position of Francophone (sub-Saharan Africa, Algeria) and Albania, Argentina, China, Peru and Romania

These countries argued that:

. so called population problems are actually problems of inequality of world wealth and resources resulting from the present world economic order and super-consumption in the developed countries;

. as in the past, growing numbers can readily be accommodated; what is needed is agricultural and industrial development under a proper social structure and a redistribution of world wealth from the rich to the poor;

. the fundamental requirement of population policy is the establishment of "a new international economic order" that will eliminate the inequality of wealth and resources afflicting the world;

. rapid population growth is currently a positive force for economic and social development, particularly because it provides labour for development rather than through *artificial* interventions such as population policies and programs. What is required is the improvement of the economic well-being, social security and education of the population and the reduction of mortality; and

. those "Malthusians" who are urging "artificial" population policies such as family planning upon poor countries do so out of a desire to direct attention from the true issues of development and to thereby maintain the status quo of inequality in the world.

(b) Position of India, Italy, Mexico, Yugoslavia, and some Latin American (e.g. Brazil, Chile, Mexico) and African countries (e.g. Egypt, Nigeria, Tanzania, Zambia).

These countries raised the following concerns:

. some countries do have population problems that hinder their social and economic development;

. the major source of these problems is poverty, poor health, high mortality and lack of education; and

. the primary solution to rapid rates of population growth is therefore rapid social and economic development. This can be achieved through the establishment of "a

new international economic order", leading to:

(a) reduction in the inequality of wealth and resources in the world; and

(b) reduction in over-consumption of rich countries, both through transfers via development assistance and through increased trade.[3]

(c) Position of most of Asia (excluding China and India), most of Western Europe (excluding France and Italy), Australia, Canada, Iran, New Zealand, the US and some Latin American states.[4]

These countries took a clearly anti-natal stance and insisted that:

. there are very serious social and economic problems in many countries that continue despite strenuous efforts at social and economic development;

. exclusively overly rapid population growth is not the cause of these continuing problems, but it does intensify their effect;

. economic and social development of the Third World is desirable in its own right and ought to be pursued actively with full international assistance as required. Reductions in overly rapid population growth can make a notable contribution to the ultimate success of these efforts; and

. both rapid social and economic development and strenuous population policies and programs are required to bring population growth rate into balance with rates of economic and resource development. Hence both approaches are complementary to the furtherance of human welfare, but neither is sufficient on its own.

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[3] These countries stressed the relative importance of socio-economic development and population policies. India and Egypt stressed development heavily as well as the need for a *new economic order* and the reduction of consumption by the western societies. Others emphasized need for population policies and programs in the context of social and economic development.

[4] China denounced all countries which held that rapid population growth was an obstacle to Third World economic and social development. Such a statement was rather misleading to less developed countries because by then China already had extensive birth control programs, which it claimed were adopted for health, demographic and development reasons (Jaffe, 1974).

(d) *Position of Eastern Europe (excluding Romania and Yugoslavia)*

This group took a pro-natalist stance and postulated that;

. there is no population problem in the abstract; each mode of production (feudalism, capitalism, socialism) has its own laws of population. The so-called population problems of the Third World are a characteristic of the capitalist mode of production caused by colonialism, neo-colonialism and imperialism;

. there is no need for population policies per se; in a properly organized society the demographic trends are adjusted automatically by social and economic forces; and

. the Third World is being exploited, but by the capitalist developed countries rather than the developed countries as a whole, thereby creating an artificial overpopulation situation.

2.8.3.2. The 1984 Mexico City World Population Conference and later developments

A subsequent global population conference was convened by the UN in 1984 in Mexico City. The events which took place during the decade between the Bucharest and the Mexico Conference show that although the Bucharest Conference turned into an ideological confrontation over the structure of the international economic order, with population issues pushed into the background, it set the stage for focusing on the relationship between population growth and development. By the time of the Mexico Conference a number of developing countries had changed their position. They refrained from talking about international population assistance as racist, genocidal or imperialistic. Neither did they accuse western nations of advocating population control as a substitute for foreign aid.

More and more countries expressed concern about the negative effects of rapid population growth upon economic development. They were also concerned about high levels of infant and child mortality and urbanization. There was consensus that the effect of these variables must be addressed, with or without the transformation of the world economy. The majority of participants in the conference were concerned about global population trends. It was agreed at the Mexico Conference that social and population pressures may contribute to the continuation of wide disparity in welfare and quality of

life between developing and developed countries (*Demeny, 1985*).

Unlike at the Bucharest Conference, the desirability of quantitative demographic targets for family planning, the role of incentives in family planning, and policies concerning international migration and refugees were raised. In the end 23 developing countries and Japan became signatories of the statement on population stabilization (see Table 2.2).

Table 2.2:
Signatories to the statement of population stabilization:1984.

Region	Country	Region	Country
East Asia	China	**N/Europe**	Iceland
South Asia	Bangladesh	**Caribbean**	Jamaica
	India,		Dominican
	Nepal		Grenada
	Sri Lanka		St. Lucia
	Japan		Barbados
South East Asia	Thailand	**East Africa**	Kenya
			Rwanda
			Zimbabwe
			Mauritius
Middle East	Jordan		Seychelles
		North Africa	Egypt
			Tunisia
S/Pacific	Tonga		
		West Africa	G.Bissau
			Nigeria
S/Europe	Cyprus		

Source: Demeny (*1985*).

Although the economic gap between developed and developing countries was still vast, the North-South confrontation at the political level had greatly diminished by the early 1980s. Nevertheless, the conference did not overlook the importance of economic development in enhancing the well-being of any society. Issues such as trade preference,

commodity price stabilization, restructuring of the international monetary system, debt relief, increased development aid and foreign investment were also addressed. The only attention given to North-South disparities was given by developing countries in their formal statements at plenary sessions and a few amendments to the recommendations intended to draw attention to such Third World economic concerns as the debt crisis (*Frinkle and Crane, 1984; Demeny, 1985*).

2.9. Reasons for change in attitudes

A number of reasons why developing countries changed their attitudes towards the relationship between population growth and economic development have been suggested by scholars. Frinkle and Crane., (*1984*) and Demeny (*1985; 1987*) maintain that many changes took place within the developing countries. First, economic differences between developing countries became increasingly pronounced throughout the 1970s, leading to differences in development priorities. The faster economic growth of some East Asian and Latin American countries (especially in the so-called newly industrializing countries), where foreign investment and export-oriented growth were encouraged, were least in tune with the ideological orientation of other Third World countries. At the international level, OPEC no longer commanded the power it had in the 1970s. Other attempts by LCDs to establish both political and economic power had proven impossible to sustain. Many of the socialist countries had severe economic difficulties, rendering them less and less capable of offering aid to developing countries and hence their influence on internal affairs of Third World countries waned. Second, changes in governments or in the prevailing philosophies in many leading developing countries (including Algeria, China, India and Mexico) were causing them to pursue more pragmatic and market-oriented development strategies. Third, many developing countries had relatively high levels of indebtedness to the west which had the effect of making them more cautious in their international political posture. Last but not least, developing countries had began to see value in supporting the objectives of the conference. They became receptive to the need to:

. gather and analyze demographic information,

. make family planning services more widely available, and

. consider how policies and programs aimed at affecting fertility, mortality and migration might enhance their economic development and social welfare objectives.

The intensification of the debate on the effect which rapid population growth has on economic development has also contributed, in a significant way, to the change in attitudes of both governments and individuals regarding population policies. A major emphasis has been on the value and costs of children. These issues had been effectively addressed by scholars from different fields, including demography, economics, anthropology and geography since the 1974 World Population Conference. The next World Population Conference to be held in Cairo in 1994 will be significant because it will link population with development. Section 2.9.1 reviews literature on both actual and perceived values of children.

2.9.1. Values and costs of children

Because a number of Third World countries including Tunisia and Mauritius have reached Stage III of demographic transition between the Bucharest and Mexico World Population Conferences, there has been more concern about the value and cost of children. It has been argued that fertility behaviour differs internationally, regionally and locally, as well as individually. These differences depend on how children serve or fulfil the needs of their parents or how they act as opportunity costs. In this regard, satisfaction, benefits, rewards, gains, and the positive general values that can be derived from children are considered to be very important variables. These values can be classified as both non-economic and economic variables.

Earlier studies by De Tray (*1973*), Buripakdi (*1977*) and Bulatao (*1979a; 1979b*) have revealed that the non-economic values of children correspond to the psychological satisfactions parents derive from children. Following this argument, a value system elaborating categories of basic non-economic value of children, which seems to be most applicable in traditional subsistence societies of the developing world, including Africa in general and Zambia in particular, was developed by Espanshads in late 1977. His value system stipulates that children can:

. ***add to adult status and social identity***: the more children a couple has the more status they enjoy in society;

. ***provide expansion of the self***: children are considered a form of immortality since each child born is considered as the parent reborn;

. ***induce sacrifice***: it is felt that children provide parents the chance to sacrifice for the good of someone and therefore are a source of pride;

. ***strengthen group ties and affiliation***: it is believed that the family with children has always been considered as a stable and permanent institution. Affiliation with it offers a sense of emotional security;

. ***provide stimulation, novelty and fun***: it is argued that children reduce boredom;

. ***generate feelings of creativity, accomplishment and competence***: it is argued that a large number of children strengthens the combined efforts within the family in accomplishing socio-economic success;

. ***increase power and influence***: having children enables parents to influence the course of other people's lives. Elsewhere this has been referred to as the "instrumental assistance" from children (*Balatao, 1979b:5*); and

. ***add to social comparison and competition***: parents in some societies like competing through their children. They feel that children's achievements are their own (*Espenshade, 1977:4-5*).

Scholars, especially economists, have used the theory of consumer behaviour to study fertility in developed countries and have questioned whether what happened in a number of developed countries 100-200 years ago is likely also to happen in developing countries. The theory of consumer behaviour is based on the assumption that rational people will choose to consume goods that maximize their satisfactions. Children are included in this basket of goods.

Children are therefore viewed as durable commodities. It is assumed that they give benefits over the long term and they cost more than they return in monetary terms (*Anker, 1973; De Tray, 1973*). As with other commodities, it is assumed that children are a function of a combination of other commodities, income, tastes and costs. In studies

conducted in the US, Becker (*1960*) incorporated the quality and quantity trade-offs in his theory and argued that there is a positive relationship between income and both number and quality of children. He nevertheless admits that due to rapidly increasing costs, the desired psychological benefits must be satisfied by fewer children. Goody (*1990*) takes a similar stance as he examines the future of the family in African rural areas.

Subsequent studies reveal that Becker's original formulation overlooked the time cost of raising children. Mothers give up earned income to raise their children. Later studies took into consideration the mother's time that could be used either to generate income or to raise fewer and more high quality children (*Becker, 1974*). Anker (*1973*), Caldwell (*1980b*) and Banda (*1989*) have contended that despite the changes that have been made to Becker's (*1960*) proposition, it is still not very relevant in the prevailing situations in most developing countries. Anker (*1973*), for example, insists that Becker's model pays little attention to the contention that children are economic producers. He argues that in developing countries, children are an asset because they contribute to family income and provide old age security to their parents. Caldwell (*1979*), Ekanem (*1988*) and Banda (*1989*) argue that Becker's theory also ignores the cultural factor which is very influential on fertility decision in developing countries, especially in Africa.

As a follow-up to Becker's work, Easterlin (*1975*) advanced a more flexible model compared to the micro-economic model. He incorporated the sociological macro-approach of fertility analysis in his micro-economic theory. He contends that fertility is a function of a number of biological and cultural factors which determine the supply of children.

A number of empirical studies on economic benefits and costs of children have been conducted since the 1970s, especially in Asia. Studies conducted by Arnold and Fawcett. (*1975*), Espenshade (*1977*), Nag et al., (*1977*), Cain, (*1978*), Bulatao (*1979a*), Caldwell and Caldwell (*1987*), and Boserup (*1990*), for instance, have emphasized the importance of the economic value of children in influencing parents in making fertility decisions.

Cain (*1978*) found that, at least in Bangladesh, children were net producers of

wealth. Male children are net producers as early as age 12 and begin compensating their own cumulative consumption. Both boys and girls begin economic contribution at the age of six, performing duties such as caring for siblings, gathering fuel and fetching water. Between ages eight and nine, boys herd cattle and fish, while by the age of 11, girls are involved in food processing and preparation. As is the case with children in many other developing countries, they continue to assist their parents economically even when they become adults. Results from a comparative study of villages in Java and Nepal, reveal that male children worked about 3.3 to 4.8 hours a day between ages 6 and 14, while girls put in 3.5 to 8.7 hours in Java, while in Nepal, boys worked between 3.7 and 7.5 hours per day, while girls worked between 4.9 to 9.9 hours (*Nag et al., 1977*). Based on such findings, Nag and his associates concluded that children most probably have a net economic value to their parents in the two villages studied. Nag and his colleagues also examined the living arrangements for old people in both Java and Nepal. They found that out of 121 couples, only about 15 percent lived alone. Most of the elderly couples lived with their grown-up children.

Unlike Nag and his associates, Lindert (*1983*) does not feel strongly about the extent to which children support their elderly parents by living with them in the same households. He indicates that since parents retain the ownership of land or home, it is not clear who is supporting whom. He further argues that under such circumstances the elderly parents implicitly support the young generation with free rent in exchange for personal labour.

Notwithstanding Linder's arguments, Caldwell (*1986*), Banda and Gasie., (*1985*) and McNicoll (*1989*) assert that in most parts of Africa, traditional land is held communally. With the available communal land in rural areas, there is a general belief that more land means more food. This renders the question of rent irrelevant.

Some studies show a link between children's participation in economic activity and fertility. Rosenzweig and Evenson., (*1977*), using Indian macro-data, found a significant positive relationship between children's wage rates and birth rates. They proved that an increase in the value of children's earning opportunities has a statistically significant

positive effect on completed family size. These studies have been read by some African scholars and have aruosed their interest in population growth issues.

In Africa, children are valued in part for their economic contribution to their families. Okediji et al., (*1976*) and Caldwell, (*1982*) indicate that the life netflow of wealth in the Nigerian population is still in favour of the older generation. They charge that such netflows are the strongest possible incentives for the maintenance of high fertility levels in Nigeria, as in many other African countries. Their findings indicate that because budgetary obligations spread beyond the nuclear family, later children become less expensive. For instance, children's school expenses may be paid for by educated older siblings. Under such circumstances, parents only strive to educate the first and second child. Thereafter, children take care of each other.

The few studies which have been conducted in Zambia support the studies by Caldwell, Okediji, and others. Colson (*1958; 1967*), Banda (*1983*), Munachonga (*1988*) and Banda (*1989*) indicate that young children make significant contribution to the economic well-being of their parents. Girls help in domestic work which includes cooking, sweeping, smearing houses/huts with mud, pounding, and fetching water and firewood. Boys participate in masculine jobs which include herding cattle, hunting, ploughing, building houses/huts, building food-stores and kraals, and carrying messages within the communities.

Data collected in a study on farming and family economy in Chinsali district of Zambia reveal that children under 12 years old account for 13 percent of all farm labour (Integrated Rural Development Project [IRDP], *1985*). In urban areas, children participate in street vending, selling at markets, tire mending, shoe shining and queuing for scarce essential commodities (*GRZ/UNICEF, 1986; Banda, 1989*). In addition to having the right to their children's labour, parents also have the right to receive bride-wealth for their daughters, to inherit a portion of any child's property, and to demand gifts from their children (*Colson, 1967; Munachonga, 1989; Banda, 1989*).

Scholars of values and costs of children distinguish between real and perceived values and costs. Mueller (*1976*), in a study of economic correlates of fertility in Taiwan,

interviewed 2,000 respondents and found that those with low income and education expected greater economic benefits from their children compared to those with higher income and education. She concluded that the lower the education and income of parents, the higher is the perceived utility of children, as well as the confidence in children's ability to help. Similar results were obtained by Ross and Isaac., in 1988.

Systematic studies of values and costs of children have been conducted under the auspices of the East-West Population Institute in Hawaii. The Value of Children (VOC) projects in Taiwan, Thailand, Indonesia, Philippines, Japan, Turkey, Germany and the US are worth citing. Unlike in the latter three countries, in the former four these studies have highlighted the common findings that perceived economic dimensions of children are important to parents in making fertility decisions (*Arnold and Fawcett., 1975; Buripakdi, 1977; Bulatao and Fawcett., 1983*). The degree of expected help from children, is therefore positively related to fertility levels and inversely related to socio-economic development (*Bulatao, 1979b*). Expected help in old age, and expected financial and practical help, decline as fertility declines.

Earlier findings from Zambia reveal that the importance of the expected help from children differs by socioeconomic class. In an Economic Commission for Africa [ECA] (*1985*) study of Lusaka and Keembe, about 47 percent of respondents wanted large numbers of children because they wanted company and old age support. Disaggregated data (for high density and low density areas of Lusaka) revealed that the percentage of respondents wanting large numbers of children for both company and old age security in the high density areas and medium density areas were the same at 49.3 percent while for highly educated and high income (low density areas) it was 41.3 percent (*ECA, 1985*). This implies that education and economic status have some influence on how couples value children.

Not all studies have emphasized the importance of benefits of children; some have stressed their costs. Using-cross national data from a number of developing countries, Mueller (*1976*) concludes that children are an economic liability even in agricultural societies. She argues that work contribution by children is not large enough to prevent

them from being an economic burden and that children consume substantially more than they produce until they reach the age of 15 to 19. She concludes that children are, therefore, a net-cost even in peasant societies. Mueller further reports that most husbands were aware of the disadvantages of large families. Most respondents in her study indicated that children are financially difficult to raise.

Lindert (*1983*) also postulates that a child is probably an economic burden even in the least developed countries. He further submits that most studies measure children's work and wage rates during the harvest season, when their wage is relatively high, rather than in slack season. Caldwell (*1983*) reported lower labour contribution from children in some parts of West Africa, especially in urban areas.

Commenting on results from East Africa, Molnos (*1968*) concludes that large numbers of children are more of a burden to parents than a help. He argues that in many areas the increasing shortage of land prevents large families from producing sufficient food since they still depend on inefficient traditional methods of agriculture. Modern production methods and investments, which are needed to boost production, are inaccessible to the bulk of farmers. Fornos and McNicoll (*1987a; 1987b*) arrived at similar conclusions in separate Kenyan studies. In their opinion, children who are unskilled only add to the household burden.

It is in modern economies that the opportunity costs of having many children influence fertility behaviour more than in rural traditional societies. In developed economies, women generally cannot earn money and look after their children at the same time. In traditional rural societies, women often can do their work while keeping their children with them, or leaving older children at home undertaking various responsibilities under the supervision of elderly members of the extended family. In modern societies children are sent to day care centers which is a further drain on the family income.

Needless to say, although many studies have concluded that economic value of children tends to decline with modernization, the perception of values and costs of children is complex because it is influenced not only by socio-economic environments but also by personal values. This is what slows the implementation of antinatal population policies. This is not an easy problem to resolve, but individual governments can play a

major role in changing the socio-economic environment and transforming personal values by being committed to antinatal policies. The next section examines what advocates of antinatal policies expected of governments in curbing population growth.

2.10. Government's commitment

In order for any official population policy to succeed the government must show some kind of commitment. It can do this by being a leading actor in certain activities while in others its major contribution is likely to be in encouraging other potential players. It is the government's responsibility to mobilize commitment throughout the political and administrative hierarchy. The government can achieve this by initiating and encouraging public discussion of population and family planning in which both national leaders and the rest of the citizens should be involved. The government should also be responsible for ensuring social acceptability and support of family planning programs outside the government.

Among other things the government must take the lead in encouraging provision of services by the private sector as well as the government itself. The government should play a leading role in disseminating information about family planning and developing a social consensus on its legitimacy. Once a population policy has been adopted the government must provide policy leadership in program design, easing of restrictions on the use of various contraceptive methods and using innovative outreach and community programs.

One common problem governments face in implementing population policies is the allocation of meagre resources. Demeny (*1975*) and World Bank (*1986a*) maintain that any government can show its commitment to population policy by collecting data needed for resource allocation. During the early stages of population policy implementation data collection and analysis are vital. Any government which is committed to the implementation of a population policy should be committed to sponsoring censuses, periodic surveys and vital registration schemes.

Reliable data on population size and growth are critical for encouraging the public to support anti-natalist policies in countries where population growth rates are high. The

public need tangible data to be convinced that they have a population growth problem. Reliable data are also needed for monitoring trends and effectiveness of policies over time. Demeny (*1975*) and World Bank (*1986a*) argue that without accurate information, policy makers will act slowly and cautiously. It is worth noting that to date no African country has a comprehensive national vital registration system (*Goody, 1990; PRB, 1992b*).

Another way in which a country can demonstrate its commitment to regulating population growth is by being the main sponsor of research and analysis of work on population issues and problems. There is need for assessing the baseline demographic situation to identify factors that affect current population dynamics. Such diagnoses help in the selection of culturally appropriate interventions to reduce fertility. Research is also crucial to the success of population policy implementation in that it can help the government to determine how to improve service delivery, evaluation and adoption of contraceptive technology that is suited to rural areas with minimal health infrastructure. African countries need special research focused on cultural values and attitudes which would affect the acceptance of modern family planning technology.

Governments would also play a very important role in coordinating both government and private programs to ensure an integrated approach. Very few African countries have established a coordinating body whose responsibility is to build political consensus, argue for financial support for population policies, allocate finances among institutions, provide guidance on program implementation and assess and adjust the strategy as experience is gained. This is despite the fact that the World Bank (*1986a*) and UN (*1989*a; 1989b) maintain that most countries in Africa, except Chad, Gabon, Guinea-Bissau Ivory Coast and Mauritania, now support the goal of lowering fertility to achieve demographic targets or for health reasons.

2.11. Noticeable gaps in literature

After reviewing available literature it has been discovered that there are still some gaps which need filling. Examples of these gaps include:

. lack of clarity in the classification of African countries according to specific policies;

. inadequacy in information regarding reasons why African countries have different population policies;

insufficiency of information about the conditions under which Africa's population policies are adopted and implemented on the one hand and impeded on the other.

.Zambia is not clearly placed in the African context in terms of the roles of government and non-government agencies and local and international organizations in promoting population programs and policy; and

.lack of an assessment as to whether or not Zambia's social, political and economic environment is conducive to the successful implementation of its newly adopted population policy.

Following the identification of these gaps the specific objectives and hypotheses presented below were developed.

2.12. Specific objectives of the study

In more specific terms, this research has the following objectives:

1. To identify the population policy of each African country. Countries are classified on the basis of their policies into four broad categories: pro-natalist, anti-natalist, non-committal pro-natalist and non-committal anti-natalist.

2. To determine the reasons why certain countries have taken particular positions regarding their population problems. This will help us to identify some of the reasons for countries adopting or not adopting explicit population policies.

3. To evaluate the conditions under which population policies are adopted and implemented or

4. To place Zambia into the African context through an in-depth study. Zambia's population trends are reviewed, and the roles of government and non-government agencies and local and international organizations in promoting or delaying the implementation of explicit population policies are examined.

5. To assess whether or not Zambia's social, political and economic environment

is conducive to the successful implementation of its newly adopted population policy.

2.13. Hypotheses

In order to achieve the objectives presented above, the following working hypotheses are formulated and tested:

Hypothesis 1

The first objective of this study is to group African countries into four categories. In response to this objective, the first hypothesis is

African countries cannot classified according to population policy.

This lack of clear classification leads to confusion among scholars of African population policies and would-be sponsors. Cartographic techniques will be used in order to present a clear classification.

Hypothesis 2

The second objective of the study is to determine why certain African countries have taken particular positions regarding their population problems. A hypothesis related to this objective is

> **that although most African countries have different reasons for adopting or not adopting official anti-natalist policies, most of the countries need such policies.**

Addo and David (*1974*), Goliber (*1989*) and Caldwell et al. (*1992*), among other scholars, have shown that some African countries have had high growth rates since the 1930s when Crude Death Rates (CDRs) started falling, and that since the 1970s the standard of living has fallen as growing population put increasing pressure on declining economies. African governments should no longer neglect antinatal policies.

Hypothesis 3

The third objective of this study is to evaluate the conditions under which population policies are either adopted and implemented or impeded. The hypothesis formulated from this objective is

African countries have tended to wait until their high growth rates and

pressure on their resources become very critical before adopting anti-natal policies. This coupled with traditional culture, and in some cases religious beliefs, has tended to retard progress in family planning while population continues to grow rapidly.

Rogge (*1982*) and UN (*1987b; 1989b; 1990*) have maintained that reluctance in adopting official antinatal policies among African countries needs further examination.

Hypothesis 4

The fourth objective of this study is to put Zambia into the African context by carrying out an in-depth study. The hypothesis formulated for this objective is

that Zambia's anti-natalist population policy was adopted rather late; as a result, its population growth rate is among the highest in Africa and is likely to continue rising mainly due to strong long-standing cultural practices and lack of government support for family planning programs.

It is suggested that population growth rate is likely to remain high unless an anti-natal policy is taken seriously by Zambians and both local and international organizations work hand in hand to avoid duplication of efforts or conflicts in activities.

Hypothesis 5

The fifth objective of the study is to assess whether or not Zambia's social, political and economic environment is ready for the successful implementation of a population policy. The working hypothesis in response to this objective is

that with strong cultural practices, low education levels and a very weak economic environment the Zambian government will find it difficult to implement its newly adopted policy.

It is suggested that it is easier to implement an antinatal policy in societies where cultural beliefs and taboos related to procreation have been transformed and where both governmental and non-governmental organizations have the necessary means for disseminating family planning services.

Data for achieving the stated objectives and testing the hypotheses were collected using the methods outlined and discussed in Chapter Three.

CHAPTER THREE

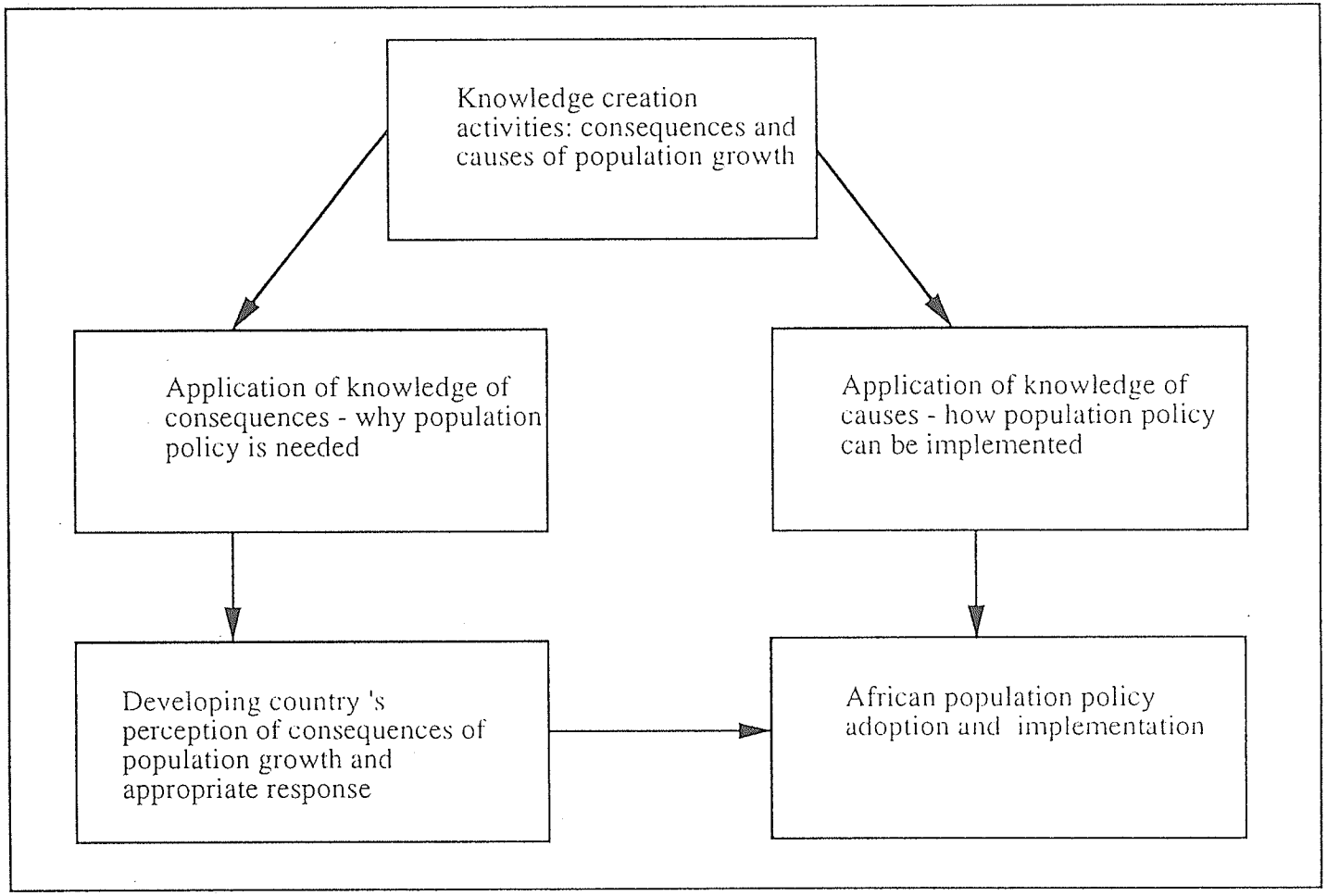
METHODOLOGY

3.1. Introduction

This study compares population policies throughout Africa and specifically focuses on Zambia's policies. Two major theoretical approaches are used, namely; the *cross-national* and the *institutional* approaches. Through the cross-national approach, population policies of different African countries are compared. This necessitates the use of secondary documents as sources of historical information. The use of historical data gives the researcher the opportunity of studying changes in policies, attitudes and behaviour (*Godwin, 1975b*). It also helps explain why public agencies and private institutions in some African countries (Zambia included) have changed from questioning the desirability of fertility reduction programs to taking steps to encourage them, while other countries have maintained their traditional pro-natalist stances. The review of various population policies has been guided by the population policy process model presented in Figure 3.1.

This model suggests that before a government can adopt and implement a population policy adequate demographic research and debate must be conducted. Such research and debate cannot be carried out unless planners and policy makers appreciate the causes and consequences of population growth. Such knowledge can diffuse from other countries which have already adopted and implemented population policies. It can hardly be overemphasized that the need to have an explicit anti-natal population policy comes from economic or environmental pressures within a given country. Once the causes are understood, the consequences of rapid population growth must also be assessed in order to speed up the adoption and implementation of a population policy. Figure 3.1 also sets forth the fact that the status of population policies (i.e. whether countries have official policies or not) in Africa depends largely on how individual governments perceive the consequences of population growth. With the use of secondary data, this study will trace how different African governments perceive their respective population problems.

Figure 3.1 :
A Model of Population Policy Process



Adapted from Godwin (1975b:271)

The second approach is based on the institutional model. The role of governments and private institutions in population education and population policy implementation is reviewed. The framework illustrated in Figure 3.2 is used as a guideline.

Briefly the linkages presented in this framework my be explained as follows:

. **Linkage A** presents the effect of environmental forces and conditions on public policies.

. **Linkage B** refers to the influence of political and governmental institutions, processes and behaviour on public policies.

. **Linkage C** refers to the effect of environmental forces and conditions on public policies.

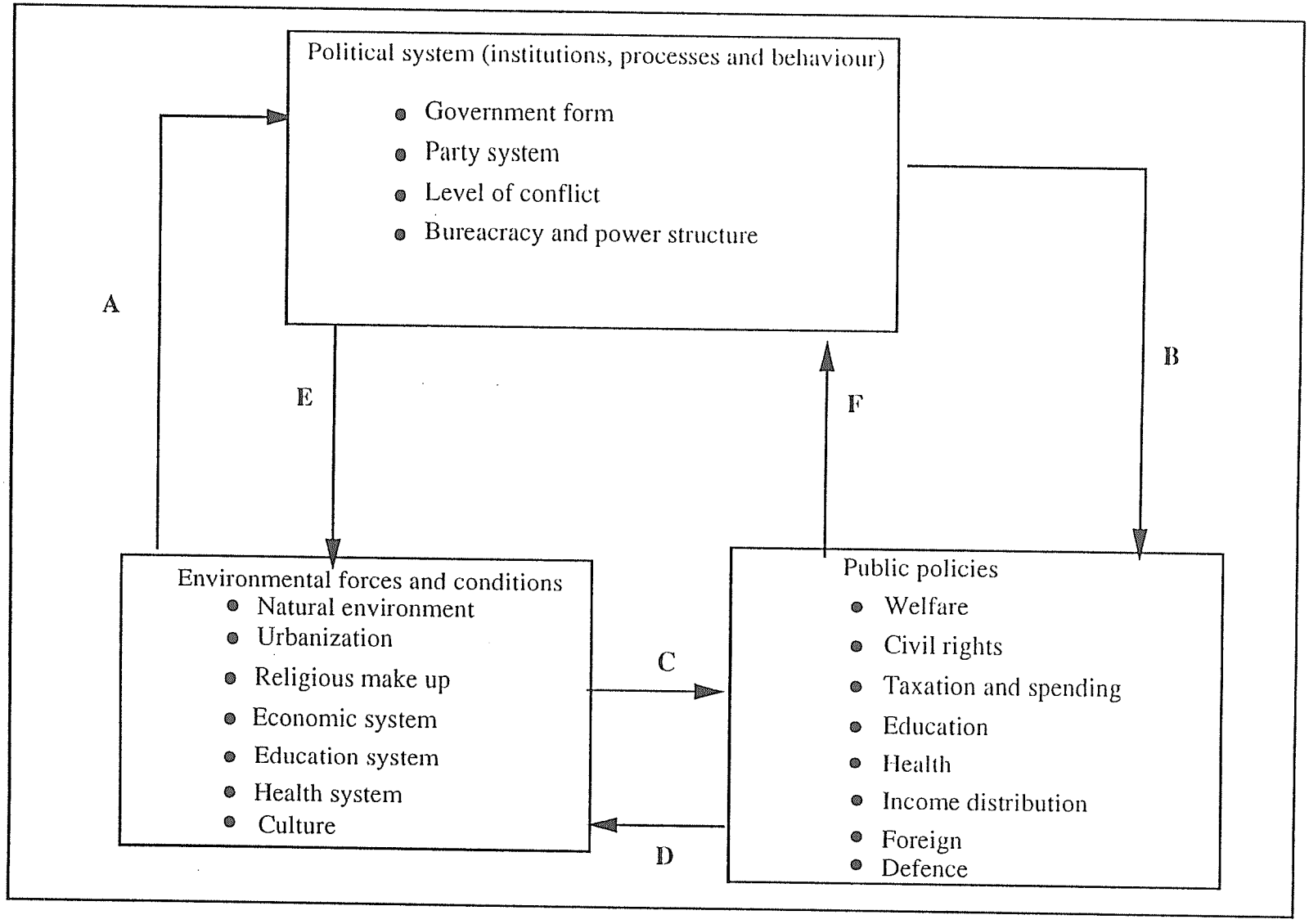
. **Linkage D** refers to the effects (feedback) of public policies on environmental forces and conditions.

. **Linkage E** refers to the effect of political and governmental institutions on environmental forces and conditions.

. **Linkage F** refers to the effect of public policies on political and governmental institutions, processes and behaviour.

These linkages are of great importance in analyzing anti-natal population policies because they help determine governments' motivations for implementing new policies. For example, some governments are forced to adopt population policies because of the harshness of the physical environment. In Mauritius and Japan, shortage of arable land placed limitations on agricultural and other economic activities (*Greig, 1973; UN, 1989a, 1989b*). In other cases, the speed with which a government chooses to adopt and implement a population policy might depend on the existing political systems. UN (*1989a, 1989b*) indicate that it has been easier for capitalist countries to adopt and implement anti-natal population policies than for socialist countries. Under socialist regimes, efforts to implement population policies, let alone birth control programs, have been impeded by the ideological beliefs of those in power.

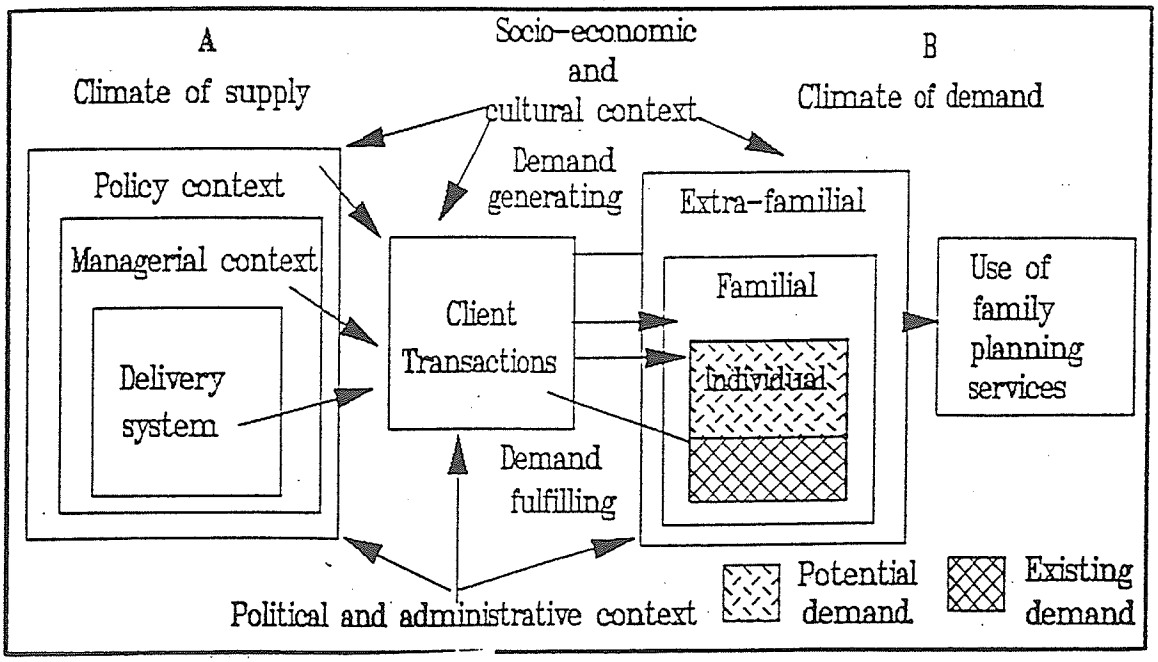
Figure 3.2:
Linkage of Population Policy Analysis



Source: Adapted from Thomas (1972:5)

Simmons and Phillips, (1990) explain the linkages illustrated above in a different way. They argue that the diffusion of a new family system is not easy and requires the transformation of the existing society (with associated value systems). Although the transformation of existing society can sometimes occur spontaneously, effective family planning programs can play a big role in speeding the process. If programs are to influence human behaviour they must effectively interact with would-be behaviour in some manner and at some point in time. Such interactions are called *proximate operational determinants of fertility* (*Simmons and Phillips; 1990*). Figure 3.3 illustrates this perspective. Access to and use of family planning services, in this framework, is affected by two sets of determinants namely: (a) 'the climate of supply' and (b) 'the climate of demand'. These two sets of determinants are discussed in Chapters Four and Five in the case of Africa and in Chapters Six and Seven in the Zambian case.

Figure 3.3:
A conceptual framework for the role of client transactions as proximate operational determinants of fertility regulation.



Source: Simmons and Phillips (*1990*).

While proximate operational determinants mediate the effect of family planning programs on the demand for services on the one hand, societal, economic, administrative and political institutions exert independent and exogenous influences on these critical sets of determinants (i.e. both supply and demand) on the other. Simmons and Smith (*1990*) define the necessary channels through which the effects of different variables are exerted. If the supply side is to have any effect it must interact (directly or indirectly) with the client population. Client transactions are additionally prone to influences from the socio-cultural, institutional, and political/administrative context in which they are embedded.

In understanding the proximate operational determinants of fertility behaviour regulation, it is important to conceptualize transactions not only at individual level but also at levels of family, be it nuclear as in Western countries, or extended as in Zambia. This is crucial because some program strategies focus predominantly on interactions with individuals while others are directed at community institutions.

Efficiency in the adoption and implementation of a population policy might also be affected by the existing administrative structure. Most of the less developed countries (LDCs) which have successfully implemented population policies, such as Mauritius and Zimbabwe, have used a decentralized system in which people implement their own programs in their own communities (*Greig, 1973; Mhloyi and Mate, 1986*). Local governments at both district and community levels are given the necessary power to decide on what programs to adopt. They also have the autonomy to decide how to implement the programs they have chosen. Most of the program officers are recruited from within the community rather than being imposed on the communities by the central government or family planning headquarters. This has proven to be a better system than the centralized one in which planners try to implement family planning programs from first order development centres (national capitals) without being familiar with or sympathetic to their clients' customs or traditions.

3.2. Data collection

Two major sources of data were used for this study, namely, secondary and primary. Secondary data were obtained from a number of data banks while primary data

were gathered from respondents, in summer and fall of 1989, through both structured and unstructured interviews.

3.2.1. Secondary data collection

Secondary data have two advantages. Firstly, they allow for a clear understanding of how different governments have changed from questioning the necessity of population policies to taking steps to support them. Secondly, they allow us to understand the obstacles different countries have experienced in adopting and implementing different policies. The secondary data sources are presented in Appendix B:

3.2.2. Primary data collection

The second approach entailed the collection of primary data using both unstructured and structured interviews. In cases where heads of households were interviewed, a structured interview schedule was used. Unstructured interviews were used for eliciting information from heads of government and non-governmental institutions which are involved in population activities.

3.2.3. Unstructured interviews

A number of government and non-governmental institutions, namely, the Ministries of Health, Education and Information and Broadcasting, the Central Statistical Office (CSO), the National Commission for Development Planning (NCDP), Freedom House, Planned Parenthood Association of Zambia (PPAZ), Family Life Movement of Zambia (FLMZ), Kabwe Docus Family Planning Project (KDFPP), religious denominations, and the Zambia Congress of Trade Unions (ZCTU) were approached for information and permanent secretaries and directors of these institution were targeted for interviews. These institutions were selected purposively depending on the author's knowledge of population activities in the country and after consultation with staff at National Commission for Development Planning, a government institution which is part of the Office of the President. This institution was directly involved in developing Zambia's population policy which was officially adopted on May 17, 1989. All institutions which

were actively involved in population activities in the country were included in the sample.

3.2.4. Nature of questions for unstructured interviews

Thirteen questions aimed at evoking a discussion with groups of respondents were prepared. The main focus in the unstructured interviews was on the role of the selected governmental and non-governmental organizations in Zambia's population activities. The actual questions which were used are presented in Appendix D.

. **Questions 1-3** focused on the historical background of the organization, its objectives and approaches for attaining the intended objectives.

. **Question 4** elicited information about each organization's achievements since inception. This question is linked to the third objective since it draws information about individual organizations' involvement in population activities.

. **Questions 5-10** concentrated on the amount and quality of support each non-governmental and governmental organizations receive from both local and international institutions.

. **Questions 11-12** aimed at eliciting information on the anticipated role of both the respondent and the respondent's organization in the implementation of the newly adopted population policy. These questions are partly related to the fourth objective.

. **Question 15** focused on the anticipated obstacles to the implementation of Zambia's population policy. This question relates to the fourth and fifth objectives.

The Delphi technique was used in administering the unstructured interviews. This approach allows the researcher to elicit opinion from a group of respondents with the aim of coming up with a group response. For example, instead of interviewing the Permanent Secretary, the Director of Population Communication and his field staff individually in the Ministry of Information and Broadcasting, a group conversation was organized. The Delphi approach tries to avoid direct confrontation with individuals (*Smill, 1974*). The main advantage of this approach is that wherever necessary some answers given by individuals can be reinforced by other members of the panel.

In choosing sample points in urban areas, two stage sampling schemes were used (see Figure 3.4). A sample was taken by first selecting respondents from the national

capital in Lusaka. Second, respondents were selected from provincial headquarters in Ndola, a mining town which is also the provincial headquarters of the Copper Belt Province; the most urbanized province in the country; Kabwe (the provincial head quarters of the Central Province, which lies between Lusaka and Ndola and is also a mining town); and Livingstone which is the provincial headquarters of the Southern Province and is also well known as the tourist capital of Zambia. These centres were selected because they are cores of economic development, modernization and other innovations. It is therefore assumed that these centres which are along the country's main railway-line would be the first stages in the diffusion of population planning programs.

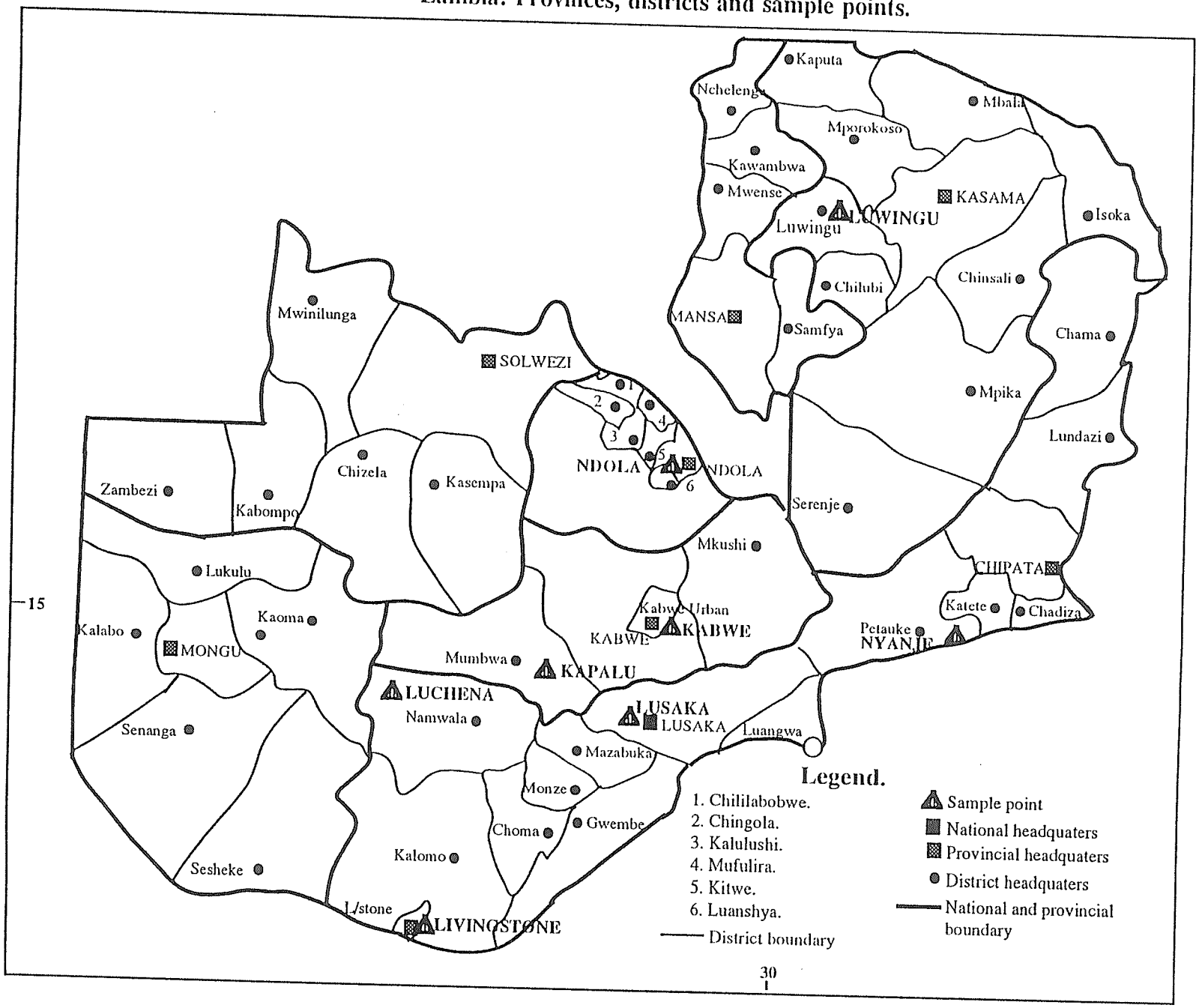
3.2.5. Structured interviews

The elicitation of opinions from 796 heads of households used an interview schedule which was administered in the four urban areas namely, Kabwe, Livingstone, Lusaka and Ndola and four different rural locations, namely Kapalu (in Central Province), Luwingu (in Northern Province), Luchena (in Southern Province) and Nyanje (in Eastern Province). Figure 3.4 illustrates various sample points while Table 3.1 illustrates the distribution of respondents according to each sample point.

3.2.6. Sample design

A multi-stage stratified-cluster sample design was adopted. This design is suitable for most household surveys conducted by Central Statistical Office (CSO) because it reduces costs, in terms of travel and time (*ECA, 1984; CSO, 1986b*). For example, instead of listing all households in sample areas (in the case of simple random sampling), listing was only done in selected clusters. Clustering is also found useful in Zambian sample surveys because there is no up to date comprehensive list of households for the whole country (*CSO, 1986a*).

Figure 3.4:
Zambia: Provinces, districts and sample points.



3.2.6.1. Frame

Zambia is administratively divided into nine provinces (see Figure 3.4). In most cases provinces are used as statistical realms of study (CSO, 1986c). It is common to designate them as strata. Provinces are administratively divided into districts (see Figure 3.4). Districts are demarcated into Census Supervisory Areas (CSAs) which are in turn subdivided into Standard Enumeration Areas (SEAs). A SEA is supposed to have properly defined and identifiable boundaries. Thus, SEAs are treated as primary clusters in this study.

In each of the selected clusters a complete list of villages or localities was compiled. For each village or locality, households were listed with identification particulars; AA; AB; AC; AD; AE; AF; AG; etc. It is the household list in selected villages and localities that was the ultimate sampling frame.

3.2.6.2. Sample Selection

In the first place the seven rural provinces were stratified according to fertility levels as estimated from the 1980 census of population (CSO, 1986a; 1986b; 1986c). Luapula and Northern provinces have the highest fertility with total fertility rates in 1980 estimated at 8.0 and 7.7 respectively (*CSO, 1986b*). Eastern, Central and North-Western provinces had in relative terms moderately high fertility ranging between 6.9 and 7.1 respectively. Southern and Western provinces had the lowest fertility, with total fertility rates estimated at 6.5 and 5.7 for Southern and Western provinces respectively (CSO, 1986a; 1986b; 1986c).

Representativeness was also ensured by selecting respondents from populations with three different characteristics namely, matrilineal (Nyanje and Luwingu), patrilineal (Luchena and Kapalu) and a mixture of matrilineal and patrilineal (Kabwe, Livingstone, Lusaka and Ndola).

Four rural strata, namely Northern, Eastern; Central and Southern were chosen from which the ultimate survey units were selected. Two strictly urban provinces namely Lusaka and Copper Belt were included. In each of the rural provinces one district was chosen. On average a province has six districts. The following are the selected districts:

Eastern: Petauke; Central: Mumbwa; Southern: Namwala; Northern: Luwingu. The reason for distinguishing rural from urban respondents is that while the majority in rural areas are principally engaged in agriculture those in urban areas are employed in government or manufacturing or other commercial concerns. Most people are employed in the formal sector, although there is a sizable proportion of the urban population currently marginalized in the informal sector. Distinguishing respondents according to rural and urban locations was another way of obtaining a representative sample. Figure 3.4 shows the location of these districts.

In each district an updated list of SEAs was used for selecting clusters. The clusters were originally listed in order of size based on number of households as per 1980 census. A 25 percent sample cluster was selected both in rural and urban areas. From the list of households in selected clusters one third were randomly selected, allowing each household a 33.3 percent chance of being selected (for example the Luwingu sample = 33.3% of the Luwingu cluster).

Only aldults aged 15 years and above were included in the sample. In the final analysis a cross section of people in terms of marital status was selected (see Table 3.1). Of the total 796 respondents 46.9 percent were women and 53.1 percent men; 61.9 percent were from rural areas, and the remaining 38.1 percent were from urban areas.

The sample used in structured interviews was classified into different categories in terms of educational attainment. Only 47 (5.9 percent) had not attended any formal schooling, while 280 (35.2 percent), 291 (36.6 percent), 178 (22.3 percent) had attained primary, secondary, and post-secondary education, respectively. A total of 600 married females and males (75.4 percent of the total sample) were included in the sample. The remaining 151 (19.9 per cent), 42 (5.3 percent), 1 (0.1 per cent) and 2 (0.3 per cent) were single, divorced, separated and widowed.

Classification of respondents according to religious affiliation reveals that 513 (64.5 percent) of the respondents were Protestants and 223 (28.0 percent) were Roman Catholics. The balance of 60 respondents (7.5 percent of the total respondents) were non-Christians.

Table 3.1.
Distribution of respondents for the structured interviews according to sample areas.

Sample area	Respondents					
	Number selected	Number inter-viewed successfully	a	b	c	d
Rural						
Luwingu	130	101	77.7	17.7	20.5	13.1
Nyanje	152	132	86.8	23.2	26.8	16.6
Kapalu	125	113	90.4	19.8	22.9	14.1
Luchena	163	147	90.2	25.8	29.8	18.5
Sub-total	570	493	86.5	86.5	100.0	61.9
Urban						
Lusaka	150	133	88.7	35.5	43.9	16.7
Kabwe	75	55	73.3	14.7	18.2	6.9
Ndola	75	62	82.7	16.5	20.5	7.8
Livingstone	75	53	70.7	14.1	17.5	6.7
Sub-total	375	303	80.8	80.8	100.0	38.1
Total	**945**	**796**	**84.2**	**84.2**	**100.0**	**100.0**

'a' as percentage of selected respondents at sample point.
'b' as percentage of total selected respondents in sub-sample (either rural or urban).
'c' as percentage of total respondents interviewed in sub-sample (either rural or urban).
'd' as percentage of total respondents interviewed in the study.

Overall the largest proportion 187 (50.2 percent) of female respondents were drawn from the most sexually active age group (20-39 years), while 117 (31.3 percent) were aged between 40 and 44 years. The balance, 35 (9.4 percent) belonged to the 15-19 age group.

An attempt to classify the respondents according to income groups revealed that 399 (50.1 percent), 208 (26.1 percent) and 189 (23.8 percent) belonged to low, medium and high income groups respectively.[5]

Zambia's rural areas consist mostly of small and widely scattered villages. The survey was carried out when people had finished harvesting and most of them spent most of their time relaxing in villages. Field work was scheduled to avoid the rainy season, when flooding hinders communication in much of the country.

3.2.7. Enumerators

Four enumerators were recruited to collect data in the selected rural areas while two, together with the principal researcher, concentrated on urban areas. These enumerators had previous experience in field survey work. They had worked as interviewers in censuses and household surveys. Four of the selected enumerators had post-senior secondary school education. The other two had senior secondary school education. They also were fluent in the local language common in the area in which they were enumerating, i.e. English, Bemba, Chewa, Lenje and Ila. Briefing of enumerators was considered an important component of the survey operation. Three days were devoted to this purpose. A number of topics were emphasized during the briefing, including the objectives of the survey, how to avoid putting answers in the respondents' mouths, confidentiality, profile of the questionnaire, importance of following instructions, reading and recording of answers and techniques of probing. The three day briefing was followed by field trials for pretesting the questionnaire. Necessary modifications

[5] According to Zambian standards, the low income group includes those respondents earning between 0 and 500 US $ per annum. Those earning between 501 and 1,000 US $ belong to the medium income group while those earning above US $1,000 per annum were classified in the high income group (*GRZ, 1989b*).

(especially wording of certain concepts and cutting down the number of questions) to the questionnaire were made after field trials.

3.2.8. Nature of questions asked in the structured interviews

The interview schedule was divided into six sections (see Appendix C):

. ***Section A*** focused on the respondent's age, place of birth, gender, religious affiliation, educational attainment, occupation and household income. These were to be used as independent variables. These questions are relevant in testing most of the hypotheses.

. ***Section B*** concentrated on the respondent's migration history. It was assumed that migration history would help determine the length of rural and urban residence among the respondents.

. ***Section C*** dealt with the respondent's family history. Questions in this section focused on marital status and fertility history. In more specific terms, questions in this section elicited information regarding age at first marriage, children born to the respondent, household size, additional number of children desired, reasons for wanting children, kind of support accorded to the children and assessment of the support provided to the children. Question 15 was a composite question which required the respondent to give the date of birth and death (where applicable) for each child. Most of these questions were also linked to the fifth hypothesis.

. ***Section D*** focused on the respondent's perception of Zambia's population problem. Respondents were, therefore, asked to state whether they thought Zambia had a population problem or not. Those who thought that Zambia had population problems were asked to list the perceived problems in order of importance.

. ***Section E*** asked respondents to state the number of children they desired and their reasons for choosing that number. In addition questions focused on the frequency of the respondent's involvement in discussions about family size. These questions are associated with the fifth objective as well as hypotheses 1, 2, 3 and 4.

. ***Section F*** concentrated on the respondent's history of use of family planning methods. These questions relate to hypothesis 5.

. ***Section G*** focused on whether or not it would be legitimate for the Zambian government

to assist both potential and current parents to plan their families. This was an indirect way of finding out whether or not respondents thought it was appropriate for the Zambian government to legislate on family planning. Those who indicated that it was reasonable for the government of Zambia to give assistance to those in need of family planning assistance were asked to suggest how the government should go about doing so. Those who gave a negative response to question 42 were asked to give reasons why they disagreed.

The personal interview method of data collection was adopted because it was the most convenient under rural Zambian circumstances. The other alternative, the mailing of questionnaires, would have resulted in very high non-response as the postal system is inadequately developed, especially in the remote rural areas. Empirical studies in Zambia as well as other parts of the world reveal that person to person interviews normally yield much higher response rates than do mail interviews (*Banda, 1989; Raj, 1974*).

3.2.9. Limitation in data sources

As is the case with any study, data used in this study are not free of shortcomings. For the sake of clarity, this section will identify the limitations in the secondary data and primary data sets.

3.2.9.1. Limitations of secondary data sources

Although this study benefited substantially from various reports from the UN, the Population Council, the Futures Group, the Population Reference Bureau and the Population Crisis Committee, not all of them were in English. Some of the "Needs assessment on population and development" reports which were collected from UNFPA were written in Spanish, Portuguese or French. Depending on the size of the documents some had to be translated, while alternative sources had to be used in the cases of those documents which could not be translated.

Overall, data on population activities for the period before 1975 is very scanty in almost all the data banks used in this study. The situation is much worse in Zambia compared to the North American sources/archives visited. The Zambia National Archives

records, which are the only possible sources of such data have no information whatsoever focusing on anti-natal population activities for the period before 1975.

3.2.9.2. Limitations of primary data sources

A few limitations of data collected using both the unstructured and structured interviews can be highlighted.

3.2.9.3. Limitations of data collected through unstructured interviews

A few problems were experienced in the unstructured interviews. Some modifications to the original sample design had to be made in order to conform to field conditions. In a number of instances it was not possible to interview the Permanent Secretary or the Director of a ministry or institution as was originally intended. In these cases junior officers who were involved in specific projects were assigned to the researcher by either the Permanent Secretary or the Director for interviews.

Neither was it possible to stratify the respondents in their working situations. It was originally intended that at the institutional level a stratification procedure would be used so that heads of departments and their deputies would form the first sampling unit. The senior administrators, who are normally part of the management would have formed the second stage units. The junior administrators and clerical officers would have formed the third and last stage. In all cases, permission from ministries was only given to interview those officers who were directly involved in population projects and were believed to be conversant with population activities. In cases where written reports were released to the researcher, there was some reluctance among officers to being interviewed as it was suggested that all the answers were available in the reports. This did not affect the quality of information obtained because the aim of using unstructured interview was to obtain background information in addition to what was collected through secondary sources.

3.2.9.4. Limitation of data collected through structured interviews

Due to the complexity and newness of the topic, some respondents had difficulty

comprehending certain questions. In some instances respondents resisted answering questions which they perceived as sensitive and personal issues, especially regarding the use of contraceptives.

Overall, the accuracy of the survey data cannot be easily measured. This is due to the fact that it is always difficult to ascertain the validity of responses from attitudinal questions such as were used in this study.

3.3. Data analysis and presentation

Any population policy and demographic information identified in reports have been analyzed qualitatively in order to assess the progress achieved or constraints as experienced by various governments and private organizations. All data collected through secondary data and unstructured interviews was recorded in note form hence no coding was possible. Notes obtained in the field were organized in topical form, for example, population policy experience of Ghana (motivating factors, local interest, encouragement from international agencies, etc.), Zambia's demographic trends, limitations of Zambia's economy, population activities before the 1974 Bucharest World Population Conference, and population debate and programs after the 1984 Mexico World Population Conference.

Since most of the questions in the interview schedule were open-ended, responses were summarized and coded after the survey was completed. Data were entered on a Lotus spread sheet on a personal IBM micro II systems computer. The frequency distributions of all variables were obtained. Proportions in the form of percentages were later used to summarize some of the data. Further analysis necessitated the use of the SAS program, so the edited data had to be transferred from Lotus to SAS.

In some cases, the "Stepwise Regression Procedure", which is a multivariate statistic, was used to test for the influence of independent variables on selected dependent variables.

The stepwise procedure is useful when data sets contain many independent variables and the intention is to find which of the variables should be included in the regression model. The regression analysis is helpful for exploratory analysis because it

provides insight into the statistical relationship between independent variables and responsive variables.

Five possible methods of model selection can be used in the stepwise regression procedure: the forward selection, backward elimination, stepwise regression which combines the forward and backward procedure, forward selection with pair switching (the maximum R^2 improvement - MAXR) and forward selection with pair searching (*Hocking, 1976*). In this study the MAXR is used to find the best one-variable model, the best two-variable model and so forth. The MAXR method begins by finding the one-variable model producing the highest R^2. Then another variable, the one that yields the greatest increase of R^2 is added. Once the two-variable model is established, each of the variables in the model is compared to each variable not in the model. For each comparison, MAXR determines if removing one variable and replacing it with the other variable increases the R^2. After comparing all possible switches, the one that produces the largest increase in R^2 is made. Comparisons begin again, and the process continues until MAXR finds that no switch could increase R^2. The two-variable model thus achieved is considered the best two-variable model the technique can find. Another variable is then added to the model and the comparing and switching process is repeated to find the best three-variable model, and so forth. This method also tests for significance by giving probabilities (*Hocking, 1976; Draper and Smith, 1981*). The Stepwise Regression model used in this study could be abbreviated as:

Model dependents = independents/options

In order to test whether there is a significant difference in the distribution of respondents between sub-samples in terms of attitudes to family size, awareness of high fertility and access to family services among Zambians, the Chi Square (X^2) test is used.

The X^2 test is a very flexible test which can be applied in one or more sample situations (*Ebdon, 1985*). The test is restricted to nominal (frequency) data and is non-parametric. It can be applied to other types of data, provided they are first put into nominal form. The X^2 is calculated as follows:

$$X^2 = \sum \frac{(o - e)^2}{e}$$

o = observed frequency

e = expected frequency

$\sum$ = eummation

The higher the X^2 the greater the significance of the difference between the observed and expected frequencies. A larger observed X^2 suggests that the null hypothesis can be rejected at a particular level of significance. Alternatively a probability value also shows how strong the observed X^2 value is.

The Spearman rank correlation coefficient which is a nonparametric measure of the degree of association between two ordinal (ranked) values is used in one instance (*Ebdon, 1985*). The equation for the Spearman correlation coefficient is:

$$r_s = 1 - \frac{6\sum d^2}{n^3 - n}$$

Where r_s = Spearman correlation coefficient

d = difference in ranking for each item

d^2 = the sum of squared differences

n = the number of pairs of rankings.

$\sum$ = summation

The Spearman coefficient can have a value between -1.0 indicating perfect negative correlation between the two sets of rankings and 1.0, indicating perfect positive correlation. A value of 0.0 indicates an absence of correlation. Test for significance is made possible by comparing the calculated r_s with the critical values of r_s. If the calculated value of rs is greater than the critical value at a chosen significance level the relationship between the dependent and independent variable the relationship is significant.

The student 't' test is the other statistical test that is used in analyzing part of the data in this thesis. It is summarized as:

$$t = \frac{\left| \bar{X} - \bar{Y} \right|}{\sqrt{\dfrac{(X^2/n_x) - \bar{X}_2}{n_x - 1} + \dfrac{(Y^2/nY) - \bar{Y}^2}{n_Y - 1}}}$$

The null hypothesis is that there is no difference between the means of the population from which the two samples were taken. If the calculated value of 't' is greater than the critical value at a chosen significance level the null hypothesis can be rejected (*Ebdon, 1985*).

Cartographic summaries of African countries in terms of status of both family planning programs and population policies are also made. In order to illustrate the achievements since the 1930s a number of maps processed using McDraw are presented. Other graphics were drawn using either Quattro Pro or Interactive Population Statistical Systems (IPSS).

CHAPTER FOUR

PRO-NATALISM IN AFRICA

4.1. Introduction

African countries' problems in regulating their high fertility result from deeply entrenched pro-natalism, which falls into two broad categories; 'cultural pro-natalism' and 'intensified pro-natalism'. All African societies are affected in one way or another by either or both types of pro-natalism. 'Cultural pro-natalism' has its roots in the traditional African socio-economic systems whose survival depends largely on the size of population. 'Intensified pro-natalism' emanates from high infant and child mortality, religious and political contacts African societies have had with the outside world (especially the West, the Middle East and Southern Asia), and tribal tension within individual countries.

The coming of Europeans, Arabs and Indians to sub-Saharan Africa resulted in the spread of new forms of religion and ideology. Of these Christianity and Islam accentuated the importance of procreation. Socialist and Marxist ideologies also contributed to the intensification of pro-natalism by emphasizing that poverty in Third World countries was not a result of high population growth rates but rather of the unequal distribution of wealth which is characteristic of the capitalist production system.

During colonialism, pro-natalism was partly reinforced by the need to defend against either the colonizers or neighbouring groups. In the post-colonial era some African countries have formally (by official government pronouncements and commitment) reinforced pro-natalism. Libya, Gabon, Central Africa Republic and Mauritania are good examples. In some countries anti-natalist programs have been resisted because of struggle for political power among individual tribes. Therefore, any efforts to analyze progress of or resistance to anti-natalist population policies in Africa should first explain the above outlined cornerstones of pro-natalism.

4.2. Cultural pro-natalism

In most traditional African culture, children are highly valued for five major

reasons. First, children are a source of labour. The more labour parents have at their disposal, the more productive their household is. They also command more respect within their community than do those with no children, especially when their children's labour is accessible to other members of the community (*Caldwell, 1983; Caldwell and Caldwell, 1985; 1987; McNicoll, 1989; Caldwell et al., 1992*). As will be explained later in this chapter, children's labour helps ensure their mother's security in marriage. Secondly, children are a source of wealth in the short term and later for old age security (*Oyamade and Ogunmuyiwa, 1981; Wulf, 1985; Sheshamani, 1988; Caldwell et al., 1992*). Thirdly, Africans believe that a large number of children ensure the growth and perpetuity of the lineage (*Bondestam, 1980; Banda, 1983; Gaisie and Giorgis, 1988; Banda, 1989*). Fourthly, African traditional religions emphasize the importance of procreation (*Mbiti, 1969; Adegbole, 1988; Omideyi and Van de Walle, 1988*). Fifthly, child fosterage, which is entrenched in the African extended family system, strengthens family relationship and reduces the burden of child rearing on biological parents and thereby encourages high fertility (*Caldwell and Ccaldwell., 1985; 1987; Fornos and McNicoll., 1987a; 1987b*). These reasons also explain why early marriages and polygamy have flourished in Africa.

Some Africans also believe that leadership qualities are developed only through the good management of large families. Personal relationships are at times regarded as more valuable than the possession of things. A large number of well-brought-up children is looked upon as the greatest of human achievements. African traditional societies strongly feel that a large number of children is a great contribution to the general vitality, security, harmony and prosperity of the whole ethnic and neighbourhood community (*Banda and Gasie, 1985; Boserup 1985; Banda, 1989; Caldwell et al., 1992*).

Overall, people who have many children are considered more responsible, are accorded more respect and have more influence in society than those with no or fewer children. In rural areas of Africa individuals without children, for example, rarely assume leadership. Normally, only individuals with children become either village headmen/women or chiefs/chieftainesses (*Banda, 1983; Omideyi and Van de Walle, 1988*).

Although there are many reasons why children are highly valued in African societies, the best way to analyze these reasons is by examining the roles of different members of a typical African household.

4.2.1. Parents' roles in a household

Apart from having control over his wife's (or wives') and children's labour, and overall household decision-making an African man also ploughs land or makes arrangements for its clearing and ploughing. He also earns income either through cash-cropping or wage labour on large scale farms or modern-sector employment. He is the family's "bread winner". In order to fulfil these responsibilities, an African man depends on his wife's or wives' and children's labour (*Addo and David, 1974; Caldwell, 1983; Dow and Linda, 1983; Boserup 1985*).

The labour contribution of children to the household economy reduces the costs the father might incur (especially in rural areas) in raising them. The other reason for this invisibility of the cost of children is that regardless of age, both sons and daughters remain committed to helping their parents as long as they live. Once they own their own farms or become otherwise employed, they support their parents and their younger siblings and thus relieve their fathers of the economic pressure of school fees and other financial obligations (*Caldwell and Caldwell, 1985; Munachonga, 1988*). Neither is the emerging land shortage in many African countries considered a reason for limiting fertility because older children can acquire their own land and do not, therefore, require a share of their father's land (*Wulf, 1985; Omideyi and Van de Walle, 1988*).

In contrast, a woman is responsible for feeding the family. She must carry food from the field, fetch water and firewood and prepare meals. She is also responsible for looking after children and for the overall training of her daughters (*Banda and Gasie, 1985; Boserup, 1985; 1989; 1990*). In order to supplement her husband's income she also engages in cash producing activities such as petty trade.

4.2.2. The role of children

Children are recruited into adult social roles and begin to help their parents at an early age. Children aged 6-16 typically work part-time on small-holdings, with highest participation rates during peak planting, weeding and harvesting seasons (*Banda, 1983; Baser and Lesa, 1990; Caldwell et al., 1992*). Although school-going children work mostly during school vacations, especially when their vacations coincide with the peak agricultural seasons, some schools in rural areas record much lower monthly average attendance during peak agricultural periods than they do at any other period of the year because parents require their children to work on the farm for at least part of the school week.

In most African societies the value of children is determined by the role they play in assisting their parents and other relatives in reducing their work load, providing them with wealth and old age security. Parents who have a large number of children are considered to be more productive (in terms of absolute output) in agriculture and more fortunate than those with relatively small number (*Banda, 1989; Caldwell and Ccaldwell, 1987*).

4.2.3. The status of an African woman

African women depend on their children more directly than do men because of their total socioeconomic dependency upon men, a situation which is inherent in most African cultural systems. In Kenya, Nigeria, Tanzania, Zambia for example, land is governed primarily by men but subsistence production is largely the responsibility of women, who are granted use rights for agricultural land by their husbands (*Omideyi et al., 1988; Mbulo, 1990; Goody, 1990; Wood, 1990*) . In some societies, a woman's access to her husband's land is guaranteed through her children (especially sons). This is also the only sure way for a widow to acquire her deceased husband's land. In subsistence agricultural economies, a mother's access to land helps her meet the family's subsistence. In order to farm productively, women frequently recruit their children.

An African woman cherishes children not just for their labour and for providing her with access to land but also because continued child-bearing helps her confirm her status in marriage. It is used for consolidating love, especially with existing or potential competition (in polygamous societies which will be alluded to later in this chapter) with co-wives. Continued child, bearing also helps her to ensure the retention of her bride price (*Fornos and McNicoll, 1987a; 1987b; Banda, 1989; Munachonga, 1989*).

Attempts to change women's roles in society in order to lower the birth rate are viewed as a threat to men's power. Attempts to alter the prevailing power imbalance between husbands and wives were soundly defeated in predominantly male African National Assemblies in the 1970s. In 1979, for example, the Kenyan National Assembly rejected a proposal allowing women in polygamous marriages equal rights to property (*Fornos and McNicoll, 1987a).* In many African countries, adultery is legal grounds for divorcing a wife, but not for divorcing a husband.

An African woman has potential and actual fertility interests which are rooted in two different spheres of life: sustenance and old-age security, and marriage and lineage affiliation. It is, therefore, very likely that the high demand for children, as a reflection of uncertainties and insecurities of the position of parents in general and women in particular will persist until African women increase their security and reduce uncertainties they face in life.

4.2.4. African patterns of child rearing

The extended African family system, which is still very widespread in Africa favours not only many heirs, but also stresses mutual help and cooperation in rearing children. The traditional African kinship system requires close relatives to take responsibilities akin to those of the biological father and mother (*Caldwell and Ccaldwell, 1987; Gaisie and Giogis, 1988; Munachonga, 1989*). Although it has been argued that grandparents are the most important recipients of child fostering, many children grow up with aunts, uncles, or elder siblings (*Colson, 1958; Caldwell and Ccaldwell, 1987; Omideyi Van de Walle, 1988*). The extended family system allows children to live in

their relatives' home for a number of years of childhood. The distinction made in Western societies between biological and non-biological children is foreign to African societies, where nephews and nieces have the same right of accommodation and support as biological offspring. Hence in African society the responsibility of child rearing and socialization does not rest wholly with the parents but extends to all adult members of the extended family and includes the redistribution of children between related families. Such redistribution of children results in children being looked after by women who have small families or whose children are grown and this may occur repeatedly over a woman's lifetime. It is both prestigious and also a blessing for older people to look after their relatives' children because this expresses their love for the relatives whose children they are willing to raise (*Caldwell and Caldwell, 1985; 1987; Banda, 1989*). Young girls are involved in raising their elder sisters' or their mother's younger children up to the time they bear their own. Older women continue raising grand-children after having ceased their own childbearing (*Mott and Mott, 1980*).

The traditional child fostering system is a method of distribution of both children and their labour. It is through this system that those who are barren acquire children. A man or woman who has many cattle, goats or sheep but no child to help look after them will rely on his/her sisters' or brothers' or cousins' children through the traditional child-rearing system. Those relatives who are relatively poor and live in rural areas benefit by sending their children to their well-to-do relatives in urban areas who will be able to send them to school. When in the care of the well-to-do relatives the fostered children are expected to help with domestic work or any other assignments. Children are not expected to resist living with their relatives. A child who expresses any emotional deprivation or who protests at being transferred from parents to an uncle and aunt is regarded as abnormal and risks being ridiculed (*Fornos and McNicoll, 1987a; 1987b; Omideyi and Van de Walle, 1988*).

Although it is not possible to get specific quantitative data on child fostering from any national data sources since fostering is rarely enumerated in censuses, there are three ways to indirectly estimate the extent of fostering. The first involves estimates using the proportion of children (in specified age cohorts) who are living in households other than

their parents'. The second estimates child fostering from the proportion of children born to women (of specified ages) who are not living with their children. The third estimates the proportion of women (without specifying their ages) who have children living with relatives. Fornos and McNicoll, (*1987b*) suggests that estimates of this type are available for Botswana, Cameroon, Ghana, Ivory Coast, Kenya, Lesotho, Liberia, Nigeria, Sierra Leone and Sudan, indicating that child fostering is common throughout sub-Saharan Africa.

It was estimated that during 1979 and 1980 between 14 and 27 percent of all Togolese mothers had children living with relatives. Comparative proportions for the period between 1980 and 1981 in Ivory Coast and for the 1981-1982 period in Nigeria were 21 percent and 13 percent respectively. More recent findings in Ghana, Liberia, Western Nigeria and Sierra Leone show that at least 30 percent of mothers use fosterage (*Goliber, 1989*). Women who have no biological children require the services of other children for such tasks as picking coconuts and yams during the harvesting season and fetching water and firewood.

In Kenya during 1977-1978, between 10-16 percent of women had children living with relatives. Most of them were sent to Nairobi, Kisumu or Mombasa for schooling (*Fornos and McNicoll, 1987b*). In Southern Sudan, approximately 10-15 percent of mothers had their children living with relatives, while Gaisie (*1985*) reports that 9-11 percent and 13-15 percent of women in Uganda and Tanzania respectively had children living with their relatives in 1985.

Evidence on child fostering is also available for Southern Africa. The 1972 census for Botswana indicates that 22 percent of children of mothers between the ages of 15 and 34 were not living with their mothers (*Government of Botswana, 1972*). Those who have no children but have large numbers of cattle rely upon relatives' children to look after them. Those who are able to release their children to their relatives benefit by receiving a few head of cattle which they use to pay their children's dowry. Some of the cattle so received are sold to raise money to send their children to school. In Lesotho approximately 21 percent of mothers had children living with relatives, for basically the

same reasons as in Botswana (*Fornos and McNicoll, 1987a*). Child fostering is also common in Central African countries including Zaire, Gabon, CAR and Zambia (*Richards, 1956; Ohadike, 1981; Munachonga, 1989*).

While the idea of sharing the responsibility of child rearing is still supported, especially among rural populations, it is losing its importance in urban areas where households face more serious economic hardships (*Caldwell et al., 1992*). Nevertheless, it is worth emphasizing that educated Africans living in urban areas continue to educate and maintain children of their poorer relatives from both rural and urban areas.

In short, child fostering is still thriving in sub-Saharan Africa and strongly facilitates people's desire for high fertility. Child fosterage has two major implications with regard to fertility decision-making. Firstly, the willingness to foster nephews, nieces, or grand-children in one's household suggests that the long-term net cost of children to biological parents is not as oppressive as it might be and that there may actually be economic gains as it allows for wealth transfer through children. Since children who are under fosterage become a source of labour for their relatives, fosterage benefits all parties economically, socially and psychologically. Secondly, this system provides a means of regulating family size through the manipulation of the number of children in a household at any one time. The family fostering institution, therefore, weakens the correlation between biological parentage and the number of children being raised. The continued acceptance of kin obligations relating to childbearing by those in the high income bracket may also contribute to high rates of fertility among low income groups by relieving them of their economic burdens. Thus some of the discussion in economic demography about fertility decision-making and its relation to the value and cost of children is rendered debatable.

In summary, fostering opportunities are pro-natal because they reduce the need to delay, space, or cease childbearing after two or three births. They also reduce demands for fertility limitation since women can place their children in quasi-permanent alternative homes where, for whatever reason, there are fewer children. The poorer relatives become less concerned with the cost they are likely to incur by bearing many children if their richer relatives will provide for their children's clothing, shelter, food and schooling.

4.2.5. Traditional religion, continuity of lineage and pro-natalism

Traditional religion cannot be divorced from traditional African morality. In the traditional context, religion significantly influences what Africans consider good or bad, right or wrong. People are expected to conform to the wishes of their ancestors and gods who are seen most often as protectors and are concerned about human virtue and reproduction (*Mbiti, 1969; Addo and David, 1974*). Such attitudes are still widespread in rural areas but less so among some urban communities.

Religion also creates both hope and fear which motivates believers to avoid vice and pursue virtue. An African with traditional attitudes will do what the gods (or nature) require him/her to do. To question or ask 'why?' is a vice. Therefore, every individual has obligations not only to her/his spouse but also the extended family, society, ancestors and gods or spirits. This applies to one's attitude to sex, marriage, fertility and death. Birth, adolescence, marriage and death ceremonies involve all family members and thereby emphasize the role of both the ancestors and gods.

Many African societies still strongly believe that the gods are interested in a social order which is evidenced by high human procreation and crop production. If there was disorder the gods would punish the culprits by reducing human fertility or crop production (*Mbiti, 1969; Caldwell and Caldwell, 1987*). In some societies, the gods are associated with ancestors and children are thought to reincarnate dead grandparents. President Andre Kolingba of the Central Africa Republic (CAR) emphasized this in his address to the 1984 Mexico World Population Conference:

> With 2,600,000 inhabitants, a territory of 623,000 square kilometres, fertile land and undisputed potential resources, the CAR cannot but subscribe to a pro-birth policy. This is in keeping with its ancestral traditions and its long-term interests.... I am aware of the seriousness of the population situation of certain developing countries, and of the world population situation as we approach the 21st century. On the other hand in the CAR our long-term interest lies in having a young, dynamic, large, healthy and well educated population. My government is developing a family planning policy aimed not at restricting the number of births but rather at promoting responsible parenthood so that the desired family can be produced without damage to maternal health (*UNFPA, 1985d:33*).

Grandchildren are especially valued since they give further assurance to the

continuation of lineage and the perpetuation of the ancestral cult. Among the Chaga of Tanzania, the Baganda of Uganda, the Nyakyusa of Zaire, the Kaonde of Zambia and the Ibo of Nigeria, for example, it is believed that by cooperating with her husband, and her ancestors and gods in creating a child a wife is complying with a divine order and is contributing to the survival of the lineage (*Fornos and McNicoll, 1987a; 1987b; Omideyi and Van de Wale, 1988; Munachonga, 1989*). Consequently, parents with small families are accused of denying ancestors the right to rebirth thereby condemning them to eventual extinction.

Low fertility is interpreted as evidence of sin and disapproval. It is strongly believed that the power of both living and dead ancestors can bring endless misfortune including sterility and child death. In contrast, in western societies a husband and wife have the freedom to decide on the number of children they should have without fear of their relatives', ancestors' or gods' reaction.

In some African societies barren women are ridiculed because it is thought they have murdered their babies in the sense of having willed their deaths at conception. Barrenness is also believed to constitute a punishment by the gods or ancestors. It is believed that such punishment is inflicted upon a women either for her past sins or because of her present relations with her in-laws. Gasie (*1985*) cites the Creoles of Freetown in Sierra Leone as an example of a society in which such fear is very prominent. Caldwell and Caldwell, (*1987*) report that most Christians and Muslims in Nigeria, who account for over 90 percent of the total population, still believe that barrenness is a punishment or evidence of evil and that restricted fertility may prevent the return of some deceased relatives, and that the impairments arising from a sterilization operation may be carried over to another life. Because of the general belief that barren women are largely responsible for their conditions, they are at times regarded as witches. In Togo, women want to have a child every three years and if they do not conceive they panic (*Omideyi et al., 1988*). Fornos (*1983*) and Omideyi Van de Walle., (*1987*) report that among the Yoruba, an infertile woman is looked down upon and treated differently from a fertile woman. The Ndembu and the Chaga of Zambia and Tanzania attribute

barrenness to punitive action of a deceased matrilineal kinswoman (*Banda, 1983*). The implication is that a woman, in wasting her menstrual blood and in failing to bear children, is actively renouncing her expected role as a mature married female. She is behaving like a male killer, not like a female nourisher. This is a common belief, especially in rural areas, and partly explains the reason for the strong opposition to sterilization.

The Nyankole of Uganda consider barren women to be outcasts. If a woman dies without bearing children the pall bearers will pretend to strike the coffin with an axe before burial. This signifies that the deceased died a cursed person. The Nyika of Zambia, Malawi and Tanzania place a piece of charcoal between the barren deceased woman's thighs to signify that she left the world as a dirty and unfortunate woman and should not leave her dirt and misfortune behind (*Omideyi and Van de Walle., 1988*). Among the Nsenga of the Eastern province of Zambia, virgins are not allowed to attend a barren woman's funeral, or even see her coffin, lest they be contaminated with barrenness.

Childlessness is treated throughout Africa as a calamity that threatens the very existence of the clan. Sterility, and hence childlessness, are not considered natural. Fornos and McNicoll, (*1987*), Caldwell and Caldwell, (*1987*), Mhloyi (*1988*) and Munachonga (*1989*) argue that in Kenya, Nigeria, Zimbabwe and Zambia childbearing is the essence of femininity and barrenness is a curse from God. It is sufficient ground for delaying the full payment of bride price. In most traditional African societies payment of bride price in instalments, for example following the successful birth of a first, second and third child, is very common.

Caldwell and Caldwell, (*1987*) also report that among many West African societies, becoming aged without children is considered to be a very serious problem. This results in a fear of impotence among males and of a fear of acquiring an impotent husband among females. In other African societies, marriage is not complete until rituals following childbirth are performed. The bride's family will try their best to keep together whatever partial bride wealth is received without involving it in other transactions lest the

marriage proves sterile and the bride-wealth has to be returned.

Marriage and birth together shape childhood and adult roles in many African societies. Although marriage is important in Africa, the more important question is not ".....are you married?" but ".....do you have any children?" In the case of an elderly person the crucial question is ".....have you acquired grandchildren yet?" This indicates that in the traditional African setting it is not marriage but parenthood which is the primary value associated with the idea of family. Omideyi and Van de Walle, (*1988*) maintain that throughout sub-Saharan Africa one finds the same abhorrence of sterility. Special pejorative titles like *Ngomwa* (sterile male) and *Chumba* (sterile woman) are common in most African societies.

Fear of barrenness is so dominant in traditional African societies that there is a widespread antipathy toward the most effective methods of fertility control - abortion, sterilization, and even the contraceptive pill, which is often associated with the abortifacient pill and is thought to endanger either life or reproductive system (*Caldwell and Caldwell, 1985; Gaisie, 1985; Fornos and McNicoll, 1987a*). Adopting such means is a sufficient ground for annulling marriage. Traditional Africans still believe that a wife who tries to control her own fertility threatens to arouse the ire of her husband's ancestors and to undermine sources of long-term economic support for her husband and his family. Any anti-natal population policy launched in Africa is, therefore, bound to meet with opposition.

4.3. Consequences of African pro-natalist culture

The foregoing are the major cultural reasons why the majority of Africans, especially in rural areas, have negative attitudes towards family planning. Men traditionally make decisions on behalf of their families, so their attitudes to family planning are crucial. They want closely spaced births not only for the sake of improving their status in society but also as a means of ensuring a wife's faithfulness. It is regrettable that both political and social systems in most African countries seem to suggest that it is the husband's responsibility to control his wife's fertility. Consequently, men tend to decide on behalf of their wives whether or not they should use any family

planning method. Moreover, most African men associate use of modern contraceptives with prostitution. In both Zimbabwe and Zambia, for example, husbands accuse their wives of using contraceptives so they can have extra-marital affairs (*Wulf, 1985; Munachonga, 1989*). Abortion is illegal in many African countries except in specific cases of rape and incest. Most men, who are the key players in politics, believe that legalizing abortion would increase promiscuity among both single and married women.

Most Africans argue that contraceptives cause serious health problems such as cancer, high blood pressure and menstrual problems and ultimately sterility among women. Both men and women also contend that the pill and injectibles are not good for a breast feeding mother because they contaminate a mother's bloodstream and the mother's milk and therefore contribute to infant/child mortality (*Bondestam, 1980; Banda, 1983; Cremis; 1988*).

Some men believe that contraceptive pills interfere with the naturalness of the vagina. They have contended that they prefer having sex with women who never use modern contraceptives because their vaginas tend to be less fluid than for those women who do. Use of condoms is also resisted by the majority of persons who believe that both men and women cannot enjoy sexual intercourse if they use condoms.

4.3.1. Early marriage

Early marriage is a norm in many traditional African societies. It is a consequence of the values Africans place on children. Most of the literature on marriage in traditional African society suggests that puberty tends to mark the age of marriage for girls and that marriage is closely connected with initiation or puberty ceremonies (*Colson, 1958; Dow and Linda, 1983; Caldwell and Caldwell, 1985; 1987*). Marriage is very important to Africans because it is a form of contractual *quid pro quo* between two lineages and it is a social license to bear children. Initiation and puberty ceremonies instruct girls on how to win men for marriage and how to serve them effectively through sexual satisfaction and by bearing an adequate number of children(*Colson, 1958; Dow et al., 1983; Caldwell et al., 1985*). Crucial to the current discussion is the fact that traditional African

marriages are purely pro-natalist in that child-bearing is the major reason to get married. Marriage is also one of the fundamental kinship, religious and political obligations and represents a commitment by parents to transmit the culture heritage of the society. A proper woman is a married woman; a single woman commands little respect in society. This tradition encourages early marriages and high fertility.

Most African countries have dual systems of marriage, namely, the traditional marriage and the statutory marriage (*Fornos and McNicoll, 1987a; 1987b; Omideyi and Van de Walle, 1988*). Under the former system, puberty marks a girl's age of marriage. Marriages occurring under the statutory law are usually closely associated with higher levels of education, which means that very few people choosing this form of marriage marry at a young age. However, only a minority of marriages in Africa are statutory marriages. The majority of the population still practice customary law marriages. Such marriages are an institution within the extended family system under which individual interests tend to be subordinated to those of the kinship groups, and married couples are always under pressure from their kin to have children.

These early marriages are crucial to pro-natalism because they allow a woman to bear children almost the whole of her reproductive period (i.e. between ages 15 and 45). Davis (*1984*), Caldwell and Caldwell, (*1987*) and many other scholars confirm that early marriages increase births and hence the average age of women at first marriage, especially if it is not accompanied by effective family planning services, is highly positively correlated with completed fertility.

4.3.2. Polygamy and pro-natalism in Africa

One way for a man to ensure he has many children is through polygamy. This kind of marriage is preferred in areas where there is a relationship of mutual support and reinforcement between polygamy and culture, polygamy and tradition, polygamy and public opinion and, more important, where polygamy enjoys more prestige than monogamy.

Caldwell and Caldwell, (*1987*) claim that there are some 742 different tribes in Africa to the south of the 15th parallel north, and polygamy is accepted as a preferential

form of marriage among 580 of these tribes. This implies that polygamy is traditionally and socially normative in 78 percent of these tribal groups. Eugene's (*1975*) study also revealed that among 34 per cent of all sub-Saharan tribes, the incidence of polygamy is more than 20 percent. Although it is restricted to certain types (either sororal, in which sisters become wives of the same husband or non-sororal), in another 44 per cent of these societies it is still common. In the remaining 22 percent of these societies this form of plural marriage is either very limited, restricted, infrequent or non-existent. Caldwell and Caldwell, (*1987*) also reveals that taking monogamously and polygamously married men together, there is an average of about 150 wives per 100 husbands. These proportions vary from region to region. An estimated 45 percent of married women in Mali and 38 percent in Liberia, for example, live in polygamous unions (*Goliber, 1989*).

A number of reasons for the incidence of polygamy in sub-Saharan Africa have been suggested. The major single reason is that the male/female ratio is low in most African countries and hence many women are not able to acquire husbands under monogamy. This in turn deprives them of the chance of starting bearing children at an early age (*Caldwell and Caldwell, 1985; 1987; Fornos and McNicoll, 1987a; 1987b; Goody, 1990*). More males than females are born alive but the male mortality rate is higher at all ages, with the exception of some of the childbearing ages (*Goliber, 1989*). As well there is a significant chronological age gap between males and females at the time of marriage. Males marry relatively late in life, while females want to marry relatively early. This age discrepancy is a source of a large pool of marriageable females. Among the Nyakyusa of Tanzania, polygamy is made possible by the ten years difference in the average marriage age of males and females (*Eugene, 1975; Ekanem, 1988*).

At times girls get involved in polygamous marriages because of both their parents' and their own wishes to form alliances with good families. An experienced husband is always preferred to an inexperienced one because he is likely to be well-off. So there are, in some societies, preferential mating patterns (*Ekanem, 1988; Munachonga, 1989*). Some people prefer sororal polygamy because it is assumed that co-wives who are sisters are more likely to get along with one another.

In circumstances where the socioeconomic status of women is very weak, polygamy distributes wealth from wealthy men to poor women. Empirical evidence shows that there is a positive correlation between the incidence of polygamy and the increase of personal income, especially among women (*Richards, 1956; Eugene, 1975*). In many traditional African societies men show how reliable, hard-working, and sober they are and what good husbands they will be by their wealth, usually symbolized by livestock. In this respect, a married man is already in a more favourable position than a single man and a polygamist is well ahead of both. The bride-wealth paid by a man to his wife's parents or guardians is not only intended to be a support for the permanence of marriage and a compensation to the family which gives away a daughter, but it is also a pledge of a man's ability to help his in-laws and a demonstration that he loves his prospective wife more than his hard-earned possessions (*Ekanem, 1988; Munachonga, 1989).*

Lack of wealth might delay a young man from marrying, giving more opportunity to older men to marry the available young women (*Fornos and McNicoll, 1987a; 1987b*). It is therefore difficult to expect polygamous marriages to decline in many African societies, where young adults are finding it more and more difficult to get jobs while the already economically established adults are able to accumulate more and more wealth. From the above account one can confidently argue that polygamy weakens the status of women who are married to polygamous husbands despite some economic advantages described above. Husbands have an advantage over their wives (especially the later ones) who are much younger and poorer than their husbands (*Caldwell and Caldwell, 1985; 1987).* These young wives are less influential in the household decision-making process in general and family planning decisions in particular.

Since in many traditional African societies each new relationship gives a greater cohesion to class, sub-clan and aggregates of social units that make up the tribe or nation, polygamy might continue to prevail for a long time to come. This will, in turn, hinder the expected progress in the implementation of anti-natal population policies. Since the desire for as many children as possible is paramount, the practice of polygamy may be

seen as an efficient means of achieving socially approved goals and social ideals.

Because polygamy is a pro-natal institution, African population policies should try to eliminate it in the effort to limit population growth. But this is easier said than done because polygamy is deeply ingrained in African traditional societies. Not only does it serve as a dynamic principle of family survival, growth, security, continuity and prestige, but it also has an integrating function within the kinship system. In areas where subsistence food production depends on the labour force, where each family provides for itself, where the average rate of child mortality is very high and where the continuation of the family through male heirs is a great responsibility, a large number of offspring is regarded as a socioeconomic benefit (*Fornos and McNicoll, 1987b; Banda, 1989).* Polygamous marriage contracts are geared toward child production, and the multiplication of the number of mutually helpful relatives.

A point of crucial importance to planners of African anti-natal population policies is that polygamy is largely pro-natal in two ways. First, it accords some young women who would not have had chance to marry to do so. This gives them a chance to bear children without fear of being scorned by society as would have been the case had they borne children out of wedlock. Secondly, once married to a polygamous man, co-wives compete, not only through how well they feed their husbands, or satisfy them sexually, but even more through the number of children they bear.

The economic security and social stability of monogamous and small nuclear households in Africa is more precarious than that of the polygamous households because so much depends upon the number of children in a household. Plurality of wives clearly makes for greater family security and stability as the larger number of children acts as a safety net against the losses of infant mortality (*Caldwell and Caldwell, 1987; Ekanem, 1988*). It should be strongly suggested that if African anti-natalist policies are to succeed there must be continuous deliberate elimination of polygamy.

4.4. Intensified pro-natalism

As indicated earlier in this chapter, although African pro-natalism is largely attributed to African traditions and culture, it has partly been intensified through high

infant and child mortality, religions and ideologies. The next sections put these issues into perspective.

4.4.1. Infant and subsequent child mortality

The prevailing assumption is that as far as the poor Third World societies are concerned, high fertility is a necessary biological and behavioral response to high mortality (*Addo and David, 1974; Birdsall, 1980; Banda, 1989*). This assumption is central in the demographic transition theory which hypothesises that mortality declines are followed by fertility declines. The 'child replacement' and 'child survival' hypotheses which have already been alluded to are undoubtedly related and are frequently discussed with little distinction between them. Although it is true that these hypotheses do not hold consistently for many societies, they are very relevant in many African societies where infant and child mortality rates are very high. It is also worth emphasizing for the African situation that mortality may sometimes be a response to high fertility instead of a stimulus to it. In other words the relationship between high fertility and high mortality is a circular causation.

Table 4.1:
Stepwise Regression Analysis for dependent variable 'Total Fertility Rate' in Africa: 1992.

n = 51	Independent variable	R	R Square	Prob>.05
Step 1	IMR entered	(+)	R-square = 0.90	0.001
Step 2	PFPL	(-)	R-square = 0.93	0.002
Step 3	GNP entered	(-)	R-square = 0.93	0.063

Where
IMR = Infant Mortality Rate.
PFPL = Proportion of married women using modern family planning methods.
GNP = Gross National Product per capita.

Calculated by the author using PRB data (*1992a*).

Stepwise regression results obtained using 51 African countries which have complete data show that three independent variables namely, IMR, GNP per capita and proportion of women currently using modern family planning, IMR has the most influence on TFR (see Table 4.1).

The fact that infant mortality rates in tropical Africa are among the highest in the world has already been emphasized and can hardly be disputed. Goliber (*1989*) indicates that rates which are considered to be catastrophically high in Europe and North America (40-50 deaths per 1,000 live births in Chicago's black ghetto) seem to be unattainable in many African countries where IMRs are to excess of 100 per 1,000. In 1975 in the cities of Ghana, the average infant mortality rate was 123 deaths per 1,000 live births, while in rural areas it was 167 deaths per 1,000 live births. During the same year in the rural Nigeria, infant mortality was documented at 300 deaths per 1,000 live births. Infant mortality in rural Senegal is still five times that of France. Benin was experiencing a rise in infant mortality at the time when other African countries were experiencing a decline. Between 1961 and 1982 Benin's IMR increased from 110 per 1,000 to 140 per 1,000 live births (*UNFPA, 1985a*).

Subsequent child mortality is also generally high in Africa. In most of the sub-Saharan countries, between 20 and 25 percent of all children die prior to their fifth birthday (*Goliber, 1989; PRB, 1990*). In general terms child mortality is 15 to 40 times higher than in many western countries.

4.4.2. Modern religion

The influence of western religion on Africa's pro-natalism cannot be dismissed. Attitudes towards family planning and contraception among the Roman Catholics in Africa have already been alluded to. In countries like Burundi, the political influence of the Roman Catholic Church and provision of many health services through Catholic missions have been added impediments to working population programs (*Goliber, 1989*). In Mauritius, the adoption and implementation of an anti-natalist population policy was delayed because of the Roman Catholic Church's resistance. Catholic members of Parliament fought hard to discourage the government from committing itself to supporting

anti-natal programs, especially in the 1950s and 1960s (*Greig, 1973*). Mauritius is the best example of countries where Catholicism was a big obstacle to modern family planning but later scored successes in the diffusion of contraceptive technology even among the Roman Catholics.

Modern family planning has not only been resisted in countries which are predominantly Roman Catholic. During the early 1960s, modern family planning programs were also resisted in South Africa by the members of the Dutch Reformed Church (DRC), which is the largest, most conservative church and the theological and ideological power-base of the nationalist government. In 1960 an important clergyman declared that:

> The church is generally opposed to birth control amongst whites (most of whom are Christians) on Christian and ethical grounds and I suppose the same applies to Africans (*Gray, 1980:147*).

Some decades later, when the government decided to make the pill freely available, DRC officials protested on the grounds that it was the duty of the Christians to multiply on the earth (*Sunday News, Tanzania, 1973*).

Since Islam encourages procreation and large families it retards progress in the use of family planning programs in the Magreb as well as among east African countries *(Chamie, 1981; Obermeyer, 1992)*. To date, many committed Moslems still resist the extensive use of artificial family planning methods *(Obermeyer, 1992)*.

4.4.3. Official (Government-motivated) pronatalism

Whether a government adopts an antinatal or a pro-natalist policy partially depends on its economic and political priorities. Colonial governments had a pronatalist attitudes towards Africans who were a source of cheap labour. To the contrary, preservation of culture (which strongly emphasizes the importance of having large families) and restructuring of waning economies have been the major pressing concerns among African governments. Consequently, the desig of population policies and programs suited to its own family values and economic environment has been the challenge of each African nation.

Both official and popular attitudes need time to grow into a conviction that a population problem exists and is an obstacle to development. Nevertheless, as indicated earlier, deliberate efforts to transform existing social structures can be highly controversial. They tend to generate both ethical and philosophical issues which African political processes have found difficult to resolve. The problem is further enhanced by poverty which is a formidable barrier to social change, carrying as it does its own built-in restrictions. Any attempts to resolve such issues have had uncertain results including unpredictable and undesirable side effects.

By 1990, only five countries - Chad, Ivory Coast, Gabon, Guinea-Bissau, Libya and Mauritania - whose populations together account for about two per cent of the total sub-Saharan population still hold pro-natalist positions or showed virtually no support for family planning (*UN, 1990*). The current record indicates a considerable improvement in the area of anti-natal campaign in Africa since 1974, when Malawi, Rwanda, Malagasy, Cameroon and Central African Republic were also pro-natal.

Gabon deserves special mention because it adopted a stronger pro-natal population policy during the late 1930s. To date, it has a clearly discernible pro-natal population policy which aims at increasing the rate of population growth in order to enlarge the labour pool. This point is clarified in the next section.

A brief analysis (which follows) of the environmental and socioeconomic situations in some of the countries mentioned above shows that they have a number of reasons for taking the pro-natal position. These include low arithmetic densities and unfavourable population distribution, relatively favourable economies and ethnic diversity.

4.4.4. Relatively low population densities and uneven population distribution

A number of governments which have either official or unofficial pro-natalist policies still strongly believe that arithmetic density should to a large extent determine whether or not a country has a population growth problem. Since these countries' arithmetic densities range from 42.6 persons per square kilometre (for Cote d'Ivoire) to as low as 2.0 persons per square kilometre (for Mauritania) (see Table 4.2) they argue that anti-natal population policies are not warranted.

The majority of countries with low population densities, especially in the Sahel region, have either official pro-natal policies or sentiments there are also some countries such as Algeria, Botswana, Kenya, Tanzania, Zambia and Zimbabwe which have either official anti-natal policies or family planning programs. This illustrates that population density alone should not be the determining factor as to whether or not a country should adopt and implement an anti-natalist population policy. Improvement of the quality of life among individuals should be an overriding factor.

Most countries with pro-natal policies strongly believe that their populations can be redistributed in order to alleviate the population pressures in some fertile agricultural and urban areas. Gabon's rural population, for example, is concentrated in the Woleu N'Tem area where coffee and cocoa are the main crops, and in the Lambarene area which is the source of palm oil. Much of the central and eastern parts of the country, which receive relatively less rainfall, are virtually devoid of people, while 52 percent of the population is urban.

Chad's population on the other hand is concentrated in the wetter south. About 46 per cent of the population live in the wettest 10 percent of the area. The Futures Group (*1985a*), UN (*1989*a) and Hodgkinson (*1991c*) report that there are more concentrations along the Chari and Logone rivers. Unlike in Gabon, only 27 percent of the population live in urban communities in Chad.

CAR's greatest concentration of population is in the western part of the country, where only two percent of the country's area is under cultivation. Large areas in the east are virtually uninhabited (*Hodgkinson, 1991b*).

Hodgkinson (*1991a*) indicates that Cameroon's population, with concentrations in the west, the south-central region and the Sudan-Savannah zone of the north, is also unevenly distributed. The south and western parts of the country attract populations because they have been most influenced by European culture and economy and are industrialized and agriculturally developed.

Table 4.2:
Absolute population densities of African countries: 1992.

Country	Population in millions	Area in Square Kilometre	Density Persons/ Square K/metre
0-50 Persons per Square Kilometres			
W.Sahara	0.2	267,800	0.8
Namibia	1.5	824,292	1.8
Mauritania	2.0	1,030,700	1.9
Botswana	1.3	582,000	2.2
Libya	4.2	1,766,336	2.4
Chad	5.1	1,283,993	4.0
Gabon	1.2	267,667	4.5
CAR	3.0	622,984	4.8
Niger	7.9	1,267,000	6.2
Congo	2.3	342,000	6.7
Angola	8.5	1,246,700	6.8
Senegal	7.4	196,192	8.0
Sudan	25.2	2,505,813	10.1
Algeria	25.6	2,390,934	10.7
Zambia	8.4	752,614	11.2
Somalia	7.7	637,657	12.1
E/Guinea	0.4	28,051	14.3
Eq. Guinea	0.4	28,050	14.3
Zaire	37.8	2,344,885	16.1
Djibouti	0.4	23,200	17.2
Cameroon	11.4	475,442	17.9
Mozambique	16.1	799,380	20.1
Malagasy	12.4	587,041	21.2
Zimbabwe	10.0	390,759	25.6
Liberia	2.6	97,754	26.6
G/Bissau	1.0	36,125	27.7
Tanzania	26.9	945,087	28.5
Guinea	7.3	245,857	29.7
B/Faso	9.1	274,200	33.2
S. Africa	40.6	1,221,037	33.3
C/d'Ivoire	12.6	322,462	39.1

Table 4.2: continued

Country	Population in millions	Area in Square Kilometre	Density Persons/ Square K/metre
0-50 Persons per Square Kilometres			
Benin	4.7	112,622	41.7
Ethiopia	53.2	1,251,282	42.5
Kenya	25.2	569,137	44.3
Swaziland	0.8	17,363	46.1
Tunisia	8.1	164,242	49.3
51-100 Persons per Square Kilometre			
Egypt	54.7	1,005,316	54.4
Morocco	25.6	448,266	57.1
Lesotho	1.8	30,355	59.3
S/Leone	4.3	71,740	59.9
Ghana	15.0	238,537	62.9
Mali	8.3	1,240,000	66.9
Togo	3.8	56,785	66.9
Uganda	18.7	236,964	78.9
Malawi	9.4	118,484	79.3
Gambia	0.9	11,295	79.7
C/Verde	0.4	4,033	99.2
101-150 Persons per Square Kilometre			
ST/Principe	0.1	964	103.7
151+ Persons Per Square Kilometre			
Nigeria	118.8	923,768	7775.8
Burundi	5.8	27,834	208.4
Comoros	0.5	2,236	223.6
Reunion	0.6	2,512	238.9
Mauritius	1.1	1,865	589.8
Rwanda	7.5	26,338	284.8
Seychelles	0.1	308	324.7

Source: PRB (1992a).

With ratios of 43, 46, 50, and 42 percent of total population living in urban areas, Cameroon, Ivory Coast, Guinea and Mauritania respectively also stand out as good examples of African countries with unevenly distributed population (*Hodgkinson, 1991a; 1991e; 1991f*). The bulk of the northern parts of Mauritania and Chad are deserts. Wh such evidence of unevenly distributed population these countries strongly believe that their immediate concern is the need for redistributing population. It is in this area where these countries believe western countries can help in order to alleviate the current population problems. Efforts to reclaim desert areas, for example, would require substantial capital investments not available locally.

4.4.5. Relatively favourable economies in relation to other African countries

A few of the pro-natalist African countries believe that their economic resources, especially given improvements in current technology, are adequate to sustain more than the current population. Libya has a strong economy because of its oil reserves. Libya's government concentrates on improving social welfare programs: education, health, housing facilities, and increasing the number of women in the labour force instead of curbing population growth rate.

Availability of mineral and other resources has been another deterrent to the adoption of anti-natal policies. Mining is the principal occupation in Gabon and Guinea (*Hodgkinson, 1991e*). Guinea possesses 30 percent of the world's bauxite reserves. It also has iron ore and diamonds. Gabon also has great mineral and forest wealth. It enjoyed a 5.2 percent annual increase in per capita GNP from 1960-1971. At a per capita GNP of US $3,340 it currently ranks third only to Seychelles and Libya among African countries in overall economic development (*PRB, 1992*). Gabon's population is small in relation to the national income; it has the highest per capita income in sub-Saharan Africa. With a GDP of US $3,340, Gabon is among the countries with high growing economies in sub-Saharan Africa (*UN, 1989a; World Bank, 1989*). Unlike other African countries, its enterprises depend on labour imported from neighbouring countries. This encourages the government of Gabon to opt for pro-natal policies in order to boost the pool of local

manpower.

Although Ivory Coast does not have substantial amounts of mineral wealth, it is one of the rich countries in Africa. It is also the most economically diversified territory in former French West Africa (Caldwell et al., 1992). It is a producer of a wide range of crops and forestry products, the most important being coffee, cocoa, palm oil and lumber. It is Africa's leading and world's third (after Brazil and Colombia) largest producer of coffee. For some 20 years following independence, Cote d'Ivoire had a remarkably high rate of economic growth. Its GDP (in real terms) increased by an annual average of 11 percent in the 1960-70 period and 6-7 percent in the 1970-80 period. This economic progress brought Ivory Coast into the group of middle income countries as defined by the World Bank (*Futures Group, 1988; Hodgkinson, 1991*). Although its economy declined in the early 1980s due to severe drought, it recovered in 1985. This recovery was attributed to higher prices for most export commodities and reduced payments on external debts due to rescheduling agreements (*Hodgkinson, 1991*). With these resources and economic growth, the government of Ivory CAoast believes that more persons can be supported and hence that anti-natalist policies are unnecessary.

4.4.6. The influence of foreign policies and ideologies

Earlier French-African colonial links have had some influence on population policies of former French colonies. In Cameroon, Equatorial Guinea, Mauritania, Burkina Faso, Mali, Congo, CAR, Chad and Gabon, for example, French anti-contraceptive and anti-abortion laws of the 1920s and 1930s are still in force. These laws were enacted because the French were long concerned with the low populations in these countries, seeing them as inhibiting development (*Goliber, 1989*). Speaking on behalf of his country during the 1984 Mexico Population Conference, President Abiang of Equatorial Guinea stressed that:

> Because of population's great importance for the survival of the state and the development of the nation, our present development situation makes it advisable for us to use all possible means to create greater incentives for human procreation and for the protection, preservation and overall development of mankind rather than limiting Natural Increase (*UNFPA,*

1985d:57).

Apart from the French influence, a number of African countries' attitude toward anti-natal population policies have been influenced by Marxist ideology. Ethiopia, during Megistu Mariam's rule, was not only under the influence of persistent drought but also Marxism.

In many African countries like Tanzania, Zambia, Ghana, Senegal and Guinea-Bissau, to mention but a few, family planning programs were resisted for a number of years after independence due to the Marxist influence.

4.4.7. Influence of environmental and warfare factors

Environmental and warfare factors have stimulated a number of African countries to support pro-natalism. As can be deduced from a statement by President Hissen Habre, Chad has different concerns. It needs high population growth because:

> Eighteen years of warfare, drought, desertification with their disastrous consequences coupled with land-lockedness have made the situation in Chad extremely precarious. Famine, malnutrition and human mortality have become big problems. Consequently Chad is classified among the least developed countries. Chad, therefore, has no choice but to appreciate the role that people can play in a country's socioeconomic development (*UNFPA, 1985d:34*).

4.4.8. Effects of ethnic diversity

Many Africans identify more closely with their tribe than with their nation. In Africa there is great ethnic diversity which tends to promote high fertility (*Gray, 1980; Caldwell and Caldwell, 1987; Fornos and McNicoll, 1987a; Ekanem, 1988*). The struggle for ethnic equality or supremacy in numbers happens to varying degrees in many African countries: among the Hutu and Tutsi in Burundi and Rwanda; Luo and Kikuyu in Kenya; Shona and Ndebele in Zimbabwe; Yuruba, Ibo, Hausa and Fulani in Nigeria; the Muslims and the non-Muslims in Chad, Mauritania and Sudan; and the blacks and the Afrikaners in South Africa. The problem of defence, combined with the practicalities of cattle husbandry, make large family units advantageous among the Nuer of Sudan, Masai

of Kenya and San of Botswana respectively.

An emphasis by the ruling tribe on curtailing population growth might be interpreted as a way of reducing the numbers of rival tribes or rival ethnic groups. The South African population control politics, at least since the promulgation of the Group Areas Act of 1950 and 1960, have been characterized by this problem (*Gray, 1980*). To date the majority of the black population feel that the enacting of these laws was an indirect way of regulating their numbers, since their major effect has been to divide families and separate husbands from their wives. The populations of the Bantustans are heavily dominated by women, children, the sick and the aged who are declared unproductive. The able-bodied who cannot find work in these areas are forced to sign contracts binding them to work in mines and industries, where they live in single-sex hostels. The blacks strongly feel that the Afrikaners are afraid of being increasingly outnumbered and overwhelmed by the black majority and that in the long run even African labourers may have to be taken into skilled jobs (*Gray, 1980*). With this background the black population expresses feelings of distrust at the stream of white-sponsored birth control propaganda.

Finally, most independent African countries have been reluctant to control their population growth because among the promises their political leaders made on attaining independence was the preservation of culture, part of which is the African extended family system. Attempts to implement birth control programs tend to conflict with their earlier promises. Such programs would make the leaders politically unpopular.

4.5. Summary

In summary it can be argued that although many other factors such as relatively prosperous economies and low population density have influenced African pro-natalism, the main motivating factors have been African family traditions. The improvement of people's quality of life and educational standards would play a very important role in transforming traditional attitudes toward the desire for large families (*Birdsall, 1980; Caldwell et al., 1992*). This would make it possible successfully to implement anti-natal policies.

It should be emphasized that despite setbacks, many African countries have made remarkable efforts (with or without discernible policies) to regulate their high population growth rates. The next chapter will review and analyze developments in Africa anti-natal policies.

CHAPTER FIVE

ANTI- NATALISM IN AFRICA

5.1. Introduction

Following independence in the late 1950s and early 1960s, population policies received little attention from most African leaders. During this period, most newly independent African countries were eager to modernize and post-colonial African leaders focused on what they thought were the most productive strategies for their survival, particularly economic and social development and foreign assistance. As indicated earlier, many Africans were concerned that an emphasis on population policy would overshadow the inequalities in the world economic order which they considered the real root of the region's poverty and underdevelopment. They insisted that socio-economic development, not family planning programs, would eventually lower birth rates. Despite the apparent reluctance among African countries to adopt anti-natalist population policies, modern private family planning programs were already in place in a few African countries by the end of the 1950s (see Figure 5.1).

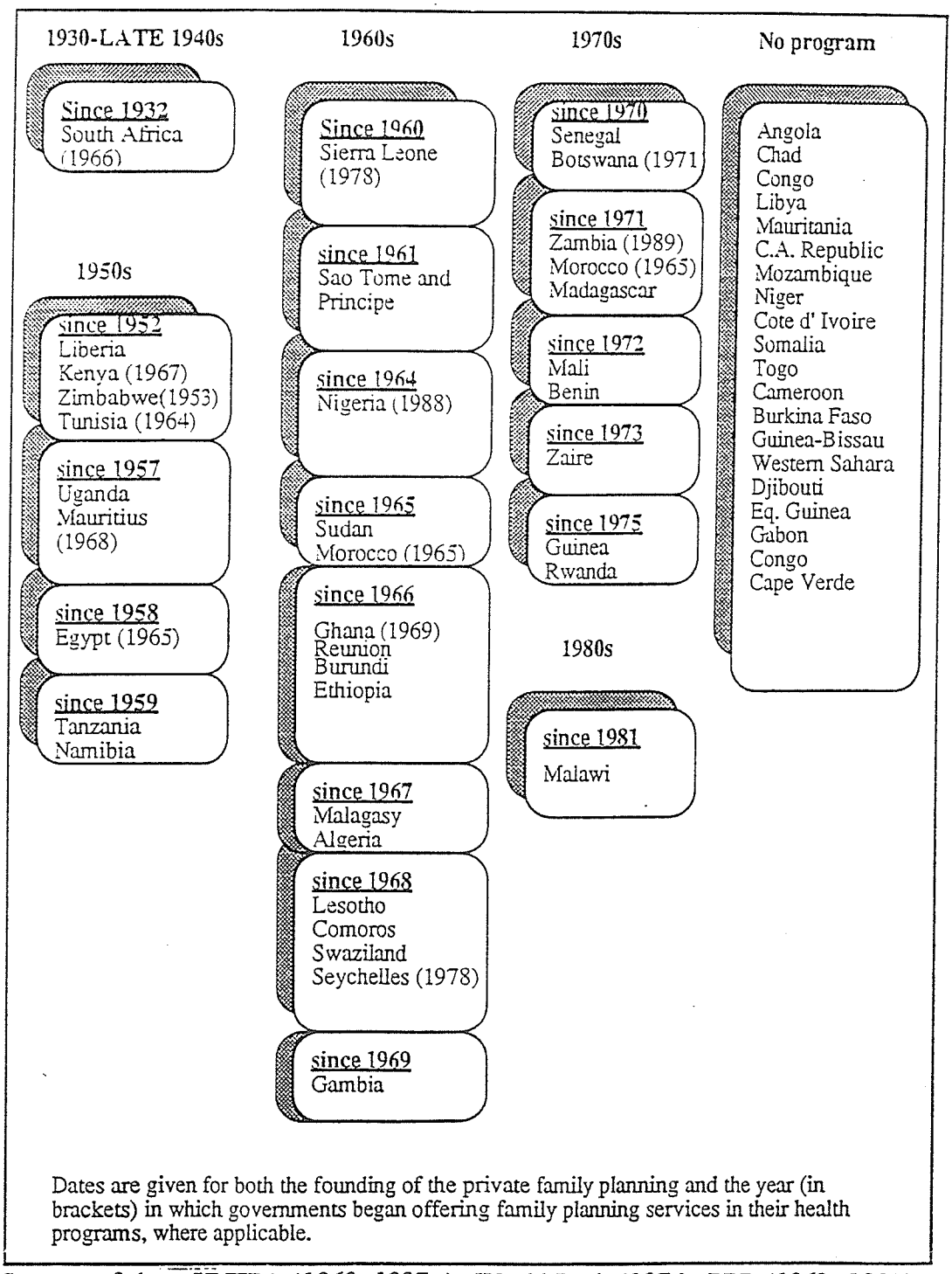
Many reasons for change from pro-natalist to anti-natalist attitudes can be suggested, but the most important ones are related to better demographic data, stagnating socio-economic development, increasing absolute and physiological densities, high levels of infant and child mortality, and high population growth rates.

During the 1970s and 1980s, an unprecedented amount of demographic information documenting fertility levels, rates of population growth, and the sizes of national population started to reach high level government leaders. Many African countries had their first or second censuses during the 1970s and early 1980s.

Copious information on childbearing practices and on contraceptive knowledge and attitudes among African women was provided to sub-Saharan nations between 1977 and 1982 by the World Fertility Survey (which included 10 sub-Saharan nations) and its successors, the Contraceptive Prevalence Survey and Demographic and Health Survey

programs as well as numerous other special surveys (*Goliber, 1989*).

Figure 5.1:
Development of private and government family planning programs in Africa: 1930-1991.



Dates are given for both the founding of the private family planning and the year (in brackets) in which governments began offering family planning services in their health programs, where applicable.

Sources of data: UNFPA (*1969; 1987m*); World Bank (*1974*); PRB (*1962; 1992b*).

A series of major international conferences on population have also helped to crystallize African thinking on the subject. Foremost among these was the Organization of African Unity heads-of-state-meeting which was held in Nigeria in 1980. One of the achievements of that meeting was to draw-up the 'Lagos Plan of Action' which accepted the notion that high population growth was one of the constraints to development (*Ekanem, 1988; Goliber, 1989*). The second one was the African population conference held in Arusha, Tanzania in 1984. This was a prelude to the international conference on population held in Mexico City later that year (*World Bank, 1986a*).

Meanwhile, between 1981 and 1983, the World Bank issued reports on sub-Saharan Africa in which population was also highlighted as a developmental stumbling block. The Economic Commission for Africa reiterated this at the end of 1983. The sentiments in favour of reducing population growth rates were again supported by the World Bank, whose 1984 Annual Report emphasized that population growth was a key issue in development in general and sub-Saharan Africa in particular (*World Bank, 1984a*).

These conferences and publications, particularly the 1984 World Bank Report, stimulated governments to take official positions on population. It also influenced the Kilimanjaro program of action on population produced by the second African Population Conference which made the following recommendations:

. population should be seen as a central component in formulating and implementing policies and programs for accelerated socio-economic development plans, and

. government-subsidized family planning services should be made available at no cost or at low cost to all couples or individuals seeking such services (*Ekanem, 1988*).

The All-African Parliamentary Conference on Population and Development, held in Harare, Zimbabwe in 1985, also influenced political thinking (*Futures Group, 1986b*).

Clearly, high population growth rates in combination with stagnating social and economic development efforts provided another catalyst for a reevaluation of the role of population factors in development. The region's economic problems during much of the 1970s and 1980s have proven to be long-term, deep-seated and recalcitrant. The World Bank (*1989*) projected that there would be no increase in real Gross Domestic Product (GDP) per capita over the 1987-1995 time span in the Sub-Saharan region. Even under

optimistic projections, GDP per capita would increase by only 0.7 per cent per year over the 1987-1995 period. Consequences of these developments have been alarming. With declining or stagnating national incomes, per capita expenditure on health, education, and other services have also dropped.

5.2. Progress in family planning

Figure 5.1 shows that in 1932 South Africa was the first African country to embark on family planning programs. However, only the white population had access to these programs. It should be noted that the white population (in keeping with their traditional values of emphasizing quality of children rather than quantity) were more likely to use family planning than the native South Africans. In contrast the Bantu population needed children for the expansion of their lineage, labour, old age security and as a symbol of status.

Family planning programs were introduced in nine more countries during the 1950s (see Figure 5.1). Private family planning programs were established in the early 1950s in Kenya, Liberia, Southern Rhodesia (Zimbabwe) and Tunisia, and in the mid-1950s in Mauritius and Uganda.[6]

By the late 1950s, some form of family planning programs had been introduced in three more countries, namely: Egypt, Namibia (then South West Africa), Tanzania (then, Tanganyika). In none of these countries, except Kenya and Zimbabwe, did the government show interest in supporting private family planning programs, either morally or materially. Most of the private programs established between 1932 and 1959 had no government support until the 1960s. As will be emphasized later, lack of willingness to support family planning programs among governments has contributed to sluggish progress in anti-natal policies in Africa.

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[6] In Kenya, the Family Planning Committee of Mombasa (FPCM) and the Family Planning Association of Nairobi were both formed in the 1950s with financial and material assistance from the Path Finder Fund (PFF). The two Family Planning Associations were combined in 1961 to form the present Family Planning Association of Kenya (FPAK) (*Bondestam 1980*).

In the 1960s, private family planning programs were introduced in fifteen more countries. They were introduced in the early 1960s in Sao Tome and Principe and Sierra Leone; in the mid-1960s in Burundi, Ethiopia, Ghana, Nigeria, Reunion and Sudan, and in the late 1960s in Algeria, Comoros, Gambia, Lesotho, Madagascar, Seychelles and Swaziland. In only two of these fifteen countries did the government show moral and material support: after three years in Ghana, and after eighteen years in Sierra Leone.

Their governments' efforts were later supported by international organizations. The year 1966 was crucial for the family planning movement; it marked the date when the Secretary General of the UN presented a declaration on population on Human Rights Day (*Addo and David, 1974*). This was a signal for international organizations to assist African countries in population-related problems and was one reason why a number of African governments decided to get directly involved in family planning activities. They knew that they would receive outside assistance. Some of the financial assistance meant for family planning would be rechannelled to more pressing needs, like purchasing drugs and medical equipment, especially if family planning was to be a component of a country's health system (*Ekanem, 1988*).

Only a few private family planning programs were introduced during the 1970s. These included the ones in Benin, Madagascar, Mali, Morocco, Senegal, Zaire and Zambia in the early 1970s, and Guinea and Rwanda in the mid-1970s. Only in Botswana (a year after the establishment of programs) and in Morocco (four years later) were the private family planning programs supported financially by the government (see Figure 5.1).

Throughout the 1970s, African countries received increasing support for family planning activities from the west. By the early 1970s, ten western countries, Britain, Canada, Denmark, Finland, Italy, Norway, Sweden, the Netherlands, US and West Germany, were offering technical and financial support for family planning in Africa. The United National Fund for Population Activities (UNFPA) has been the major supporter of population programs since. This is illustrated by the amount of money invested in population activities in Africa. In 1989, UNFPA reported that its cumulative expenditures from 1970 through 1986 amounted to US $206.2 million. Seventy-five

percent of this, or about US $154.7 million, was for national activities while 25 percent, or $51.4 million, was for regional activities (UNFPA, 1989a).

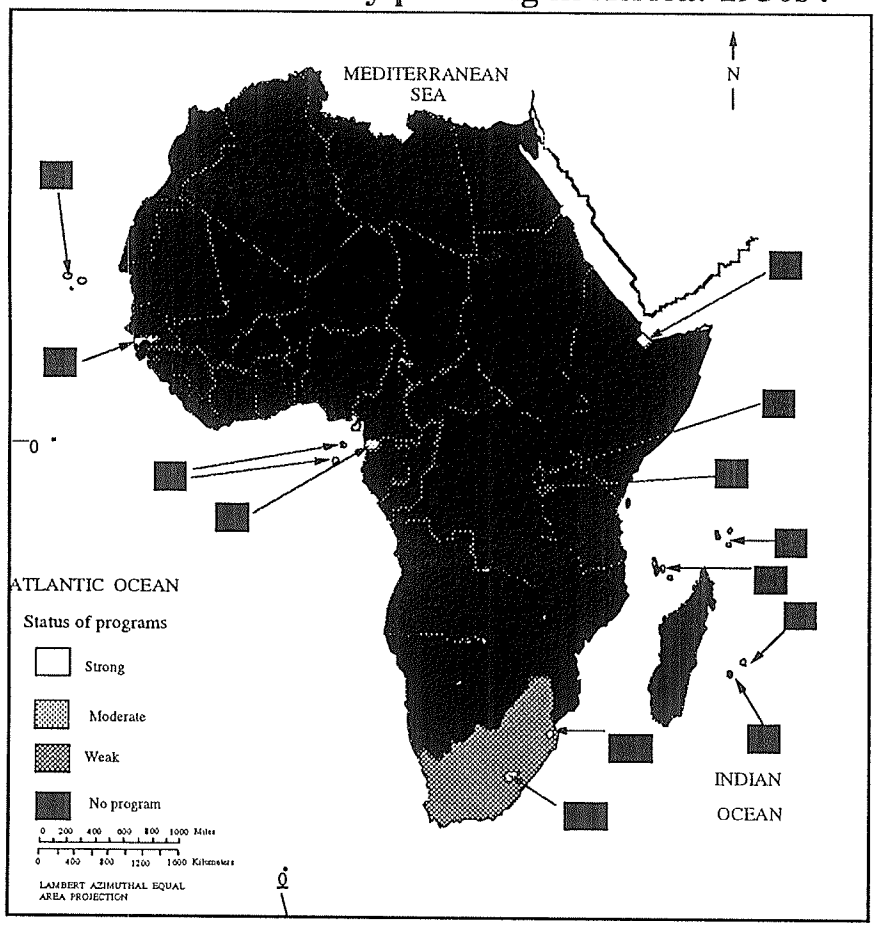
Of the total resources, 31.8 percent were allocated to data collection (much of it during the 1970s, especially after the Bucharest Population Conference). This was aimed at improving the quality of basic population data, which hitherto had been very poor if not non-existent in most African countries. In order to improve the health of mothers and children and to moderate high levels of fertility, 26.0 percent of the resources were allocated to family planning programs. Since it was realized that the success of family planning programs depended largely on changing people's attitudes, 16.0 percent of the total resources were allocated to the improvement of knowledge and understanding of population dynamics through training and research. The remaining 25 percent was allocated to population information, education and communication (to support program activities), multi-sector activities, population policies and special programs related to women and youth.

The 1980s saw the least progress in the establishment of family planning programs in Africa partly because most of the governments which were enthusiastic in establishing family planning programs had already done so in the 1970s. New private family planning programs were introduced only in Malawi during this decade.

The quality of modern African family planning programs has varied greatly from country to country since their inception. Figure 5.2 shows that by the end of the 1930s South Africa's private modern family planning programs were weak by world standards (*Molnos, 1968; UN, 1990*). All ten existing family planning programs were still weak at the end of the 1950s (see Figure 5.3).

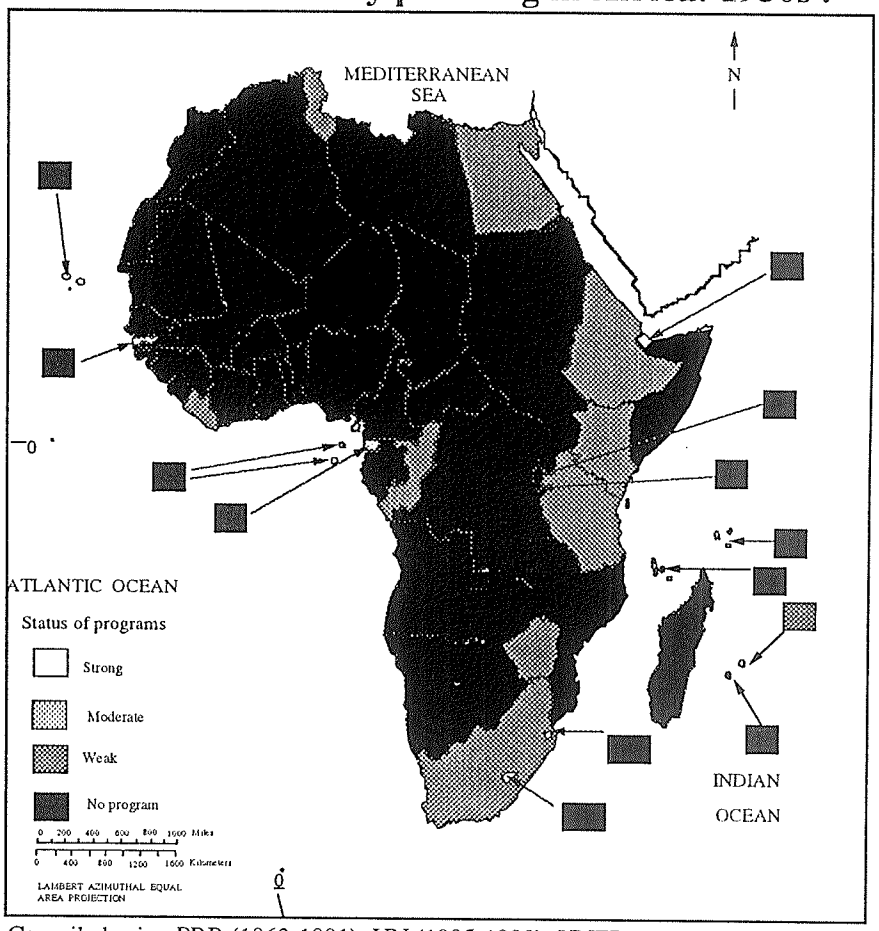
Figure 5.4 shows that by the end of the 1960s, of the total twenty-five African private family planning programs, five were avaluated as moderate ones and the remaining 20 were weak. By the end of the 1970s, 19 African countries had no family planning programs, twenty-two had weak ones and the remainder had moderate programs (see Figure 5.5).

Figure 5.:2.
Status of family planning in Africa: 1930s .



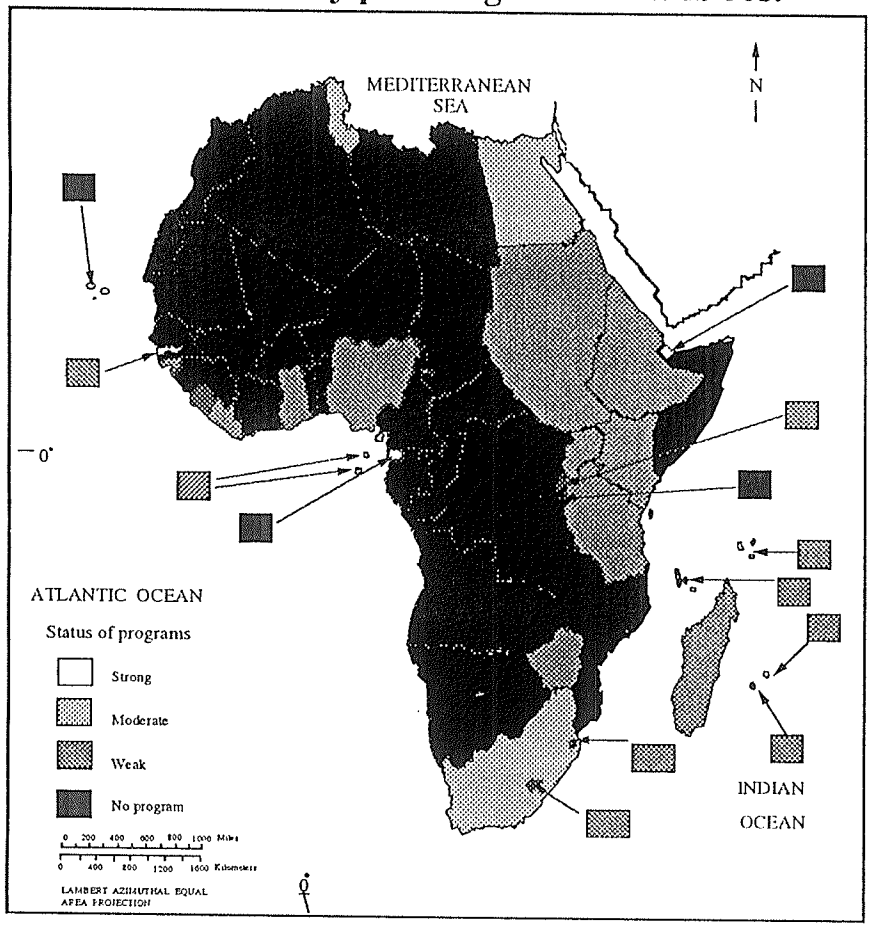
Compiled using PRB (1986a-1991); UNFPA (1978a-1987m) data.

Figure 5.3:
Status of family planning in Africa: 1950s .



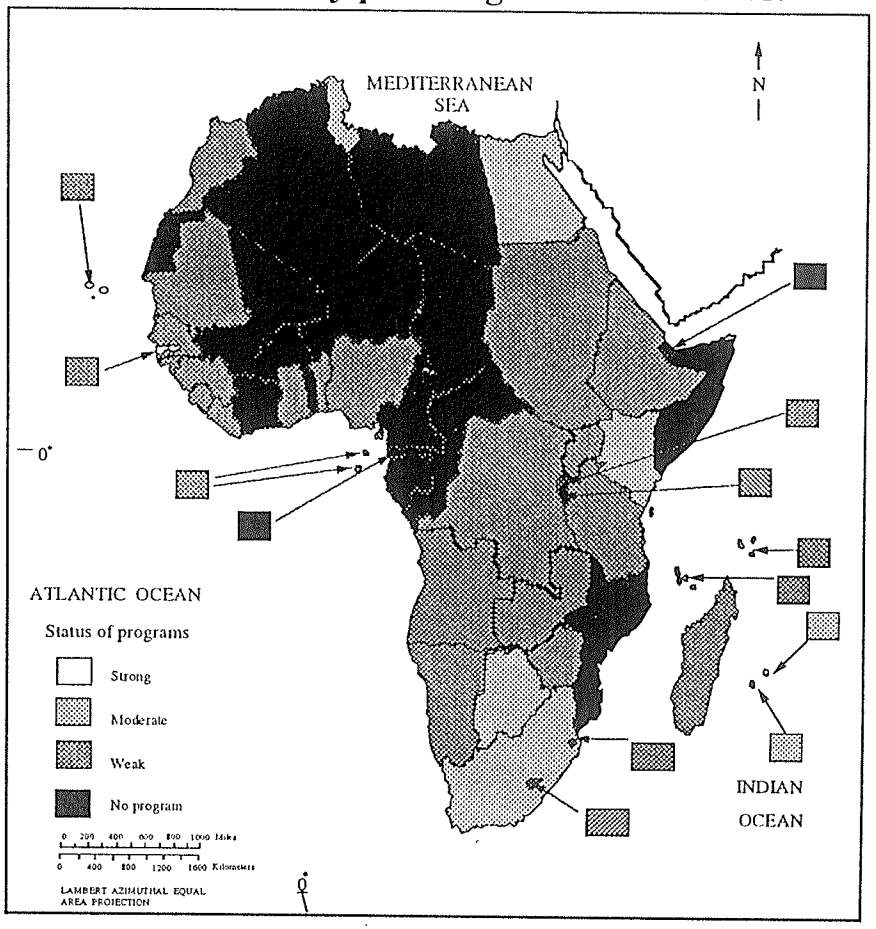
Compiled using PRB (1962-1991); UN (1985-1990); UNFPA (1985-1991) data.

Figure 5.4:
Status of family planning in Africa: 1960s.



Compiled using PRB (1962-1991); UN (1985-1990); UNFPA (1985-1991) data.

Figure 5.5:
Status of family planning in Africa: 1970s.



Compiled using PRB (1986a-1991); UN (1985-1990); UNFPA (1985-1991) data.

Figures 5.6 illustrates that very few African programs made progress from the late 1970s to the late 1980s. Modern family planning programs rated only moderate in South Africa, Botswana, Zimbabwe, Comoros, and Egypt.

To date, a large number of African countries continue to lack serious family planning programs. Figure 5.7 illustrates that only Mauritius and Tunisia have strong family planning programs. Botswana, Egypt, South Africa and Zimbabwe have moderate programs. Of the remainder 19 (35 percent) of African countries still have weak programs, while the remaining 30 (56 percent) have no (discernible) family planning programs.

In summary, there are two crucial points related to modern family planning programs in Africa. Firstly, as can be deduced from Figure 5.1, the founding and functioning of family planning programs has varied in three major ways:

. in a majority of countries family planning programs have been initiated by private organizations and have continued to function without direct government patronage;

. in Egypt, Ghana, Kenya, Mauritius, Sierra Leone and South Africa and more recently Nigeria and Zambia, family planning programs have been inaugurated by private organizations but later strongly sustained by the governments,[7] and

. only in Morocco and Tunisia have family planning programs been spearheaded by the government through the maternal child health care program or separate departments within the ministry of health (*UNFPA, 1978a-88*).

Secondly, African governments have benefited from a number of international agencies which have continued to support population programs in Africa. By 1987, UNFPA was supporting 882 national and regional population projects in sub-Saharan Africa alone. Table 5.1 shows that Zambia was among UNFPA's priority countries (countries which needed immediate attention). Economic Commission for Africa (ECA), Food and Agriculture Organization (FAO), International Labour Organization (ILO),

[7] In the case of Nigeria and Zambia this is evident through their recent adoption of population policies. However their practical (i.e. moral as well as financial) commitment to family planning programs is yet to be seen.

United Nations Development Program (UNDP), United Nations Educational Scientific and Cultural Organization (UNESCO), United Nations International Children Emergency Fund (UNICEF) and World Health Organization (WHO), in collaboration with governments and some international NGOs, executed most of these projects (UNFPA, 1989). In 1987, UNFPA'S African (sub-Saharan) country and territory project allocations totalled US $30,398,701.

The UNFPA renders this assistance in conformity with its primary aims, which originated in the 1974 World Population objectives. They include:

. the improvement of knowledge and understanding of population issues in order to stimulate the adoption and development of population policies and programs, and

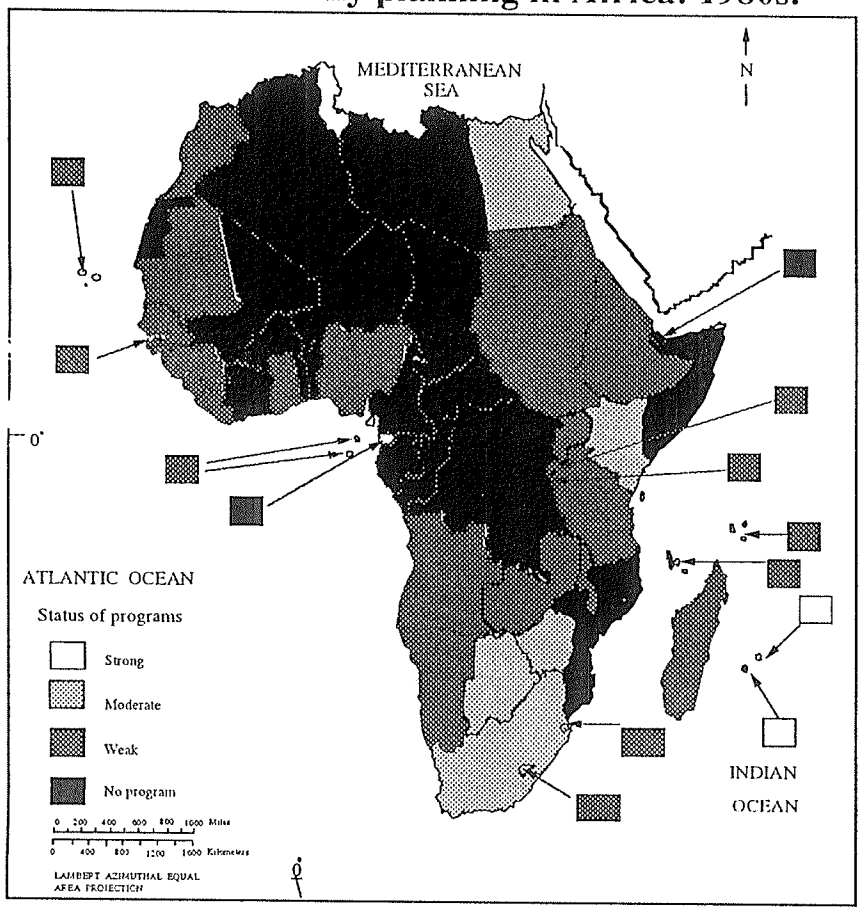
. the enhancement of government ability to implement such policies and programs.

UNFPA conducts 'Needs Assessment Studies' before allocating funds for population activities to any country. Results from a Stepwise Regression Analysis of the two independent variables provided in Table 5.2 shows that one a country's NI is one of the independent variables put into consideration by UNFPA in allocating funds for family planning. A country's population size is also given some consideration. In both cases the correlation with funds allocated for population activities is positive. Table 5.2 shows that both independent variables have significant influence. It is worth emphasizing that NI and population size are not the only determining factors for allocating funds; a would be recipient government's commitment to curbing high fertility rate is another important factor (*UNFPA, 1985*).

5.3. The emergence of population policies in Africa

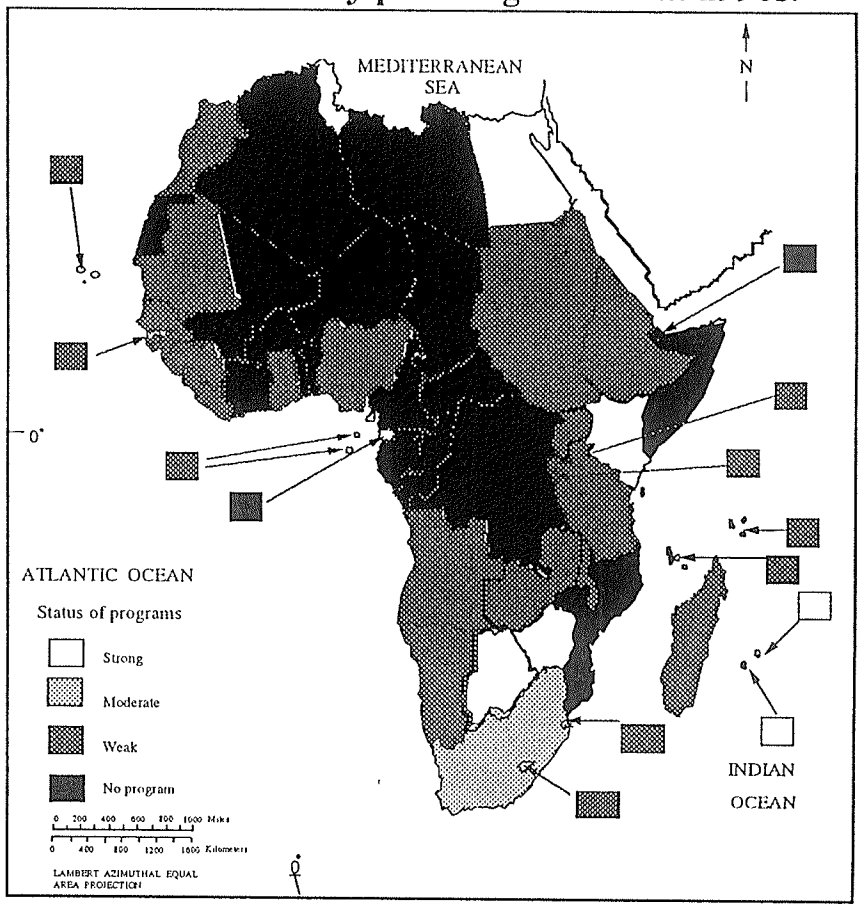
By the end of the 1970s it became possible for the United Nations to begin categorizing African countries into four broad classes: *discernible antinatal* and *pronatal* (through official proclamation by the internal central government and recognition by the UN), and *undiscernible antinatal* and *pronatal* based on each governments commitment or non-commitment.

Figure 5.6:
Status of family planning in Africa: 1980s.



Compiled using PRB (1986a-1991); UN (1985-1990); UNFPA (1985-1991) data.

Figure 5.7:
Status of family planning in Africa: 1990s.



Compiled using PRB (1990); PRB(1992) data.

Table 5.1:
Africa (sub-Saharan): UNFPA's Country and territory project allocation in 1987.

Country	Population (in millions) mid-1987	NI (annual %)	Allocation (in US $)	Expenditure per capita (in US $)
Angola*	8.0	2.5	884,210	0.11
Benin*	4.3	3.0	599,606	0.14
Botswana	1.2	3.4	158,983	0.13
Burkina Faso	7.3	2.8	850,586	0.12
Burundi*	5.0	2.9	645,947	0.13
Cameroon	10.3	2.7	463,827	0.05
Cape Verde	0.3	2.6	126,137	0.42
CAR*	2.7	2.5	661,130	0.25
Chad*	4.6	2.0	221,965	0.05
Comoros*	0.4	3.3	402,863	1.01
Congo*	2.1	3.4	334,378	0.16
I/Coast	10.8	3.0	282,009	0.03
Equatorial Guinea*	0.3	1.8	440,122	1.47
Ethiopia*	46.0	2.3	397,905	0.01
Gabon	1.2	1.6	205,163	0.17
Gambia*	0.8	2.1	187,831	0.24
Ghana*	13.9	2.8	432,646	0.03
Guinea*	6.4	2.4	588,627	0.09
Guinea-Bissau	0.9	2.0	185,794	0.21
Kenya*	22.4	3.9	873,311	0.04
Lesotho*	1.6	2.3	264,096	0.17
Liberia*	2.4	3.6	138,516	0.06
Madagascar*	10.6	2.8	628,297	0.06
Malawi*	7.4	3.2	570,878	0.08
Mali*	8.4	2.9	762,876	0.09
Mauritania*	2.0	3.0	630,020	0.32
Mauritius	1.1	1.2	107,134	0.10
Mozambique*	14.7	2.6	1,776,573	0.12
Niger*	7.0	2.9	808,863	0.12
Nigeria	108.6	2.8	1,563,098	0.01
Rwanda	6.8	3.7	523,042	0.08
Sao Tome and Principe	0.1	2.7	146,821	0.17
Senegal*	7.1	2.8	744,218	0.11
Seychelles	0.1	1.9	215,710	2.16

Table 5.1

Country	Population (in millions) mid-1987	NI (annual %)	Allocation (in US $)	Per capita expenditure (in US $)
Sierra Leone*	3.9	1.8	770,998	0.20
Swaziland	0.7	3.1	202,364	0.29
Tanzania*	23.5	3.5	2,194,554	0.09
Togo	3.2	3.1	361,635	0.11
Uganda*	15.9	3.4	487,163	0.03
Zaire*	31.8	3.1	608,899	0.02
Zambia*	7.1	3.5	643,886	0.09
Zimbabwe*	9.4	3.5	349,967	0.04
Total	**421.0**	**2.8**	**23,442,738**	**0.06**

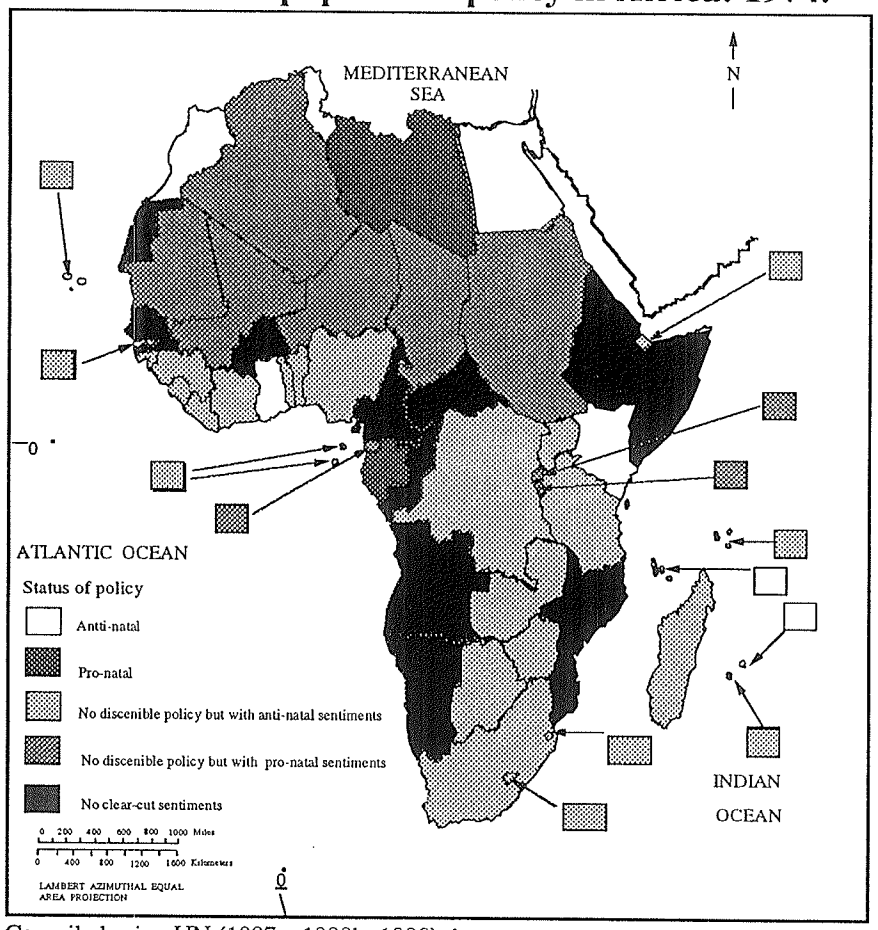
* Indicates UNFPA priority country
Source: UNFPA (*1989a:112*) and author's calculations.

Table 5.2:
Stepwise Regression Analysis for Dependent allocation of UNFPA funds for family planning activities: 1987 (ALLO).

n = 51	**Independent variable**	Nature of **correlation**	**R Square**	**Prob>.05**
Step 1	NATU Entered	(+)	0.65	0.0001
Step 2	POPU Entered	(+)	0.74	0.0008
Where:	POPU	= Population (mid-1987).		
	NATU	= Natural Increase.		

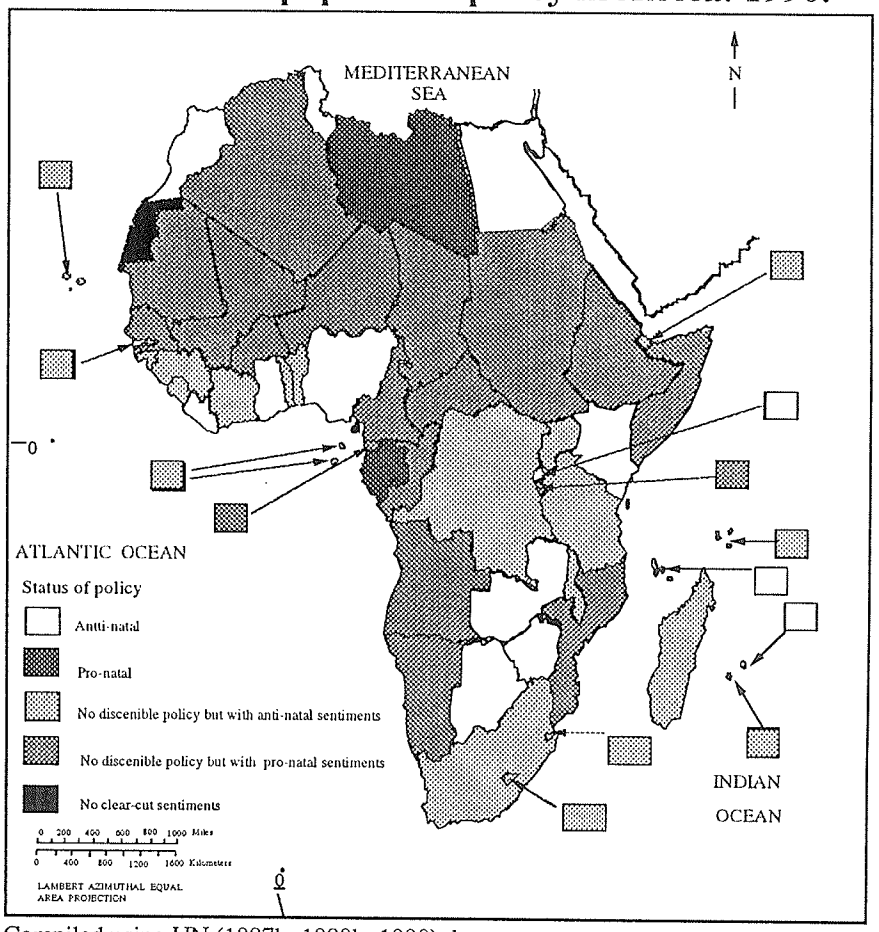
Source: Author's calculations based on data in Table 5.2.

Figure 5.:8
Status of population policy in Africa: 1974.



Compiled using UN (1987a; 1989b; 1990) data.

Figure 5.:9
Status of population policy in Africa: 1990.



Compiled using UN (1987b; 1989b; 1990) data.

Before the Bucharest conference only six African countries - Mauritius (1966); Kenya (1967); Morocco (1968), Ghana (1969), Botswana (1970), Tunisia (1973) and Egypt (1973) had officially stated anti-natal population policies for demographic reasons. Algeria (1985), Rwanda (1987), Liberia (1988), Zambia (1989) and Nigeria (1989) adopted their policies long after the Bucharest conference. Figures 5.8 and 5.9 illustrates the progress which has taken place in Africa to date.

Sections 5.3.1 to 5.3.8 aim at reviewing and analyzing the circumstances which motivated some of these countries to opt for anti-natal positions. Their achievements and failures are highlighted where applicable. For the sake of clarity, policies are reviewed and analyzed according to regions namely, The Indian ocean region, North Africa, West Africa, East Africa and Southern Africa. Each country with an official anti-natal policy is discussed. One example of those countries with unofficial anti-natal sentiments is discussed.

5.3.1. Mauritius's experience

Mauritius's outstanding problem has been overpopulation. It has a total area of 2,040 square kilometres and its overall density was approximately 128 and 178 persons per square kilometre in 1966 and mid-1974 respectively *(Greig, 1973)*. Mauritius's current density is 337.6 persons per square kilometre *(PRB, 1992*a).

Ninety-seven percent of Mauritius's population live on the main island, which accounts for 95 percent of the nation's territory. Only about 999.6 square kilometres or 49 percent of Mauritius's total land area is cultivatable. With the current population, this results in a physiological density of 1100 persons per square kilometre.

High population growth has been a major concern in Mauritius since 1944. Until the postwar years, Mauritius's natural increase was quite small, but with the eradication of malaria, the drastic reduction in infectious and parasitic diseases, general progress in medical science, and the provision of free health services, the death rate was reduced by as much as 32 percent in a single year. This scale of reduction triggered a population

explosion.[5] For example, the IMR of 155/1000 in 1945 was reduced to 65/1,000 by 1965 and is currently about 22.7/1000. The CDR, which was 25/1,000 in the late 1940s fell to 13.9/1,000 in 1950 and to 10.0/1,000 by 1960. Meanwhile the CBR failed to decline. Indeed, it actually increased to 47/1,000 during the early 1950s, resulting in a dramatic rise in the rate of natural increase. Mauritius had an annual intercensal population growth rate of 0.49 percent per annum in the 1931-44 period, when both birth and death rates were very high. The annual growth rate increased to 2.3 percent per year in the 1944-54 period (*UNFPA, 1985d; PRB, 1990*) and rose to 3.4 percent per annum by 1960. The effect of the 1945-46 baby boom created a population growth momentum 15 years later when the children born in that year entered the childbearing age group. This stimulated the PRB to conclude that:

> Unless the wings of Mauritius' over-ambitious stork can be drastically clipped in the next two decades, all hopes of improving the lives of the people on the tight little island could follow the dodo into oblivion (*PRB, 1962:99-101*).

Although this prediction has not been proven correct Mauritius's population growth rate had adverse effects on the country's economic and social resources in the 1950s and 1960s. Evidence of the pressure on Mauritius's resources included growing unemployment rate (variously estimated at 16 to 25 percent of the labour force), inadequate dietary standards, abominable housing conditions, pressure on cultivable land and communal tension (*Greig, 1973; UNFPA, 1985*).

These physical and economic conditions motivated both private and government organizations to undertake efforts reduce Mauritius' population growth rate. The effective monitoring of demographic trends through censuses and surveys was also influential in motivating both private and government organizations to begin regulating population growth.

It is worth mentioning that Mauritius stands out as one of the best examples of a

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[5] Greig (*1973*) reports that during the Second World War the British forces started spraying with DDT, a practice which was continued by the government with the aid of WHO after the war. This helped eradicate malaria which had earlier claimed many lives - 3,524 in 1945 alone.

country in which religion (Catholicism and Islam in particular) played a very significant role in retarding progress in family planning, especially during its initial stages, but later succeeded in overcoming the opposition of religious groups to score commendable achievements. The Mauritius case, therefore, strongly supports Chamie's (*1981*) interaction hypothesis which emphasizes that the effect of religion depends on a society's level of modernization, educational attainment and economic development.

In 1958 the first private family planning organizations were formed. Before 1965 all family planning programs functioned without government support. But in 1965 both the Family Planning Association of Mauritius (FPAM) and AF (Action Familie - a Catholic association whose main goal is to instruct couples in natural family planning methods) were sanctioned by the government. A year later, on August 23, 1966, the Minister of Health announced that:

> The government has now completed plans to embark on a comprehensive campaign to regulate births. A massive public campaign will bring home to every man and woman the knowledge not only that there is a problem but that they can do something about it (*Greig, 1973:159*).

This announcement signalled the official adoption of an anti-natal population policy. It is worth noting that this was a very effective statement for two reasons: firstly, it emphasized that population was a problem not only for the government but for every citizen. Secondly, by emphasizing that the solution lay in the hands of each citizen, it expressed optimism. Both these points are crucial to any population policy because it is only when a large proportion of a country's population accept that high population growth is a problem that population policies can be successfully implemented.

The main goal of Mauritius's population policy has been to reduce the Gross Reproduction Rate (GRR) from 1.9 in 1969 to 1.2 between 1980 and 1985.[6] This goal has almost been achieved. The government of Mauritius has been very committed to

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[6] Gross Reproduction Rate (GRR) is the average number of daughters that would be born to a woman during her lifetime if she passed through her childbearing years conforming to the Age Specific Fertility Rate (ASFR) and mortality rates of a given year. This rate resembles the TFR, except that it counts only daughters and literally measures 'reproduction', i.e. a woman reproducing herself by having a daughter (*Haggett, 1983*).

curbing its population growth rate. This has been evident through the increase in the number of government-sponsored family planning service centres and the overall expansion of the infrastructure for population control. The print media have disseminated family planning information although both radio and television still remain the main medium for debate on population issues.[7]

In 1980, the government handed over the responsibility of family planning programs to the Family Planning Association of Mauritius (FPAM). The government has since focused on improving its social services and providing its population with employment. The government also emphasizes improving the status of women by according them equal opportunities in education, politics and the economy. The drastic reduction in mortality in general, and infant mortality in particular, has made it possible to convince couples that it is no longer necessary to bear many children for precautionary reasons. It has also been encouraging people to emigrate to other countries especially in Europe and South Africa (*UNFPA, 1985d*).

Mauritius has also benefited from external assistance. In 1972, for example, the World Bank, UNFPA and WHO assisted the government in integrating family planning programs with the Maternal and Child Health services within the Ministry of Health. Today UNFPA, UNICEF, WHO, the Population Council, SIDA and the IPPF are still assisting Mauritius's family planning programs (*UNFPA, 1985d*). There has been tremendous increase in family planning acceptance in Mauritius since the early 1970s and as a result Mauritius's CBR and TFR have declined tremendously, reaching replacement level in the 1990s (*IPPF, 1984; UNFPA, 1985d; PRB, 1991*) (see Figures 5.10 and 5.11).

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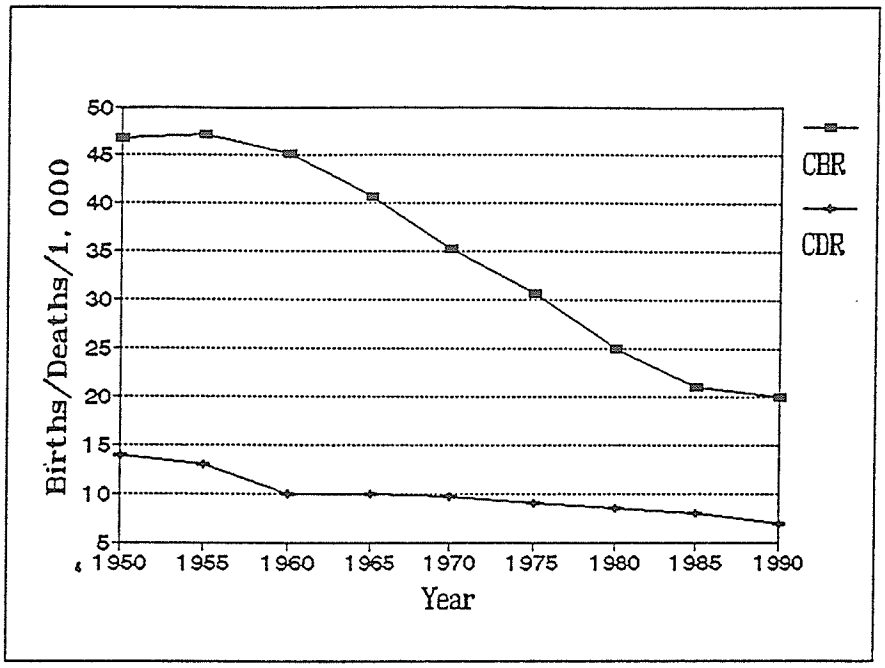
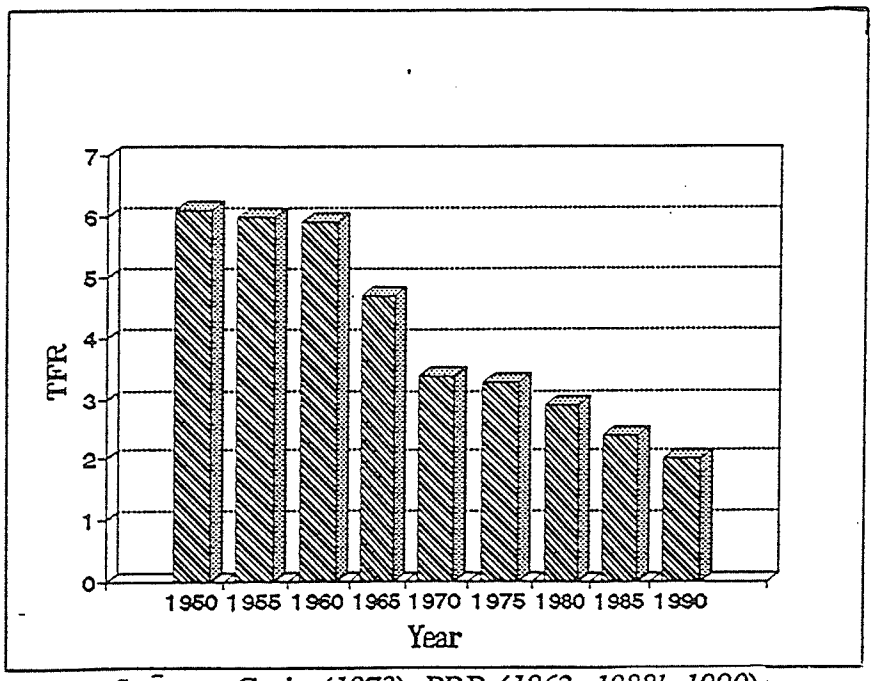
[7] The Christian Science Monitor (*1985*) reported that opposition from the Roman Catholic Church were still strong in the 1980s and that its views were broadcast on both radio and television.

Figure 5.10:
Mauritius CBRs, CDRs and NI: 1950-1990.



Sources: Greig (*1973*); PRB (*1962; 1988b-1990*))

Figure 5.11:
Mauritius: TFRs: 1950-1990.



Sources: Greig (*1973*); PRB (*1962; 1988b-1990*)..

With a precarious economy, it is necessary for Mauritius to continue regulating its population growth rate. The economy continues to be dominated by sugar (*Greig, 1973; Carrol, 1991*); about 40 percent of the labour force remains engaged in sugar production. With its by-product of molasses, sugar accounts for 92 percent of total exports and 30 percent of GNP. However, the collapse of the world sugar agreements in 1974 and France's subsequent decision to favour sugar beet producers in the EEC, have greatly reduced Mauritius's market. Although the government has attempted to diversify agricultural production, it has not been easy to find crops that are as profitable as well as sugar, provide equal employment, and have guaranteed markets. Thus the economy remains precarious and any further increase in population growth rate would be detrimental.

5.3.2. Morocco's experience

In 1965, Morocco's population was growing at an estimated rate of 3.3 percent per annum, prompting the government to express concern over the risks of high growth. A year later, the first family planning clinics were opened under government supervision and the government held a seminar on family planning in 1967 at which the Minister of Public Health discussed the implications of demographic changes for public health. In 1968, an anti-natal policy was officially adopted. Its commitment to curb population growth was reaffirmed in the 1973-77 National Development Plan, which emphasized that:

> The population of Morocco is growing very quickly. One can envision the long-term consequences of this growth which include further unemployment and overpopulation if it is not remedied by adequate measures. The government found it vital therefore, to bring into play with speed a demographic policy (*Government of Morocco, 1973*).

The government proposed to reduce CBR from 49/1,000 in 1972 to 43/1,000 in 1985 and attract 400,000 users of modern family planning services (24 percent of the women in the 15-45 age group) (*UNFPA, 1981c; UN, 1989b*). Morocco's population policy emphasizes child-spacing which would go hand in hand with the reduction of infant mortality.

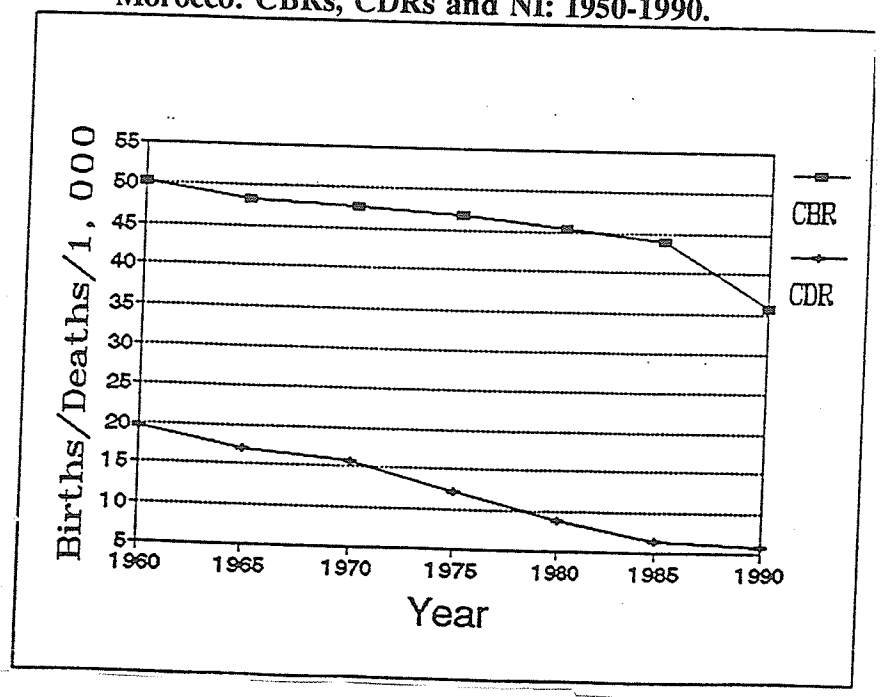
The government hoped to achieve its objectives by educating the public about the

advantages of regulating fertility by using modern family planning methods. It also uses indirect methods including improvement of the status of women, provision of maternal and paternal benefits for up to four pregnancies and child allowances for up to the same number of children.

Like many other Third World countries, Morocco has benefited from external support. It received well over $ 1 million US in foreign aid for family planning programs between 1966 to 1980. The Ford Foundation contributed $363,000 directly to the Ministry of Health while USAID released $300,000 to the budget of a 5-year development plan. The rest of the assistance came from IPPF and SIDA (*Bouvier, 1979*).

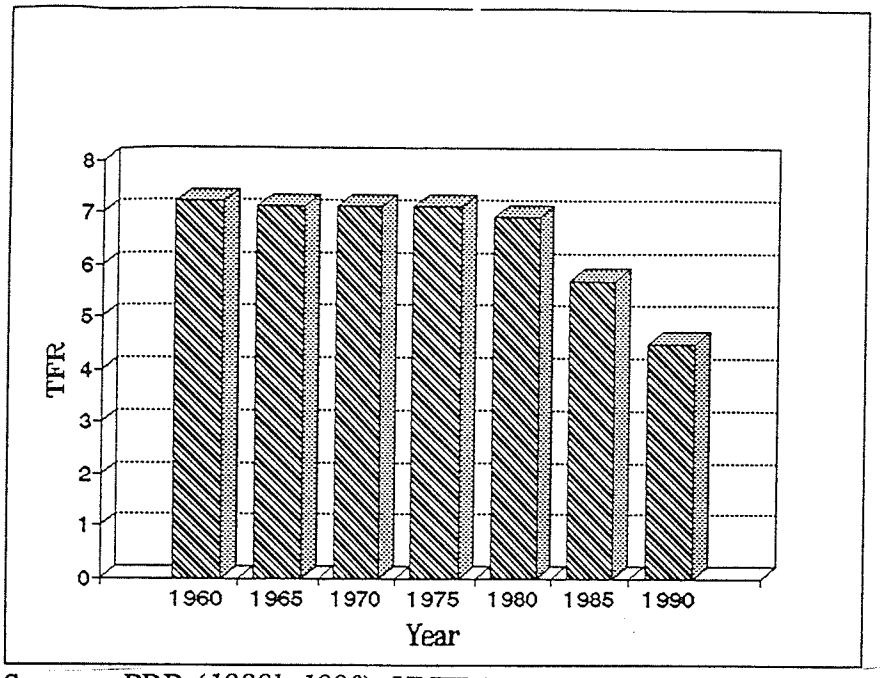
Figure 5.12 shows that Morocco experienced rapid decline in mortality between 1960 and 1985 and steady decline in TFR between 1965 and 1990. This suggests that drastic measures were taken to reduce mortality while family planning programs were also in effect. But as indicated earlier, mortality tends to decline earlier than fertility. Due to the drastic decline in mortality but only moderate decline in fertility, Morocco's NI is still relatively high when compared to Tunisia's (to be discussed later) and Mauritius's. Nevertheless, if Morocco improves on the current family planning programs, its NI is likely to reduce further. It experienced a significant decrease in TFR between 1980 and 1990 (see Figure 5.13).

Figure 5.12:
Morocco: CBRs, CDRs and NI: 1950-1990.



Sources: PRB (*1988b-1990*); UNFPA (*1981C*).

Figure 5.13:
Morocco: TFRs: 1950-1990.



Sources: PRB (*1988b-1990*); UNFPA (*1981C*).

5.3.3. Egypt's experience

Egypt's perennial problem is one of acute shortage of arable land and high population growth. Only 5.5 percent of Egypt's land is arable; nearly all of the rest is desert or barren mountains. This results in an physiological density of more than 1,000 persons per square kilometre, while the absolute density is only 3 persons per square kilometre. Some 96 percent of Egypt's population live on 5.5 percent of the total land area (*Futures Group, 1983c; Goliber, 1989*). Todate, nearly all of Egypt's 54.5 million people can be found in the valley and the delta of the River Nile. This forces Egypt to depend heavily on expensive food imports. Meanwhile, Egypt's population is increasing by over one million annually and is likely to reach 65-70 million by the year 2000 (*PRB, 1992*). This population increase has resulted in continued pressure on resources, employment, education, housing and other social services. It is, therefore, not surprising that Egypt has adopted an official anti-natalist policy for demographic reasons.

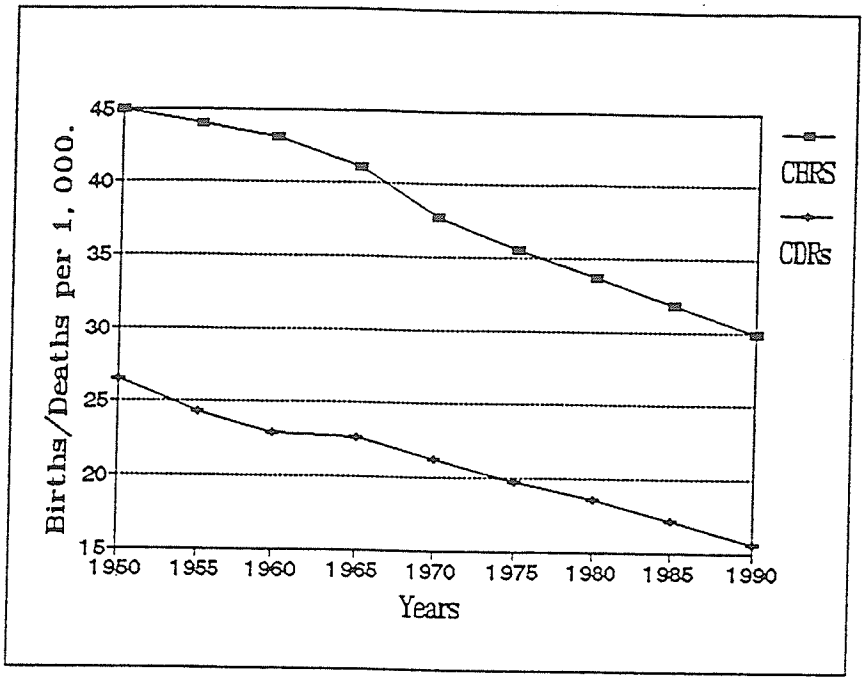
The Egyptian private organizations and the government started taking precautionary measures against high growth rate long before an official population policy was adopted. The Egyptian government was the first Arab government to show an active interest in population issues. Voluntary family planning associations were established in 1958 and these joined IPPF in 1963. In 1965, the government established the Supreme Council of Population and Family Planning (SCPFP) which was headed by the Prime Minister with representatives from all ministries. Four years before its official policy was adopted, the government was determined to reduce the CBR by 0.1 percent per year. By the time the population policy was adopted in 1973, TFR had already declined from 6.2 in 1960 to 5.1.

By 1979 family planning services were available in over 3,500 clinics, most of which were operated by the government (*UN, 1987b*). Since then, the Egyptian government has improved its censuses, surveys and vital registration institutions in order to monitor both growth rate and progress in family planning programs. Egypt is among the few African countries which have a complete system for registration of births and deaths. Currently, the government aims at achieving an annual population growth rate of between 1.0 and 1.3 percent by the year 2000.

The Egyptian government uses positive incentives to encourage people to use family planning. These include improving educational and cultural services for those communities which comply with the official population policy. While directly supporting access to information on modern methods of contraception, the government also emphasizes the role of private family planning providers. Though sterilization is not encouraged, it is not prohibited.

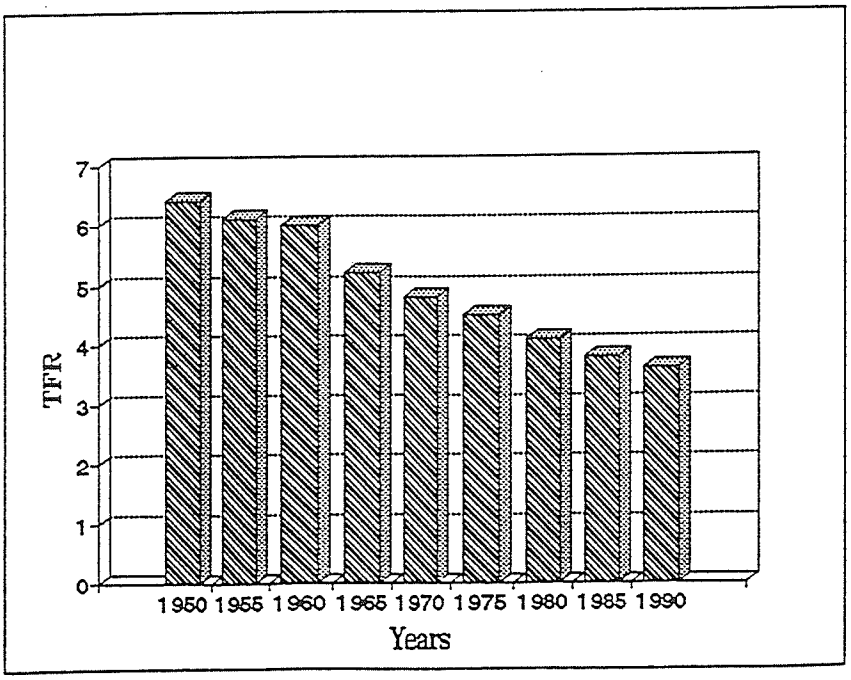
Credit should be given to private family planning agencies for achievements scored before 1973 and to both private agencies and the government after the official adoption of a population policy. Figures 5.14 and 5.15 illustrate that since then CDRs and CBRs have declined significantly but despite this decline there is still a growth rate of 2.0 percent per annum mainly because TFR has remained persistently high.

Figure 5.14:
Egypt: CBRs, CDRs and NI: 1950-1990.



Sources: UNFPA (*1981a*); PRB (*1988b-1990*)

Figure 5.15:
Egypt: TFRs: 1950-1990.



Sources: UNFPA (*1981a*); PRB (*1988b-1990*).

5.3.4. Tunisia's experience

In 1950, Tunisia's CBR was 46.4 per 1,000 population and its TFR was 6 children per woman. This high fertility resulted in high population growth which contributed to pressure on social and economic resources. The situation deteriorated further following the decline in the phosphates and petroleum industries which provided almost two-thirds of all export revenues for the country. The decline in Tunisia's phosphate industry started at the end of 1970s leading to unfavourable balance of payments and consequently to serious unemployment problems (*Hance, 1975; Futures Group, 1987d*).[8]

In 1970, explicit references to long-range fertility goals were made by prominent government leaders and in the official national development plan. In 1972, the Prime Minister reinforced the government's commitment in a special speech to the nation which stressed the need for adopting an official anti-natal population policy. The government proceeded by passing Bill No. 73-17 on March 23, 1973 which created the National Population Council (NPC) (*Conseil Superieur de la Population [CSP]*), Regional Councils (RC) (*Conseils Regionaux [CR]*) and the National Family Planning and Population Office (NFPPO) (*Office National du Planning Familial et de la Population, [ONPFP]*) (*Futures Group, 1987d*). The NPC is a government institution whose task is to define and elaborate the national population policy and specific goals and objectives for ONPFP. It comprises all ministries and representatives from principal interest groups and is an autonomous institution both financially and in terms of personnel, but it maintains an administrative link with the Ministry of Health. Its task has been to spearhead the implementation process of the population policy.

Tunisia's main reason for adopting a population policy was to regulate population growth by reducing the TFR from 5.5 children per woman in 1973 to 2.5 by 1985. This would result in a NI of 1.3 percent per year. Tunisia also hoped to reduce its birth rate from 37.5 per 1,000 in 1973 to 25 per 1,000 in 1985. As will be illustrated later this was

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[8] UN (*1990*) maintain that Tunisia's economic problems have been aggravated by the long-term consequences of high rate of population increase. In 1984, it was estimated that 25-30 percent of the labour force were either unemployed or underemployed. This proportion rose by 2 percentage points by the end of the decade.

a rather unrealistic goal.

In order to achieve its objectives, the Tunisian government adopted a program for providing the public with free family planning services through the government health system. The government has also studied how to use traditional midwives in order to enhance the distribution of family planning services in rural areas. Tunisia's population policy has also focused on an aggressive family planning information distribution system and improving the quality of mass education. Indirect approaches, which include improving the status of women and overall improvement in employment opportunities have also been used. Monetary incentives were given in 1975-77 to physicians, midwives and other health personnel to encourage family planning performance (*Futures Group, 1987d*). Laws were also passed in order to:

. abolish polygamy and establish equal rights between men and women,

. limit child allowance to four children,

. legalize the importation, sale and advertising of contraceptives,

. increase the minimum legal marriage age to 17 for women and 20 for men,

. legalize induced abortion during the first 12 weeks of gestation, without any restrictions and

. limit maternity leave to two months at full pay, followed by four months at half pay, to the first three children only.

Since its inception, Tunisia's anti-natal policy has benefited from assistance from a number of international agencies. USAID has contributed contraceptives and family planning equipment. It has also rendered financial assistance directed for family planning programs from time to time. The World Health Organization (WHO), in connection with UNFPA, has provided both financial and consultant services. The Path Finder Fund (PFF) has provided IUDs. The Canadian International Development Agency (CIDA) and Swedish International Development Authority (SIDA) have both been instrumental financially and materially (*Futures Group, 1987d*).

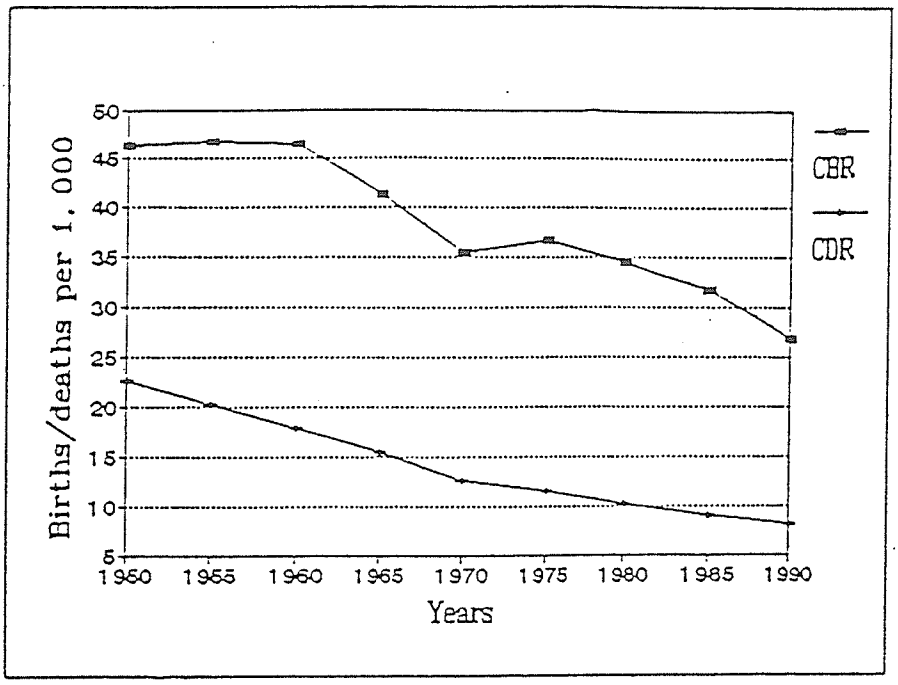
As a consequence of its effective population policy, Tunisia's average desired number of children declined from 4.8 in 1968 to 3 in 1987. In the same year, Tunisia received the UN Population Award for the outstanding work of the National Office of Population

and the Family (*Futures Group, 1987d*). Currently 99.6 percent of all Tunisian women in the reproductive age group are aware of at least one method of family planning and forty-three percent have used family planning at least once. Figures 5.16 and 5.17 show Tunisia's impressive trend in NI and TFR. It has the lowest annual growth rate of 2.1 percent, and lowest TFR of 3.4 children per woman, on mainland Africa.

The Futures Group (*1987*) and PRB (*1992*) argue that had progress not slowed in recent years, Tunisia's growth rate would have been lower than 2.1 percent. Government programs, for example, declined from 67/1,000 acceptors in 1977 to 57/1,000 in 1979 and 46/1,000 in 1992 (*Bouvier, 1979; PRB, 1992*). The rate of acceptance for each method of contraception has also declined. The rural population in Tunisia represents approximately 50 percent of the total population, but accounts for only 31 percent of women using contraceptives.

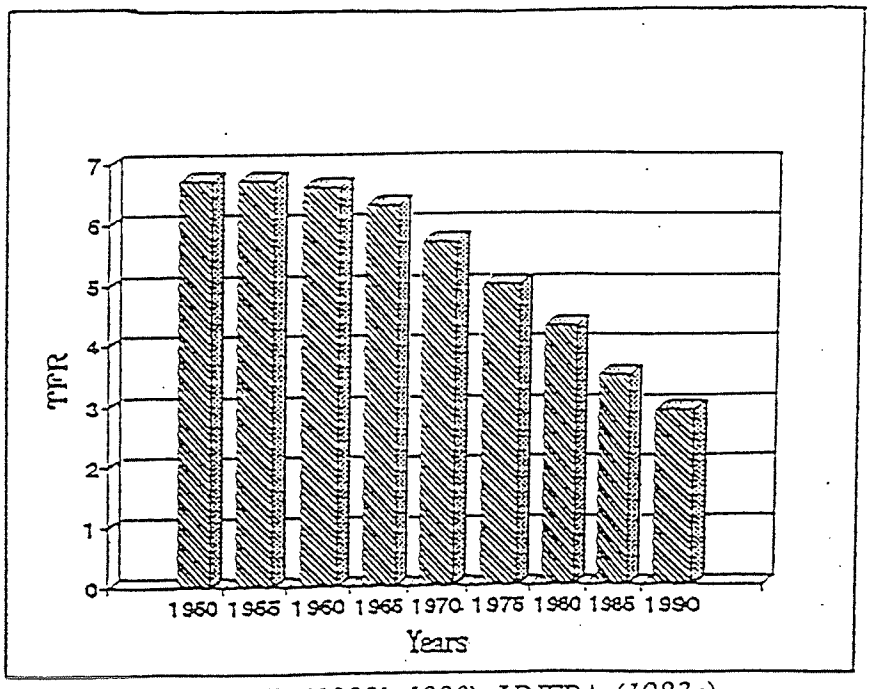
There are a number of reasons for the decline in progress in Tunisia's family planning programs. First, the personal incentives and overall professional eagerness that characterize any new program and which were evident in 1975-1977, died out with passage of time. The withdrawal of monetary incentives which were given in 1975-77 to physicians, midwives and other health personnel to encourage family planning performance diminished the zeal of such personnel. Secondly, negative side effects tend to be acknowledged later in any family planning program. After using certain contraceptives clients are more likely to talk about side effects. Such information reaches potential acceptors and discourages them from accepting the family planning innovation. Forty percent of the total users of modern family planning methods were aware of side effects during the 1976-78 period. This proportion increased to 50 percent in 1987 (*Futures Group, 1987d*). Thirdly, family planning programs are resisted among Muslim fundamentalists, especially in rural areas. Setbacks such as the first and the second are to be expected in any anti-natal program adopted in Africa and the third in muslem countries and hence governments intending to adopt policies should plan ahead for them.

Figure 5.16:
Tunisia: CBRs, CDRs and NI: 1950-1990.



Sources: PRB (*1988b-1990*); UNFPA (*1983e*).

Figure 5.17:
Tunisia: TFRs: 1950-1990.



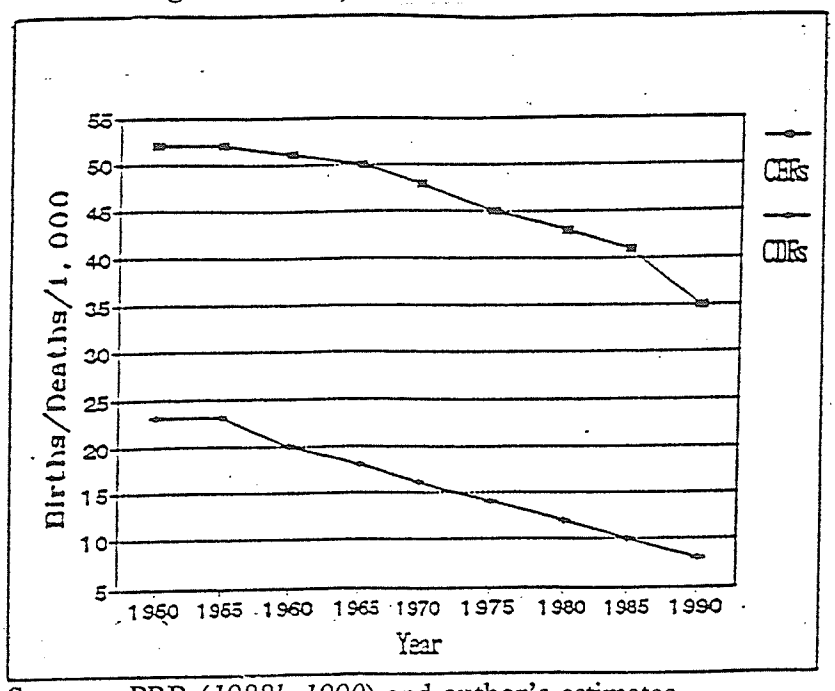
Sources: PRB (*1988b-1990*); UNFPA (*1983e*).

5.3.5. Algeria's experience

Compared to Tunisia, Morocco and Egypt, Algeria lags behind in its attempts at curbing population growth. At the 1974 World Population Conference in Bucharest, Algerian spokesmen maintained that the population explosion was not the cause of underdevelopment but the result of it. Algeria had an annual growth rate of 3.2 percent in 1979 and had no official population policy. Nevertheless, the government allowed private and international family planning agencies to operate. Private family planning programs benefited from support provided by international agencies like IPPF and the PFF which supplied contraceptives and family planning literature. SIDA supplied contraceptives and clinical equipment for pilot clinics and established hospitals.

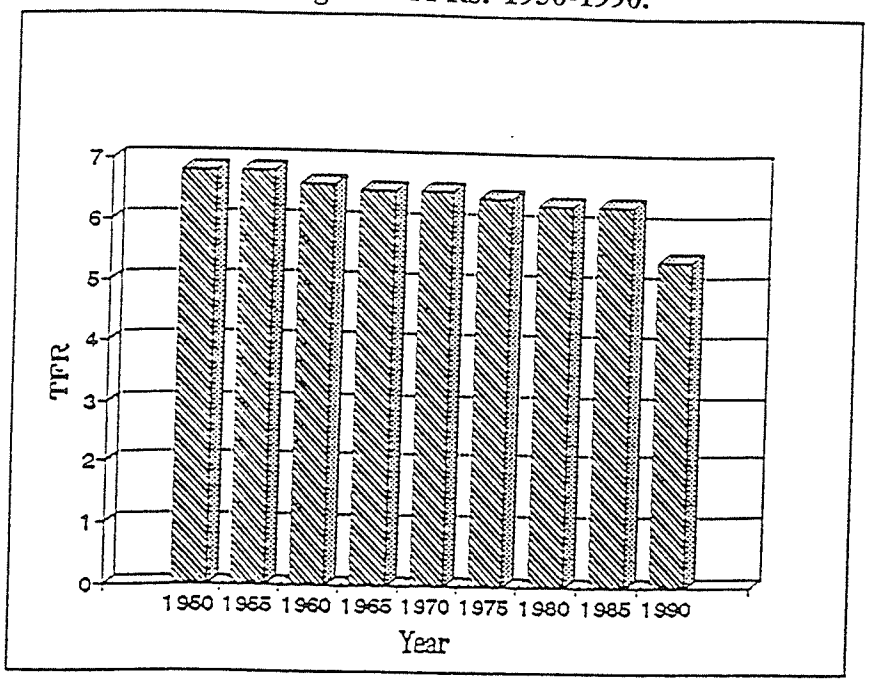
Algeria adopted an anti-natal population policy in 1985. The main objectives of the policy are to reduce fertility as a means of decreasing natural increase and to improve family well-being. It has encouraged parents to limit their families to four children and to space childbirth by an average period of 33 months. It has also limited family allowances to four children since 1985. A law on health protection and promotion ensures the right to abortion and sterilization only for therapeutic measures when the life of the mother is endangered.

Figure 5.18:
Algeria: CBRs, CDRs and NI: 1950-1990.



Sources: PRB (*1988b-1990*) and author's estimates.

Figure 5.19:
Algeria: TFRs: 1950-1990.



Sources: PRB (*1988b-1990*) and author's estimates.

Although Figures 5.18 and 5.19 show that unlike Tunisia and Morocco, Algeria did not make remarkable achiveements between 1960 and 1985 its marked decline in TFR between 1985 and 1990 is noteworth as 1985 marked the beginning of an official antinatalist policy. While its CDR of 8/1,000 is among the lowest in the world, its CBR of 35/1,000 remains relatively high.

5.3.6. Ghana's experience

The government of Ghana's position on the relationship between population and resources was indifferent throughout the 1950s. At independence, in 1957, Ghana was among the world's largest cocoa producers. It was also West Africa's main mineral exporter (*UNFPA, 1984c*), and was the richest of black African countries. Although during the 1962/63 session of the UN General Assembly the government of Ghana was one of the supporters of the proposed efforts for curbing population growth rate in Third World but because of its economic prosperity, it did not make efforts to immediately develop family planning programs.

Ghana's prosperity started deteriorating when President Kwame Nkrumah consolidated his power in 1964. His intent was to create state socialism as rapidly as possible. He

expended vast sums on state industries, collective farms, work programs and the military so that by early 1966, the country had used up its reserves and accrued a debt estimated at about US $520 million, three-fourths of which was in suppliers' credits. World cocoa prices also collapsed (*FG, 1986a*). The government of Ghana became increasingly incapable of providing its fast growing population with essential social services such as education, housing and health. These socialist policies and socio-economic problems led to Nkrumah's overthrow in February 1966.

It was after Nkrumah's overthrow that the Government of Ghana seriously started examining the relationship between rapid population growth and economic development. Bouvier (*1979*) reports that on Human Rights day in 1967, Ghana became the first African nation to sign the World Leader's declaration on population and to join with 30 other countries in affirming that population problems be recognized as major elements in long-range national planning if governments were to achieve their populations' well-being.

Results of the 1968 national census emphasized that Ghana's population was growing at a faster rate than the economy. Following a critical analysis of the census data, Prime Minister Kofi Busia, concluded that:

> The population of Ghana is the nation's most valuable resource. The protection and enhancement of its welfare is the government's first responsibility. When that welfare is threatened, the government must act. The welfare of the nation is now endangered by a subtle, almost imperceptible demographic change....unless birth rates are regulated, the children of the next few generations will be born into the world where their very numbers may condemn them to life-long poverty (*Government of Ghana, 1969*).

Realizing that curbing population growth would in the long run improve the relationship between population and socio-economic resources, Ghana became the first West African country to define an official population policy in March 1969. The government made a clear-cut commitment to provide information, advice and assistance for couples wishing to space births or otherwise limit their reproduction. These programs were to be educational and persuasive but not coercive. The long-term goal was to reduce the annual growth rate from 3.5 percent in 1969 to 1.8 percent per annum by the

year 2000 (*UNFPA, 1984c; Goliber, 1989*).[9]

Following the adoption of its population policy, family planning services was provided through Ghana's extensive family planning program. Every hospital and health centre became an outlet. However, this progress was short-lived because the successive military governments of the National Redemption Council under President Achempong (from 1972 to 1975), the Supreme Military Council under Akuffo (between 1975 and 1979) and the military backed civilian government under President Limann (between 1979 and 1981) were more concerned with monitoring political unrest than with the provision of family planning services (*McCaskie, 1991*).

It was not until 1981, under the rule of President Rawlings, that the commitment to family planning programs was revived. In 1985, for example, the law on abortion was liberalized to permit abortion on broad eugenic and health grounds. Sterilization was also made legal where there is medical evidence that further conception would adversely affect the mother's health.

Currently, Ghana's population policy goes beyond direct family planning by using indirect methods to regulate fertility. The government encourages and promotes wider gainful employment for women. It has also increased the proportion of girls entering and completing school. Efforts to develop a wider range of non-domestic roles for women have also been made. The government also uses disincentives such as limiting maternity benefits to four pregnancies and restricting the use of child labour (*UN, 1989b*).

USAID has provided both financial and training assistance to Ghana's family planning programs since 1969. Additional assistance has come from IPPF, UNFPA and World Assembly of Youths (WAY) (*UN, 1989b*). Despite all these efforts (as Figures 5.20 and 5.21) Ghana's CBRs and NI are still among the highest in Africa mainly due to the constant high TFR.

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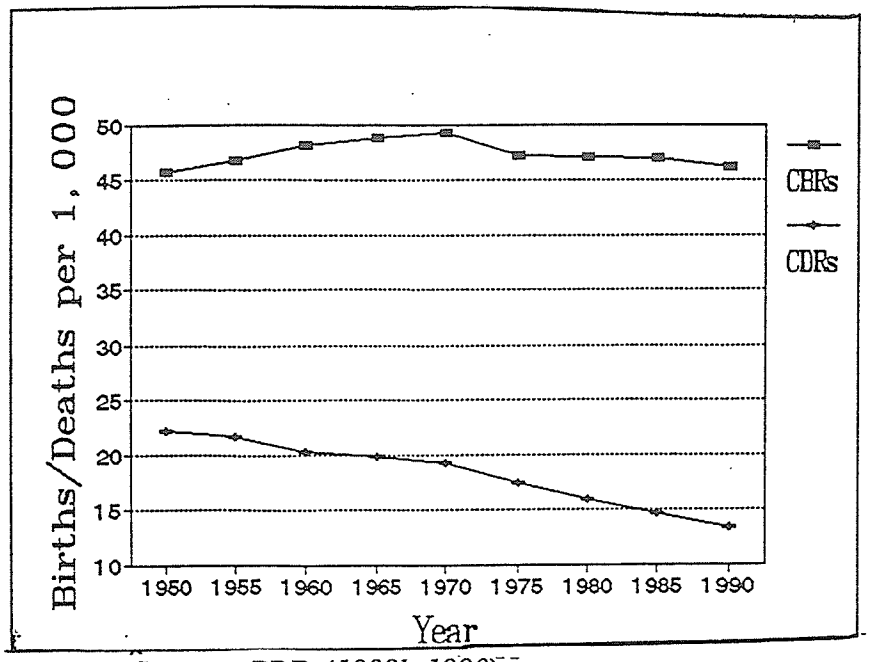
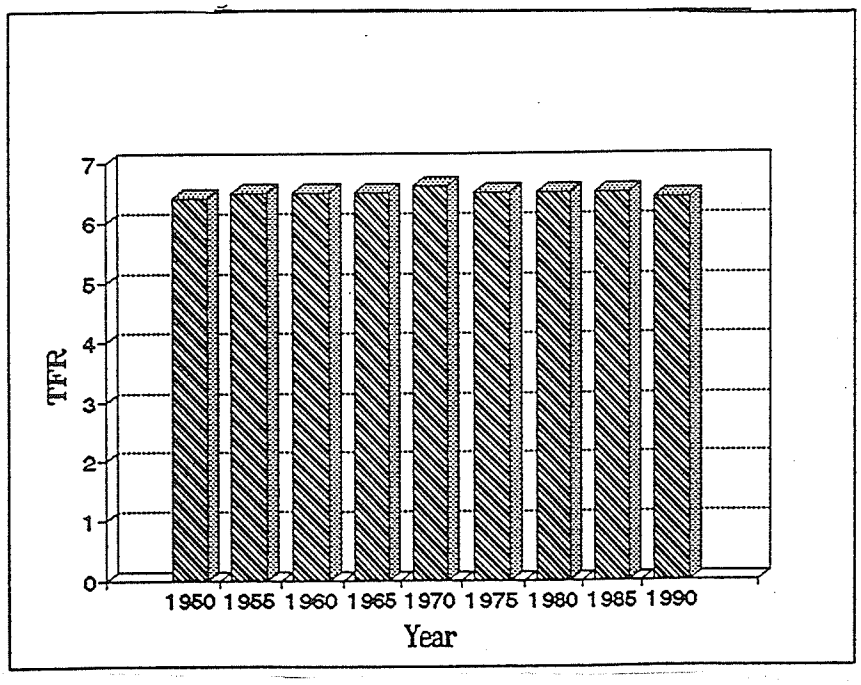
[9] Realizing that this target was rather ambitious, in 1988 the Ghanaian government changed this target to 2.0 percent per annum by the year 2000.

Figure 5.20:
Ghana: CBRs, CDRs and NI: 1950-1990.



Sources: PRB (*1988b-1990*).

Figure 5.21:
Ghana: TFRs: 1950-1990.



Sources: PRB (*1988b-1990*); UNFPA (*1984c*).

5.3.7. Liberia's experience

In 1975, Liberia's population was about 1.76 million and its CBR and CDR were 43.6/1,000 and 20.7/1,1000 respectively. It was estimated that if the growth rate of 2.3 were maintained, Liberia's population would increase to 3.2 million by the year 2000 (*UNFPA, 1986b*).

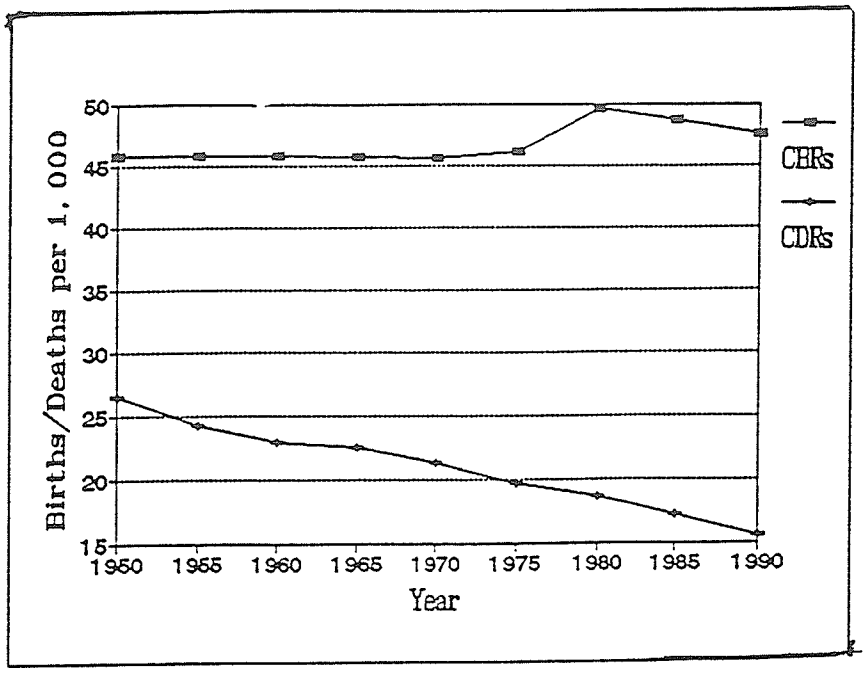
For a long time Liberia had no interest in either family limitation or birth spacing. It was not until May 1, 1973 that President William Tolbert strongly recommended that family planning be part of an integrated development plan. In 1983, after the overthrow of Tolbert in a military coup a National Committee on Population (NCP) was established to advise the government on population matters. This committee became the foundation for the National Population Commission which was inaugurated in September 1986. Membership of this Commission comprises representatives from different ministries and international organizations. A new committee, the Parliamentary Council on Population and Development (PCPD) was formed in 1987 (*UN, 1990*).

These developments were followed by the formulation of an official anti-natal policy in 1987 aimed at reducing fertility. During the 1987-1989 period, the Liberian government provided family planning services within the context of the Maternal Child Health Program (MCHP). The Family Planning Association of Liberia (FPAL) also offers family planning services.

Although the government was committed to supporting projects to train paramedical personnel in family planning methods, promoting natural family planning methods (through the International Population Federation of Family Life Promotion [IPFFLP]), reducing infertility, and improving community-based distribution of contraceptives family planning programs made no progress (*UNFPA, 1978a; 1986b*). The government directly supported access to modern contraceptive methods and information. Abortion was permitted to save the life of the pregnant woman and on eugenic grounds.

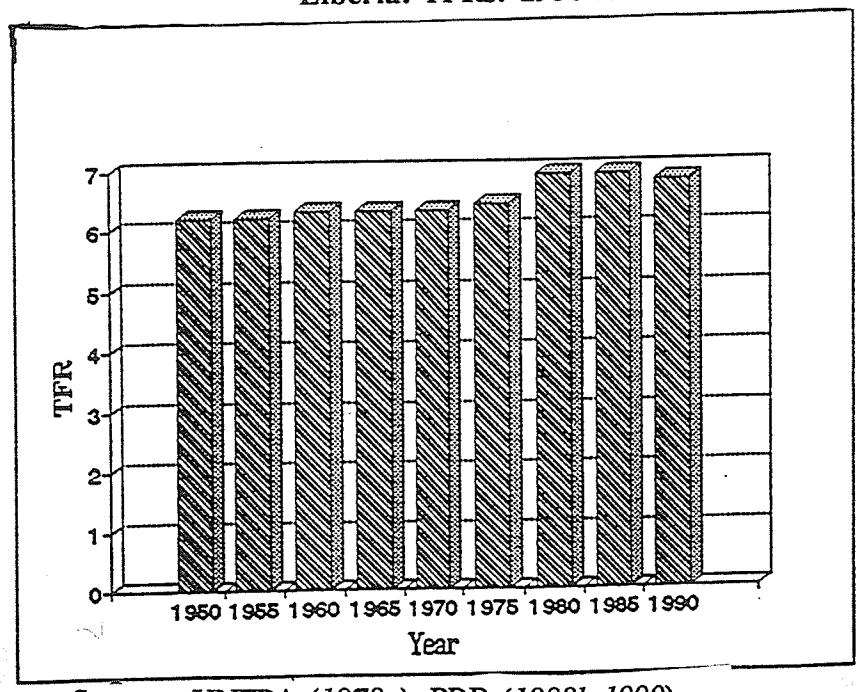
The PCPD in its plan of action of 1987 aimed at improving the status of women by initiating legislation in support of equal opportunities in employment and education and for the elimination of cultural beliefs and practices that discriminate against women.

Figure 5.22:
Liberia: CBRs, CDRs and NI: 1950-1990.



Sources: *UNFPA (1978a)*; PRB (*1988b-1990*).

Figure 5.23:
Liberia: TFRs: 1950-1990.



Sources: UNFPA (*1978a*); PRB (*1988b-1990*).

The diffusion of family planning services was seriously retarded by the political unrest which started in the latter part of 1989 and led to the assassination of President Samuel Doe in 1991. Meanwhile, Figures 5.22 and 5.23 suggest that except for the 1975-80 period the Liberian government has not scored notable achievements in the reduction of fertility. One presumes there are no family planning programs in effect at present.

5.3.8. Nigeria's experience

Although Nigeria's 1973 census results were generally regarded as unreliable, estimates made by The Population Bureau of Nigeria (PBN), World Bank, PRB and UN indicate that it has had a high growth rate for several decades. The UN estimates that between 1960 and 1980 Nigeria's growth rate was more than 3.0 percent per annum. This high growth rate is attributed to the decline in CDR, which fell from 27/1,000 in 1950 to 17/1,000 in 1980. The 1980 level has been maintained to date. Nigeria's national TFR was 7.0 children per woman during the 1960s and 1970s. It declined slightly to 6.3 between 1981 and 1992 (*PRB, 1992a*). The consequences of these demographic changes have been the expansion of the proportion of youths in an population.

The Nigerian government was not concerned about the unfavourable ratio between population and resources until the early part of the 1970s. This is not surprising because until that time Nigeria's economy was experiencing tremendous growth. Smith (*1991*) asserts that Nigeria's economy improved during the 1970s. The first oil was exported from Nigeria in 1958, and the oil sector grew gradually thereafter. In 1973, due to the Arab-Israeli war and the subsequent Arab petroleum embargo, oil prices quadrupled in a single year. While Nigeria's oil production reached 2.3 million barrels per day in 1974, its price per barrel rose from US $2.82 in 1972 to US $11.25 in 1974 and to US $35.90 by 1981. As a result of these favourable oil prices, Nigeria's GDP grew by more than 7 percent per year between 1973 and 1977 (*Smith, 1991*). The petroleum-driven economy muted any concern that population factors might severely limit Nigeria's development.

Notwithstanding the above, the first concerns about population growth were expressed in the early 1970s. However these remained tentative due to the political tensions and

regional rivalries which prevailed in the country. The Nigerian Family Planning Council (NFPC) was established in 1964 and began providing family planning services. It became affiliated with the IPPF in 1967. In the 1970-74 National Development Plan, the Nigerian government only supported the principle of incorporating family planning services into the maternal/child health program. This was made clear in the development plan which indicated that:

> The magnitude of Nigeria's population problem is unlikely to be such that it calls for extensive emergency or panic action. Given the promising resource base of the economy, the country can, through careful planning, succeed in buying time to ward off undue population pressure. Nevertheless, facilities are to be designed to protect mothers, on a long range basis, from repeated and unwanted pregnancies as well as to enable parents to space their children for better feeding, clothing and education (*Government of Nigeria, 1970*).

A number of surveys during this period indicated growing acceptance of the concept of family limitation, especially among the elites who were aware that, being a non-renewable resource, oil's contribution to the economy would not be sustained forever. The country's leadership was advised accordingly (*Goliber, 1989; UNFPA, 1989*). In 1974, before the Bucharest Population Conference, Nigeria's president Yakubu Gowon told the Population Association of Nigeria (PAN) that Nigeria's population growth needed to be slowed for the nation to achieve sustained social and economic development. He emphasized that 'at the current growth rate, population [was] outstripping food production and creating concern regarding such fixed assets as land' (*Goliber, 1989*). This advice was timely because world oil demand weakened in the 1980s and consequently, Nigeria's oil production dropped to 1.3 million barrels per day in 1988. Oil prices were affected by the forces of supply and demand. Goliber (*1987*) and Smith (*1991*) document that the asking price for Nigerian crude oil dropped from US $38.90 per barrel in 1981 to US $28.00 per barrel in 1984. Further decline at the end of the decade adversely affected Nigeria's economy. The real GNP fell by an average of 3.2 percent per year during the 1981-1983 period.

The 1983-1985 military government under Major General Muhammadu Buhari became aware of the economic realities of the country. This awareness changed the government's attitude towards population. It called for the immediate adoption of a population policy.

Nigeria's policy was drafted and approved by the Inter-ministerial Consultative Committee by mid-1985. It was finally adopted in February 1988 (*UNICEF, 1988; World Bank, 1989*).

5.3.9. Kenya's experience

In terms population-land ratio, Kenya appears to be underpopulated. The country's area is 582,646 square kilometres, but only about 17 percent of the land area is suitable for cultivation using available technology. This means that about 80 percent of the population live on less than 20 percent of the land. Early in the 1960s, a number of Kenyans expressed concern about population growth and the resultant pressure on arable land. In 1963, for example, President Kenyatta argued that:

> The population of Kenya is increasing at the rate of about 3 percent per annum and this fact makes it difficult for the government to keep pace with the growing demands for agricultural land and health services, let alone to improve upon the standards that have already been achieved (*Spenser, 1963:3-4*).

This contradicted his earlier sentiments; five years previously he had favoured polygamy which he argued contributed to the growth of Kenya's population. In 1965, his government requested the Population Council to study Kenya's population situation. In early 1966, after studying the Population Council's recommendations, the director of the National Youth Service called for the adoption of family planning to prevent population from outstripping available land. Based on this pressure, the government adopted an anti-natal population policy in mid-1966 (*Mott and Mott, 1980; UN, 1989b*).

Since its inception, the aim of Kenya's population policy has been to reduce population growth by making family planning information, education and services freely available on request through government hospitals and clinics. Kenya's family planning program is closely linked with the government's maternal and child health program (*Dow, 1975; Dow and Linda, 1983*). As a way of showing its commitment, the government agreed to provide 25 percent of program costs, while the remainder would be shared among domestic and international voluntary organizations.

Kenyan population policy has benefited from a number of international agencies. USAID has rendered direct financial assistance to Kenya's family planning efforts since

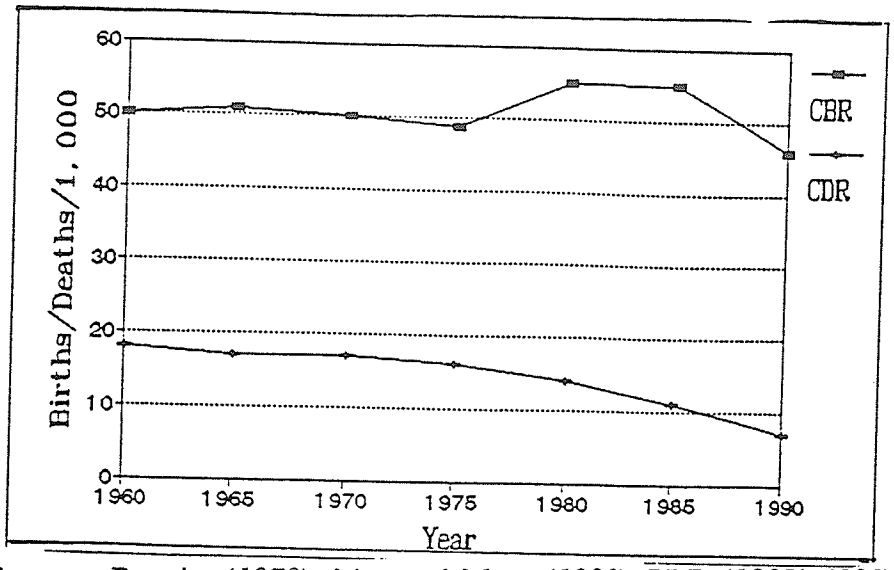
their inception (*UN, 1989b*). It also assists indirectly by funding training contracts with American universities for training Kenyans in methods of population control. Other agencies which have assisted Kenya are UNFPA, IPPF, and the Swedish International Development Agency (SIDA). The Norwegian Agency for International Development (NAID) has supplied funds to purchase clinical equipment for family planning clinics (*Bouvier, 1979, Mott and Mott, 1980; UN, 1989b*).

With such assistance from international agencies, Kenya has been able to expand the availability of contraceptives, especially since the mid-1980s. In 1984, due to the increased subsidies made possible through external funding, an Elimination of Tax Act removed sales tax on contraceptives. Likewise the Customs and Excise Tax Act eliminated the duty on the importation of contraceptives and the government demonstrated further commitment by liberalizing sterilization in the same year. The Kenyan government has also made considerable strides in improving the status of women (*Dow et al., 1983; Dow and Mott, 1983*). Efforts to increase their access to formal education, employment and business opportunities have been made.

However, despite Kenya's considerable efforts in family planning during the past two decades, it has not been as successful as Mauritius whose current NI is as low as 1.5 percent per annum. The current CBR and TFR of 46/1,000 and 6.7 children per woman respectively are negatively impressive even by African standards (see Figures 5.24 and 5.25 for the specific trends). In the past five years there has been some decline in Kenya's TFR.

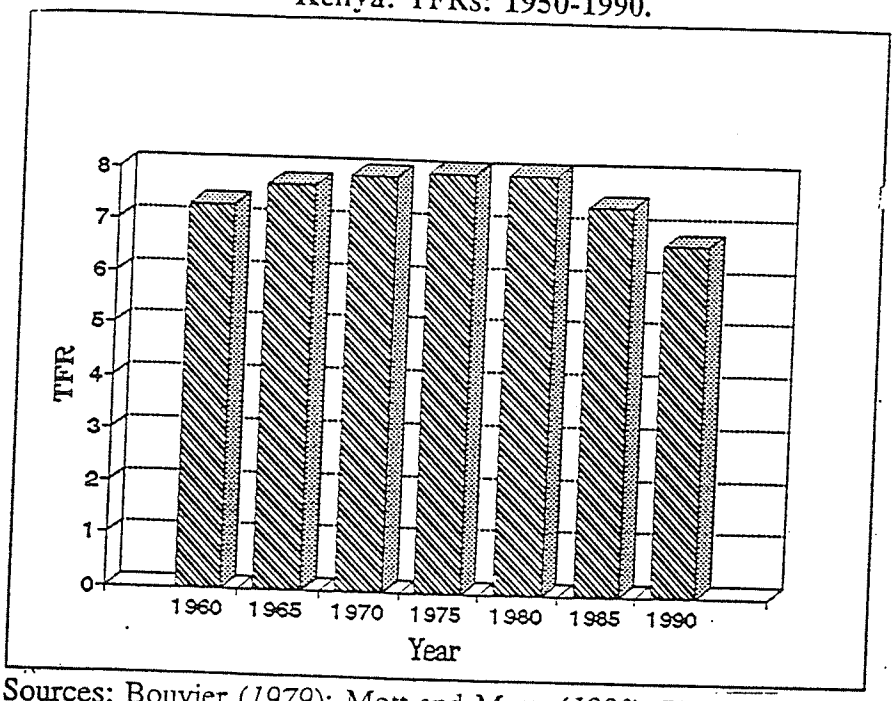
A few reasons for this limited decline can be suggested. Firstly, like many Africans, Kenyans respect their ethnic links more than political entities. Each ethnic group has developed and protects its cultural heritage, and especially its marriage and kinship customs. The Luo and the Kikuyu, the two largest ethnic groups, try to dominate the political scene while the smaller ethnic groups are sensitive to their own relative political strength (*Bouvier, 1979; Mott and Mott, 1980*).

Figure 5.24:
Kenya: CBRs, CDRs and NI: 1950-1990.



Sources: Bouvier (*1979*); Mott and Mott, (*1980*); PRB (*1988b-1990*).

Figure 5.25:
Kenya: TFRs: 1950-1990.



Sources: Bouvier (*1979*); Mott and Mott, (*1980*); PRB (*1988b-1990*).

All ethnic groups believe that their influence on other ethnic groups as well as on the political system is determined by population size. To be effective, an anti-natal program would need to be equally implemented among all ethnic groups so that there is a proportionately equal reduction of fertility, a process which is not practically possible.

Secondly, Kenyans, especially those living in rural areas, highly value their children's labour, especially during peak planting season and at harvest time. Women value this labour more than men because it relieves them of the heavy shamba (farm) and household work-load (*Gaisie, 1985; Fornos and McNicoll, 1987a; 1987b*). Heavy shamba work-load is sometimes necessitated by out-migration of the bulk of Kenyan men to urban areas or to cash crop areas in search of paid employment.

Thirdly, since there is no formal old age social security for the majority of rural dwellers, children continue to be seen as old age security. Women especially, need security during old age; many expect a long widowhood because their husbands are usually much older.

5.3.10. Rwanda's experience

With an arithmetic density of 277 person per square kilometre Rwanda has the highest national population density on mainland Africa. Rwanda's current population growth rate is 3.4 percent per annum. Almost half of the population is under 15 years of age. This implies that Rwanda's population will continue growing quickly as this youthful population continues moving into the reproductive age group. Faced with limited supply of land, declining agricultural productivity, strained labour market and financial resources, Rwanda started taking family planning activities seriously in 1977 (*Goliber, 1989*).

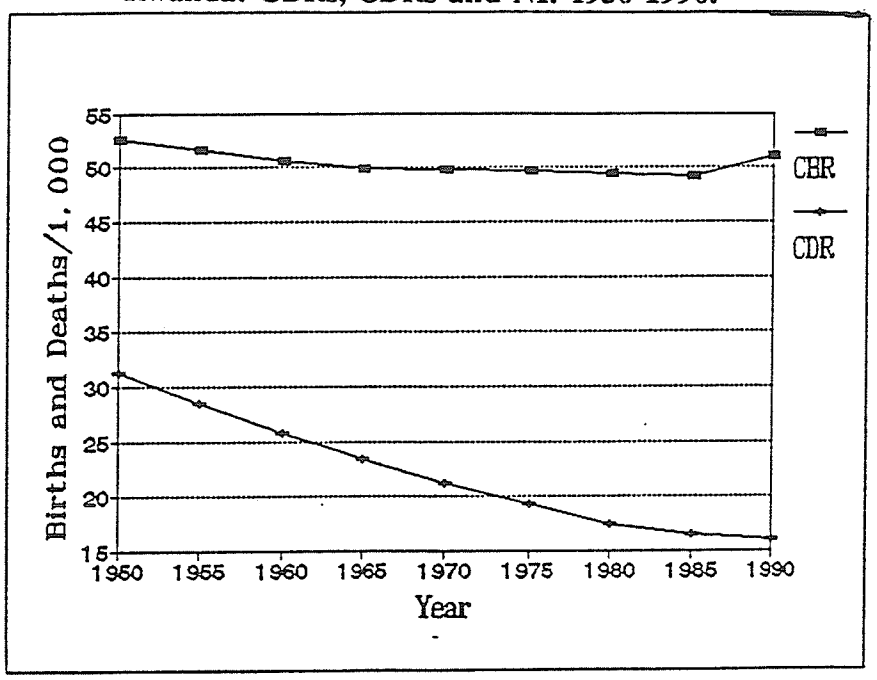
Results from a post-census survey conducted in 1980 and 1981, reemphasized Rwanda's growth rate problem and forced the government to establish a national office of population as an autonomous body within the Ministry of Health to be responsible for the preparation of more demographic surveys and projections. This paved the way for a national fertility survey in 1983 and a national inquiry on Rwandese attitudes toward family size in 1985. This revealed that Rwanda's TFR was 8.1 and that attitudes toward

family were strongly in favour of large families (*UN, 1990*).

In 1986, the Rwandese government adopted an official population policy by specifying targets. The Central Committee of the ruling party called for a maximum of four children per family. It also called for the stabilization of the population at 9.3 million and the lowering of the TFR from 8.1 to 6.5 children by the year 2000. In order to achieve its objectives the government has included women in development activities and provided them with educational skills as a way of improving their socio-economic status. The minimum age at marriage for both men and women was raised to 21 years.

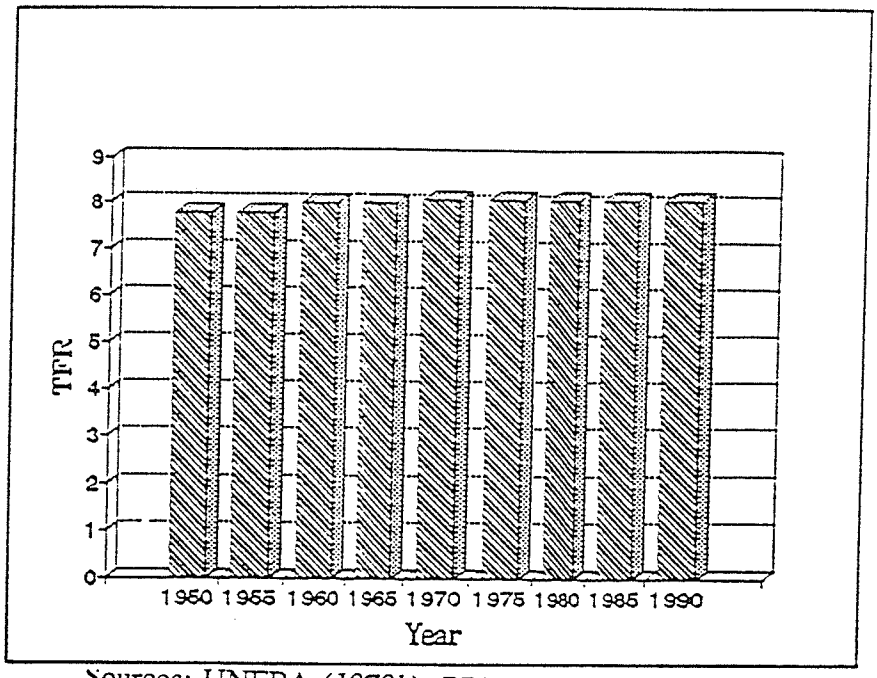
Figures 5.26 and 5.27 illustrate that Rwanda has achieved very little in reducing NI. CDR declined dramatically between 1960 and 1985, but its CBR declined only slightly and has increased slightly between 1985 and 1990. TFR remained high.

Figure 5.26:
Rwanda: CBRs, CDRs and NI: 1950-1990.



Sources: UNFPA (*1979b*); PRB (*1988b-1990*).

Figure 5.27:
Rwanda: TFRs: 1950-1990.



Sources: UNFPA (*1979b*); PRB (*1988b-1990*).

5.3.11: Botswana's experience

A number of factors have motivated the government of Botswana to play a very active role in population programs since the early 1970s. Firstly, although Botswana has a total area of 600,372 square kilometres about 80 percent of the country is desert, consequently the majority of the population is concentrated in the more fertile eastern strip of the country which comprises less than 5 percent of Botswana's cultivable land (*UNFPA, 1984b; Brown, 1991*). Food crop production which is concentrated in the more fertile eastern strip of the country accounts for less than a third of agricultural output and fluctuates sharply with weather conditions. Botswana is more suited to grazing than to crop production. The cattle industry in particular, accounts for over 80 percent of the agricultural GDP (*Futures Group, 1981a; Brown, 1991*).

The recurrence of drought since the 1960s has had severe impact on the entire

economy. At the time of independence in 1966, the country was dependent on world famine relief for half of its food supply. In 1973, another drought reduced yields to one-fifth of average levels. Brown (*1991*) reports that the three years of drought which began in 1981 exacerbated the situation. Average mortality rate for cattle, for example, rose from 13.8 percent in 1980 to 25 percent in 1986/87.

Second, insufficient employment has been another major difficulty. Botswana's safety valve has been labour migration to South Africa; as early as 1871, men went to work in the Kimberly diamond mine. In recent years, 22,000 to 36,000 workers have contracted to work in the mines of South Africa while about 20,000 others are employed in agricultural and manufacturing industries. This involves 15 percent of Botswana's employable population and is greater than the present number of wage earners within the country.[10] These problems, in conjunction with a high NI, motivated the Government of Botswana strongly to support family planning programs (*PDUNDIESA/UNFPA,1980; Manyeneg, 1986; UNFPA, 1987b; Turner, 1991*).

Botswana's CDR declined from 19.6 per 1,000 in 1960 to 15.6 per 1,000 in 1975 due to improved medical services. During the same period CBR declined only marginally from 52.6 per 1, 000 to 50.7 per 1,000 (*UNFPA, 1984b*). Hence NI actually increased from 3.3 to 3.5 percent per annum. Private agencies were, therefore, motivated to form the Family Planning Association of Botswana (FPAB) in 1971. The government was also stimulated to set a target for population growth not to exceed 2.5 percent per annum by 1985 in the 1970-75 National Development Plan. This signalled Botswana's de facto adoption of an anti-natal policy in the absence of any formal government decree. The target of 2.5 percent NI was to be achieved in two ways; first, by establishing a network of government supported Maternal and Child Health/Family Planning services where advice and services would be available to the public, and second, by disseminating

[10] Receipts in the form of deferred pay and remittances from those employed in mining alone contributes over US$1.4 million yearly to the balance of payments, while migrants also bring substantial wealth with them upon return. Any restrictions of labour migration to South Africa would bring insurmountable pressure on Botswana's economy (*Brown, 1991:273-276*).

information about the advantages of having small families by delaying the first pregnancy and limiting family size through both government and non-government organizations.

Health and Family Planning seminars for community leaders began in 1975 to make them aware of the adverse effects of large families on the well-being of individual family members. These seminars gave rise to Responsible Parenthood seminars for school-going, out-of-school and never-been-to-school youths in 1978 (*Manyeneg, 1986*).

It became apparent in these seminars that school teachers also needed to be prepared to teach family life education. This led to the first Teacher and Health Workers Workshop which was also held in 1978. The Ministry of Education was later encouraged to include family planning education as an integral component in curricula for Biology, Science, Agriculture, Religious Studies and Home Economics. In 1979, the Family Health Division of the Ministry of Health joined the Primary Schools Curriculum Development Science panel to assist in integrating health and family planning into the syllabi and develop relevant teachers' guides. Currently the Family Health Division also liaises with secondary school curriculum panels.

Several additional programs and measures that aim at curbing high fertility also exist. Among these are family planning programs integrated into government-run Maternal/Child Health services, restrictions on maternity benefits to four children, discouraging communal landownership and improving women's participation in development. In 1984, the government implemented a new approach for targeting males in family planning programs through family planning education.

Due to the high proportion of pregnancy among unmarried girls aged 15 to 19 years, a survey on the extent of teenage pregnancy and its implications on the provision of social services was conducted in 1985 by the Botswana Women's Unit of the Ministry of Social Services. Findings from this survey revealed that approximately 23 percent of unmarried teenage girls become pregnant. These results motivated the government to strengthen programs for educating the youth about responsible parenthood (*Manyeneg, 1986*).

Distribution of contraceptives is not restricted and has been enhanced by continued government commitment. Both abortion and sterilization are legal on medical grounds.

In mid-1985, the government set a target for increasing the proportion of married women accepting family planning from 20 percent to 30 percent in 1990 (*Manyeneg, 1986*). This target has been achieved and the proportion is currently 32 percent. Botswana is only surpassed by Mauritius (with 46 percent) and Zimbabwe (with 36 percent) among Sub-saharan countries in this respect (*Population Crisis Committee, 1991; PRB, 1992*a).

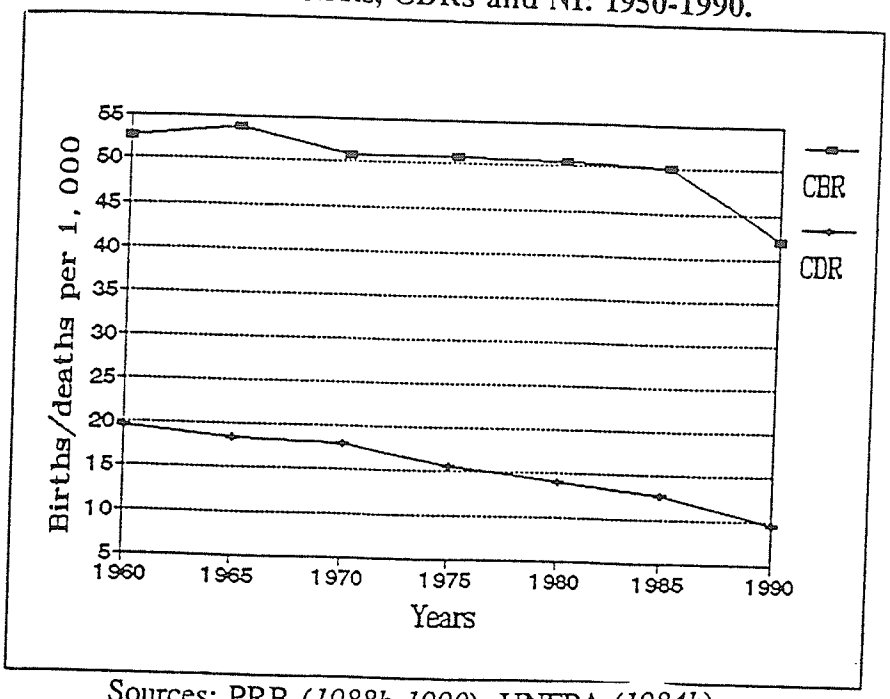
In October 1985, the University of Botswana began providing family planning services which include dissemination of modern family planning information to university students. In addition to the university's family planning program, the Ministry of Information and Broadcasting has developed radio family planning programs aimed at boosting the number of users of modern family planning methods and improving family health for the public at large.

In October 1985, two important seminars were organized in order to disseminate and discuss the implication of the results of a national wide demographic and health survey which was held in 1984 and to formulate future strategies for Maternal and Child Health/Family Planning Program. These included the Botswana Family Health and Contraceptive Prevalence seminar for policy makers, which was held on October 19, 1985 and the Botswana Family Health and Contraceptive Prevalence Survey seminar for implementors, which was conducted on October 19, 1985 (*Manyeneg, 1986*).

Many non-government programs are also assisting in the promotion of family health and planning. These include the Botswana Council of Women (BCW), the Botswana Council of Churches (BCC), the Botswana Youth Women Christian Association (BYWCA), the Botswana Business and Professional Women's Association (BBPWA), the women's wing of the Botswana Federation of Trade Unions (BFTU) and the Botswana Red Cross Society (BRS) (*Manyeneng, 1986*).

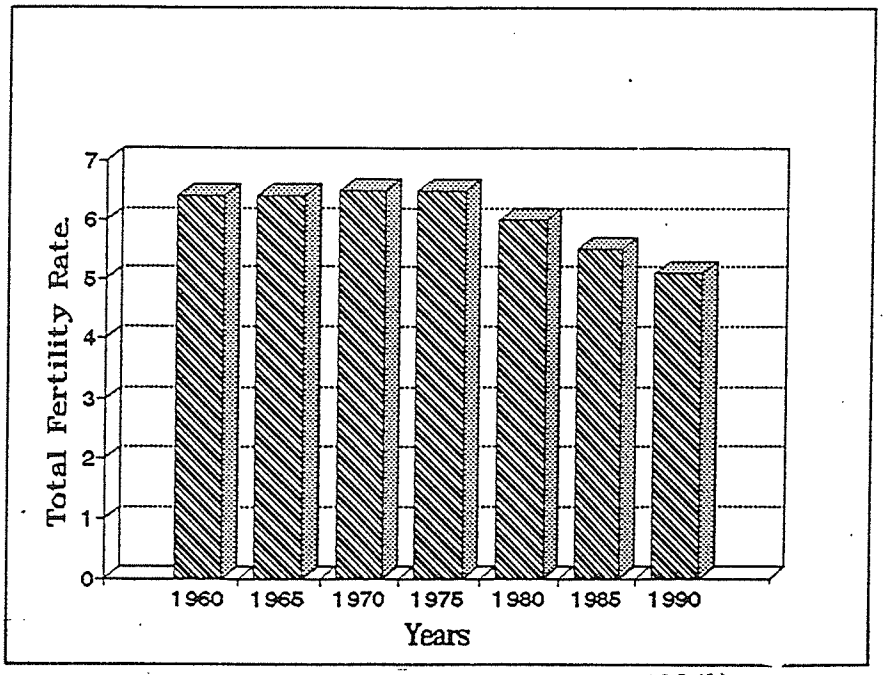
Although Botswana has not achieved its target of a maximum NI of 2.5 percent per annum, it has managed to reduce its CBR from 52.6 per 1,000 in 1960 to the current 40 per 1,000, its CDR from 19.6 per 1,000 in 1960 to the current 9 per 1,000 and its TFR from 6.4 in 1960 to the current 4.8 (see Figures 5.28 and 5.29).

Figure 5.28:
Botswana: CBRs, CDRs and NI: 1950-1990.



Sources: PRB (*1988b-1990*); UNFPA (*1984b*).

Figure 5.29:
Botswana: TFRs: 1950-1990.



Sources: PRB (*1988b-1990*); UNFPA (*1984b*).

5.3.12. Zimbabwe's experience

Like other African countries, Zimbabwe has had a high population growth rate. Its NI for the 1975-1980 period was 3.4 percent per annum. On independence, in 1980 its CBR was 47.3/1,000 and its CDR was 13.6/1,000. It had a TFR of 6.6.

Both the government of Zimbabwe and private family planning organizations are highly committed to family planning programs. UNFPA reports that child spacing activities, which were established as early as 1952, started receiving government support a year later. Unlike other African governments which depend largely on funding from international agencies, the current post-independence Zimbabwean government is the chief source of funds for the National Family Planning Association of Zimbabwe (*UNFPA, 1982; Muhloyi, 1986*). In 1980 alone, the government of Zimbabwe allocated Zimbabwean $ 2,220,820 (US $987,031) to the family planning program. This is a sign of commitment to family planning programs which is lacking among most African governments. This is one reason why the Zimbabwean family planning program has scored tremendous successes in terms of family planning acceptance rates. Zimbabwe's NI has declined from 4.1 percent per annum in 1960 to 3.1 percent per annum in 1992 (*UN, 1990; PRB, 1992a*). Its TFR has declined steadly since 1985.

5.4. Non-committed countries with anti-natal sentiments

While Botswana, Egypt, Ghana, Kenya, Morocco and Tunisia had official anti-natalist policies by 1973, Algeria, Burundi, Gambia, Liberia, Nigeria, Reunion, Sierra Leone, Uganda and Zaire each had official anti-natal sentiments (*UN, 1987; 1989; 1990*). This group latter expanded after the Bucharest World Population conference with the addition of Benin, Cape Verde, Gambia, Guinea, Lesotho, Malagasy, Namibia, Nigeria, Sao Tome and Principe, Senegal, Sudan, Swaziland, Tanzania and Togo. Ethiopia shifted from having pro-natal sentiments to having weak anti-natalist sentiments. Zambia lagged behind; not until the mid-1980s did it change from having no clear cut sentiments to having an unofficial anti-natalist policy (*UN, 1987; 1989; 1990*). Achievements scored by Tanzania warrants special mention.

Although Tanzania has no explicit population policy, concerns about population

growth rose among private organizations in 1959 when the Family Planning Association of Tanzania (FPAT) was formed and affiliated to IPPF (*IPPF, 1984*). Following the establishment of FPAT President Nyerere began expressing concern about population problems. In 1969, he argued that it was important for human beings to emphasize caring for children rather than thinking only about their numbers. In 1973, he urged Tanzanians to consider per capita output as being a more important measure of production than absolute yield (*Bouvier, 1979*). But very little progress was made during his term of office because he was more committed to socialist policies which favoured high population growth rates for economic development. President Nyerere emphasized that Tanzania needed more people in order to produce enough cash crops for export and increase the local market.

In 1974, parliamentarians started calling for a population policy. They encouraged planners to use demographic data in order to determine the kind of population policy to adopt. Both Tanzania's private organizations and the government were motivated by the country's high growth rate which was estimated at 3.0 percent per annum in 1979.

In 1987, the Tanzanian government responded by establishing a Population Planning and Development Unit in the Economic Policy division of the Ministry of Finance, Planning and Economic Affairs. A national Population Committee was also formed at the same time (*ILO, 1987a*). Plans to formulate a population policy are now under way. Meanwhile, the government of Tanzania has been making efforts to regulate fertility in the absence of an official policy.

Tanzanian family planning programs have been receiving direct assistance from international agencies. USAID has been providing bilateral assistance for expanding the country's maternal and child care institutions. UNFPA, IPPF and the Population Council have provided financial assistance to private family planning agencies (*Bouvier, 1979; UN, 1989b*).

5.5. Summary

Since the mid-1970s, a number of African governments have experienced significant change in attitudes toward the interrelationship between rapid population growth and

socio-economic development. Although this has not necessarily translated into official discernible anti-natalist policies in all countries, quite a number of them have developed anti-natal sentiments and are supporting family planning programs either morally or materially. In most, this is being done for non-demographic reasons rather than for demographic ones. Nevertheless, there remain many indications which suggest that there is still resistance to anti-natalist population policies in some African countries, resulting in them paying only lip-service to the important link which exists between population and socio-economic development.

Another concern about African population programs is the over-reliance on foreign sponsorship. Almost all African population programs are dependent upon inputs from foreign donors. It is possible that in times of economic recession, donor support for African population policies would decline or disappear altogether. This would signal the death of many population programs in Africa.

Even more disturbing is the fact that the United States alone provides about half of the Development Assistance Committee (DAC) assistance for population programs and used to be the principal donor to UNFPA and other private funding intermediaries (*Population Council [PC], 1983; Fornos; 1985*). This supremacy gave the US a unique voice in UNFPA's or USAID's decisions on who receives funds and how much they get.

The US's support for family planning service programs is based on two fundamental principles; voluntarism and informed choice. This implies that it does not support programs in which there is any element of coercion of individuals to practice family planning or to accept any particular method of contraception (*PC, 1983*). The US government also supports the provision of family planning methods within the medical and cultural context of individual countries.

Special legislation adopted in 1974 prohibits the US from supporting any abortion services or a number of other abortion-related activities, such as the provision of abortion equipment, or the motivation of persons to practice abortion. In 1981, the US discontinued funding of research on methods of abortion as a means of family planning (*PC, 1983; Fornos, 1985*). It even discontinued funding any agency which continued supporting China's use of abortion in it efforts to implement its 'one child' population

policy. For example, it withdrew all support to UNFPA. In addition to this restriction the Voluntary Sterilization Section 104f of the Foreign Assistance Act enacted in 1978 prohibits the use of US funds for involuntary sterilization.

These regulations strictly enforced during the Regan and Bush administration (1980-1992), thereby offering limited flexibility to Third World countries. Although the new Clinton administration seems to be liberalizing abortion laws at home it offers little hope for developing countries because during the election campaign promised to cut spending abroad.

Information on progress in population policies in Africa is scanty, and reviews of population policies such as, the one presented in this chapter, can contribute to the enrichment of data sources. This chapter has not only identified the differentiation of policies, but also analyzed their intentions and impacts. It has also reviewed and analyzed the steps different African governments have taken in trying to formulate and implement a population policy. Problems which some of the governments have encountered in implementing their population policies have also been highlighted. As mentioned earlier this had not been adequately done for Africa in earlier studies.

It is hoped that this chapter will help readers to appreciate why the majority of African countries have lagged behind in the adoption and implementation of population policies despite their high growth rates and declining economies.

CHAPTER SIX

ZAMBIA'S MOTIVATION FOR AN ANTI-NATALIST POPULATION POLICY

6.1. Introduction

Zambia adopted an anti-natalist population policy on May 17, 1989. As is the case in many other Third World countries, there are many factors which impede the smooth implementation of the new population policy in Zambia, most of which are a product of the complex culture of the country, encompassing economic, social, legal, political and religious systems. These factors interact and reinforce each other to determine attitudes towards fertility. The situation has become more complex as Zambia has gone through different phases of social and political change; namely the traditional, colonial and the current post-independence phase. Since the colonial period, rapid social change has led to the co-existence of African and western social customs (which were first introduced to Zambia around the 1890s). These foreign social customs, which include deliberate curbing of fertility rates, differ from and are in conflict with traditional ones which are actually pro-natalist. These changes must be examined and understood within the above indicated social-economic setting. This chapter examines how Zambia's situation has influenced the acceptance of anti-natal programs in the past and how it is likely to affect the implementation of the population policy in future.

6.2: Zambia's demographic trends

Zambia's fertility rate has been high, resulting in an increasingly youthful population characterized by a broad-based and thin-apexed pyramid. The 1980 census revealed that 49.7 percent of Zambia's population was under 15 and 47.5 percent was aged between 15 and 64. The remaining 2.8 percent was over 64 (see Table 6.1 and Figure 6.1). The proportion of the under 15 population increased from 44.6 percent in 1963 to 46.5 in 1969, and to 49.7 percent in 1980. Meanwhile, the proportion of population in the working age group (15-64 years) declined from 51.3 percent in 1969 to 47.5 percent in 1980 (*CSO, 1975e; 1985a; 1985b; Msimuko, 1981*). The proportion of aged, which is

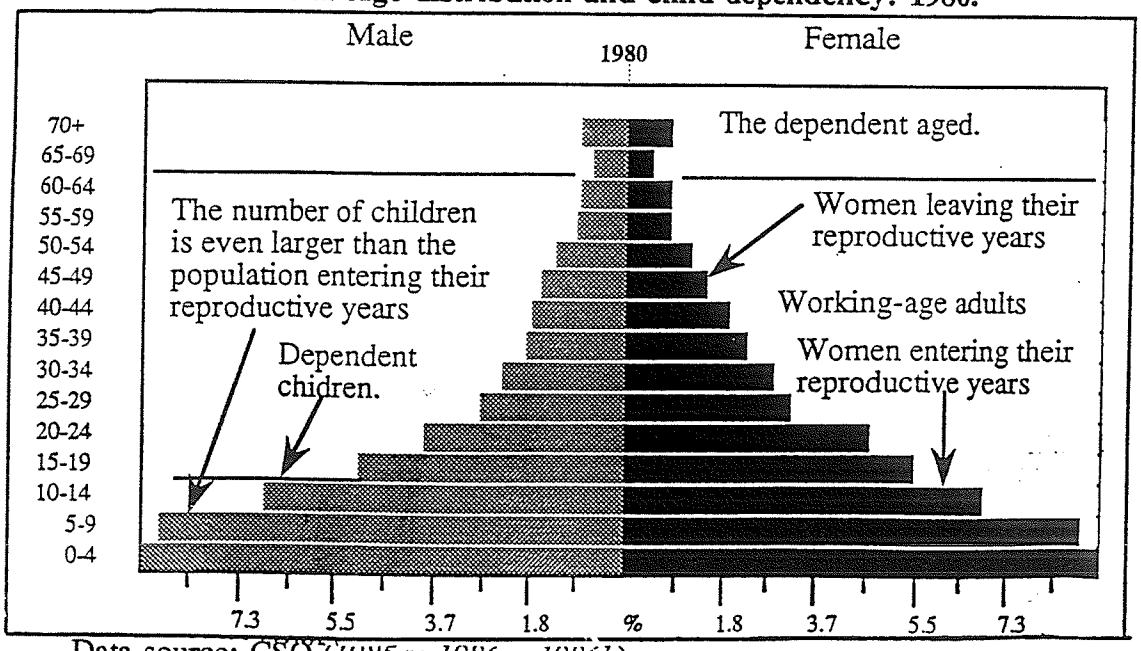
relatively small has remained unchanged since 1969.

Table 6.1:
Absolute and comparative age distribution of Zambia's population: 1980.

Age group	Male '000	Male % of total population	Female '000	Female % total population	Total '000	Total %
0-4	515	9.1	519	9.2	1034	18.3
5-9	498	8.8	499	8.8	997	17.6
10-14	389	6.9	389	6.9	778	13.8
15-19	289	5.1	312	5.5	601	10.6
20-24	217	3.8	263	4.7	480	8.5
25-29	160	2.8	181	3.2	341	6.0
30-34	135	2.4	161	2.9	296	4.8
35-39	109	1.9	132	2.3	241	4.3
40-44	101	1.8	114	2.0	215	3.8
45-49	93	1.6	86	1.5	179	3.2
50-54	76	1.3	70	1.2	146	2.6
55-59	54	1.0	45	0.8	99	1.8
60-64	48	0.9	45	0.8	93	1.6
65-69	36	0.6	27	0.5	63	1.1
70+	51	0.9	45	0.8	96	1.7
TOTAL	2771	49.1	2888	51.0	5659	100.0

Source: CSO (*1985a; 1985b; 1985c*).

Figure 6.1:
Zambia: Age distribution and child dependency: 1980.



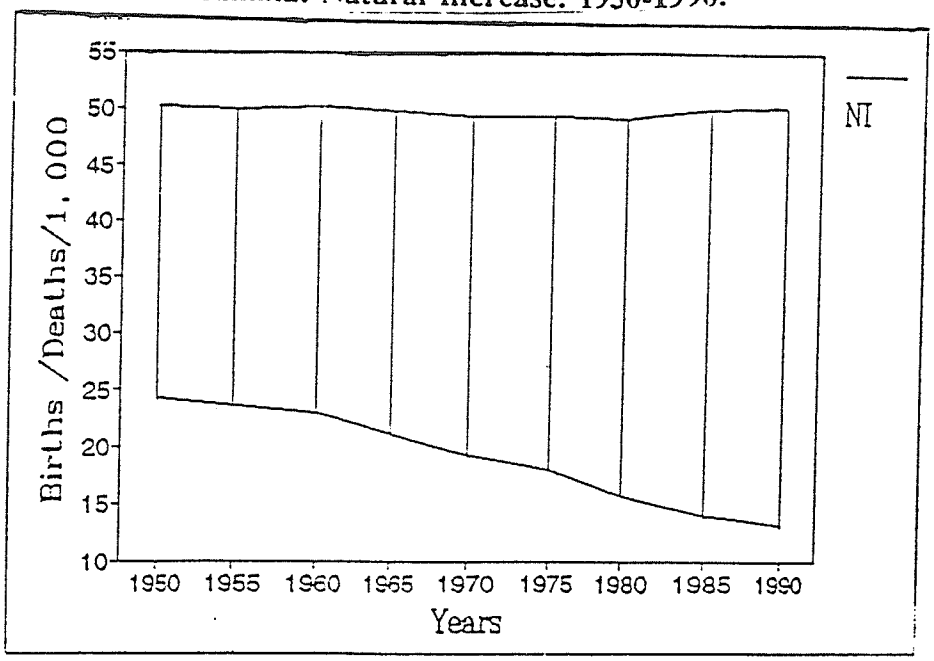
Data source: CSO (*1985a; 1986a; 1986b*).

These data indicate that Zambia's population structure has been heavily dominated by youths during the last 30 years. It is also clear from these data that Zambia's population will increase greatly over the next generation, regardless of whether there is a significant decline in fertility. While only a relatively small segment of women reach menopause a much greater number enter into this category and begin reproducing (see Figure 6.1). In fifteen years, today's children will be in their reproductive years and will add to the already large bulge in the base of the population pyramid.

This bulge is due to the trends in CBR and CDR. Figure 6.2 illustrates that Zambia's CBR increased slightly from 50.0/1,000 to 50.3/1,000 between 1950 and 1960; it decreased during the 1970s to 49/1,000 but increased again to 50.1 by 1992. The CDR has declined steadily from 24/1,000 in 1950 to 13/1,000 in 1992. Figure 6.2 also shows that there has been a constant increase in NI from 2.6 percent per annum in 1950 to the current 3.8 percent, which is now the highest in Africa (*PRB, 1992a*). Meanwhile, there has been very little change in the level of Zambia's TFR, which has remained consistently high at 6.9 children per woman for two decades - 1950-1970; increased to 7.2 children per woman between 1970 and 1975, remained at this level till 1990 (see Figure 6.3) and only recently has declined to 6.5 (*PRB, 1992b*).

As a consequence of high fertility and declining mortality, Zambia's population has increased from 3.5 million at independence in 1964 to an estimated 8.4 million in 1992 - a 140 percent increase in a 28 years period (*CSO, 1985a; PRB, 1992a*). Even if efforts to reduce TFR to the replacement level of 2.1 were achieved, Zambia's population would take several generations to reach a zero growth rate (see Figure 6.4). It would still grow to 15.3 million between 1990 and 2030. A zero growth rate would be reached in 2040. If, on the other hand, the TFR were to drop to only four (which is Zambia's target for the year 2000), Zambia's population would grow by 29.5 million in the 1990-2030 period. If the current TFR of 6.5 remained unchanged, Zambia's population would increase by 38.4 million by 2030.

Figure 6.2:
Zambia: Natural Increase: 1950-1990.



Source: UNFPA (*1983f*), PRB (*1990*).

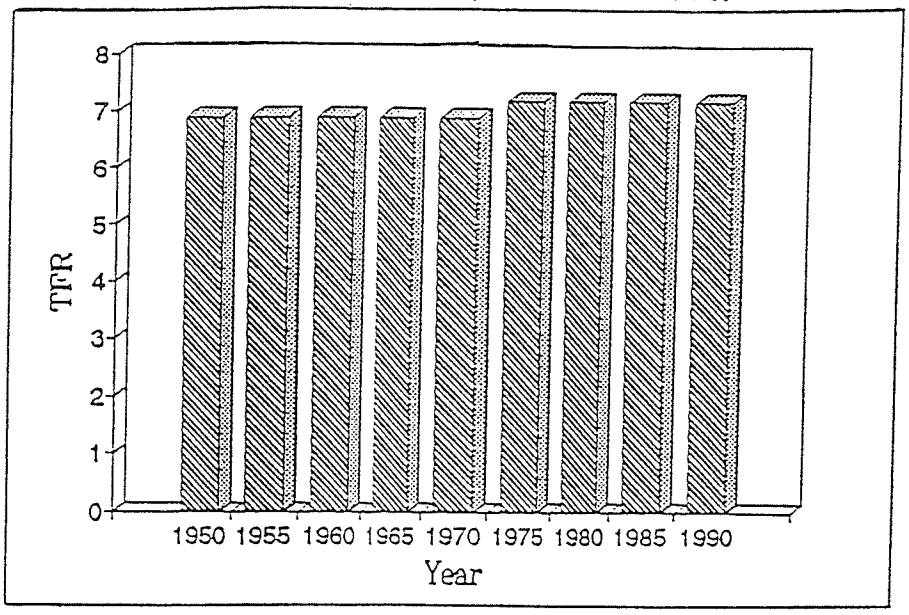
Like many other Third World countries, Zambia has benefited from imported medical technology. More pregnancies result in live births today than ever before. Although the IMR has increased slightly since 1985, overall, more and more children than ever before are now able to live beyond five years. Thus Zambia's life expectancy at birth has increased from 40 years in 1950 to 51 years currently (*CSO, 1986b; 1986c; PRB, 1992a*).

6.3. Consequences of Zambia's demographic trends

This type of population structure results in a high total dependency ratio. In 1969, Zambia's total dependency ratio was 94 dependents per 100 working age adults (*CSO; 1975c; 1975e*). Zambia's current total dependency ratio is 104 dependents per 100 working adults. The contribution of the aged population to this ratio is minimal, as the child dependency ratio alone is 100 children to every 100 working age persons (15-64) (*PRB, 1992a*).[11]

[11] Note that this ratio would be slightly inflated if the disabled adults who are part of the 15-64 age group were excluded.

Figure 6.3:
Zambia: Total Fertility Rate: 1950-1990.



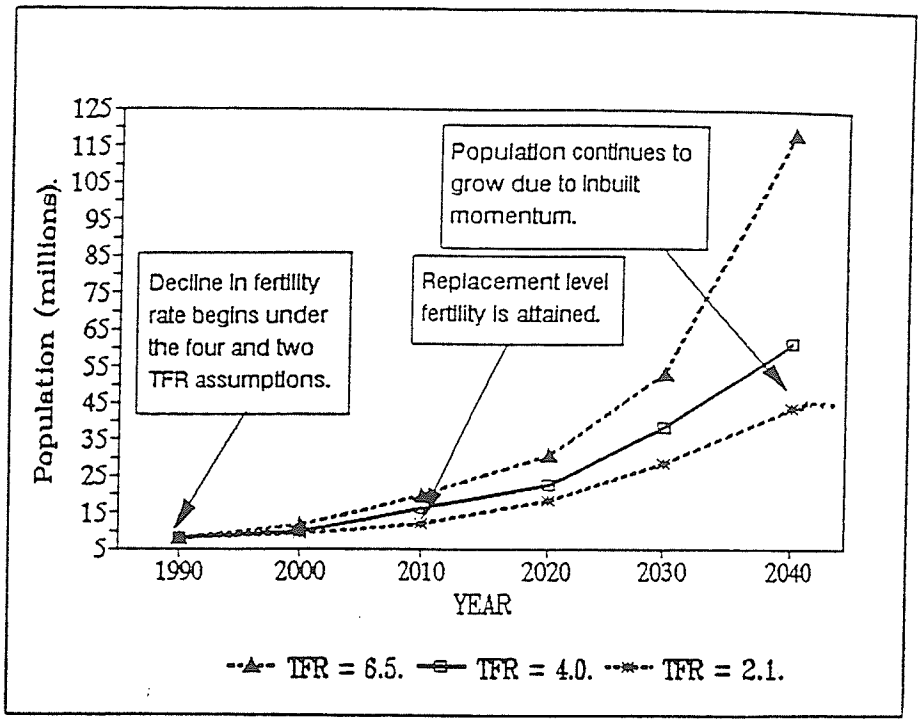
Source: UNFPA (*1983f*), PRB (*1990; 1992a*) and author's estimates.

This dependency ratio can change depending on the level of the fertility rate. Under the 6.5 TFR projection, the number of dependent children would grow from the current 3.5 million to 4.6 million in 2000 and increase by a further 1.5 million between 2000 and 2010. Under a projected TFR of four, the number of dependent children would increase by 199,587 in the 1990-2000 period and by a further 159,074 between 2000 and 2010. The child dependency burden would be greatly eased at the TFR of 2.1 as the number of dependent children would increase by 80,345 between 1990 and 2000 and increase further by 20,148 in the 2000-2010 period.

Zambia is a good example of African countries where a high population growth rate has had negative effects on savings and productive capacity of the nation. A large portion of the nation's investment has been on health, education and housing. However, these investments have failed to keep pace with the fast growing population. It is certain that even if the current TFR of 6.5 dropped to either four or 2.1 today, Zambia's medical, education, employment infrastructures and other social resources would still be strained in the next 20-50 years as the population would still continue to grow due to the in-built

momentum of population growth resulting from the current high TFR.

Figure 6.4:
Zambia: Population projections under the 6.5, 4.0 and 2.1 TFR assumptions: 1990-2040.



Source: CSO (*1986a; 1986b*) and author's calculations.

Although total government expenditure on health increased steadily between 1970 and 1990, per capita expenditure increased only marginally during the 1970-1975; 1975-1980, 1980-1985 and 1985-1990 periods. It actually declined in US dollar terms in the 1985-1990 period due to the devaluation of the Zambian Kwacha (see Table 6.2).

Financial constraints are mainly reflected in the shortage and sometimes non-availability of drugs, beds and cots and physicians. Although the proportion of total annual expenditures on drugs increased by 30 percent in the 1973-90 period, for example, the majority of medical centres still experienced shortages of essential drugs particularly antibiotics, aspirins and chloroquine. The Zambian government currently has limited ability to train and retain physicians, import essential drugs and expand or improve existing medical infrastructure mainly due to shortage of funds.

Table 6.2:
Zambia: Government expenditure on health: 1970-1990.

Year	Population in millions	Total annual government expenditure in million ZAK at current price	% of total government expenditure	Annual per capita expenditure in ZAK	Annual per capita expenditure at official exchange rate in US $
1970	4.2	28.94	4.0	6.90	4.59
1975	4.9	39.36	4.6	8.03	5.35
1980	5.7	68.73	4.1	12.06	8.04
1985	6.7	125.94	8.3	18.80	8.35
1990	8.1	161.39	8.5	19.90	0.44

Source: GRZ (*1989b*) and author's calculations.

In 1981, there were 21,330 beds or one bed for approximately every 280 persons in the population (*Banda, 1983*). Should the current population growth rate continue, the required number of hospital beds would rise substantially between 1990 and 2010. In 1982, the government estimated that Zambia would need an additional 718 beds each year to maintain the same population:bed ratio that existed in 1981 if population growth remained unchanged. Under the current growth rate, 800 additional beds are required every year to maintain that ratio.

Zambia compares very unfavourably with other regions in terms of population:physician ratios. In 1977, there were 518 physicians in Zambia for an estimated population of 5.3 million giving, a population:physician ratio of 10,236 to 1. This compares with ratios for South America and Europe of 3,000 to 1 and 1,000 to 1, respectively, as far back as 1964 (*Veitch, 1972*). Since 1982, mortality has risen in both urban and rural areas mainly due to declining medical standards, which are a product of shortage of drugs and other medical facilities (*Bhat, 1989*). Although the

population:physician ratio improved to 5,986:1 by the end of 1991 (*World Bank, 1991*),[12] health services are still threatened by a combination of continued high rates of population growth and persistent hyper-inflation following the repeated devaluation of the Zambian Kwacha.[13] This deteriorating situation in medical infrastructure forces part of the Zambian population to resort to using traditional medicine, some of which is scientifically unsafe and contributes to high mortality rates in rural areas (*Bhat, 1989*).

Assuming that the 1987 population:physician ratio of 7, 908:1 wwere sustained to the year 2010, under a projected TFR of 6.5, the number of physicians required would need to increase by 529 and 756 (average of 53 and 76 per annum) respectively in the 1990-2000 and 2000-2010 periods respectively, yet the University of Zambia's (UNZA) School of Medicine, the only one in Zambia, has been producing only 25 new physicians per annum in recent years [*GRZ, 1989b*]). Under a projected TFR of four, the number of physicians would need to increase by 413 and 533 (average of 41 and 53 per annum) in the same periods. Only under a projected TFR of 2.1 would the required number of physicians increase at a rate near to that of current UNZA output.

Another reason for persistent pressure on medical infrastructure is the continued growth of the high risk population. Rates of morbidity and mortality among mothers and children are highly correlated with high fertility; the higher the fertility the larger the number of women in their childbearing age and the number of children under the age of five (who are part of the high risk group), the greater the need for funds, infrastructure and personnel to maintain acceptable health standards. Maternal and child morbidity and mortality remain high in Zambia because the socioeconomic conditions can not cater for the persistent increase in numbers of mothers and young children. According to the 1980 census, more than 35 percent of all births were to women in the high risk age group of under 20 and over 35 (*GRZ, 1986a; 1986b*). This is one explanation why Zambia has

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[12] As a way of comparison, current population:physician ratios for Brazil, Canada, Singapore, South Africa and Sweden are 1,020:1, 500:1, 1,300:1, 2,020:1 and 350:1 respectively during the same period (*World Bank, 1991*).

[13] The Zambian Kwacha declined from 2.22 per US$ in 1985 to 195.00 per US$ in 1991.

such high maternal and infant mortality. This problem is compounded by short birth intervals of less than one and one-half years which further increase the health risk for both mother and child. Since Zambian women have on average 6.5 births during their reproductive period, the health risks associated with this large number of closely spaced births are considerable. An effective anti-natalist policy would help to reduce the size of the high risk group by reducing the number of births per woman and increasing the child-spacing period between births.

With respect to education, as far back as 1965 the Zambian government set the goal of ensuring that all seven-year-olds have access to primary school. As a consequence of this policy, primary school enrolment rates have exceeded 80 percent of the total primary school age group since 1974. Although this compares favourably with many other African countries, the goal of universal enrolment has still not been achieved because of persistently high population growth rate. In primary schools, two, three or more sets of students use the same school premises during one day (double, triple or more streaming). This measure has failed to solve the problem of deficiency of school places, facilities and teachers' attention to individual students. Primary school enrolment as a proportion of nominal school age group (7-14)[14] was about 84 percent in 1978. The proportion of the primary school age population which could be absorbed in the first school grade was reduced from 97.3 per cent in 1977 to 96.3 and 93.5 per cent in 1980 and 1989 respectively (*GRZ, 1979; Banda, 1989*).[15] This is despite the fact that most Zambia's primary school classes (especially in urban areas) are well over the officially acceptable maximum capacity of 35 students per class. Table 6.3 illustrates that primary school teachers have been over-burdened since 1971. The situation improved slightly between 1973 and 1977 due to a deliberate crash primary teacher training program which involved establishing teacher training colleges in every province. There was also deliberate

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[14] According to the Zambian education system, the population aged between 7 and 14 years are of primary school age, while those age between 15 and 18 are of secondary school age.

[15] 1980 and 1989 data was obtained through an unstructured interview with Ministry of Education National Planning Unit staff in July 1989.

overenrolment in each of the colleges. Despite all these efforts, the situation has persistently deteriorated since 1978 due to the continued population growth rate (see Table 6.3).

Table 6.3:
Zambia: Primary school student:teacher ratios and annual per student expenditure: 1971-1989.

Year	Number of teachers	Pupil:teacher ratio	Per student annual expenditure in ZAK	Per student annual in US $
1971	14,708	50:1	43.09	28.73
1972	16,024	49:1	45.50	30.33
1973	16,916	48:1	45.90	30.60
1974	17,881	48:1	46.43	30.95
1975	18,096	48:1	46.56	31.04
1976	19,089	48:1	47.04	31.36
1977	19,441	48:1	47.60	31.36
1978	19,877	49:1	49.23	32.82
1979	22,494	44:1	50.30	33.53
1980	21,172	49:1	52.34	34.89
1981	22,362	48:1	58.71	39.14
1982	23,870	47:1	73.05	48.70
1983	24,045	50:1	77.52	51.68
1984	24,993	50:1	77.89	51.93
1985	25,015	50:1	78.02	34.68
1986	25,789	51:1	78.67	11.24
1987	25,984	51:1	80.01	3.56
1988	26,078	52:1	80.05	3.56
1989	26,666	52:1	83.55	1.84

Source: Silanda (*1988*); GRZ, (*1990a*) and author's calculations.

Despite the relatively high proportion of eligible age group enrolled in primary schools, a number of shortcomings still exist in the system. These include an insufficient number of classrooms, inadequate school equipment, and too few teachers to ensure that all children aged seven are able to enter Grade One and proceed to Grade Seven. This is partly a consequence of shortage of funds. Although per capita government

expenditure in both Zambian Kwacha (ZAK) and US dollar terms on both primary and secondary education increased between 1971 and 1984 it has declined drastically in US dollar terms since 1985 due to persistent devaluation of the Zambian Kwacha (see Tables 6.3 and 6.4).[16]

The national goal to enrol all seven-year-old children in Grade One has not yet been attained due in large part to insufficient infrastructure. Many students enrolled in Grade Four between 1971 and 1988 were unable to continue their education partly because facilities for further education were inadequate. At the upper levels, rural pupils are the most affected by lack of facilities.

Although promotion rates are high at primary school level, only a limited number of places exist in Grade Eight to cater for primary school graduates. The promotion rate from Grade Seven to Grade Eight has never exceeded the 1971 maximum of 23.4 percent; while the promotion rate from Grade Four to Grade Five increased between 1983 and 1988, it has declined to below 20 percent since 1984 (see Table 6.5). This implies that the majority of primary school pupils drop out to join the workforce seeking jobs which are very difficult to find. At secondary school level, 49 percent in 1973-74 and 59.7 percent in 1988-89 were unable to be promoted to Grade 10 (*GRZ, 1989b*). Less than 10 percent of final year senior secondary school students promote to university and other specialized post-secondary colleges resulting in a truncated education pyramid (see Figure 6.5).

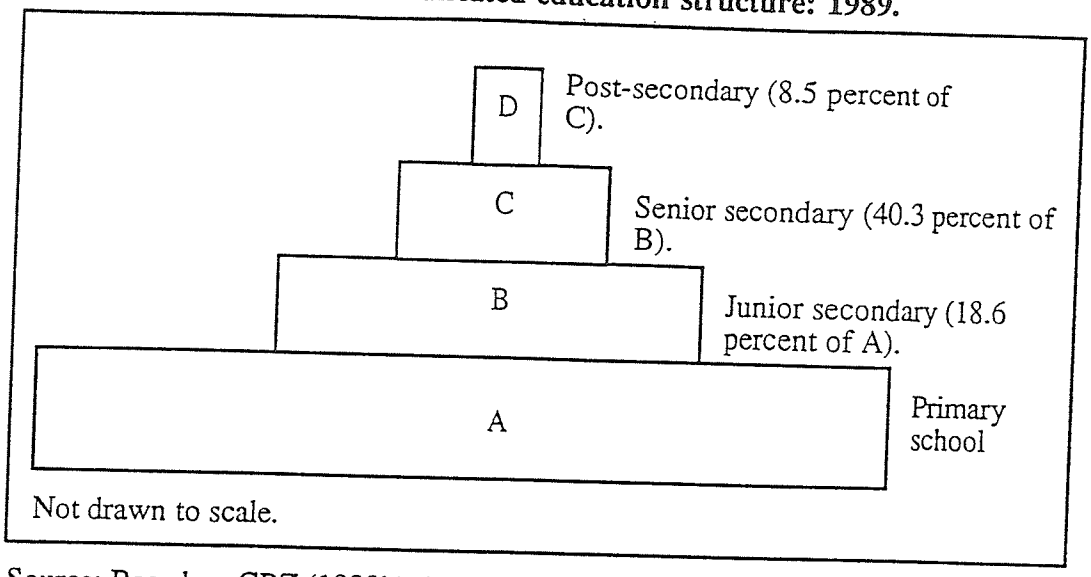
[16] Note that the US $ is an appropriate indicator of real resources made available because it helps us to compare situations between countries.

Table 6.4:
Zambia: Secondary school student:teacher ratios and per student annual expenditure: 1971-1989.

Year	Number of teachers	Pupil:teacher ratio	Per student annual expenditure in ZAK at current price	Per student annual expenditure in US $ at official exchange rate
1971	2,585	22:1	221.42	147.61
1972	2,779	22:1	228.34	152.23
1973	2,880	21:1	230.00	153.33
1974	3,038	23:1	231.70	154.47
1975	3,202	23:1	245.06	163.37
1976	3,478	22:1	248.62	165.75
1977	3,755	24:1	251.03	167.35
1978	3,669	24:1	259.70	173.13
1979	3,669	22:1	262.10	174.73
1980	3,878	21:1	285.43	190.29
1981	4,297	23:1	293.95	195.97
1982	4,650	23:1	381.47	254.31
1983	4,602	25:1	443.68	295.79
1984	4,772	25:1	465.05	310.03
1985	5,030	25:1	496.66	220.74
1986	5,400	26:1	501.05	71.58
1987	5,487	26:1	522.82	23.24
1988	5,601	27:1	607.99	27.02
1989	5,788	28:1	688.44	15.13

Source: Silanda (*1988*); GRZ (*1990a*) and author's calculations.

Figure 6.5:
Zambia's truncated education structure: 1989.



Source: Based on GRZ (1989b) data.

To overcome the problem of shortage of school places would require a doubling of existing secondary school places every 20 years. However, inadequacy of funds has made it difficult for the government to train and employ more teachers for both old and new schools in order to reduce the work-load of teachers. This has had an adverse effect on the retention of trained teaching staff, resulting in 5 to 10 percent of the total secondary school teachers emigrating to the south (especially to Botswana since the late 1980s). Thus, owing to severe constraints due to high population growth rate, rising costs and declining resources, the education system continues to be under severe pressure. This will have long-term repercussions in that the output of human capital becomes too small to produce goods and social services in readiness for later generations. From an anti-natalist point of view, it is unrealistic to anticipate quick acceptance of modern family planning services among the majority of Zambians with low levels of education.

Table 6.5:
Zambia: Education promotion rates: 1971-1988.

Year	From Grade 4 to 5	From Grade 7 to 8
1971	72.1	23.4
1972	74.6	21.3
1973	75.5	21.8
1974	78.6	22.6
1975	76.7	22.9
1976	80.6	22.2
1977	81.1	21.9
1978	82.7	19.7
1979	82.7	19.3
1980	85.6	21.6
1981	86.1	20.2
1982	88.5	20.8
1983	90.9	22.4
1984	91.1	19.8
1985	91.1	19.6
1986	91.2	19.8
1987	91.2	19.5
1988	90.8	19.8

Source: GRZ (*1989*).

Another issue linked to population growth is growth of the labour force. Overall, Zambia's employment trends are disturbing. Between 1969 and 1980, Zambia's labour force increased at an average annual growth rate of 3.3 percent per annum, compared to 3.1 percent for the total population. During the 1980-90 period the labour force grew by an annual average of 3.7 percent (*Novicki, 1993; Lean, 1993*). In 1974, Zambia's total labour force was 1.4 million and by 1984 it was estimated at 2 million. It was pegged at 2.9 million in 1991. The number of job-seekers is growing more rapidly than the number of jobs being created. This problem will become increasingly acute as the demand for formal sector employment increases as young people move from school into the labour force.

Reflective of Zambia's contracting economy, formal sector employment declined progressively from 381,490 in 1980 to 365,290 in 1984, and to an estimated 363,540 in 1988 (*GRZ, 1989b*). While the problem of providing adequate employment will prevail under almost any scenario, lower fertility would mitigate the pressure upon the economy to create new jobs in the long-term.

Formal-sector employment is more scarce in rural areas than in urban areas and yet 51 percent of Zambia's population live in rural areas (*World Bank, 1991*). Wherever they are available, most formal-sector jobs in rural areas (except government ones which pay uniform salaries for each job throughout the country) pay lower wages, consequently rural incomes are very low compared to urban incomes. The average income of an individual in urban areas is 3.5 times higher than in the rural areas (*Hollerbach et al., 1979; ILO/JASPA, 1981; Cremis, 1988; CSO 1985c; GRZ, 1989b*). The 1975 CSO household survey, the only comprehensive national household survey that has ever been carried out in Zambia, revealed that even if the stratum of high income people in urban areas is removed, urban income is still 2.4 times higher than rural income. This survey also revealed that 95 percent of the rural households had an income that was lower than the average income in the squatter townships of the urban areas. Only one percent of the rural households, mostly those owned by prosperous commercial farmers and business persons, had an average income higher than that of the urban areas (*GRZ, 1979; CSO, 1985b; 1986c*). Suffice it to say that real incomes of rural commercial farmers probably have declined considerably due to the rising costs of inputs (i.e. fertilizers and pesticides) and transportation since the late 1980s.

The discrepancy in income is not surprising because the large urban areas have had an advantage in socio-economic development since the mining industry and commercial agriculture were established in Zambia. Two urban provinces, the Copper Belt and Lusaka, together account for 85 percent of manufacturing establishments and manufacturing employees in the country. The industrialization strategy adopted after independence has also had adverse effects on the growth of small scale economic activities, including agriculture, which would have improved the rural population's living standards. New rural development programs, which were established mainly through

cooperatives, have had little effect in raising rural productivity or living standards because of the escalating cost of production and the persistent desire for large families. Since fertility is highly positively correlated with poverty (*Birdsall, 1980; Caldwell et al., 1992*) it is unrealistic to expect rural Zambian couples to reduce their fertility in the near future.

It is indisputable that Zambia has extensive untapped land and water resources for agricultural development. There are approximately nine million hectares of potentially productive land, of which only 1.4 million hectares are under cultivation (*GRZ, 1989b; Wood, 1990*). Whether basic food production keeps pace with rapid population growth is dependent on the development of new lands for production, future increases in yields and improvements to marketing infrastructure. Agricultural prices should be dictated by the forces of supply and demand rather than being determined by the government or agricultural marketing agencies such as the National Marketing Board of Zambia (NAMBOARD). Zambia has the potential of feeding a population much larger than its present one; nonetheless, food production must continuously increase at a pace equal to or greater than the rate of population growth if the nation is to achieve its goals of food self-sufficiency and security.

The objectives of the Zambian agricultural strategy are to attain food self-sufficiency in order to reduce the country's high deficit, to create surplus for export, to make agricultural development the basis for industrialization and to increase employment and improve income distribution in rural areas. What should be borne in mind is that the ability to attain self-sufficiency is in part linked to the growth in demand. The long-term demand for food is essentially determined by the growth of the population and by changes in per capita income. Of the two, population growth has been, and will continue to be, the more significant because it sets the minimum target for food production if self-sufficiency is to be attained.

Unfortunately, given the current production and marketing systems, this is not possible. Instead, per capita food (i.e. maize) production declined at an average annual rate of 2.4 percent between 1980 and 1984 and increased slightly by an average annual rate of 0.7 percent between 1984 and 1989. Despite Zambia's agricultural potential, production was inadequate in the majority of years between 1971 and 1990 (see Table

6.6).

Table 6.6:
Marketed maize production, consumption and imports (Thousand metric tonnes): 1971-1990.

Year	Marketed production	Purchased consumption	Imports Deficit/ surplus
1971	396	387	(9)
1972	589	420	(169)
1973	400	460	60
1974	589	520	(69)
1975	560	550	(10)
1976	751	580	(171)
1977	697	610	(87)
1978	582	640	58
1979	467	665	198
1980	490	690	200
1981	693	710	17
1982	511	730	219
1983	531	750	219
1984	571	780	209
1985	678	810	132
1986	954	840	(114)
1987	653	870	217
1988	1007	900	(107)
1989	946	978	32
1990	905	980	75

Source: Wood (*1990*).
( ) Surplus.

The unstable nature of maize production has in part been due to structural barriers to increased production. Rural peasants who produce most of Zambia's agricultural output have very limited access to loans enabling them to purchase agricultural inputs. Female farmers are more disadvantaged than their male counterparts because they have to depend on either their husbands', uncles' or brothers' recommendations in order to qualify for loans.

While Zambia's subsistence agriculture has not kept pace with population growth, its commercial agriculture has declined even more. Between 1976 and 1984, the average growth rate of marketed agricultural output was -2.7 percent. This resulted in a reduction in agricultural exports from US$9.43 million in 1976 to US$7.15 million by 1989 (*GRZ, 1989b)*. This has reduced Zambia's capacity to earn the much needed foreign exchange which is crucial for social and economic development.

Overall, Zambia's rural populations are more disadvantaged than urban populations in terms of socio-economic development. Apart from having fewer hospitals, clinics and health personnel, they also have poorer education facilities, inadequate clean water supply, sewage and refuse disposal. The inequalities in the provision of such services have serious demographic consequences. With the exception of Lusaka province, and to some extent Central province, urban areas within each province exhibit higher education and lower mobirdity and mortality levels than rural areas (*Bhat, 1989*).

These disparities have resulted in high rural to urban migration, largely involving working age males (*Mijere, 1989*). This has left the rural areas with relatively small numbers of working-age males. Zambian rural areas, therefore, have fairly large numbers of female-headed households. The 1980 census results show that out of 712,160 rural households, 33 percent were headed by women (*CSO, 1986a; 1986b; Mijere, 1989*). These were among the poorest households in Zambia. A combination of high mobirdity and mortality, shortage of working-age males and poverty has further increased the demand for a large number of children among rural Zambian women. Unfortunately this inbalance in sexes does not negatively influence fertility as men return to their rural homes from time to time to fertilize the spouses.

Overall, Zambia's economy, as it stands today is not capable of sustaining the fast growing population. The next section elaborates this point.

6.4. Limitations of Zambia's economy

Zambia's economic weakness partly stems from an over-dependence on a single export commodity: copper. The interaction of declining copper prices, rising oil prices, and the deteriorating international economic situation is creating a foreign exchange

problem and hence placing the Zambian economy under very serious pressure. It is worth emphasizing that this pressure is bound to persist as long as Zambia continues to bank heavily on one export commodity and its population keeps growing at the current rate.

Since mid-1987, Zambia's commodity terms of trade have collapsed under falling prices for copper and rising costs for imported oil, resulting in the deterioration of Zambia's income (*Reardon, 1993; Ham, 1993*). Copper's contribution to the country's total income in real terms has regressed since then. This is a serious set-back since Chile, Peru and Zaire, the other three major copper exporting countries, each expanded their production of copper in the 1970s, while Zambia's output declined from 660,000 tonnes in 1977 to 523,300 tonnes in 1984 (*GRZ, 1989*b). The price per tonne received by Zambia during this period fell drastically. By 1983, the copper mining industry contributed only 15 percent to the GDP at current prices, while in 1973 its contribution was about 32 percent (*Muntemba, 1989; Young and Roxley, 1990*). The contribution of the mining industry to government revenue in 1969 was US $47 million, plunging to US $2 million by 1987 (see Table 6.7). This decline is pernicious because Zambia's economic prosperity or decline is dependent on world copper production.

Internal policy errors have also contributed to the deteriorating economic situation in Zambia. The over-valued exchange rate for the Kwacha during the mid and late 1980s affected the domestic terms of trade by penalizing food producers and potential exporters. Inappropriate political and bureaucratic intervention in determining the allocation of resources has undoubtedly been another negative factor. The rising levels of government expenditure in the early 1980s were not always proportionately matched by higher revenues. This imbalance led to increased deficit financing resulting in hyper-inflation which reached a level of 70 per cent in 1987 and over 100 per cent at the end of 1990 (*Sheshamani, 1988; Kydd, 1989*).

Table 6.7:
Contribution of copper to GDP and revenue: 1970-1986 (in million US $)

Year	Total GDP	Copper contribution to GDP	%	Total revenue	Copper contribution to government revenue	%
1970	1,218	445	36	411	239	58
1971	1,125	255	32	294	109	37
1972	1,274	302	24	300	53	18
1973	1,515	482	32	367	103	28
1974	1,803	578	32	616	323	52
1975	1,508	194	13	427	56	13
1976	1,873	330	18	422	11	3
1977	1,891	212	11	475	-	-
1978	2,144	259	12	524	-	-
1979	2,553	434	17	557	-	-
1980	2,918	467	16	731	40	5
1981	3,319	451	14	781	11	1
1982	2,323	255	11	560	-	-
1983	2,787	413	15	571	28	4
1984	2,935	421	14	619	30	5
1985	2,358	329	14	475	23	5
1986	2,308	91	13	138	8	6

Source: CSO (*1986c*) and GRZ (*1989b*).

Another factor worth noting is the devaluation of the Kwacha through an auction system which began in October 1985. In the context of the escalating debt burden, the devaluation became an important contributing factor to Zambia's economic problems. Zambia's debt resulted from loans obtained from different international institutions to counter the impact of these negative external factors. Consequently, Zambia's debt is much higher than that of the major Third World debtors in Latin America or other African debt-distressed, low income countries (*Young and Roxley, 1990*). There has been a rapid increase of external indebtedness, rising from 40 percent of GDP in 1975 to 500

per cent by the end of 1986 or an estimated US $6.3 billion (*Muntemba, 1989; Young and Roxley, 1990*). In 1987, Zambia's scheduled debt servicing including repayment of principal was US $900 million, equivalent to 95 percent of estimated export earnings. Interest payments alone amounted to US $339 million. The scheduled debt-servicing ratio in 1987 stood at nearly 100 percent of estimated exports, and if arrears are included, at 150 percent of exports (*Ham, 1993; Novick, 1993*). In 1990, it was estimated that to reduce debt servicing to 25 percent of exports and to finance growth in real per capita income of 1 per cent per year, up to US $2 billion in external capital would be needed over the period 1988-1993 (*Young and Roxley, 1990*). With such an ailing economy Zambia clearly has little capacity to cope with a fast growing population.

Zambia's economic problems are reflected in the inadequacy of social services (which have already been highlighted above) and basic needs (which are alluded to below). An ILO/JASPA 1981 assessment revealed that about 60 percent of Zambia's households had incomes below the level of basic needs. The all-items cost of living index for low-income individuals more than doubled between 1982 and 1985, rose by an estimated 77 per cent between 1986 and 1987 and by 80 per cent between 1987 and 1989 (*Fundanga, 1987*).

The Zambian wholesale and retail environment has been characterized by shortages of essential commodities since the late 1970s, resulting in escalating prices. The majority of workers, whose real wages have remained static since October 1985, could only buy 65 percent of what was bought before foreign exchange auctioning. Many families, especially in urban areas, have stopped buying beef, chicken and bread, nor are they having their normal three meals any longer.

This unfavourable socioeconomic and demographic environment has stimulated the population debate. It has also motivated both private agencies and the Zambian government to think positively of the possibility of adopting and implementing relevant anti-natalist programs. These issues are discussed in the next sections.

6.5. Population debate and programs before the 1974 Bucharest World Population Conference.

Although private organizations established Planned Parenthood Association of Zambia (PPAZ) as early as March 1972, until the mid-1980s the Zambian government's attitude to population growth ranged from pro-fertility to laissez-faire. The factors which contributed to the indifferent attitude of the government towards the population problem were inadequacy of demographic data, local political developments, a seemingly buoyant economy and dominant pro-natalist cultural attitudes. The role of population in socio-economic development was hardly understood; consequently, national-wide family planning programs never became operational.

6.5.1: Limitations of demographic data

Consistent with Zambian history, marginalization of the black population was characteristic of most of the demographic registrations before 1963. Migrant labourers were an exception to this generalization because under the notorious Migration Act of 1935 all Copper Belt and Broken Hill (Kabwe) mine and commercial farm employers were required to register their migrant labourers (most of whom were males) with the government. The demography of the rest of the black population was an abstraction left to speculation until the 1963 census, taken on the eve of independence, which provided details of the total size and distribution of the black population (*Banda et al., 1986*).

The provision of family planning services was initially not viewed as a vehicle to reduce population growth. This is evidenced by access (by custom) to services by the white population only who comprised a very insignificant proportion of the total population (*Banda et al., 1986*).

Since independence Zambia has had three censuses: in 1969, 1980 and 1990.[17] However, some supplementary data on population can be derived from the restrictive civil registration system under which births, deaths and marriages are registered. The registration of vital events is operational mainly in urban areas only. Other administrative

[17] Results for the 1990 census have yet to be released.

records come from medical, educational and training institutions falling under respective sectoral government ministries as well as migration declaration forms from the country's entry and departure points and *ad hoc* sample surveys (*ECA, 1984; Banda and Gasie, 1986*). However, the annual reports in which data are released usually suffer from several years' delay before they are published. The usefulness of surveys has been undermined by their lack of co-ordination, and poor financial, technical and human capabilities. The surveys are also rather small scale and are mainly of immediate interest to the institutions conducting them.

The Government, however, must have felt the inadequacy of data for planning, in that the Central Statistical Office (CSO) was not established until 1964 and is responsible for collection and analysis of most of the population-related data for Zambia (*Banda and Gasie, 1985*). A Unified Statistical Service Unit, which comprises the CSO and ministerial statistical units, was created in the Zambia Civil Service in November 1976 to ensure that there was an effective and co-ordinated frame-work for the collection, processing, interpretation and dissemination of all socio-economic statistical information in the country (*Banda and Gasie, 1986*). In order to illustrate the difficulties and duplication of services, a brief description of the data collection mechanism is given below.

The CSO has decentralised its services through provincial statistical offices and statistical units in the ministries responsible for health, agriculture, education, and labour and social services. It is needless to emphasize that these provincial units are not well staffed; they each have on average three statistical officers.

The most critical short-coming of CSO is that it has limited facilities for processing and analyzing both census and survey data. It relies on the Ministry of Finance's computer facilities in this regard (*CSO, 1986a*).

Under Zambia's civil registration system, the registration of births and deaths was made legally compulsory in 1973. However, despite having registration offices at district level, and registration rural-council-sub-centres, the registration system is far from complete. In rural areas, coverage is drastically reduced due to long distances between people's residences and registration centres, coupled with ignorance of the necessity for

registering such events (*ECA, 1984*). Village headmen who are compelled by law to keep records of vital statistics of their own villages and report them to their area chiefs rarely do so. Infant deaths are the most under-reported (*Banda, 1983*).

6.5.2: Effect of the political environment

Political developments before the mid-1980s were not conducive to the adoption and implementation of family planning programs, let alone an anti-natal population policy. Pre-independence elections, held in January 1964, enabled Kenneth Kaunda to form the United National Independence Party (UNIP) government with a very weak opposition from the African National Congress (ANC). This was one of the political factors which later affected internal socio-economic programs including family planning because only UNIP had the power to officially endorse new programs and encourage people to accept them.

Zambia became a Republic, with Kaunda as president on 24 October 1964. During the intervening months the government had to confront two sources of internal opposition. In Barotseland, the traditional ruling elite had retained an exceptional degree of autonomy under colonial rule, and it was with some reluctance that the paramount chief accepted subordination to a popularly elected central government. The Barotseland ruling elite became selective in the choice of innovations introduced in the province by either the government or non-government organizations. The first efforts in establishing a family planning centre in Mongu were resisted in the 1977-1979 period. They were accepted in the latter part of 1980 (*Zambia Daily Mail, June 5, 1981*).

In 1971, a former vice-president Simon Kapwepwe, broke with UNIP and formed the United People's Party (UPP), but before long, many of UPP's members were detained without trial. Although most of them, including Kapwepwe, were released in early 1973, the Northern province Bembas (the ethnic group of which Kapwepwe was part) remained disillusioned (*Pettman, 1974*).

Fresh presidential elections, together with elections of the national assembly in which Kaunda was returned for a third term, were held in December 1978. During 1978 Kapwepwe, the former UPP leader, and two of his former aides rejoined UNIP;

Kapwepwe's support was thought to be vital for Kaunda at a time of acute political and economic strain, since Kapwepwe was, until his death in January 1980, a recognized leader of the numerous and Bemba-speaking peoples. Despite this act of reconciliation, there was growing disagreement within UNIP over fundamental issues of national policy including population programs. The Bemba regarded any attempt by government to introduce family planning programs in Northern province as a deliberate attempt to curb the growth of their number for political reasons and hence such programs were resisted in the 1970s and early 1980s (*PPAZ, 1980*). Meanwhile the Eastern province was also threatening to secede from the country, and resisted any program which would retard the growth of its population.

Elections to the new assembly, in which Kaunda was re-elected for the fourth term of office, were held in December 1983. A new constitution was introduced, making strategies for national political development the responsibility of the UNIP national executive committee, which included many veteran nationalists with a strong socialist leaning under the influence of Tanzania's former President Julius Nyerere. This was also a big stumbling block to the diffusion of anti-natal programs, because under African socialism, introduced earlier by Kwame Nkrumah, the one-time President of Ghana, high population growth rate was seen as crucial for socio-economic development. Kaunda was in a dilemma because his beliefs were dictated not only by socialism but his 'Philosophy of Humanism'[21], traditional family and Christian values all of which were at odds with limitation of childbearing for demographic reasons. As will be illustrated later, until the late-1980s President Kaunda was reluctant to commit himself to directly supporting family planning programs.

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[21] According to President Kaunda 'Humanism' is a philosophy which emphasizes the importance of the human race and common human needs (*Kaunda, 1973; Meebelo, 1974*). It would have been ridiculous and politically suicidal for Kaunda who, in the early decade of his presidency, preached the importance of the 'Zambian race' to support fertility measures aimed at 'destroying' the nation on which his political survival depended.

6.6. Population debate and programs during the 1974-1984 period

The Zambian government slowly started appreciating the effect of rapid population growth after the 1974 Bucharest World Population Conference. Its appreciation of the relation between population growth rate and socio-economic development increased during the 1980s due to the deterioration of the economy and the development of a population debate.

Following the 1974 Bucharest World Population conference, the government of Zambia conducted a National Urban Household Size and Income Status Survey in 1974-75. This survey revealed that Zambia's average household size was over 5 and that 26 percent of the households had monthly incomes below US $33 (*World Bank, 1987a*). On the basis of these results, UNIP officially allowed PPAZ and other private international organizations to provide modern family planning services, but only to those who voluntarily asked for them. The debate generated by the new developments is worth discussing because it partially shows how existing value systems clash with the diffusion of innovations in the African context.

The endorsement by the government of the provision of modern family planning services by private organizations was received with strong opposition from a number of local organizations including those within UNIP. First, the Christian Council of Zambia, under the strong influence of the Catholic Church, issued a memorandum which read in part:

> The Zambian Christian community would like to express its disappointment against the UNIP's latest decision to support the distribution of artificial contraceptives to the adult population in the country. This contradicts, not only our christian values, but our cultural values as well. The ruling party and the nation as a whole will in the long run regret this new move which is undoubtedly a result of foreign influence as it will lead to immorality and the destruction of the nation (*Christian Council of Zambia, August 18, 1974*).

Secondly, three days later, the House of Chiefs issued their own memorandum in support of the CCZ which emphasized that:

> The UNIP government has all along promised to maintain and strengthen Zambia's cultural values whose main cornerstone is the family. It is disturbing to learn that it has all of a sudden decided to destroy the nation by supporting artificial family planning programs. We, the traditional chiefs, find it difficult to

> support this new move as our survival depends on the growth of the numbers of our people which is only possible in the absence of birth control aimed at limiting family sizes (*Zambia Daily Mail, August 21, 1974*).

Thirdly, UNIP's Women's League urged the ruling party to reconsider its new decision regarding family planning in the country because

> Zambian women value their children for status in marriage, labour and old age security. We can only express our love for our husbands by bearing them as many children as is biologically possible (*UNIP's Women's League, August 25, 1974*).[23]

Nevertheless, some government ministries went ahead supporting family planning programs. In August 1975, as a follow-up to the 1974-1975 National Urban Household Size and Income Status survey, the Ministry of Health organized a Maternal and Child Health Care and Family Planning seminar which called on the government to establish a national population policy. A month later, the Ministry of Labour and Social Services, in conjunction with the International Labour Organization (ILO), conducted another seminar which focused on the relationship between high population growth rate and economic development. This was a multi-sectoral seminar attended by representatives from government ministries, employers, women organizations, the ruling party (UNIP), the University of Zambia and Family Planning and Welfare Associations. This seminar also urged the Zambian government to formulate a national population policy, expand family welfare/life education and information throughout Zambia and officially involve PPAZ in family planning activities. It also called for research in labour, employment and population issues. In response to this call the Women's League of the ruling party, under the Chairmanship of Ms. Chibesa Kankasa, stressed that while it supported the idea of

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[23] To date only a few leaders of UNIP's Women's League seem to appreciate the importance of the relationship between population and development. This is because they have participated in a number of population seminars and workshops. Mrs. Chibesa Kankasa, for example, presided over a number of them, which included the ECA/CSO workshop on the dissemination of findings of a survey of variations in fertility between Lusaka urban and Keembe (Kabwe rural) in August 1983 and the dissemination of the 1980 national census results in November 1986. She also led the Zambian delegation to the 1984 Mexico World Population Conference. The majority of the women in UNIP's women's league are still reluctant to strongly support family planning programs.

developing research in labour, employment and population, it strongly opposed the idea of promoting prostitution through an anti-natal national population policy (*Times of Zambia, August 28, 1975*).

Another notable symposium which focused on labour, population and development was held in Livingstone in 1977. At this symposium labour leaders expressed concern about Zambia's large families and low living standards and recommended that the government integrate population and employment issues into the development planning process (*Hopkins and Siamwiza, 1988*).[24] These seminars signalled the establishment of the Family Welfare Education Unit at the Ministry of Labour, Social Development and Culture which is a government institution involved in the Population Education Program. This provoked strong opposition from the House of Chiefs and some members of parliament who regarded the introduction of sex education in Zambia as an indirect way of promoting prostitution among students (*Times of Zambia, November 27, 1977*).

The Family Welfare Education Unit project mainly focuses on industrial workers. Its immediate objectives include:

. the integration of population/family welfare education in all ongoing educational programs of trade unions affiliated to the Zambia Congress of Trade Union (ZCTU),

. the integration of population/family welfare education in the relevant courses of the President Citizen College (PCC) and the eight Community Training Centres in the country and

. the establishment of Family Planning Service outlets in the Occupational Health and Medical Clinics.

ILO released funds for this program in 1978, and the program started in 1979. Initially, this program covered 100 enterprises, each employing approximately 100 persons and ten clinics of local authorities in towns with a concentration of industrial and

[24] The current President of Zambia (Mr. Fredric Chiluba) also emphasized this point in an interview with the author on July 25, 1989.

plantation workers.[25],

Todate this program's achievements are not impressive for three reasons;

a) Its activities are concentrated in urban areas where the majority of industries are located, thereby living out a larger proportion of Zambia's population who live in rural areas and need family planning the most.

b) 'Education of factory workers' has only been incorporated in the existing programs of only three of eighteen target labour unions.

c) Labour and Family Welfare Committees to educate and motivate workers into accepting family planning services appear to have been set up in only forty out of seventy enterprises identified to participate in the program. Even then most of these committees are still in their planning stage.

d) The objective of integrating Population Education into courses of PCC still remain unfulfilled.

In 1979, as a follow up of earlier activities, ILO in conjunction with the government of Zambia, conducted a 'Labour and Family Welfare Education in the Organized Sector Workshop' at which the Secretary General of ZCTU called for the formulation of a national policy on population and family welfare, which would augment existing family planning programs (*GRZ/UNFPA, 1983*).

Apart from ILO, UNFPA has also made substantial contributions towards efforts aimed at curbing Zambia's population growth rate. Its original objectives were to increase the number of health workers to 1,000 and the number of delivery points from 595 in 1980 to 695 in 1990 in order to afford health workers the capacity to provide Marternal and Child Health-care/Family Planning (MCH/FP) services and increase awareness and knowledge about family planning services by the end of the program. By 1989, the Health Family Planning Program made some progress in that the number of health workers with knowledge and skills in MCH/FP increased from 301 in 1980 to 767

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[25] This information was collected through an interview on May 22, 1989 with the Director and staff of the Welfare and Education Unit of the Ministry of Labour, Social Development and culture.

in 1989 (*GRZ, 1989b*).

Among other things, UNFPA has been supporting the Ministry of Health in implementing the Health Family Planning Program since 1979. This project involves the organization of a Family Health Training Course for Zambia Enrolled Nurses (ZENs)/Zambia Enrolled Midwives (ZEMs) and family planning seminars and workshops for medical, nursing and paramedical staff. This was a follow up of a study tour of Thailand and Indonesia by MCH/FP specialist of the Family Planning Health Unit which highlighted the importance of trained staff and institutional organization to Zambia for the successful implementation of family planning programs. The preparatory program for this project's activities began in February 1979, and actual implementation started in December 1979. Initial projects involved institution building, service delivery, training, communication of health education information and research. Since then, the Ministry has been providing family planning services in hospitals and clinics. At almost the same time as the implementation of the Health Family Planning Program, UNFPA started assisting the Ministry of Health to improve the health of mothers and children by strengthening the Maternal Child Health Care/Family Planning (MCH/FP) program within the context of Primary Health Care (PHC).

Overall, these programs have not been very effective for two reasons. First, traditional birth attendants, who are more accessible to rural women than modern nurses, were not included in the training program, and hence cannot participate in the provision of family planning methods. Secondly, people living in remote rural areas, far from either hospitals or clinics, have no access to modern family planning services. The Gwembe, Zambezi, Luangwa and Luapula valleys are cases in point. For some, the access rate declines during the rainy season due to floods which destroy the poorly constructed roads. These problems call for the establishment of family planning delivery points within communities in order to make family planning services more accessible to the Zambian population.

The Family Life Movement of Zambia (FLMZ) is another local organization which started playing an active role in population activities before the 1984 Mexico World Population conference. The Life Promotion Committee of Zambia (LPCZ), which was

established in 1979 by the Christian Council of Zambia (CCZ), the Zambia Council for Social Development (ZCSD) and the Zambia Episcopal Conference (ZEC) initiated the establishment of the FLMZ in 1981. This was an important landmark in the history of family planning programs in Zambia as it signalled the involvement of local religious organizations in anti-natal family planning programs which earlier they had strongly resisted.

The FLMZ differs from PPAZ in that it strongly condemns the use of artificial family planning methods while recommending the use of natural methods. Its long-term objectives are to enhance the health and happiness of each family, irrespective of whether they are Catholic or not. It teaches couples how to use modern Scientific Natural Family Planning Methods (SNFPMs) which include the Cervical Mucus Method (CMM), the Temperature Method (TM), the Sympto-Thermal Method (STM) and the Extended Breast Feeding Method (EBFM). The FLMZ also emphasizes sexual self-control outside marriage (*FLMZ, 1989b*). To this effect different dioceses are used as outlets for providing Natural Family Planning services (*GRZ, 1986b*). The effectiveness of these methods is yet to be seen.

The World Bank is another international organization which has been influential in the promotion of population activities in Zambia since the early 1980s. In January 1983, the government of Zambia requested the World Bank's Population, Health and Nutrition team to conduct a sector review and present a report. They recommended that the government of Zambia should adopt an anti-natalist policy aimed at helping couples how to to appreciate small families. Between December 1983 and March 1984, the government set up a multi-sectoral committee to study the World Bank Draft Report (*World Bank, 1984b; 1984c*). This committee included representatives from the NCDP, UNIP, UNZA, PPAZ, Ministries of Finance, Labour and Social Services, Higher Education, Health, Agriculture and Water Development, FLMZ and the National Food and Nutrition Commission (NFNC). The committee endorsed the World Bank's Population, Health and Nutrition team's recommendations.

At almost the same time IMF strongly recommended the implementation of an anti-natal population policy as an important component of the restructuring program for the

Zambian economy. Unless Zambia were willing to accept this prescription and a number of others, which included the removal of food subsidies, the cutting of the Civil Service by 50 percent and the scrapping of UNIP's Central Committee, IMF was not prepared to grant Zambia the much needed financial assistance (*Fundanga, 1987; Muntemba, 1989*).[26]

6.7. Population debate and programs after the 1984 Mexico World Population Conference

Zambian delegates have regularly participated at international Population Conferences since the 1974 Bucharest World Population conference. They participated at the Arusha African population conference in January 1984 which recommended that African countries integrate demographic variables into the planning processes at macro, sectoral and regional levels. Zambian delegates also attended the 1984 Mexico World Population conference under the leadership of the Chairman of UNIP's Women's League, Chibesa Kankasa, at which governments of developing countries were strongly advised to consider pursuing relevant demographic policies within the overall context of socio-economic development (*Kankasa, 1984*). It was after the Mexico World Population conference that Zambia took steps towards the adoption of a population policy. This became evident through the dissemination of family planning information through the mass media; especially through radio and newspapers and active participation at population seminars and workshops by UNIP and government officials.

The Ministry of Information and Broadcasting Services has acted as a service ministry for communication in population activities. It serves other sectoral ministries such as Health, General Education, Labour, Social Development and Culture, Finance and

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[26] This active involvement of international agencies in Zambia's population activities still raised suspicion among some Zambians including the elite and politicians who felt that the motive behind the international agencies' interest was to prevent the growth of Zambia's population for political reasons even at the time of the official adoption of Zambia's population policy in May, 1989 (*Author's observations at the Zambia's National Population Policy Conference, Lusaka, May 17-19, 1989 and during the entire field work for this project*).

National Commission for Development Planning. It also serves both the FLMZ and PPAZ. Information is disseminated by the network of information officers, radio, television, newspapers, pictorial pamphlets, charts and posters. Communication through magazines is limited by shortage of paper and other printing facilities. There is also potential for integrating population education and information through the country's continuing and distant education programs for out-of-school youths and adults, and in school radio broadcasts which offer classroom teaching support, as well as through external correspondence courses.

Apart from broadcasting in English, which is Zambia's official language, Radio Zambia also broadcasts in seven local languages: Nyanja, Tonga, Bemba, Lozi, Luvale, Lunda and Kaonde. With effect from 1986, Television Zambia covers all nine provincial headquarters. In principle, Zambia Information Services is supposed to run six vernacular newspapers namely Liseli, Itanda, Tsopano, Imbila, Lukanga and Ngoma and publish the Zambia magazine in English, which should disseminate information on family planning. But due to financial constraints these papers are rarely in print.

Beginning 1984, the Times of Zambia and the Zambia Daily Mail, are the only two daily papers which have been covering population issues at two levels:

a) general feature stories concerning population and development in developing countries in general and in Africa in particular and,

b) national and local concern about population.

Both during and after the Arusha conference in January 1984, the Times of Zambia and the Zambia Daily Mail carried a number of feature articles which expressed African leaders' and planners' concerns about Africa's high growth rate. On January 11 and 15, 1984 the Times of Zambia reported that 'Africa's population bomb' was set to explode and that the Arusha conference urged Africans to plan their families. On March 31, 1984 (through the same paper) the then executive secretary of the Economic Commission for Africa (ECA) (Dr. Adebayo Adedeji) echoed the Arusha conference's concerns by stressing that:

Africa had a bleak future because its rapid population growth would slow down

> economic growth. It is time that African governments began to seriously incorporate demographic factors in their socioeconomic development planning. The adoption and implementation of relevant population policies should from now on be accorded the important consideration they deserve.....(*Times of Zambia, April 1, 1984*).

By early 1984, Zambia's media started reporting extensively on Zambia's declining economy and high population growth rate. On March 30, 1984, the Times of Zambia, for example, reported that the Chairperson of the Women's League of the then-ruling party, UNIP, welcomed the idea of the introduction of sex education in schools, churches and homes and that the Women's League was considering the establishment of counselling units in all districts. This idea was strongly supported by the Young Christian Association of Zambia (YCAZ) and the Chairman of the Social and Cultural Committee of the ruling party's Central Committee. These were very encouraging developments especially for strong advocates of anti-natal programs as they originated from highly placed UNIP and religious leaders who had previously been against family planning programs. PPAZ, for example, saw this as an expedient time to call upon the government to formulate a population policy in order to facilitate economic development planning (*Times of Zambia, April 5, 1984; IPPF, 1984*).

As a follow-up to Mrs. Kankasa's sentiments, many other individual high-ranking government and party officials continued making pleas to the Zambian public to plan their families. On June 9, 1984, Zambia Daily Mail reported that the Minister of State for Health (Mr. Peter Chanshi) emphasized that:

> Family planning is vital to the well-being of the Zambian population. Safe and dependable methods of family planning are a prerequisite to maintain population growth rate at the same footing with economic and social development.....(*Zambia Daily Mail, June 9, 1984*).

The Provincial Women's League's Chairperson for Western Province, the District Governor for Livingstone, the Minister of Finance and NCDP (Dr. Henry Meebelo), the Regional Director of Commonwealth Youth Programme (African Centre) (Dr. Arthur

Musimuko) also made similar appeals at different forums.[27]

In both 1985 and 1986, highly placed government officials continued appealing to the public through Zambia's mass media to regulate their fertility. The then Prime Minister, Mr. Kebby Musokotwane, speaking on behalf of the government, was in the forefront in doing so. In addition to appealing to the public, the government continued hailing PPAZ for creating population growth awareness among the Zambian public.

By the end of 1985, the Zambia public started actively participating in the population debate mainly through the 'letters to the editor' columns of both daily national newspapers. While most of them appreciated the government's concern about Zambia's high population growth rate, they also urged it and its sympathizers to concentrate more on reconstructing the economy than on regulating population growth.

Pleas made throughout 1984 seem to have paid dividends because by the end of the year a number of organizations had intensified family planning activities through training programs, workshops and the distribution of modern contraceptives. Nineteen Family Health Trainers and 512 Zambia Enrolled Nurses (ZENs)/Zambia Enrolled Midwives (ZEMs), for example, were trained under the Health Family Planning Program (*GRZ, 1986a*). Workshops for 767 medical and nursing personnel and 2,165 traditional community leaders were also conducted. Zambians participated in another workshop which was held in Nairobi, Kenya in 1985 sponsored by the East and South Africa Management Institute attended by representatives from Zimbabwe, Botswana, Swaziland, Lesotho, Malawi, Kenya, Uganda and Tanzania which called for the lifting of restrictions on nurses from prescribing contraceptives and inserting IUDs. Later, 10 candidates were sent to a Family Planning Clinic Course, held in Zimbabwe (*GRZ, 1986a*). A number of nurses have also been sent overseas for Masters degrees in Health Education and Maternal Child Health Care/Family Planning since mid-1985.

PPAZ has also increased and intensified its activities since 1984. It currently conducts family planning publicity campaigns through the association's 32 branches which are

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[27] Full reports of these appeals are available in the Times of Zambia, July 6, 16, 18 and September 26, 1984.

located in either provincial or district headquarters (see Figure 6.6), family planning motivation campaigns for industrial workers and refugees and family planning seminars for health workers.[28] It also produces AIDS counselling materials, distributes contraceptives and integrates family planning, nutrition and parasite control activities.

In addition to these activities, PPAZ also supports family planning services in rural areas, provides family planning counselling, conducts volunteer/staff development workshops, trains full-time staff and carries out research on the characteristics of family planning acceptors (*PPAZ, 1988; 1989a; 1989b*).[29]

PPAZ's 32 branches distributed contraceptives to 408 and 457 outlets in 1986 and 1988, respectively, as compared to 280 in 1985. In 1985, PPAZ aim was to reach 150,000 potential users and increase the education campaign and number of branches. But, by the end of the year only 104,838 acceptors were using modern contraceptives (*PPAZ, 1988; 1989a; 1989b*). A more detailed review of the diffusion of both family planning information and other services is provided in Chapter Eight.

Although the IPPF, which funds the production of AIDS counselling material, is the major funding agency for PPAZ, a number of projects which are currently running in Zambia are directly funded by different international organizations. CIDA funds the Family Planning Awareness Campaign. The Rural Areas' Planning Services Project is directly under NORAD, while the newly established PPAZ clinic in Lusaka is funded by the Population Council (PC) (*PPAZ, 1989a; 1989b*). Table 6.8 illustrates contributions made by some of these organizations in 1988 as well as PPAZ's high dependence on foreign assistance.

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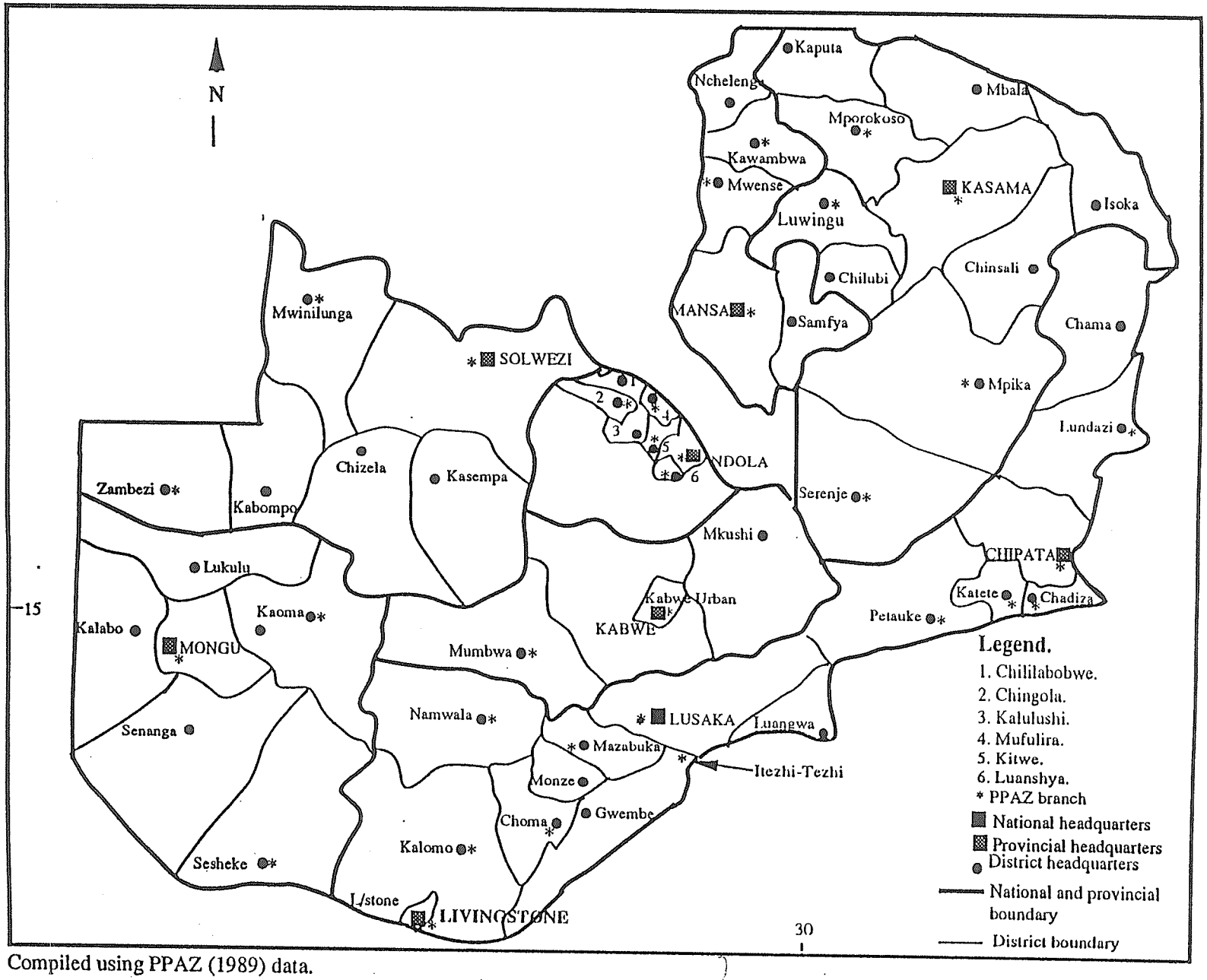
[28] The major drawback is that these PPAZ branches are not evenly distributed in the country in relation to human settlements. As a result most of the branches have very large catchment areas which they cannot adequately serve. Areas between Mwinilunga and Mumbwa, Solwezi and Mumbwa, Kasama and Lundazi and Petauke and Lusaka, for example, lack PPAZ services (see Figure 6.6).

[29] Due to the Ministry of Health's and PPAZ's combined efforts the number of modern family planning methods acceptors increased from 162,028 in 1987 to 167,074 in 1988 (*GRZ, 1989b*).

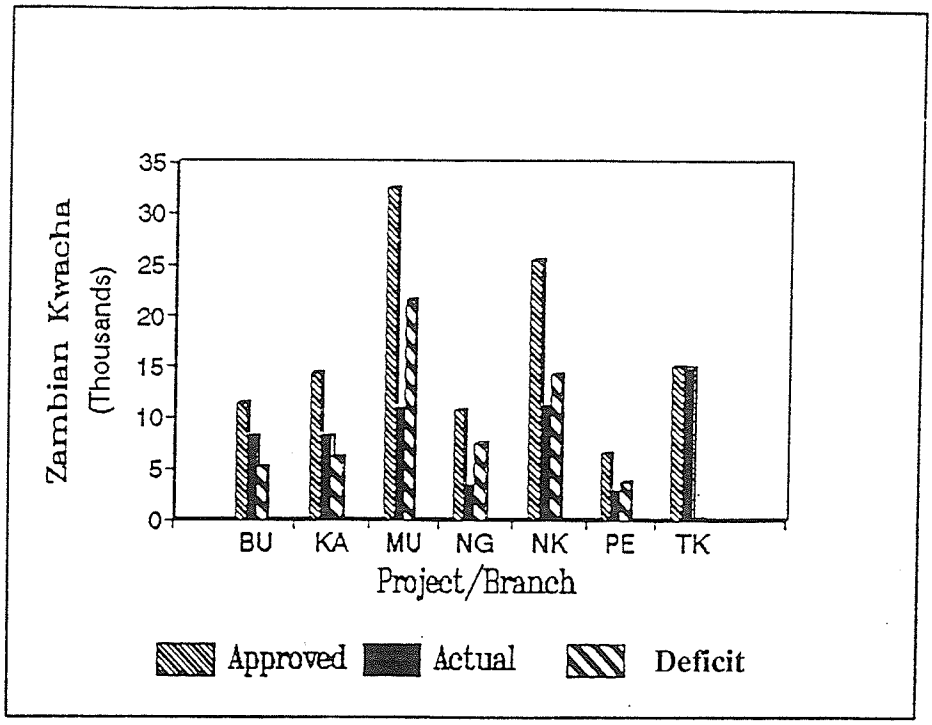
Figure 6.6:
PPAZ branches: 1989.



Compiled using PPAZ (1989) data.

One of PPAZ's major problems is shortage of funds. Since 1984 its annual expenditures have fallen far short of their budgets. Their 1988 experience stands out as a good example (see Figure 6.7).

Figure 6.7:
1988 budgets for seven PPAZ branches.



Bu	=	Buntungwa	Ka	=	Kasama.
Mu	=	Mushili	NG	=	Ngoli.
Nk	=	Nkupisha	Pe	=	Petauke.
TK	=	Tukatane			

Source: PPAZ (*1989b*).

Lack of UNIP's and government support throughout the 1970s and early 1980s was PPAZ's other major concern. Efforts to affiliate itself to the then ruling party were from time to time turned down on the pretext that since PPAZ is wholly funded by international organizations it is a foreign organization whose motives are not very clear. It would therefore be suicidal for UNIP to accord affiliation to such an association.[30]

[30] This information was collected through separate interviews with the Director of PPAZ and the Special Political Advisor to the Secretary General of UNIP on July 25 and July 27, 1989 respectively.

Table: 6.8:
Funding received for projects by PPAZ from local as well as foreign sources: 1988 (in US $).

Source	Amount (US $).	% of total
PC	37,531	3.0
WHO	73,051	5.9
P/FINDER	66,824	5.4
IPPF	196,512	15.9
NORAD	692,981	56.2
Sub total	1,066,899	86.5
Head Office*	40,938	3.3
Branches*	126,168	10.2
Total	**1,234,005**	**100.0**

*Locally and self-generated funds.
Source:PPAZ (*1989b*).

The FLMZ has also made remarkable progress since 1984. It claims that 186, 375, 694, 2,026 and 5,964 people accepted and used Scientific Natural Family Planning Methods (SNFPMs) in 1984, 1985, 1986, 1987 and 1988, respectively (*FLMZ, 1989a*). But these are very small figures in propotion to Zambia's adult population. The FLMZ also trains, certifies and supervises teachers of SNFPMs for both public (Ministry of Health) and private (ZCCM Medical Division) sectors.

The Family Life Movement of Zambia (FLMZ) has also been central in Zambia's population debate especially since the mid-1980s, because it does not recognize Zambia's population problems. One could argue that one reason for its establishment was to counteract the anti-natalist motives and activities of both governmental and non-governmental organizations which were established before it. In 1987 its director

emphasized that:

> The problem of overpopulation arises only when people overrun the available resources to meet their needs. Zambia has abundant resources which it can even use to satisfy the needs of the whole African continent. Zambia's current problems are not due to overpopulation but due to external forces that determine the distribution of resources. For example, Zambia currently exports food to western countries which do not need it while Zambians are going hungry (*Times of Zambia, November 11, 1987*).[31]

It only endorses natural family planning methods. The FLMZ claims that the Scientific Natural Family Planning Methods (SNFPMs) have the following advantages over artificial methods:

. they are widely accepted in both rural and urban areas,

. those with little or no formal education use them more and better than those who have three or more years of schooling,

. use continuation rate of SNFPMs is as high as 70.0 percent,

. they are cheaper than the artificial methods because only a major initial investment is required to train teachers and users. After the 3-5 months learning period, expenditure on each client is minimal,

. they are healthy because no client ever complains of side-effects, in contrast with artificial methods,

. they do not call for imports which can be cut off at any time due to war, lack of foreign exchange or change of mind on the part of the donor and

. it is easier to train personnel for SNFPM than it is for Artificial Family Planning Methods (AFPM). As a result, the FLMZ has enough manpower, some of which it has even started exporting to neighbouring countries (*FLMZ, 1988; 1989a; 1989b; Muchindu, 1988*).

Although its influence on regulating fertility has still to be seen, through the continuous increase in the number of clients, the movement has become very active and is promulgating family planning information through literature, workshops, seminars and

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[31] The Director of FLMZ echoed these sentiments during a personal interview with the author of this thesis on July 19, 1989.

the mass media. The current problem is that the Family Life Movement of Zambia is seen as a rival rather than a complementary institution to those which promote the use of AFPM, namely the government and PPAZ. The ongoing conflicts between the FLMZ and other family planning organizations, therefore, creates a dilemma among both actual and potential users of modern family planning services which contributes to the already high dropout rate among current users.

Like PPAZ's, FLMZ's activities are largely funded by different international agencies which include NORAD, USAID, SIDA and Swiss Caritas (*FLMZ, 1988; 1989a*).

UNFPA continued making progress in 1984 when it started supporting the establishment of Service Delivery Points (SDPs). This idea was later backed by the government, which decided that all health institutions (i.e. hospitals, Urban and Rural Health Centres) should become SDPs for family planning (*Mbomena, 1989*). Initially, 494 SDPs were to be established, but by the end of 1989, 909 SDPs were in operation. Unlike in 1980 when Services Delivery Points (SDPs) were only available in provincial hospitals, by 1989 they were distributed in some rural areas as well. To date, 80 percent of the Rural Health Centres have integrated SDPs in their programs, but their effectiveness varies with the availability of family planning facilities. The SDPs with more and better facilities have attracted and retained more clients than those with less and poorer facilities (*Mbomena, 1989*).

Nevertheless, the SDPs project has to date failed because of a number of constraints to attain most of its objectives which include the dissemination of family planning information and distributing modern contraceptives. Firstly, there has been little support and commitment among some Provincial Medical Officers (PMOs) especially in the area of the provision of transport. Due to scarcity of fuel and spare parts, PMOs have been reluctant to release their limited number of vehicles for family planning activities. This is one example of the many drawbacks of making the provision of family planning services part of the Ministry of Health. Secondly, co-ordination of family planning activities between PPAZ Field Officers and Ministry of Health personnel is lacking in some provinces, resulting in poor distribution of services. Thirdly, the absence of a research and evaluation section for monitoring family planning programs renders it

difficult to make meaningful evaluation of the impact of the program at the end of each funding period. Fourthly, shortage of nurses and midwives, especially in rural areas such as Luapula, North Western, Western, Eastern and Northern provinces, results in low accessibility to family planning services. Finally, lack of clear-cut conditions of service and additional remuneration for the medical staff involved in both medical and family planning responsibilities, as suggested by UNFPA Program Document ZAM/74/P02, results in frustration among those involved. For example, by the end of 1986, only 11 out of the 19 Family Health Trainers were still involved in the program. This dropout of personnel has reduced the amount of time devoted to family planning activities. Only two hours per week were allocated to family planning service delivery in Rural Health Centres and only up to five hours in district hospitals. Multiple tasks required to be performed by the Family Health Nurses (e.g. antenatal, postnatal, maternal delivery, home visits and children's clinic) all reduce the amount of time available for family planning (*GRZ/UNICEF, 1986a*).

Even by 1989 the SDPP has not been very successful. The acceptance rate has remained very low in the whole country (2-5 percent of the adult population), and it is even lower in rural areas (less than 2 percent). It is also characterized by high drop-out rates. In 1986 alone, the drop-out rate was 76 percent (*GRZ/UNICEF, 1986a; Mbomena; 1989*). Reasons for such a high dropout rate are addressed in Chapter Eight.

The Seventh-Day Adventist Church is another religious organization which has shown some interest in family planning activities. It has been running the Kabwe Docus Family Planning Project (KDFPP) since May 1984. This project was born out of the women's organization within the church. It is largely funded by the International Parenthood Federation (IPF). KDFPP distributes foams and condoms in Kabwe-urban as well as the neighbouring rural areas. It strongly discourages its clients from using pills, sterilization and abortion. By mid-June, 1989, the project had 3,000 clients.[32] This organization also teaches parents about home and child care and provides curative services with the help

[32] These data were collected through an interview with the Director and Field Officer of KDFPP-Kabwe on July 15, 1989.

of the Ministry of Health. Complicated cases are referred to the Provincial Medical Officer in Kabwe.

In 1985, as a way of avoiding over-reliance on regular broadcasts and newspaper articles the government established a Zambia Population Communication Unit (ZAMPOPCOMU) within the Ministry of Information and Broadcasting with assistance from UNFPA and UNESCO.[33] The aim of this project is to provide communication support to all population and family planning programs. It is hoped that the project will last for ten years. The project has both short-term and long-term objectives. This project's short-term objective is to provide population services to all ministries and agencies involved in population programs in order to enable them reach a total of 4,700,000 people representing 65.5 percent of the population, by means of interpersonal communication with media support by 2000. In the long run the project aims at:

. creating widespread awareness of population factors as they relate to the well-being of the family and individuals,

. ensuring the involvement and participation of people at all levels in population and family welfare activities, and

. making population communication a regular function of the Ministry of Information and Broadcasting and its related bodies.[34]

In order to meet these objectives the Ministry aimed at mounting an intensive population communication campaign by utilizing the channels of the then ruling party structure from central to ward level. During the first two years, the project provided financial support for the production of radio and TV programs and feature films on population and family welfare. It is hoped that a quarterly newsletter will be produced and distributed to all information and extension staff in the provinces. This newsletter will be a population communication manual.

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[33] UNESCO is the major executing agency while UNFPA is the major funding agency of this project. UNFPA contributed $270,000 for the project pre-activities and $1,599,700 for the project activities while Zambia's contribution was only $19,170.

[34] This information was obtained from the Director of the ZAMPOPCOMU and his staff through an unstructured interview on June 16, 1989.

A series of orientation and training seminars/workshops involving media practitioners, creative artists, writers, dramatists, song writers, opinion leaders, field communicators and political and government leaders at provincial levels have been held since the inception of ZAMPOPCOMU. Support materials (posters and brochures) have also been produced. Arrangements for population-related topics to be broadcast on radio and television and reported in the local press have also been undertaken.

As a way of reaching the in-school population, the government established an In-school Population Education Unit at the Ministry of General Education, Youth and Sports under the support of UNFPA. Through this project the government aims at helping Zambian youths learn how to identify, analyze and resolve family, community and national demographic and development problems. The other aim under this project is to create, among the school population, awareness and understanding of the inter-relationships between availability of resources and population. This project also involves syllabus development with special emphasis on population issues.

In December 1985, a National Seminar on Population Education was conducted for a cross section of people including chiefs, district social secretaries, regional inspectors of schools, Chief Education Officers and church leaders. The aim of this conference was to provide a forum for debate on population and help the public appreciate the role of the In-school Population Education Unit (IPEU).

> The Roman Catholic Church and FLMZ took this opportunity to castigate UNFPA for ....selling to the Zambian government under the influence of IMF programs which would destroy the morals of the Zambian population as they did in industrialized countries (*Times of Zambia, December 23, 1985; Zambia Daily Mail, December 23, 1985*).

On the other hand, the Zambian government was also blamed for accepting such programs. Members of the House of Chiefs were equally worried because according to Zambian culture, providing sex education publicly is taboo. Their main concern was that sex education would arouse curiosity among the Zambian youths resulting in experimentation with sex and numerous unwanted adolescent pregnancies.

Meanwhile, UNFPA also started sponsoring Fellowship Training in population studies in 1985. The aim of this project is to offer fellowships to Zambians to enable them to

pursue studies in demography, cartography and data processing.

By the end of 1989, fourteen resource personnel had been trained at Chalimbana and the Copper Belt Technical and Vocation Training colleges. Ten of these were primary school teachers while the other four were secondary school teachers. Due to limited resources this program was conducted on a pilot basis. The training program for support personnel currently focuses on the Northern, Copper Belt and Southern Provinces. It was hoped that by the end of 1991 enough resource teachers would have been trained, from one-third of the rural schools, one-third of peri-urban schools and half of the schools in urban areas, mainly under the auspices of UNESCO (*GRZ, 1986b*). The In-school Population Project is supposed to continue up to 1993 and may be renewed in the following years.

It is worth emphasizing that unless the number of program personnel increases and vehicle maintenance improves the effectiveness of the population education program will take a long time to be achieved.

In 1986, UNFPA also embarked on demographic training at UNZA. This project started with four aims, namely:

. to create a national cadre of demographers and statisticians at various levels for the collection, compilation and interpretation of data,

. to initiate and carry out research and studies as needed and assist the government and its departments in the planning, policy formulation and implementation of programs,

. to strengthen national capacity to assess the consequences of population dynamics on national development objectives, and

. to integrate demographic factors into sectoral, sub-national and overall national socio-economic development planning and policy formulation.

The major portion of both the In-school Population Education Project and the demographic training program at UNZA are funded by UNFPA while the Zambian government is responsible for salaries of locally recruited staff, offices, stationery and equipment. In order to strengthen the program, tripartite meetings involving the government of Zambia, UNESCO and UNFPA are conducted regularly. UNFPA's overall

financial commitment for both projects for the 1989-93 period is shown in Table 6.9.

The Zambian government promised to contribute only US $ 37,600 to these projects which will be distributed as shown in Table 6.10. This small contribution illustrates that Zambia is almost wholly dependent on international funding for implementing population programs. This should be seen as a serious handicap because if the international agencies pull out almost all the programs are likely to collapse. In order to make both the In-school Population Education project and UNZA Training Program sustainable the Government of Zambia, in addition to relying on international donor agencies, needs to set up a national committee whose responsibility will be to regularly solicit funds from local business institutions and individuals. UNZA should also try to establish fund raising projects for the sole purpose of sustaining the population program.

Table 6.9:
Project budget covering UNFPA population education and training programs contribution by major component for the 1989-1993 period (in US Dollars).

Activity	1989	1990	1991	1992	1993	TOTAL
Personnel component	111,500	128,500	17,500	18,700	12,300	88,500
Construction	107,500	119,400	131,300	138,200	48,300	644,700
Training	109,600	104,900	-	-	-	-
Equipment	184,000	48,800	7,500	12,800	8,100	260,400
Miscell-aneous	51,500	54,200	40,100	23,500	122,200	606,700
Total	**564,100**	**455,800**	**196,400**	**193,200**	**190,900**	**1,600,400**

Source: UNFPA Project proposal (*1988*).

6.8. Zambia's population policy objectives

In September 1985, UNFPA embarked on helping the Zambian government in the field of population and development planning (*NCDP, 1986; Hopkins and Siamwiza,*

1988). The first objective was to enhance the development planning techniques of the Zambia government's personnel, with a particular focus on how to formulate appropriate population strategies and policies. The second objective was to establish a population and development unit within National Commission for Development Planning (NCDP) in readiness for the adoption and implementation of a population policy.

The integration of population factors in the development planning process for Zambia was first attempted a year prior to the Fourth National Development Plan which had to be preceded by an Interim National Development Plan (July 1987-December 1988) due to a volatile economy. Although the earlier development plans made mention of a number of demographic variables, there was lack of useful detail and adequate emphasis in their consideration and appreciation of the population factor. Despite the multi-sectoral nature of population and development programs there was no co-ordination to avoid conflict and unnecessary duplication of efforts before the Interim Development Plan. Among the reasons for this state of affairs is that neither the national development planning authorities nor the sectoral authorities whose institutions had population-related activities had given due attention to the importance of such co-ordination. As a result, for example, the relatively old PPAZ and Health and Labour and Family Education Programs commissioned by IPPF and UNFPA respectively, had no contact with NCDP. However, official interest in co-ordinating different population programs with NCDP has gradually grown since end of 1986.

Suffice it to say that NCDP's efforts have not been free of difficulties. First, the Population and Development Planning Unit is part of the smallest department of the NCDP in terms of both the number of staff and equipment. Coupled with increasing and diverse activity in the area of population, manpower planning, and research means that the limited number of staff of the department can hardly be effective or concentrate on specific areas of the department's responsibilities.[34]

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[34] Meanwhile NCDP in cooperation with other local population institutions still has a big task of convincing traditional rulers and the majority of the Zambian public that the regulation of fertility for demographic reasons is worth pursing. During the official adoption of population policy there was still resentment among some members of UNIP's

Table 6.10:
Zambia's financial contribution to the UNFPA demographic project: 1989-1993
(in US Dollars)

Activity	1989	1990	1991	1992	1993	TOTAL
Salaries	3,700	4,400	5,500	6,600	7,300	27,500
Stationary	700	800	800	138,200	900	4,000
Miscell-aneous	700	700	3,300	23,500	700	6,100
Total	**5,100**	**5,900**	**7,000**	**10,700**	**8,900**	**37,600**

Source: As in Table 6.9.

Despite all the above problems experienced by NCDP, the Zambian government officially adopted a population policy on May 17, 1989. The overall objective of Zambia's population policy is to

> incorporate demographic factors into economic planning in order to accelerate socio-economic development and thereby improve the population's standard of living (*GRZ, 1989a*).

The government has also set up specific policy objectives which include:

. the initiation, improvement and sustenance of measures aimed at slowing down population growth rate,

. enhancement of people's health and welfare especially among the high risk mothers and children,

. the systematic integration of population factors into the nation's development planning,

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Central Committee and among traditional chiefs. In his contribution, for example, Paramount Chief Chitimukulu of the northern Bemba stressed that he did not believe that his government expected him to advise his people to regulate their fertility and yet he had always stressed that the strength of the Bemba ethnic group largely depended on high fertility (*National Population Policy Conference, May 17, 1989*)

. helping the people of Zambian appreciate that they have the right to decide freely and responsibly the number and spacing of their children while providing them with the necessary information and means to do so, and

. expanding and maintaining the nation's population data base (*GRZ, 1989a; 1989b*).

6.8.1. Major population policy targets

The Zambian government laid down a number of targets which include the reduction of population growth rate from 3.7 percent per annum in 1989 to 3.4 percent and 2.5 percent per annum by 2000 and 2015 respectively. It hopes to achieve these targets by making family planning services available, accessible and affordable to at least 30 percent of all adults in need of such services by the year 2000 (*Chipoma, 1989; GRZ, 1989a; Muchelemba, 1989*).

6.8.2. Strategies for reaching the stated targets

The government intends to use a multi-sectoral approach in order to attain its goals. This approach will require all the sectors of the national economy and the society to be involved in population-related strategies. In specific terms, the government has outlined eleven strategies:

a) ***promotion of awareness of the relationship between population and economic development***: This is necessary because, as is illustrated in Chapter Seven, appreciation of the rate of population growth as an important variable in socio-economic development is still very remote, not only among people at the grassroots level but among the political leadership as well;

b) ***formulation and implementation of fertility regulation and family planning programs within the nation's health care and related systems***: Since efforts to do so are already underway, what is now required of the government is to strengthen moral as well as material support for those programs that are currently operational;

c) ***provision of the necessary information and education on the advantages of***

having small families: This strategy is related to the first because the provision of education and information is one major way of promoting awareness;

d) ***intensification of primary health programs***: This strategy will help reduce levels of infant, child and maternal morbidity and mortality, and thus discourage parents from having large families for long-term insurance. This is a step in the right direction because, as emphasized earlier, high fertility is positively correlated with infant and child mortality;

e) ***improvement of the status of women by giving them equal opportunities in employment, education, development projects and decision-making processes***: This shows that Zambia does not overlook the importance of improving the status of women. It is worth stressing that for a poor country like Zambia the eradication of female illiteracy both formally and informally (especially in rural areas) would equip women with adequate reading skills for comprehending family planning literature written in local languages;[35]

f) ***expansion of family life education to all schools and higher institutions of learning***: As can be deduced from the second and the sixth strategies, the Zambian government seems rightly to distinguish between the formal and informal approaches in the dissemination of family planning information. This is commendable because if implemented successfully, family planning programs will now be accessible to the youths who form the largest proportion of the Zambia's population and are about to enter the reproductive age group. Information is also likely to be re-channelled to other members of the society through school children;

g) ***improvement of the collection, processing, analysis and utilization of demographic data for economic and social development planning***: Many low income countries, especially in Africa, are finding it difficult to successfully

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[35] Sivard (*1985:37*) indicates that only 67 percent of Zambian women were literate in 1985, while 51 percent of Zambian girls were enrolled at primary and secondary levels and only one percent at tertiary level. The current author's results show an increase of two percentage points at first and second levels and 0.5 percentage points at third level between 1985 and 1989.

implement their population policies partly because they do not have the demographic data base from which to start. Zambia needs to strengthen its demographic data base in order to successfully implement its population policy;

h) ***strengthening of the existing mechanism for disseminating demographic information not only to the public but to policy makers as well***: Another reason why some countries have failed to successfully implement their population policies is that the policy makers do not seem to abide by their own proposals. It seems as if they plan for other people in society and not for themselves as well. It was through the realization of this weakness that the eighth Zambia's population policy strategy was adopted;

i) ***creation of employment opportunities and improvement of living conditions in rural areas***: If the proposed target were met, Zambia would be able to drastically reduce its population growth rate because people in rural areas would be able to invest in economic ventures other than large numbers of children;

j) ***establishment of population units in all selected institutions***: As has already been illustrated in this chapter this has already been done. What is now required is to consolidate the institution which are currently in operation; and

k) ***retention of national experts in demography, health, family planning, statistics and other related fields*** (*GRZ, 1989a; 1989b; Muchelemba, 1989*): This is extremely necessary as the success of the implementation of the population policy will largely depend on the availability of local experts. It is unfortunate that the retention of national experts largely depends on attractive working conditions which are currently lacking in Zambia.

Zambia has formulated a very ambitious population policy, but one wonders whether or not the Zambian government has the administrative capacity to implement the population policy it adopted on May 17, 1989. This question is discussed in the next section.

6.8.3. The proposed administrative machinery for the implementation of the policy

The government believes that the Population and Development Planning Unit of

NCDP is the key local institution in population activities. As outlined earlier in this chapter, together with PPAZ, FLMZ, ZCTU and KDFPP, NCDP played a key role in promoting rapid population growth awareness before the adoption of the population policy. During the implementation period it will serve as the secretariat to the National Population Council which is yet to be formed. The other supportive committees will include the Technical Committee and the Special Task Force.

6.8.3.1: The Population Council

The Population Council will be the highest advisory body to the government and will be responsible for offering advice and interpreting policy concerning population and related development issues. In more specific terms the Population Council will be expected to:

. interpret and review, from time to time, the population policy goals and objectives of the nation and advise accordingly, taking due account of the socio-cultural realities and political ethics of the people of Zambia;

. guide and promote the implementation of a comprehensive multi-sectoral population program, acting within the framework of development policies of the nation;

. generally promote the integration of population factors into the country's development planning and plan implementation process; and

. advise on means of generating resources, internally and externally, and prudent utilization of resources to support the implementation of the policy and finally, function in any other ways that would promote population activities in order to enhance the welfare of the people of Zambia (*GRZ, 1989b*).

It has been proposed that the Population Council will be chaired by the Minister of State for Finance and NCDP. It is also envisaged that the Vice-Chairman will be the Director General of the NCDP. The other members of the Council will be Permanent Secretaries of different ministries. Additional members of the Population Council will include leaders of other governmental institutions and national chairpersons of non-governmental organizations.

The Population Council will have a secretariat which will be based in NCDP and have sections in all Provincial Planning units. The secretariat will incorporate staff competent in the following areas: population planning and programming, population policy analysis, information, education and communication, monitoring, research and evaluation, training and staff development and demographic data collection, storage and analysis for planning.

6.8.3.2: The Technical Committee

In order to reinforce the technical skills necessary for carrying out the Population Council's work, a multi-disciplinary/multi-sectoral Technical Committee on Population and Development will be constituted. The following are expected to be this committee's terms of reference:

. assist the Council Secretariat in determining appropriate working links among sectoral and other participating ministries, agencies, non-governmental organizations (NGOs) and other institutions working in the field of population and related areas in the country and assist also in sustaining the links established;

. suggest, provide and review, where necessary, appropriate guidelines which shall assist the NCDP/POP Council secretariat in carrying out its work in the field of population and development efficiently;

. where necessary, commission, through NCDP/POP Council secretariat, action and policy oriented research studies and preparation of relevant technical materials and documents to facilitate the committee's advisory and decision making responsibilities;

. examine, for the purpose of advising the NCDP, key and relevant technical and logistical matters related to population programs in the country;

. collectively act as a promotive communication link between the policy-formulating organs of government and the implementing agencies in technical matters; and

. provide other relevant technical advisory services as may be requested from time to time by the NCDP/POP Council secretariat towards the achievement of the

nation's population policy and related developmental objectives (*Chipoma, 1989; GRZ, 1989a*).

The Technical Committee will consist of those key institutions and trained personnel actively engaged in population, family planning and related fields. In order to meet the regional requirements for implementing the population program a provincial replication of the population committee has been proposed.

6.8.3.3: The Special Task Forces

The government envisages that there will be need to prepare detailed and technical reports, review specific population program areas such as training, service delivery, research and evaluation, determine projects' feasibility, relevance and applicability. Among other things, the task forces will synthesize reports which provide analysis of inter-linkages and inter-dependence of project elements, and promote means of establishing links in the program implementation. Task forces will be established for a number of areas including fertility and family planning, women, children and the elderly, information, education and communication, training, research and evaluation, socio-cultural and legal aspects of population.

It is disturbing to note that the Zambian government, with the assistance from UNFPA has proposed such an expensive operational structure for the implementation of its population policy. With a poor economy Zambia does not need a structure which requires a large number of experts distributed in different committees. This would lead to unnecessary expenses and inefficiency. Most of these objectives could be met by an independent Population Council with representatives from each province and direct links with rural and urban communities. Such a Council could fulfil Zambia's needs.

6.9. Summary

In summary, Zambia's high population growth rate and the low living standards undoubtedly justify Zambia's adoption of an anti-natal policy. Overall, the adoption of the Zambian population policy can be attributed not only to the Zambian government but also to both local and international NGOs. Considering the economic crisis Zambia has

been going through since the mid-1980s, one is forced to argue that Zambia's population policy which is rather ambitious will be difficult to implement. The Zambian government has limited financial capacity to implement its population policy. Realizing this, the former Zambian president closed his opening address to the May 17, 1989 National Population Policy Conference by requesting international donor agencies to financially and materially back Zambia's population policy implementation program until it succeeded (GRZ, 1989a).

To date, the implementation process of the population policy has not put into practice. A number of reasons for such an unfortunate situation can be suggested: First, there is lack of an effective and committed institutional framework to act as a lead agency in the development and implementation of a comprehensive family planning program in the country. The Population Unit at NCDP which is currently acting as a lead agency on population matters is more of a policy initiator than an implementor. In fact, as indicated earlier, the unit lacks both adequate manpower and other resources. Secondly, the Ministry of Health has taken the role of provider of family planning services in Zambia and insists it should maintain this status. However, family planning is marginally integrated into the other overwhelming health programs. Thirdly, the new government seems to be concentrating on restructuring the economy by encouraging privatization in industry. The implementation of the population policy seems not to be in the priority category of the development agenda. There are scarce resources in the country which are thinly spread over competing demands, hence there is ambivalence to allocating resources to family planning. Fourthly, from the beginning, in 1989, there was no deliberate effort to initiate service delivery research to ascertain which of the contraceptives would be readily accepted by various categories of people; who could provide high quality delivery services and how credibility could be enhanced and sustained among providers. Thus, population policy was adopted without any critical appraisal of the modalities for implementation.

Unless the above mentioned issues are adequately addressed the policy document may continue to gather dust on the shelves. There is need to quickly create an autonomous body solely responsible for family planning and other population related

issues if the targets indicated in the policy document have to be attained. In short the newly adopted population policy needs to be given a high profile in socio-economic planning.

CHAPTER SEVEN

AN ANALYSIS OF THE DILEMMA PERTAINING TO THE IMPLEMENTATION OF ZAMBIA'S POPULATION POLICY

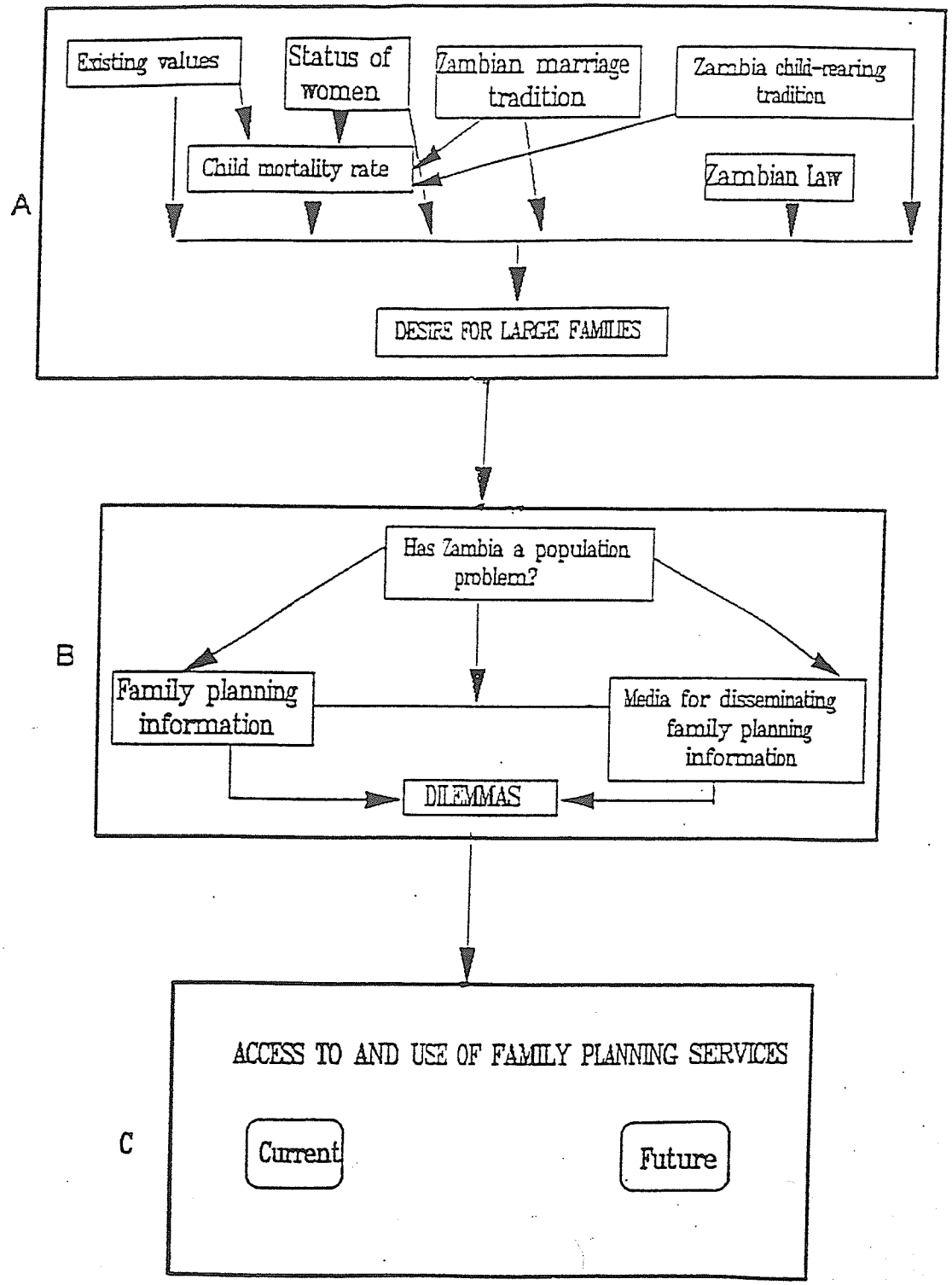
7.1. Introduction

In understanding the proximate operational determinants of fertility behaviour regulation, discussed in Chapter Two, it is important to conceptualize transactions not only at individual level but also at levels of family, be it nuclear as in Western countries, or extended as in Zambia. This is crucial because some program strategies focus predominantly on interactions with individuals while others are directed at community institutions. It is for this reason that this chapter uses the framework presented in Figure 7.1 which is an expansion of the socio-economic and cultural context presented in Figure 3.3, to analyze the environment within which Zambia's population policy is to be implemented.

This chapter, which is based on the emperical evidence of the author's survey, examines the extent to which the interaction between the supply side and the client population can be influenced by the current 'attitudes to desired number of children', which are a function of existing values which could be traditional, religious, political, modern or a combination of these. The status of Zambian women is also analyzed because unless the socio-economic power of a woman is enhanced it is unrealistic to expect them to appreciate the advantages of having a small family.

The successful implementation of Zambia's population policy will require improving the education levels of the population, improvement of the status of women, effective dissemination of family planning information and a wider use of modern birth control technologies. However, what is basically required in order to speed the acceptance of modern family planning services is total government commitment to family planning programs, strengthening of existing family planning programs and changing the current family system i.e. a nuclear family system should gradually (rapidly, if possible) replace existing extended family structure.

Figure 7.1:
Conceptual framework for the analysis of the dilemma of the implementation of Zambia's population policy.



An analysis of the Zambian marriage and child-rearing traditions illustrates how the family planning decision process, in the Zambian context, is not only a function of a couple, but the extended family, the community and the political system (as reflected in the marriage laws) as well. Infant and child mortality rates, Zambia marriage tradition, and the child-rearing tradition which influence women to desire large families are also analyzed in this chapter. Infant and child mortality rates are partly a function of the status of women because the higher the woman's status the lower the infant and child mortality rates among her children (*Cain 1978; Caldwell 1979; Bongaarts 1987; Gaisie and Giorgis, 1988; Muhuri and Preston, 1991*). By putting emphasis on early marriages and large families, Zambia's marriage tradition in combination with the child-rearing tradition overburdens parents.

Demand for family planning programs, in this view, cannot be interpreted in isolation from the supply of services since services, exchanges and programs can alter the context in which decision-making can be exercised. For this reason, efforts to characterize more precisely indicators of demand for family planning services, the desire for children, and unmet needs for family planning services deserve careful attention in the course of clarifying the role of client transaction. Motivation to limit family size and attitudes and feelings about contraceptives are crucial in interpreting the role of family planning programs.

It has been well established that use of family planning services is associated with social, cultural, psychic, and economic costs (*Bulatao, 1984*). While the majority of the population may well be described by patterns that favour large families, the logic does not necessarily apply to all individuals or households, and hence the justification for including respondents' rural-urban domicile, gender, age, religious affiliation, marital status, education attainment and economic status in the current analysis. Transactions directed at clients according to specific variables can inculcate an understanding of the need to diverge from the dominant norm, generate demand for a particular method and provide the necessary counselling and services. In this manner client transactions can produce demand earlier before it would spontaneously arise.

The aim of this chapter, therefore, is to examine the basic factors which may form

barriers to a change in value systems as reflected in desired number of children, traditional childrearing methods, status of women, Zambian laws and perception of Zambia's population problem, and thus probably retard the implementation of population policy. An analysis of these factors may also indicate areas in which government and supporting agencies could focus for the successful implementation of population policy.

7.2. Desired number of children

In order to analyze the complexity of implementing the Zambian population policy this study focused, among other things, on whether or not Zambians still value large families. The average desired number of children among all 796 respondents is 5.4. Differentials exist with respondents' rural-urban domicile, gender, age, marital status, religious affiliation, educational attainment, and household income category.

7.2.1. Effect of respondent's rural-urban domicile on average desired number of children

As expected, the average desired number of children is generally higher in rural areas (5.9) than in urban areas (4.8) because in rural areas, as will be discussed later, children have more roles to play than their urban counterparts. The difference of means test (i.e. the student 't' test) shows that there is a significant difference between average desired number of children in rural areas and those in urban areas (see Table 7.1).

Table 7.1:
Results for the 't' test for average desired number of children by rural-urban domicile.

Location	N	Mean	T	Prob>0.05
Rural	493	5.9	4.8	0.001
Urban	303	4.8		
N	796			
DF	794			

Source: Author's calculations based on own 1989 survey data.

Among urban samples, Ndola has the lowest average desired number of children while Kabwe has the highest. Luwingu's average of 6.1 is the highest among both rural and urban samples. Table A1 illustrates that about 70 percent of respondents from the rural sample desire five or more children. The average proportion of respondents who desire five or more children for the total urban sample is 32.7 percent. This proportion is lower than for both the total sample and for the rural samples. The largest proportion of respondents in individual urban areas (52 percent for Kabwe, 71.7 percent for Livingstone, 64.7 percent for Lusaka and 46.8 percent for Ndola) desire an average of three to four children (see Table A1). These findings are consistent with earlier studies (*Brown et al., 1987, Banda, 1989; Munachonga, 1989*)

7.2.2. Effect of respondent's age on desired number of children

In terms of age, average desired number of children is slightly lower among those aged below 30 and those aged between 30 and 49 (see Table 7.2). This is not surprising because those aged below 30 are either just entering their child bearing period or are still in their prime years of reproduction. They have to meet society's expectations by fulfilling the requirements of tradition which stress the importance of having many children. The average desired number of children is slightly lower among respondents aged over 50 because most of these respondents are either reaching the end or are already beyond their childbearing period. They are inclined to state the number of surviving children as their desired number because they believe that any under statement would imply that 'nature' or God was wrong to give them the number of children they currently have. God would in turn punish them by reducing their surviving children (*Munachonga, 1989; Adegbole, 1988*).

7.2.3. Effect of respondent's gender on desired number of children

This study also reveals that the average desired number of children of 6.2 for women is much higher than that of 5.3 for men. Results from a 't' test procedure show that there is a significant difference between these means (see Table 7.3).

Table 7.2:
Average desired number of children according to rural-urban domicile, age, gender and marital status.

Sample	Desired number of children										
	0		1-2		3-4		5-6		7+		Average desired number of children
	n	% of row total	n	% of row total	n	% of row total	n	% of row total	n	% of row total	
Domicile											
Rural	-	-	26	5.8	123	25.1	195	39.9	146	28.7	5.9
Urban	9	2.9	9	2.9	188	61.4	29	9.5	71	23.2	4.8
Age											
15-29	-	-	18	6.1	102	34.5	125	42.2	51	17.2	4.8
30-49	9	2.0	15	3.4	174	39.5	98	22.2	145	32.9	5.0
50+	-	-	2	4.4	35	77.8	1	2.2	7	15.6	4.0
Gender											
Female	7	1.9	20	5.4	128	43.3	97	26.0	121	32.4	6.2
Male	2	0.5	15	3.6	183	43.3	127	30.0	96	20.8	5.3
Marital status											
Married	9	1.5	26	4.3	216	36.0	176	29.3	173	28.8	5.5
Single	-	-	7	4.6	72	47.7	42	27.8	30	19.9	5.0
Others	-	-	2	4.4	23	51.1	6	13.3	14	31.1	4.8
Religious affiliation											
Protestants	2	0.3	35	6.8	182	35.5	143	27.9	151	29.4	5.8
Roman Catholic	7	3.1	-	-	103	46.1	o2	27.8	51	22.9	5.8
Non-Christians	-	-	-	-	26	43.3	19	31.7	15	25.0	5.9

Source: Author's calculations based on own 1989 survey data.

Table 7.3:
Results for the 't' test for average desired number of children based on female and male respondents

Gender	N	Mean	T	Prob>0.05
Women	373	6.2	4.7	0.001
Men	423	5.3		
N	796			
DF		794		

Source: Author's calculations based on own 1989 survey data.

Fifty-eight percent of female respondents as compared to 51 percent of male respondents interviewed using the structured interviews desire more than four children (see Table 7.2). This supports the earlier argument that women in many Third World countries value children more than men because their status and security largely depend on their children (*Dixon 1978; Safilios-Rothschild 1982b; Caldwell et al., 1992*).

7.2.4. Effect of respondent's marital status on desired number of children

Slight differences can also be identified in relation to marital status. Average desired number of children are highest among married respondents (5.5) and lowest among those who are single (5.0). Those who are divorced rank third. Nevertheless, these differences are not statistically significant.

Results for separated and widowed respondents are not considered here because their numbers are so small. Almost half (47.7 percent) of the single respondents desire five or more children. Comparative proportions for those who are married and 'others' (divorced, separated and widowed) are 58 and 44.4 percent respectively (see Table 7.1).

While almost half of the respondents in each category, except single respondents, desire three to four children, very few opt for less than three. If the only widow is excluded from the analysis, average desired number of children is highest among the married respondents followed, in descending order, by the divorced, single and the

separated. This has negative implications for the anti-natalist component of the population policy since more than half of potentialist mothers still have pro-natal attitudes. Unless information about the advantages of small families and family planning services is effectively diffused, fertility rates are likely to remain high.

7.2.5. Effect of respondent's religious affiliation on average desired number of children

Contrary to results derived by other researchers in Mauritius, Lebanon and Nigeria (*Greig 1973; Chamie 1977; Adegbole, 1988*), data used in this study do not indicate any difference in average desired number of children between Protestants and Roman Catholics. This suggests that in Zambia Catholicism is not a very influential variable on fertility. Nevertheless, differences are evident among respondents from other religious affiliations, with average desired number of children being highest (6.2) among the Jehovah's Witnesses (JWs). This is not surprising because the JWs are among the most conservative Christians. The non-Christians, with an average of 5.9 rank second, while Reformed Church in Zambia (RCZ) affiliates, with an average of 4.2, desire the least number of children on average. Affiliates of all religions except the JWs, United Church in Zambia (UCZ), Seventh Day Adventist (SDA), Roman Catholic (RC) and non-Christians have averages which are below the total sample's. With an exception of the JWs and the RCZs, differences in average desired number of children between religious groups are insignificant (see Table 7.4). This suggests that except for the JWs the main influential factor on desired number of children is culture which includes the traditional belief that children are God-given and the overall influence of society on a couple's fertility behaviour.

Over 50 percent of the Zionist, JW, UCZ and Salvation Army (SA) affiliates desire more than three children. Comparable proportions among the non-Christian, New Apostolic Church (NAC), SDA Church, RC, and Church of Christ (CC) affiliates are above forty percent.

Table 7.4:
Results for the 't' test for average desired number of children based on JW and RCZ affiliates.

Gender	N	Mean	T	Prob>0.05
JWs	43	6.2	3.8	0.000
RCZ	126	4.2		
N	169			
DF	167			

Source: Author's calculations based on own 1989 survey data.

7.2.6. Effect of respondent's education level on average desired number of children

Average desired number of children is highest among those with primary school education (6.1) while those who are illiterate, those with secondary education and those with post-secondary education rank second, third and fourth with 5.9, 5.6 and 5.2 respectively. The differences in average numbers of children between primary school leavers and post-secondary school leavers are significant (see Table 7.5).

Table 7.5:
Results for the 't' test for average desired number of children based on Primary school and Post-secondary school leavers.

Gender	N	Mean	T	Prob>0.05
Primary school leavers	280	6.1	2.9	0.000
Post-secondary school leavers	178	5.2		
N	458			
DF	456			

Source: Author's calculations based on own 1989 survey data.

Seventy-three percent of the illiterates and sixty-eight percent of those with primary education desire five or more children. Comparable proportions for those with secondary and post secondary education are 52 and 23 percent (see Table 7.6). Proportions for those who desire fewer than four children are very negligible in all education categories, being lowest among the illiterates and highest among those with secondary education (see Table 7.6).

This study indicates that desire for children for economic security reasons tends to decline with high levels of education, which in Zambia tends to be associated with higher income. This is more so among women than among men (*Banda and Gasie, 1985; Banda, 1989*). This is because the higher the education a woman attains the higher her income becomes. The independent income earned by a woman appears to assume the social welfare role that children are expected to play in one's old age. These findings conform to those obtained in earlier studies in Indonesia, Southern India and Zambia (*Hull et al.; 1977; Dyson and Morre, 1983; Munachonga, 1989*).

7.2.7. Effect of household income level on average desired number of children

Regarding the effect of income, current results partially support earlier findings by Easterlin (*1975*), Boserup (*1985*) and Caldwell and Caldwell (1987), which emphasize that parent's desired number of children are partly a function of household income. In Zambia, there is a weak inverse relationship between household income and average desired number of children. A Spearman's correlation procedure involving desired number of children and household income as dependent and independent variables respectively resulted in a correlation coefficient of -0.14.

7.3. Motivation for desiring large number of children among Zambian couples

A historical overview will help explain why most Zambians want large families. Zambia's population has been mostly rural, living in villages based on ethnic affiliation and communal economic systems (*Munachonga, 1989, Banda, 1989: Wood, 1990*). Communal, labour-intensive enterprises dictated by underdeveloped technologies, have been characteristic of these rural societies.

Table 7.6:
Average desired number of children according to education attainment and household income groups.

	0		1-2		3-4		5-6		7+		Average desired number of children
	n	% of row total	n	% of row total	n	% of row total	n	% of row total	n	% of row total	
Education attainment											
Illiterate	-	-	-	-	13	27.1	13	27.1	22	45.8	5.9
Primary	-	-	16	5.7	52	18.6	117	41.8	74	26.4	6.1
Secondary	7	2.4	19	6.5	112	38.5	73	25.1	79	27.2	5.6
Post secondary	2	1.1	-	-	114	64.4	21	11.9	20	11.3	5.2
Household income group											
High	2	1.1	1	0.5	135	71.4	30	15.9	21	11.1	4.2
Medium	7	3.4	12	5.8	94	45.2	40	19.2	55	26.4	4.7
Low	-	-	22	5.5	82	20.6	154	38.6	141	35.3	5.4

Source: Author's calculations based on own 1989 survey data.

Under such circumstances, each member of the society is expected to have a large family in order to effectively contribute to the production process. There is, for example, evidence showing that there is pressure on women among emergent commercial farming families in all the sub-sample areas of this study, as well as on the men in the fishing communities in the Luapula province, to increase their families if they have less than five children (*Banda, 1983; CSO, 1986b*).

Although animal (cattle) power is used in agriculture, even among subsistence farmers in most of the rural samples of this study, the methods largely used are labour-intensive, with the hoe and axe playing the most important role. Shifting cultivation,

which involves the use of a piece of land for a limited period and then abandoning it, when the soil nutrients have been exhausted, for replenished pieces of land is still commonly practised by the majority of traditional (subsistence) farmers. Among some farmers in the Luwingu area, the Chitemene system of cultivation, which involves the slashing of tree branches, heaping them, letting them dry and then burning them so that their ashes can be used as fertiliser is very labour intensive and hence creates a high demand for children in Northern province (*Munachonga 1989*). Some Chewas and Nsenga's in chieftainess Nyanje's area also practice a form of shifting cultivation (*Banda, 1983*).

As an example of how fertility is valued among the Ilas of Luchena, the Bembas of Luwingu, Chewas and Nsengas of Nyanje and the Lenjes and Zezulus of Kapalu, women with illegitimate children command more respect than those without children. In some cases women who fail to get husbands decide to have children with boyfriends. This does not only satisfy their own desire for children, but is also a response to pressure from their extended families (*Banda, 1983; Munachonga, 1988; 1989*). This attitude has implications for both fertility and population policy in Zambia because continued emphasis on linking a woman's status to her fertility encourages high fertility even out of wedlock. It is common among Zambian women (as well as men) who fail to have children to seek remedies for their infertility from traditional healers.

Children are not only valued for their labour. Table 7.7 shows that in response to the question 'Why do you desire the stated number of children?' different responses were given. They included 'continuity of lineage', 'old age security', 'high mortality rate', 'children are a source of labour', 'difficult to raise more', 'source of wealth', and that 'children are natural (God given)'.

Different weights are given to these reasons among both rural and urban Zambians. Data collected for this study show that 'high mortality' is the most important reason for desiring large families in both rural and urban areas. Followed by 'old age security' and 'difficult to raise more' (see Table 7.7).

Table 7.7:
Reasons for desiring children by rural-urban domicile.

Reason	Area					
	Rural		Urban		Total	
	n	% of rural sample	n	% of urban sample	n	% of total sample
Continuity of lineage	24	4.9	16	5.3	40	5.0
Difficult to raise more	96	19.5	24	7.9	120	15.1
High mortality	153	31.0	89	29.4	242	30.4
Natural	14	2.8	71	23.4	85	10.7
Old age security	101	20.5	21	6.9	122	15.3
Protect mother's life	12	2.4	38	12.6	50	6.3
Source of labour	55	11.2	-	-	55	6.9
Other	11	2.2	6	2.0	17	2.1
No response	27	5.5	38	12.5	65	8.2
Total	**493**	**100.0**	**303**	**100.0**	**796**	**100.0**

Source: Author's calculations based on own 1989 survey data.

While 11.2 percent of rural respondents consider 'children as a source of labour' as being another important reason for desiring many children, it is surprising that none of the urban respondents considered this reason as important (see Table 7.7) despite that, as will be illustrated later, parents in Zambian urban areas also exploit their children's labour. Table 7.7 also shows that among rural respondents, 'high mortality' ranks the highest, while 'old age security', 'difficult to raise'[36], and 'source of labour' rank second, third and fourth respectively.

[36] This response indicates that raising children has become very expensive in Zambia due to high inflation which is currently 300%. Parents find it difficult to buy clothes for their children as well as for paying for their school expenses.

A very low proportion of Zambians seem to be concerned with the regulation of fertility for demographic reasons. This is reflected through the fact that only a few respondents indicated that they preferred the stated number of children because 'children were difficult to raise'.

Because of the proportion of the urban respondents who think it is 'natural to desire large numbers of children' (23.4 percent), that 'children are a source of wealth' (12.5 percent) and that 'it is difficult to raise more (7.9 percent), it is not easy to conclude that urban dwellers are more inclined to regulate family sizes than rural dwellers. The roles of children in urban areas (especially shanty compounds) are almost the same as those in rural areas. A significant proportion of their parents do practice cultivation, though supply of land is limited.

Table 7.8:
Reasons for desiring the stated number of children by gender.

Reason	Gender					
	Female		Male		Total	
	n	% of female sample	n	% of male sample	n	% of total sample
Continuity of lineage	28	7.5	12	2.8	40	5.0
Difficult to raise more	38	10.2	82	19.4	120	15.1
High mortality	150	19.3	92	21.8	242	30.4
Natural	25	6.7	60	14.2	85	10.7
Old age security	69	18.5	53	12.5	122	16.6
Protect mother's life	2	0.5	48	11.4	50	6.3
Source of labour	24	6.4	31	7.3	55	6.9
Other	7	1.9	10	2.4	17	2.1
No response	30	8.0	35	8.3	65	8.2
	373	**100.0**	**423**	**100.0**	796	100.0

Source: Author's calculations based on own 1989 survey data.

Children also perform other important functions in the informal sector, such as the selling of deep fried buns (*vitumbuwa*), sticks of cigarettes (*mishanga*), roasted and boiled green maize, fried or boiled ground peanuts or working in markets and acting as conductors in private mini-buses and buses, thus helping to supplement the earnings of their parents.

It is surprising to note that the largest proportion of the urban respondents interviewed for this study (23.4 percent) indicated that they desire large numbers of children because 'children are God-given' (i.e. it is natural to desire large numbers) while only 2.8 percent of the rural respondents have the same opinion. One might argue that due to increasing economic hardships people in urban areas look at religion as a source of survival as it promises hope for better life after suffering and dying on earth.

Table 7.8 indicates that a larger proportion of women seem to regard 'high mortality' and 'old age security' as being the major reasons for desiring large numbers of children. More women than men seem to be more concerned with 'old age security'.

While confining her survey to women drawn from urban ante-natal clinics, which also offered family planning services, Munachonga (*1989*) concludes that women value large numbers of children because they need them for social security. Sixty-seven percent of her 445 respondents gave that as being the most important reason while 'social status' and 'traditional customs' (each with 9.1 percent of the respondents) ranked second. 'Marital stability' (5.6 percent), 'family labour' (3.5 percent), and 'companionship' (2.1 percent) ranked third, fourth, and fifth, respectively. Her results are different from those obtained in this study because none of the current respondents clearly specified that they needed a large number of children for 'companionship', 'marital stability' or 'traditional customs'.

The non-response rate of 11.5 percent for rural dwellers and 38.9 percent for urban respondents confirms that some Zambians shun the discussion of their family size with strangers because they believe that doing so is taboo. This fact should be taken into account in any attempt aimed at disseminating family planning information and evaluating the effectiveness of the new population policy in the near future, especially where personal communication will be the main method for disseminating information and

evaluating the effectiveness of programs. Apart from cultural taboos, the high non-response rate among urban respondents is because urban dwellers seem to be more interested in responding to survey questions pertaining to economic hardships than to those they think do not have any immediate impact on their economic well-being (*Banda, and Gasie, 1985; Hopkins and Siamwiza, 1988*).

Table 7.9:
Gender of children desired by gender.

Additional children desired	Additional girls desired				Additional boys desired			
	Female		Male		Female		Male	
	n	% of female respondents	n	% of male respondents	n	% of female respondents	n	% of male respondents
0	146	39.2	201	47.5	154	41.4	211	49.9
1	64	17.2	72	17.0	74	19.9	51	20.1
2	86	23.1	86	20.3	71	19.1	75	17.7
3	34	9.1	30	7.1	45	12.1	48	11.4
4	31	8.3	17	4.0	19	5.1	22	5.2
5	9	2.4	8	1.9	6	1.6	4	1.0
6	3	0.8	2	0.5	-	-	4	1.0
7	-	-	2	0.5	-	-	-	-
8	-	-	5	1.2	-	-	-	-
9	-	-	-	-	-	-	2	0.5
10+	-	-	-	-	3	0.8	6	1.5
	373	**100.0**	**423**	**100.0**	**373**	**100.0**	**423**	**100.0**

Source: Author's calculations based on own 1989 survey data.

In terms of gender preference, this study reveals that although there is a tendency for women to prefer more girls and men to prefer more boys, Zambians prefer a balanced sex ratio (see Table 7.9). This differs from the situation in Northern India, Pakistan,

Matlab in Bangladesh and China where boys are preferred to girls (*Cain 1978; Dyson and Morre, 1983; Muhuri and Preston, 1991*).

Gender preference is influenced by the matrilineal and patrilineal social systems. In the patrilineal societies, including those of the Tumbukas and Ngonis of the Eastern province, the Nyikas and Namwangas of the Northern province and the migrant Zezulus of the Kapalu area, there is a tendency to prefer boys to girls, as it is strongly believed that boys are more capable of handling wealth and therefore more deserving of inheriting it from their parent (*CSO, 1986a; 1986b*) . It is also believed that a deceased man's existence is perpetuated through his sons. He never dies completely if he leaves his sons or grandsons on earth.

Among the Zezulus and the Ilas, the 'Lobola' system requires that men pay high dowry in order to have full responsibility of the children. Under this system, once married, a woman as well as her offspring become a man's property. In this way a boy's parents are assured of an expanding family. If a woman fails to bear sons for her husband, it is reason enough for him to take another wife (*ECA, 1985*).

By contrast, among matrilineal groups of the Nsengas and Chewas in Chieftainess Nyanje's area, the Bembas in Luwingu and the Ilas in Luchena, daughters are preferred to sons because they provide heirs for the matrilineal group. Daughters are also valued because they bring sons-in-laws who provide labour (*Banda, 1983; ECA, 1985; CSO, 1986b*).

Some studies have upheld the role of daughters because they (especially those with high levels of education) are seen as sources of wealth when they get married (*Colson, 1958; 1967; Munachonga, 1989*). Apart from the fact that dowry tends to be calculated in proportion to levels of education, Munachonga (*1989*) argues that daughters tend to be more responsible than sons in caring for their parents, in that married women redirect money from household allowances in order to give to their parents, whereas sons spend their money on their wives or on personal needs. Nevertheless, Table 7.9 shows that the difference in preference of children by gender is rather insignificant. Efforts are made to bear equal numbers of sons and daughters. This has some implications for the anti-natal component of Zambia's population policy as it indicates that Zambian couples are

likely to 'keep on trying' with the hope of achieving their desired combination (even if they already have many children), thereby contributing to the country's high fertility. *Banda (1983), CSO, (1986a; 1986b) and Banda (1989)* obtained similar results in earlier studies.

Results from a Stepwise Regression Analysis involving only those respondents who were in either a formal or informal union suggest that desired number of children has the most significant influence on 'birth spacing'.[37] This is because of the in-built influence of culture on the desired number of children among respondents. The two other independent variables with some significant influence on 'birth spacing' are 'children in the household' and 'respondent's education attainment'. 'Length of stay in urban areas' has insignificant influence (see Table 7.10).

Table 7.10:
Stepwise regression Analysis for Dependent Variable 'Average Birth Spacing' (ABISP)

n = 718	Independent variable		R Square	Prob>.05
Step 1	DNCH	(-)	$R^2 = 0.69$	0.00
Step 2	EDUATT	(+)	$R^2 = 0.76$	0.00
Step 3	CHIHH	(-)	$R^2 = 0.77$	0.00
Step 4	HHINCO	(+)	$R^2 = 0.77$	0.19
Step 5	LEOSU	(+)	$R^2 = 0.77$	0.26

Where:
DNCH = Desired number of children
EDUATT = Education attainment
CHIHH = Children in the household
HHINCO = Household income
LEOSU = Length of stay in urban areas.

Source: Author's calculations based on own 1989 survey data.

[37] Birth-spacing refers to the time (in years) from the time a couple marry or start any sexual union and the time they have the first child and the average time (in years) between consecutive births. It is an indirect way of measuring whether or not couples practice family planning for demographic reasons (Caldwell, et al., 1985).

These results indicate that the independent variable 'desired number of children' has the most influence on 'birth spacing' of all the other independent variables included in the model (see Table 7.10). 'Education attainment' is the second most influential variable. The contribution of the rest of the independent variables to the Stepwise Regression Procedure is insignificant. This is confirmed by the probabilities presented in the extreme right column of Table 7.10.

There are differences in ways in which each of these variables influences average child spacing. 'Desired number of children' and 'Children in the household' are inversely related to 'child spacing' while 'education attainment', 'household income' and 'length of stay in urban areas' are each positively related to it. These results suggest that the value couples place on large numbers of children dictates whether they should or should not regulate their fertility for demographic reasons.

7.4: Implication of Zambia's marriage tradition on population policy

Since in Zambia 85 percent of births occur in wed-lock it is important to analyze the significance of the actual or expected effect of the Zambian marriage tradition on desired family size, family planning programs and population policy (*CSO, 1986a; 1986b; Banda, 1989*). Different forms of marriage exist in Zambia but two main forms can be identified: 'Customary Law' and 'English (Statutory) Law Marriage'. The Zambian Marriage Act which supports the Statutory Marriage specifies the age at marriage. Section 17 of this Act indicates that anyone who is under the age of 21 can get married, provided either of their biological parents or a guardian approves, in writing, that the marriage should take place. Section 33 (1) declares void any marriage where either of the parties is under the age of 16. The Customary Law, on the other hand, considers biological maturity, which is non-age-specific as being more relevant to a girl's capacity to marry. It does not specify the age at which a girl may contract a valid marriage. The only requirement is that the bride must have attained puberty. The duality in the marriage laws poses some difficulty in recommending a national minimum age at marriage because doing so would conflict with the customary marriage law.

Results from the 1969 and 1980 censuses and this study illustrate that marriage is

highly valued in Zambia. In 1969, 69.5 per cent of the males and 86 percent of the females aged 15 years and over had ever been married. Corresponding proportions for 1980 were 63.5 and 79.4 percent respectively (*CSO, 1986a, 1986b*). The decline in proportions between 1969 and 1980 is attributed to the increase in the secondary and post-secondary school going boys and girls in the 1970s, resulting in postponement of marriage. Nevertheless, of major demographic and population policy significance is that by age 35, 95.6 percent of the females are married which indicates the near-universality of marriage (*CSO, 1985a; 1986b; Banda, 1989*).

Since 75.2, 5.3, 0.1 and 0.3 percent of the respondents interviewed in this study were married, divorced, separated and widowed respectively, we can conclude that 80.9 percent of the sample population had, at one time or another, been married.

Another aspect of demographic importance in Zambia is that females marry much younger (before they reach the age of 21) than males. On average females tend to be between five and ten years younger than their husbands. Most women who marry at a very early age usually remain married throughout their reproductive life. Remarriage is also very common among those who divorce or are widowed (*Banda, 1983; CSO, 1986a, 1986b; Munachonga, 1989*). This allows a Zambian woman a comparatively longer reproductive period than a western woman. In the absence of use of modern family planning methods, the long childbearing period contributes to high fertility among Zambian women.

Marital differentials are also evident in terms of education attainment and rural and urban domicile. Mean age at marriage is inversely related to education, with the average for those with 1-7 years of education (who are the majority in Zambia) being 17.7 years, compared to 20.6 years for those with secondary education (*CSO, 1986a; 1986b*).

Increased educational levels and cost of living seem to be affecting fertility. Proportions of never married are higher (35 percent as compared to 15 percent for those who have never been to school) among those with secondary and post-secondary education in the age group 15-29 for both females and males. Marriage trends seem to indicate that young educated men and women are tending to postpone their marriages (*CSO, 1986a; 1986b; 1986c*). This is additional evidence to show that education would

be an effective indirect variable for regulating fertility in Zambia as it has been in Thailand, Cuba, Tunisia, Botswana, Kenya and Zimbabwe (*Buripakdi, 1977; Baldwin, 1977; Caldwell et al., 1992*).

7.5: Traditional childrearing methods in Zambia

In cases where couples know that raising children is their sole responsibility, they tend to regulate their fertility (*Cain 1978; Fornos and McNicoll, 1987a; Caldwell et al., 1992*). It is therefore important to assess how this factor applies to the Zambian situation and how it might affect the implementation of population policy. The extended family system, which as will be indicated below is pro-natalist, pervades the whole Zambian society. This system is characterized by the presence of people in households who are not offspring of the couple or a particular head of household. These tend to be relatives of either the wife or husband. A 1985 Economic Commission for Africa (ECA) study revealed that 20 percent of the members of households in Keembe (within the Kapalu area) and 14 percent in Lusaka were such relatives (*ECA, 1985*). In both modern and traditional Zambian societies, the responsibility for childrearing and socialization does not rest wholly on the biological parents, but rather on all adult members of the extended family. This traditional childrearing system is still strong in Zambia regardless of the type of domicile, household head's educational attainment, marital status, household size and income status.

This study reveals that 59.5 percent of respondents in the sample were living with relatives in addition to their biological children. Of these 82.9 percent were looking after 1 or 2 other children while 16.7 percent were living with 3 or 4 additional children. The remaining 0.4 percent (2) were living with more than 4 additional children (see Table 7.11).

This study also confirms earlier findings that Zambian households are large in both rural and urban areas (*ECA, 1984; Munachonga, 1989; Banda, 1989*). There are even more households with more than six members in urban areas than there are in rural areas. Some individuals or couples in urban areas have the responsibility of looking after their relatives who come from rural areas and who badly need material assistance, especially

schooling. Nevertheless, child-fostering is likely to be less common in urban areas in future than today due to persistent escalating costs of living. The erosion of child-fostering will also be a sign of modernization in that the affected parents will want to maintain their families' relatively reasonable standards of living rather than allow them to deteriorate due to large numbers of children.

Table A2 shows that the proportion of respondents involved in child fostering increases with a respondent's age. Although Zambians start looking after children other than their own even when they are below age 20, however, according to this survey those who do so are very few. Only 14.7 percent of the respondents who were under age 20 were involved in child fostering. These had 1 or 2 additional children in their households. These respondents had married early and had been requested to look after younger brothers and sisters and/or brothers- and sisters-in-laws. This is one reason why early marriages are encouraged, especially in rural communities.

The proportion of those who are involved in child fostering is comparatively high among respondents over the age of 30 as compared to those below 30 (see Table 7.11). It is only in exceptional cases that respondents look after more than four additional children. In the event of death of both parents, a close relative might be left with the responsibility of looking after all the children of a family. Such cases are very rare as shown in Table A2.

Table A2 also shows that child fostering is lowest among those who are single followed by those who are divorced. This is logical because it is more difficult for a single person to keep extra children. None of divorced, single or separated respondents were looking after more than two additional children at the time of the survey.

Proportions of households with more than five members are slightly higher among those with secondary and post-secondary education (see Table 7.9). Another notable feature about Zambian households is that even some of female-headed households have more than six members. This is more so in rural areas than in urban areas.

Table 7.11:
Additional members of the household apart from own biological children by rural-urban domicile, age groups, marital status, education attainment and household income group.

Sample	Additional children							
	0		1-2		3-4		5+	
	n	% of row total	n	% of row total	n	% of row total	n	% of row total
Current area								
Rural	299	61.0	123	25.1	53	10.8	17	3.5
Urban	100	32.9	113	36.9	56	18.3	35	11.4
Age group								
15-29	204	68.9	71	24.0	17	5.7	4	1.4
30-49	176	39.9	168	38.1	88	20.0	9	2.0
50+	20	44.4	18	40.0	4	9.9	3	6.7
Marital status								
Married	305	50.8	191	31.8	72	12.0	32	5.3
Single	77	51.0	36	23.8	26	17.2	12	7.9
Others	17	37.8	9	20.0	11	24.4	8	17.8
Education attainment								
Illiterate	39	81.3	9	18.8	-	-	13	21.3
Primary	84	84.1	65	30.3	31	14.5	6	12.1
Secondary	116	56.0	46	22.2	45	21.7	22	7.6
Post secondary	128	72.3	66	37.3	35	19.8	12	6.8
Household income group								
High	74	39.2	61	32.3	39	20.6	15	7.9
Medium	81	38.9	73	35.1	33	8.3	59	28.4
Low	244	38.9	102	25.6	39	9.8	17	18.2

Source: Author's calculations based on own 1989 survey data.

7.6: Status of Zambian women

Zambian women have not had equal opportunities compared to their male counterparts. This is mainly due to tradition and lack of education or skills for wage employment. In the sphere of education, women have been and continue to be worse off than men. Their educational position has not changed radically since independence in 1964, especially in terms of technical and vocational training. The 1980 census results revealed that women had more limited access to higher education than men (see Table 7.12). Table A3 shows that there has been very little improvement since that time.

Table 7.12:
Zambia: Education attainment: 1980.

School level	Total	% of total population	Males	% of males	Females	% of females
Illiterate	2,980,864	52.6	1,306,581	47.2	1,674,283	57.9
Primary	2,139,591	37.8	1,109,335	40.1	1,030,256	35.6
Secondary	465,275	8.2	310,687	11.2	154,588	5.3
Post Secondary	6,133	0.1	4,405	0.2	1,728	0.1
Not stated	70,461	1.2	39,510	1.4	30,951	1.3
Total population	**5,662,324**	**100.0**	**2,770,518**	**100.0**	**2,891,806**	**100.0**

Source: CSO (*1986c*).

Consequently, women still lag behind men in employment, although a minority of young and highly educated women have achieved responsible positions in both public and private sectors of the economy. This improvement followed the national ratification of selected international conventions on the rights of women which took effect in most African countries during the early 1980s (see Table A4). But such women are still very few. As a result, husbands are the chief breadwinners in the majority of households in Zambia, a situation which has been found to influence the form and content of conjugal financial relationships within the home. Most marriages still operate in a way which reduces married women's effective control of family income, even where wives contribute

their labour in family business. Similar results have been shown in Bangladesh, Northern India and Pakistan (*Cain, 1981; Boserup, 1990; Muhuri and Preston, 1991; Obermeyer, 1992*).

Women predominate only in the informal sector where education is less necessary to supplement their husband's incomes (*Fundanga, 1981; Muntemba, 1989*). However, even in the informal sector they have faced different constraints which include lack of credit and control over their own finances. Financial institutions do not entertain requests for loans from a married woman unless the application is accompanied by a consent form signed by her husband (*Baser and Lesa, 1990; Mbulo 1990; Wood 1990*).

As regards family planning, in principle Zambian women have the right to choose any type of family planning method they prefer to use. However, in practice, hospitals demand letters of consent from husbands before any contraception can be started (*Mbomena, 1989; PPAZ, 1989a*). In the case of the IUDs, for example, hospitals have to get the husband's consent before they can be inserted. In some cases where this has not been done, husbands have reacted by physically abusing their wives or divorcing them.[36] This is partly because the equal marriage right between men and women is one of the international conventions which have not yet been ratified in Zambia (see Table A4). Even if it were ratified today it would take a long time for the bulk of the Zambian population to abide by it.

7.7: Zambia's child death rates: expected effects on response to the population policy

The World Bank (*1984a*) indicates that Infant Mortality Rate (IMR) is an appropriate indicator for use in assessing the quality of life in developing countries because health problems of children are influenced by interrelated social, economic, political and cultural factors. This is indisputable because if a country's economy and its citizens' well-being are improved, both IMRs and Child Mortality Rates (CMRs) fall.

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[36] This point was echoed by the Directors of family planning programs at the Ministry of Health, PPAZ, Ministry of Labour and Social Services and Chairmen of Kabwe, Ndola and Lusaka branches of PPAZ, in separate interviews between May and August, 1989.

Low CMRs and IMRs could help the government to convince the masses that there is no need to bear large numbers of children for precautionary reasons.[37]

High Malnutrition-related child mortality will slow the rate at which Zambians will positively respond to the anti-natal population policy. This type of mortality has increased since 1978 (see Table 7.13 and Figure 7.3). Bhat (*1989*) insists that conclusions which indicate that Zambia's mortality rates are declining drastically are misleading. Such conclusions are based on data from hospitals and health centres which do not reflect the actual overall mortality in Zambia because they represent less than 20 percent of the total deaths in the country. In fact, persons who die outside health institutions may not be reported to concerned authorities and hence remain unaccounted for. There are also wide variations between different sources of data regarding overall mortality in general and child mortality in particular. Discrepancies in mortality figures between hospital mortuary records and data recorded at the Registrar General's office are common in Zambia (*Bhat, 1989; Watts and Chintu, 1989*). What is crucial for Zambia's population policy is the unfortunate fact that malnutrition related child mortality has been increasing since 1978 (see Table 7.13 and Figure 7.2).

As emphasized earlier Zambia's general mortality is high. The major contributors to Zambia's general mortality rate are IMR and Maternal Mortality Rate (MMR) which are currently at 90/1,000 and 200/100,000 respectively (*PRB, 1992*). The major causes of morbidity and mortality among infants and children under five are malaria, acute respiratory infection, diarrhoeal diseases and other infectious diseases such as skin and eye diseases and septicaemia. Among neo-nates, low birth weight (LBW), prematurity, birth asphyxia, respiratory disorders, congenital infections and septicaemia are the main causes of morbidity and mortality (*Bhat, 1989; Mbomena, 1989*).

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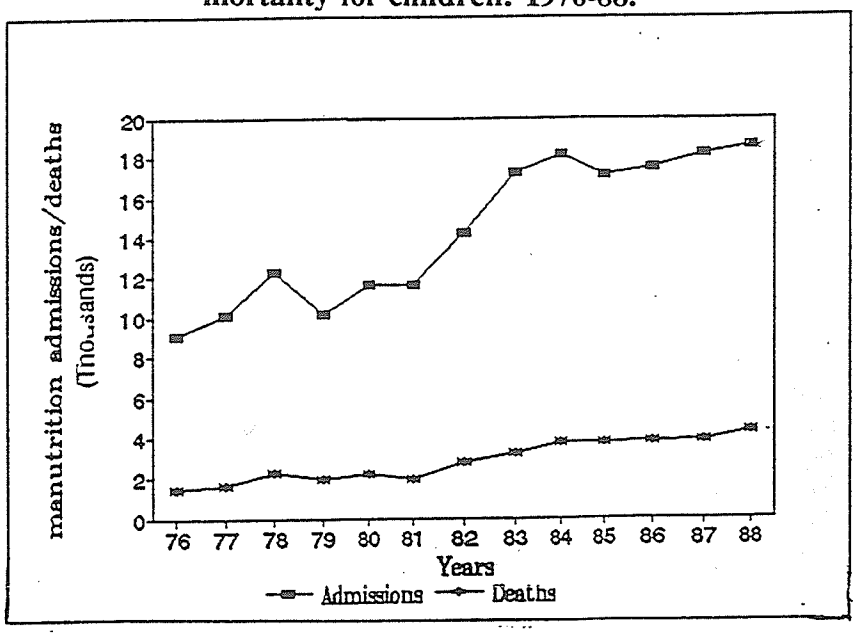
[37] Child mortality in Zambia, is categorized into: a) neo-natal period (first 28 days of life), b) infancy (under one year of age), c) pre-school (under seven years), d) school age (normally 7-12) and, e) adolescence (between 13 and 19 years).

Table 7.13:
Malnutrition-related hospital admissions and mortality for children (<20years): 1976-88.

Year	Admissions for Malnutrition	% of total admissions	Deaths due to Malnutrition	% of total deaths
1976	9,014	5.7	1,422	13.1
1977	10,049	6.0	1,586	13.7
1978	12,253	7.2	2,275	17.9
1979	10,158	6.2	1,931	16.8
1980	11,582	6.4	2,170	18.2
1981	11,624	6.4	1,959	17.2
1982	14,231	7.3	2,788	22.0
1983	17,265	7.5	3,272	23.4
1984	18,153	7.3	3,762	26.0
1985	17,109	8.0	3,743	23.0
1986	17,516	8.0	3,819	24.0
1987	18,234	8.5	3,901	24.8
1988	18,352	8.7	4,007	25.1

Sources. Bhat (*1989*) and GRZ/UNICEF (*1986a; 1986b*).

Figure 7.2:
Malnutrition-related hospital admissions and mortality for children: 1976-88.



Source: Compiled using Bhat's (*1989*) and GRZ's (*1986a; 1986b*) statistics.

Source: Compiled using Bhat's (*1989*) and GRZ's (*1986a; 1986b*) statistics.

In the age group 1-14, malaria, accidents, malnutrition, diarrhoeal disease, anaemia and measles are the major causes of morbidity while malnutrition, malaria, diarrhoeal diseases, anaemia, accidents and meningitis form the principal causes of mortality in descending order. Malarial morbidity and mortality have increased over recent years because of decreasing immunity and shortage of drugs (*Bhat, 1989; Mbomena, 1989*). The malaria parasite has become more and more resistant to chroloquine which is the most commonly used drug against malaria in Zambia. Kwashiorkor is the single most important cause of mortality among children which is an indication of pressure on food supply resulting in part from large family sizes. Poor feeding among children also results from some of the cultural practices which still prevail in Zambia. The best food has to be reserved for men in the family; at times children eat left-overs. In some Zambian communities children under five are restricted from eating eggs because the superstitious society believes that doing so results in impotency or retards speech-development.

More than half (54.7 percent) of children who die in Zambian hospitals die within 24 hours of admission due to the above causes (*Bhat, 1989*). Most of these deaths (99.3 percent) occur among children who are under five, 43.2 percent occur among those who are below one year of age, and 19.4 percent occur among neo-nates. Underweight (i.e. weight for age below the lower reference line) among pre-school children (0-59 months) and 12-32 percent of the children who attend school seems to be the other major health problem. These underweight children have become less and less resistant to potentially fatal diseases including malaria, tuberculosis, malnutrition, anaemia and diarrhoea, which have increased since October 1985 (*GRZ/UNICEF, 1986a; 1986b; Bhat, 1989*).

The Zambian government and the organizations supporting it in implementing the population policy should bear in mind that Zambian health institutions have become ineffective in handling the nutritional emergencies of severely malnourished children.[38] This is likely to impede the acceptance of an anti-natal policy, since the desired number

[38] Bhat (1989) reports that even Zambia's most advanced hospital (University Teaching Hospital (UTH)) has reported increased child morbidity and mortality.

of children and consequently actual fertility are positively correlated with high Infant Mortality.

7.8: Zambian laws and their impact on Zambia's anti-natal policy

Whether or not some existing Zambian laws will retard or enhance progress in the implementation of Zambia's population policy is worth examining. As in many other developing countries, some laws cannot be implemented because of lack of resources or because they are 'copied' from advanced countries but can not be implemented under the existing cultural conditions in the recipient country. The Birth and Death Registration Act, Cap. 210, insists on the registration of all births and deaths in Zambia without distinction of origin or descent. This Act, if effectively used, could be instrumental in monitoring regional differentials in fertility rates there by help family planning agencies pay more attention to the most needy areas. Presently, there are registrars at district level where people are expected to register births and deaths. Unfortunately the system is not effective in that the majority of people, especially those who live in remote areas, do not register vital statistics (*Banda, 1983; Banda and Gasie, 1985*).

One of the factors that determines the success of any health program is whether clients have confidence in the personnel who offer the services. Wherever clients receive treatment from individuals who are known to them, individuals who can take the time to allay their anxieties rather than treat them summarily, the reliance of individuals on health care services tends to increase. This is more so for family planning services than for the normal medical services. Family planning clients do not benefit because the Nurses and Mid-wives Act, Cap. 538 and the Medical and Allied Act, Cap 542 prohibit nurses and mid-wives, with whom most clients might be familiar and relaxed from prescribing any type of contraception.

7.9: Perception of Zambia's population problem

Another factor which is likely to impede the successful implementation of population policies is the little appreciation of the population growth problem among Zambians. While 51.5 percent of the 796 respondents, believe that Zambia has some kind

of population problem, 46.7 percent believe that Zambia has no population problem. The remaining 1.8 percent indicated that they had no idea whether Zambia has any population problem or not (see Table 7.14).

Disaggregated data for urban areas reveals that population awareness is highest in Kabwe followed by Lusaka, both of which have relatively effective family planning programs according to Zambian standards. Livingstone ranks third, while Ndola has the lowest rating. Nevertheless, these differences are not statistically significant.

It is evident from Table A5 that among rural areas, population problem awareness seems to be highest in Kapalu area, which is within the Ministry of Heath's demonstration zone for new programs, including those related to family planning. This demonstrates that any biases in the distribution of family planning supply centres will lead to significant differences in access to services even during the implementation stage of the population policy.

In terms of gender, Table 7.14 shows that population problems are appreciated more among males than females. This might be explained by the fact that men have more access to family planning information than women. Table 7.14 also reveals that population problem awareness is relatively high among the respondents under the age of 25 and over the age of 50.

Some of those below the age of 25 are still in school and are learning about different cultures including those which have benefited from small families. As will be discussed later, the aged confuse population problems with economic problems, which have increased since the 1970s. This inflates the proportion of respondents in this age who think that Zambia has population problems.

The divorced seem to be the most concerned about Zambia's population problems, followed by those who are married. Those who are single seem to be least concerned, because they have not yet experienced the responsibility of raising children and they are looking forward to raising their own biological children. Most of the divorced had already borne and raised children.

Table 7.14:
Whether or not Zambia has population problems by rural-urban domicile and gender.

Sample	Response					
	Yes		No idea		No	
	n	% of row total	n	% of row total	n	% of row total
Current area						
Rural	253	51.3	13	2.6	227	46.1
Urban	157	51.8	1	0.3	145	47.8
Gender						
Female	138	37.0	9	2.4	226	60.6
Male	272	64.3	5	1.2	146	34.5
Age						
15-29	178	60.1	9	3.0	109	36.8
30-49	198	44.9	2	0.5	241	54.7
50+	39	66.1	3	5.1	17	28.8
Total	**410**	**51.5**	**14**	**1.8**	**372**	**46.7**

Source: Author's calculations based on own 1989 survey data.

In the case of religious groups, perception of Zambia's population problems is highest among the respondents who are non-Christians, followed by the Protestants. The RCs have the lowest rating (see Table 7.14). The ratings of the other religious groups are also presented in Table A5. These results confirm further that the RCs and the JWs refrain from relating problems of low living standards to population numbers vis-a-vis high population growth rate.

More respondents with post-secondary education than either the illiterate or those with primary school education think that Zambia has population problems (see Table 7.13). This is expected because as people attain more formal education they become more informed and have higher their expectations for their own efforts, society and country increase. More respondents with high income than either those with low or

medium income think that Zambia has population problems (see Tables 7.15).

Responses about whether or not Zambia has population problems are less revealing than those regarding the perceived problems. As illustrated in Table 7.17, only 18.6 percent of the total respondents in the sample really appreciate that Zambia has a population problems. Because this is a very small proportion, it sends a very discouraging signal to population policy implementers.

The situation becomes more disturbing when one considers that out of the 147 respondents who showed some appreciation for Zambia's population problem, only 12.9 percent of the total sample pinpointed 'high population growth rate' as being the priority problem (see Table 7.17).

A X^2 test is used to test whether there is a difference between paired samples of data expressed in frequency form. In the present case the first group comprises respondents aged <25, 25-54 and >54. The second group consists of the respondents who are illiterate, primary school graduates and post secondary graduates. The last groups includes those respondents who belong to low and high income groups. In each case the null hypothesis is that there is no difference between the groups of respondents in terms of whether or not they think Zambia has a population problem. The alternative hypothesis is that the observed difference between samples reflects a real difference in the population.

The X^2 test uses observed frequencies within each sample to compute expected frequencies based on the sum of observed frequencies for the entire group. The expected frequencies are calculated by multiplying together the appropriate row and column totals and dividing by the grand total (*Ebdon, 1985*). Once the expected frequencies are obtained the value of X^2 can be calculated using the equation discussed in Chapter Three. The results obtained for each group in this study are provided in Table 7.16.

Table 7.15:
Whether or not Zambia has population problems by respondents' religious affiliation, education attainment and household income groups.

Sample	Response					
	Yes		No idea		No	
	n	% of row total	n	% of row total	n	% of row total
Marital status						
Married	319	53.2	2	0.3	279	46.5
Single	52	34.4	12	8.0	87	57.6
Others	39	86.7	-	-	6	13.3
Religious affiliation						
Protestants	297	57.9	13	2.5	203	39.6
RCs	68	30.5	-	-	155	69.5
No religious affiliation	45	75.0	1	1.7	14	23.3
Education level						
Illiterate	11	36.2	10	21.3	26	55.3
Primary	50	17.9	4	1.4	226	80.7
Secondary	181	62.2	-	-	110	37.8
Post secondary	168	94.4	-	-	10	5.6
Household						
Income group						
High	126	66.7	3	1.6	60	31.8
Medium	92	44.2	1	0.5	115	55.3
Low	192	48.1	10	2.5	197	49.4
Total	**410**	**51.5**	**14**	**1.8**	**372**	**46.7**

Source: Author's calculations based on own 1989 survey data.

Table 7.16:
Test for significance (whether Zambia has a population problem or not)

Samples	df	$X^2_{calc.}$	Probability	Status of results
Age	7	29.744	0.000	Significant
Education attainment	3	45.519	0.000	Significant
Household income group	2	23.292	0.000	Significant

Source: Author's calculations based on own 1989 survey data.

The majority of respondents who indicated that Zambia had population problems later made reference to different 'economic hardships' as being the most outstanding problem (see Table 7.17). 'High cost of living' is considered to be the major problem in both rural and urban areas.

7.10: Access to family planning information

There are five major ways through which family planning information can be disseminated in Zambia: printed media, church meetings, public meetings, personal communication and electronic media. But access to these media differs with respondents' domicile, sex, age, marital status, education attainment and household income group. However, as will be illustrated later, to date, these means have been ineffective in disseminating family planning services information and therefore it will be difficult to effectively implement population policy.

7.10.1: Diffusion of family planning information through media and church

In rural areas, family planning information is least accessible through printed media, followed by church meetings, public meetings, personal communication and electronic media (Table 7.18). This is not surprising because all daily newspapers

(Weekly Post, Zambia Daily Mail and Times of Zambia) hardly reach rural areas except for provincial capitals and some of the district headquarters. The other papers (the National and Mining Mirrors) are only circulated in towns along the line of rail and very rarely report on population related issues. Due to shortage of funds, the production of vernacular newspapers has drastically declined or completely stopped in most provinces. With rising costs of production, which are transferred to consumers, printed media are becoming less and less accessible even in urban areas, especially among the poor who have high fertility attitudes and need family planning information the most.

Table 7.17:
Classification of respondents according to rural-urban domicile and suggested problems

Problem	Current location					
	Rural		Urban		Total	
	n	% of rural sample	n	% of urban sample	n	% of total sample
Economic						
High Cost of living	63	12.8	71	23.4	134	16.8
Shortage of employment	60	12.2	28	9.2	88	11.0
Shortage of farm input	38	7.7	3	1.0	41	5.2
Demographic						
High population growth rate	-	-	19	6.3	19	2.4
High mortality	53	10.8	16	5.3	69	8.7
Over population	24	4.9	9	3.0	33	4.2
No population education	15	3.0	11	3.6	26	3.3
None	240	48.7	146	48.2	386	48.4
Total	**493**	**100.0**	**303**	**100.0**	**796**	**100.0**

Source: Author's calculations based on own 1989 survey data.

Church meetings or ceremonies rarely focus on population problems, let alone family planning. The Seventh Day Adventist Docus Mothers Group in Kabwe and Roman Catholic dioceses of Kasama, Mansa, Mbala, Ndola, Chipata and Ikelenge parishes in Solwezi, which have their own family life programs, are exceptions to this generalization. However, as indicated earlier, these groups emphasize use of SNFPMs rather than artificial contraceptives for safeguarding children's and mother's health.

Table 7.18:
Frequency of exposure to family planning discussions on radio, at meetings, in church and through conversations and newspapers by rural domicile.

	Number of times per month							
	0		1		2		3+	
Sample and Source of information	n		n		n		n	
		% of rural sample		% of rural sample		% of rural sample		% of rural sample
Rural								
Electronic media	254	52.1	126	25.8	19	3.9	89	18.2
Public meetings	356	73.0	98	20.1	18	3.7	16	3.3
Church meetings	370	75.8	72	14.8	23	4.7	23	4.7
Personal communication	262	53.7	86	17.6	42	8.6	98	20.0
Printed media	396	81.1	59	12.1	13	2.7	19	3.9
Urban		% of urban sample		% of urban sample		% of urban sample		% of uban sample
Electronic media	44	14.3	56	18.2	70	22.7	138	45.1
Public meetings	63	20.5	123	39.9	82	26.6	40	13.1
Church meetings	218	70.8	39	12.7	31	10.1	20	6.5
Personal communication	86	27.9	90	29.2	90	29.2	42	13.7
Printed media	66	21.4	151	49.0	79	25.7	12	3.9

Source: Author's calculations based on own 1989 survey data. People in rural areas get

family planning information mostly through personal communication and to a lesser extent through electronic media and public meetings (see Table 7.18). Electronic media, as a source of population and family planning information, has declined drastically due to the inhibiting high prices of both radios and batteries.

Television is not accessible in rural areas except in provincial headquarters. People in urban areas are more advantaged in terms of accessibility to family planning information through all of the above mentioned media except the church.

Table 7.19:
Frequency of exposure to family planning discussions on electronic media, at public meetings, in church and through personal communication and printed media by female and male respondents.

Sample	Number of times per month							
		0		1		2		3+
Source	n		n		n		n	
		% of females		% of females		% of females		% of females
Females								
Electronic media	178	47.7	92	24.7	39	10.5	64	17.2
Public meetings	218	58.5	117	31.4	25	6.7	13	3.5
Church meetings	271	72.7	54	14.5	29	7.8	17	4.6
Personal communication	185	49.6	96	25.7	36	9.7	56	15.0
Printed media	265	71.1	66	17.7	32	8.6	10	2.7
Males								
		% of males		% of males		% of males		% of males
Electronic media	119	28.1	90	21.3	50	11.8	164	38.8
Public meetings	200	47.3	105	24.8	75	17.7	43	10.2
Church meetings	315	74.5	60	14.2	25	5.9	23	5.4
Personal communication	161	38.1	81	19.2	96	22.7	84	19.9
Printed media	196	46.3	146	34.5	60	14.2	21	5.0

Source: Author's calculations based on own 1989 survey data.

The heavy responsibilities of weeding, fetching water and firewood, caring for children and cooking leave rural women with very little time to listen to radio or attend family planning meetings. Higher proportions of females than males have limited access to these sources of information (see Table 7.19).

Accessibility to family planning information also varies with age. It is most inaccessible to those aged 15 to 19 (see Table A6). As is the case with those with primary education and the low-income group, printed media are the most inaccessible. Most of the respondents within the 15-19 age group do not have the money to spend on printed media. Access to information through electronic media, general meetings and church meetings is also relatively low among the youths. Overall, exposure to family planning information increases with age up to 50 and then declines among those aged above 50 (see Table A6).

There is a negative correlation between church attendance on one hand and urbanization on the other. Fewer people ever discuss family size and planning in church in urban than in rural. The opposite is true in terms of public meetings focusing on family planning which tend to be more common in urban areas where both government and non-government family planning programs are concentrated.

The proportion of people who are able to access family planning information increases with education attainment. Table A6 shows that more highly educated people have access to family planning information than the illiterate. While printed media still remain the most difficult to access, there are differences in access to information through electronic media among those with secondary and post-secondary education as compared to the illiterates and primary school graduates.

7.10.2: Diffusion of family planning information through personal communication

Under normal circumstances, informal conversations about family size and family planning take place between spouses and with relatives and friends. Such discussions are more common in urban areas and among the highly educated than they are in rural areas, or among the more poorly educated and the illiterate (see Tables 7.20, 7.21 and A7). To a greater extent, this is a function of modernization and educational attainment. Among

traditional societies, discussing family size and family planning is still regarded as taboo.

Table 7.20:
Frequency of discussion of family planning with spouse by rural-urban domicile, gender and age groups.

Sample	Response									
	Never		Very rarely		Rarely		Often		Very often	
	n	% of row total	n	% of row total	n	% of row total	n	% of row total	n	% of row total
Current location										
Rural	248	50.3	4	0.8	48	9.7	55	11.2	138	28.0
Urban	7	2.3	-	-	66	21.8	131	43.2	99	32.7
Gender										
Female	156	41.8	2	0.5	59	15.2	74	19.8	82	22.0
Male	99	23.4	2	0.5	55	13.0	112	26.5	155	36.1
Age										
15-29	140	47.3	4	1.4	28	9.5	42	14.2	82	27.7
30-49	96	21.8	-	-	74	16.8	131	29.7	140	31.8
50+	19	32.2	-	-	12	20.3	13	22.0	15	25.4
Marital status										
Married	169	28.2	4	0.7	93	15.5	133	16.7	201	33.5
Single	63	41.7	-	-	14	9.3	45	29.8	29	19.2
Others	23	51.1	-	-	7	15.6	8	17.8	7	15.6

Source: Author's calculations based on own 1989 survey data.

Discussing family size and family planning with one's spouse is more common among urbanites than among rural dwellers. With modernization (which is highly linked to urbanization in most African countries) people become less constrained in discussing family size and family planning. Very few people in Kabwe, Livingstone, Lusaka and Livingstone indicated that they never discuss family size or family planning with their spouses. Comparable proportions from Luwingu and Kapalu are much higher because of motivation for discussing family size or family planning increases with distance from

suppliers of family planning services (i.e. family planning and medical centres). Such centres are more dispersed in rural areas than they are in urban areas. Respondents who discuss family size and family planning frequently are highest in Lusaka and Livingstone, followed by Ndola which are among Zambia's largest towns.

If we combine the proportions of those who discuss family size and planning with their spouses/partners 'often' and 'very often', we could argue that the proportion of those who discuss family size and family planning with their spouses increases with age, especially between the ages of 15 and 44 (see Table A7). It declines and fluctuates between the ages of 50 and 60, since discussion of family size in this age group consists of only giving advice to their children.

Table 7.21 illustrates that the proportion of those who discuss family size and family planning with their spouses increases with educational attainment, becoming most pronounced among those with secondary and post-secondary education. Apart from discussing family size and planning with their spouses, Zambians feel more comfortable discussing these issues with grandparents, friends and cousins. Women also feel more comfortable discussing these matters with sisters, while men feel more comfortable with brothers than with any other persons. Overall, discussion of family size and family planning with other family members and friends is more common among those aged between 25 and 49 years. It is lowest among those age below 20 and above 60 (see Table A8). Those with secondary and post-secondary education more freely discuss their family sizes and planning with other family members and friends.

These findings suggest that population programs should deliberately motivate Zambians to discuss family planning. This would help in diffusing small family norms and values, thereby encouraging people to opt for effective modern family planning services. Therefore, efforts should be directed at helping those social groups with low interactive rates, especially those under 20 and those beginning their childbearing periods.

Table 7.21:
Frequency of discussion of family planning with spouse by religious affiliation, educational attainment and household income groups.

Sample	Response									
	Never		Very rarely		Rarely		Often		Very often	
	n	% of row total	n	% of row total	n	% of row total	n	% of row total	n	% of row total
Religious affiliation										
Protestants	189	38.0	4	0.8	59	11.9	94	18.9	152	30.5
RCs	48	21.5	-	-	40	17.6	73	32.7	62	27.8
Non-Christians	18	30.0	-	-	6	10.0	13	21.7	23	38.3
Education attainment										
Illiterate	29	60.4	2	4.2	2	4.2	-	-	15	31.3
Primary	153	54.6	-	-	30	10.7	34	12.1	63	22.5
Secondary	66	23.6	2	0.8	45	18.4	88	36.1	90	38.0
Post-secondary	7	4.0	-	-	37	20.9	64	36.2	69	29.1
Household income group										
High	10	5.3	-	-	37	19.6	72	38.1	70	37.0
Medium	35	16.8	2	1.0	38	18.3	59	28.4	74	35.6
Low	210	52.6	2	0.5	39	9.8	55	13.8	93	23.3

Source: Author's calculations based on own 1989 survey data.

7.11: The dilemma of use of family planning methods

Since traditional Zambian society highly values large numbers of children it also emphasizes the survival of infants. Parents make all possible efforts to avoid closely spaced pregnancies, not for demographic reasons, but to ensure the infant's survival. However, compared to Western societies where very small families predominate, birth-

spacing periods are still relatively short. This is true for both rural and urban areas. Results obtained from a student 't' test procedure show that there is no significant difference in average birth-spacing between rural and urban areas (see Table 7.22). An inference which can be drawn from these results is that very few Zambians in both rural and urban areas use family planning for demographic reasons.

Child-spacing is not only determined by individual couples; other members of the extended family have some say about women's and men's sexual as well as childrearing behaviour. It is the responsibility of all family members to scorn women who have closely spaced children by accusing them of being too possessive and sexually demanding on their husbands (*Banda, 1983; Munachonga, 1989*). It is also normal practice in traditional Zambian society for elders to give advice to girls who have reached maturity (especially during the initiation ceremony), as well as to newly married couples, on giving first priority to childbearing and rearing in their marriage (*Banda, 1983; Munachonga, 1989*). This is consistent with traditional African societies (*Bondestam 1980; Caldwell Caldwell, 1985; Gaisie and Giorgis, 1988*).

Table 7.22:
Results for the 't' test for 'average birth spacing' based on rural and urban domicile

Current domicile	N	Mean (years)	T	Prob>0.05
Rural	449	2.45	-0.19	0.85
Urban	269	2.46		
DF =	716			

Source: Author's calculations based on own 1989 survey data.

The majority of Zambians believe that effective child spacing can be achieved through multiple methods (*Banda, 1983; Banda, and Gasie, 1985; Brown, et al., 1987; Mbomena, 1989*). The most common method both in rural and urban areas is postpartum abstinence (*Brown et al., 1987; Muchindu, 1988; Mbomena, 1989*). In circumstances

where this method is used, both the father and the mother of newly born children are expected to abstain from practising sexual intercourse for a period of seven to twelve months. It is taboo for the biological parents of an infant to practice sex within the stipulated period. Doing so is not only considered unhealthy, but also detrimental to the infant's health. It is believed that if parents indulge in sexual relations at this stage the infant will suffer from diseases including malnutrition, whooping cough and pneumonia, which will damage the infant's chest and internal organs. The erosion of such beliefs and practices due to modernization, especially in urban areas, is likely to reduce the period of childspacing as has occurred in many African countries (*Safilios-Rothschild 1985; Caldwell et al., 1992; Economist 1993*). Hence the need for intensifying the diffusion of family planning services.

Some superstitious women believe that they can prevent conception by wearing strings made out of fibres from recommended herbs, standing up and lying face down immediately after intercourse and hanging a mixture of vaseline and ashes from recommended herbs on the bedroom ceiling which should be smeared on a woman's body early and late in the afternoon (*Banda, 1983*).

Unconventional methods of abortion are, to a certain extent, also used to terminate unexpected and unwanted pregnancies. Bitter herbs are normally soaked in water, then the solution is either drunk in its raw state or porridge is prepared from it. A good example of such herbs among the Bembas, Nsengas, Chewas, Ilas and Lenjes is 'Conduce' or 'Kankhalamba' (*Banda, 1983*). Some traditional healers are also capable of interfering with the foetus, while it is one to four months old, by inflicting a foreign body into the uterus.

Abortion, as a method of birth control, is partly explained in terms of the structures of African traditions themselves. For example, the traditional practice of separating an expectant mother from her husband during pregnancy is a contributing factor in a woman's decision to abort in order to remain with her husband, especially in polygamous marriages where the woman might be competing with co-wives (*Munachonga, 1988; 1989*). Perceived consequences of adulterous pregnancy, such as marital conflicts which

lead to divorce, also force women into aborting. Also, in Zambian traditional societies, illegitimate births are strongly disapproved of, particularly in patrilineal societies where the amount of bride wealth demanded tends to be higher for virgins than for women who have given birth out of wedlock (*Munachonga, 1988*). This is another cause of abortion among some women. Abortion is also used by women for revenge against husbands when they have been forced into marriage and thus refuse to produce children to the benefit of their husbands and their relatives. This practice is more common in patrilineal than in matrilineal societies (*Banda, 1983; Munachonga, 1989*).

Table 7.23:
Distribution of respondents according to rural-urban domicile and recommended solution to population growth problem.

Approach recommended	Domicile			
	Rural		Urban	
	n	% of rural sample	n	% of urban sample
Family planning education	93	18.9	79	26.1
Concentrate on the provision of pills	22	4.5	4	1.3
Improve the economy	63	12.8	27	8.9
Concentrate on the provision of condoms only	52	10.6	26	8.5
Concentrate on Scientific natural family planning methods	23	4.7	21	6.9
No idea	240	48.7	146	48.2
Total	**493**	**100.0**	**303**	**100.0**

Source: Author's calculations based on own 1989 survey data.

While some politicians strongly believe that modern family planning methods are

an alternative to traditional family planning methods, others are of the opinion that the two approaches should be used side by side. Modern family planning methods are not easily accessible to the bulk of the Zambian population. The use of modern family planning methods is likely to remain low as very few Zambians recommend it as being the best approach for solving Zambia's population problems (see Table 7.23).

7.11.1. Use of modern family planning methods: evidence from national data

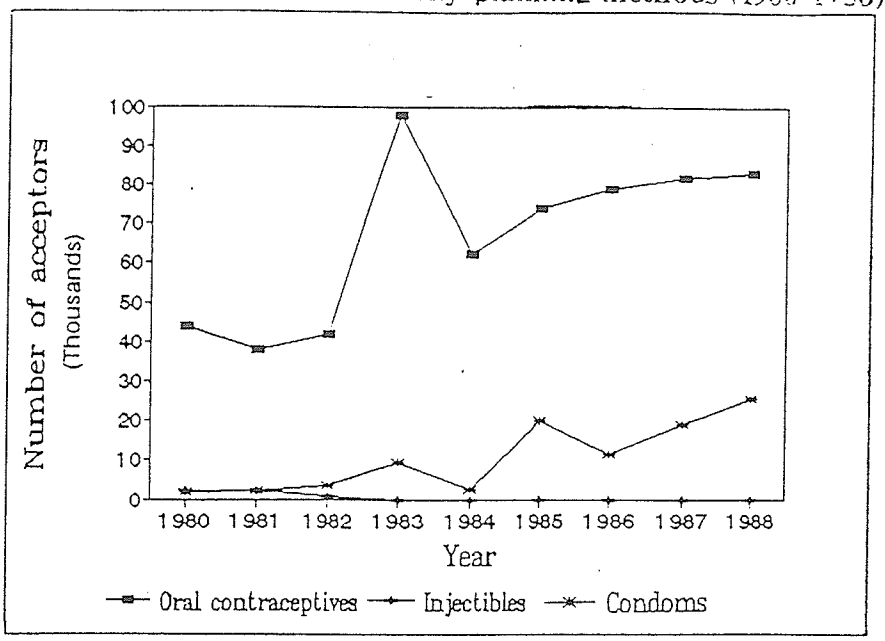
By the end of 1988 only 3.5 percent of Zambia's adult population (130,700 males and females) were using modern family planning methods (*Brown et al., 1987; GRZ, 1987*).[39] Figures 7.3a and 7.3b show that there was a steady increase in the use of condoms between 1980 and 1982.

The numbers of users fluctuated between 1982 and 1986 and increased steadily between 1986 and 1988. Use of injectibles has declined considerably since 1980, mainly due to unbearable side effects. Use of IUDs fluctuated between 1980 and 1985 but increased steadily between 1985 and 1988. Use of jellies also fluctuated between 1980 and 1985 but increased between 1985 and 1988. Their availability fluctuated between 1980 and 1985, then increased consistently between 1985 and 1988. Use of sterilization as a method of family planning is still very low among Zambians mainly because men strongly resist it. It is only used by women in circumstances where a physician feels that it is the only method which can safeguard otherwise risky mothers. Use of oral contraceptives increased sharply between 1982 and 1983 due to special donations from US AID and IPPA which had to be supplied free to Zambian clients, especially to women through ante-natal clinics some of which (especially in rural areas) were mobile under the

[39] A most recent national fertility survey indicates that this proportion has increased to 15 percent (*PRB, 1992b*). This is a rather inflated figure which must be accepted with caution. It is very likely that it does not represent those who currently use modern family planning for demographic reasons. The majority of clients use condoms to protect themselves from AIDS, at least since 1983 when the Zambian government and other non-government agencies started campaigning against AIDS (*This information was obtained through an unstructured interview with the chairman of the Kabwe PPAZ branch*).

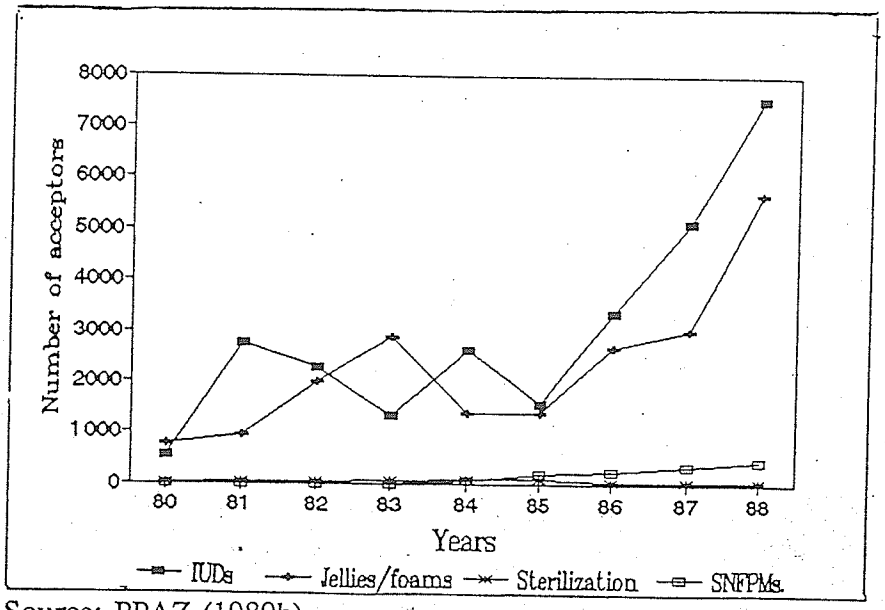
sponsorship of UNICEF. In any case the numbers presented above are relatively small numbers in relation to the adult population.

Figure 7.3a:
Zambia: Users of modern family planning methods (1980-1988)



Source: PPAZ (1989b).

Figure 7.3b:
Zambia: Users of modern family planning methods (1980-1988): continued.



Source: PPAZ (1989b).

Use of modern family planning services differs in terms of both geographical regions and methods. In absolute terms, Lusaka province ranks first followed by the Copper Belt, Eastern, Southern, Central, North-western, Northern, Western and Luapula in descending order (see Table 7.24).

Table 7.24:
Users of family planning services by method by province: 1988.

	Province									
	South-ern	**C/ Belt**	**Lua pula**	**North west-ern**	**North-ern**	**East-ern**	**Lusaka**	**Cent-ral**	**West-ern**	**Total**
Pill	13,153	16,756	1,308	4,244	3,543	12,494	38,852	9,555	1,228	101,133
Coil	162	662	-	33	89	30	1,635	61	487	3,159
Con-doms	1,223	5,512	410	942	304	6,155	5,324	824	676	21,370
Foams	475	165	11	155	97	171	2,164	143	138	3,519
Steriliza-tion	-	20	26	-	-	-	45	47	3	
141 SNFPM	1,223	-	-	-	-	-	-	87	68	1,378
Total	**16,236**	**23,115**	**1,755**	**5,374**	**4,033**	**18,850**	**48,020**	**10,717**	**2,600**	**130,700**
As % of adult po-pulation	2.9	3.4	0.6	0.9	2.6	3.1	4.3	2.4	1.2	3.5

Source: GRZ (1989b).

When the number of acceptors is considered as a proportion of the adult population in each province, Lusaka Province still ranks first, with the Copper Belt ranking second, followed by Eastern, Northern, Central, Western, North-Western and Luapula in descending order (see Table 7.24).

Oral contraceptives are most widely used in the line-of-rail provinces, namely, Lusaka, Southern, Central and Copper Belt. North-western province ranks first among rural provinces in terms of use of oral contraceptives. Use of methods other than oral contraceptives is very low with only Lusaka being the exception (see Table 7.24). These

findings reemphasize the main reason why anti-natal programs are not effective in most sub-Saharan African countries; services are more accessible in urban compared to rural areas (*Gaisie 1985, Caldwell and Caldwell, 1985, McNicoll, 1989*).

7.11.2: Use of family planning services: evidence from the current survey

Almost half (44.5 percent) of respondents interviewed in this study indicated that they were not using any family planning methods. The balance (55.4 percent) indicated that they were using some kind of family planning methods. However, this is a rather inflated proportion since even those respondents who use abstinence and other traditional methods (which are accessible through either friends, traditional healers and elders) were included as family planning users.

Table 7.25 confirms that use of family planning is higher in urban areas than in rural areas. This validates earlier findings which have shown that the use of family planning tends to be higher in urban areas than in rural areas in most African countries. There are three reasons for this phenomenon: First, most of the educated and affluent population who value modern family planning services reside in cities. Secondly, most of the family planning services are distributed through medical centres, pharmacies and family planning branch-headquarters, which are more numerous in cities. Thirdly, modern family planning services are still highly resisted in rural areas where most of the potential clients remain conservative in their attitudes, and infant and overall child mortality are considerably higher in rural than in urban areas. Rural populations also resist modern family planning because the people distributing the information and contraceptives tend to be younger than their potential clients, and African culture does not approve of younger people distributing contraceptives to their elders (*Bondestam, 1980; Dow and Linda, 1983; Caldwell and Caldwell, 1985*).

Table 7.25:
Users of family planning services by rural-urban domicile, gender and age groups.

Sample	Response			
	No		Yes	
	n	% of row total	n	% of row total
Current location				
Rural	321	65.5	169	34.5
Urban	115	37.6	191	62.4
Gender				
Female	208	55.8	165	44.2
Male	228	53.9	195	46.1
Age				
15-29	181	61.1	115	38.9
30-49	227	51.5	214	48.5
50+	28	62.2	17	37.8
Total	**354**	**44.5**	**440**	**55.4**

Source: Author's calculations based on own 1989 survey data.

Table 7.26 shows that there is a significant difference between the number of respondents who have access to family planning services among urban samples. There is also a significant difference between those who have access to family planning in the Nyanje and Luchena location and the other two rural locations (Luwingu and Kapalu) because of the high availability of family planning supplies and relatively more developed family planning education programs.

The same procedure used in calculating the results presented in Table 7.13 was used to obtain results illustrated in Table 7.22. The only difference is that the results are significant in some additional groups namely, rural and urban and Roman Catholics and Protestants and age groups (15-24, 25-34, 35-44, 45-59, 60+).

Use of family planning services increases with age from 15 and 39, then declines from 40 (see Table A9). Nevertheless, current findings show that people continue using family planning methods even after age 49. The obvious explanation for this is that men continue to reproduce past this age and need to protect their partners from pregnancy. Use of condoms has increased even among married males who may also indulge in extramarital sex and are scared of contracting AIDS.

Table 7.26:
Test for significance (current use of family planning services)

Samples	df	$X^2_{calc.}$	Probability	Status of results
Rural and urban	1	222.8	0.000	Significant
Age	7	88.4	0.000	Significant
Protestants and RCs	1	5.3	0.021	Significant
Education attainment	3	139.8	0.000	Significant
Household income	2	147.5	0.000	Significant
Number of births	5	23.6	0.000	Significant

Source: Author's calculations based on own 1989 survey data.

Relatively many people (50.2 percent) within the middle age group (25-44) use family planning methods, with the highest proportions among those in the 30-34 age group followed by those in the 25-29 age group. This is to be expected because mothers belonging to these age groups have the most access to family planning information through visits to ante-natal clinics which play a very significant role in family planning and child care in Zambia. This accords them the opportunity of learning about the advantages of having smaller families. Tradition does not allow those who are young and single to use any contraception because single women who use contraceptives are

regarded as a prostitutes and would therefore jeopardize their marriage and future childbearing prospects.

In terms of religion, use of modern family planning methods is highest among the Reformed Church in Zambia (RCZ) affiliates, followed by the Roman Catholic (RC), the non-affiliates, the United Church in Zambia (UCZ) affiliates, the Salvation Army (SA) affiliates, the New Apostolic Church (NAC) affiliates and members of Church of Christ. It is negligible among the Jehova's Witnesses (see Table A9). The proportion of the RCs who use modern family planning is rather inflated because of the claim that even natural methods are modern (*Cremis, 1988; Muchindu, 1988*).

Table 7.27 also shows that use of family planning increases with educational level. The proportion of respondents who use family planning is highest among the respondents who have post-secondary education, followed by those who have secondary school education. The relatively more educated are more advantaged in that they have been exposed to western values. They can also read family planning posters which are commonly displayed in almost all hospitals and clinics in the country. Most of those who have post secondary qualifications are employed and have other aspirations apart from raising children. They can also afford to buy contraceptives on a regular basis.

Unlike in China where the distribution of family services is the responsibility of local communities (*Arnold and Zahaoxiang, 1986; Greenhalgh, 1986*), Tables 7.28 shows that most of the respondents get their family planning services through hospitals, pharmacies and clinics. However, in rural areas where hospitals and clinics are scarce, some clients get their services from traditional sources. It is difficult to determine the success rate of such services since records of clients are rarely kept.

7.11.3: Expected future non-use of family planning among respondents

Some of the problems family planning programs in African countries face include lack of commitment among potential users and low continuity rate among the users. The latter problem is more disturbing than the former in that those who drop out are likely to discourage potential acceptors. The only solution to this problem would be the improvement of quality of services which are currently inadequate, poor and irregular.

Table 7.27:
Use of family planning services by religious affiliation, educational attainment and household income groups.

Sample	Response			
	No		Yes	
	n	% of row total	n	% of row total
Religious affiliation				
Protestants	168	32.2	354	67.8
Roman Catholic	168	75.3	55	24.7
Non-Christian	29	48.3	31	56.7
Educational attainment				
None	31	64.6	17	35.4
Primary	193	68.9	87	31.1
Secondary	141	48.5	150	51.6
Post Secondary	71	40.1	106	59.9
Household Income group				
High	79	41.8	110	58.2
Medium	83	39.9	125	60.1
Low	273	68.7	125	31.3
Total	**365**	**44.5**	**440**	**55.4**

Source: Author's calculations based on own 1989 survey data.

Table 7.28:
Sources of family planning services by rural-urban domicile.

Source	Domicile					
	Rural		Urban		Total	
	n	% of rural sample	n	% of urban sample	n	% of Total sample
Modern sources*	103	20.9	155	51.2	258	32.4
Traditional**	109	22.1	63	20.8	172	21.6
Nowhere	268	54.4	82	27.1	350	44.0
No response	13	2.6	3	0.9	16	2.0
Total	**493**	**100.0**	**303**	**100.0**	**796**	**100.0**

* Hospitals, clinics, PPAZ and FPMZ.
** Local herbalists.
Source: Author's computations based on own 1989 survey data.

If quality of services is not improved, the drop-out rate among current users of modern family planning methods is likely to increase with time. Zambia should learn from the Tunisia's experience in the late 1970s where the dropout rate due to side effects among users was as high as 30 percent (*Futures Group, 1987d*). In response to the question 'Do you think you and your spouse may use any method to prevent pregnancy at any time in the near future?' 47.4 percent of total respondents indicated that they would not. Reasons for deciding not to use any family planning method in the near future varied with rural and urban domicile, sex of respondent, education attainment, marital status and income.

Of the 493 rural respondents, 54.6 percent indicated that they had no intentions of using any family planning methods in the near future. The situation was different in urban areas where of the total 303 urban respondents, only 35.6 percent indicated that

they would refrain from using modern family planning. Reasons for intended future non-use of family planning methods in both rural and urban areas included 'husband's decision', 'fear of side effects', 'need children', 'single' and 'it is sinful'(see Table 7.25). The respondents who indicated that it was sinful to use any method of family planning were mostly RCs and JWs.

Forty-eight percent of those not envisaging the use of any family planning methods in the rural sample indicated that using family planning methods for demographic reasons is not necessary because they need children. This again reflects the strong preference among Zambians for large families. The proportions of respondents who do not intend to use any method of family planning because their husbands would not allow them confirms earlier findings that some African women have little influence over their own family planning (*Heckel, 1986; Fornos and McNicoll, 1987a; 1987b*).

Table 7.29:
Intended future non-use of family planning among current users by rural-urban domicile.

Response	Domicile					
	Rural		Urban		Total	
	n	% of sample of rural intending non-users	n	% of sample of urban intending non-users	n	% of total intending non-users
Husband's decision	36	13.4	14	13.0	50	13.3
Fear of side effects	35	13.0	26	24.0	61	16.1
Need children	144	53.5	38	35.2	182	48.3
Old	25	9.3	-	-	25	6.6
Single	7	2.6	-	-	7	1.9
Sinful	22	8.2	30	27.8	52	13.8
Total	**269**	**100.0**	**108**	**100.0**	**377**	**100.0**

Source: Author's computations based on own 1989 survey data.

The high proportion of males who indicated that they did not plan to use family planning methods in future because they needed children (73.8 percent) (see Table 7.30) confirms that use of family planning methods for demographic reasons is highly resented by males, as has also been shown to be the case in Kenya, Nigeria and many other sub-Saharan countries (*Dow 1975; Bondestam 1980; Caldwell and Caldwell, 1985; Fornos and McNicoll, 1987a*). Of the total 599 married male and female respondents, 52.9 percent indicated that they did not intend to use family planning methods in the near future.

Table 7.30:
Intended future non-use of family planning among current users by gender.

Response	Gender					
	Female		Male		Total	
	n	% of intending female non-users	n	% of intending male non-users	n	% of total intending non-users
Husband's decision	50	21.9	-	-	50	13.3
Fear of side effects	57	25.0	4	2.7	61	16.2
Need children	72	31.6	110	73.8	182	48.3
Old	20	8.8	5	3.4	25	6.6
Single	7	3.0	-	-	7	1.9
Sinful	22	9.7	30	20.1	52	13.8
Total	**228**	**100.0**	**149**	**100.0**	**377**	**100.0**

Source: Author's computations based on own 1989 survey data.

The importance of children in the Zambian society is reemphasized in Table 7.31, where even those who are divorced, separated or widowed (others) feel that they cannot use any family planning method in the near future because they need children. The

majority of those who are married (41.9 percent) also indicate that they need children and hence see no reason for using family planning methods. The proportion of those who do not intend to use family planning methods because they need children is highest among those with primary school education followed by those with post-secondary education (see Table A10).

Table 7.31:
Intended future non-use of family planning among current users by marital status.

Reasons for using family planning	Marital status					
	Others		Married			Single
	n	% of other intending non-users	n	% of married intending non-users	n	% of single intending non-users
Husband's decision	-	-	50	12.6	-	-
Fear of side effects	-	-	61	21.1	-	-
Need children	9	52.9	123	42.6	50	70.4
Old	1	5.9	18	6.2	6	8.5
Single	-	-	2	0.7	5	7.0
Sinful	7	41.2	35	12.1	10	14.1
Total	**17**	**100.0**	**289**	**100.0**	**71**	**100.0**

Source: Author's computations based on own 1989 survey data.

Thirty, 11.9, and 11.0 percent of respondents in the illiterate, primary and secondary school categories, respectively, indicated that their future use of family planning would depend on their 'husband's decision'. This suggests that it is among the illiterate and those with primary and secondary school education attainment where

to influence family planning decisions.

Table 7.32:
Intended future non-use of family planning among current users by reasons and education attainment

Response	Education attainment							
	Illiterate		Primary		Secondary		Post secondary	
	n	% of illiterate intending non-users	n	% of intending non-users with primary education	n	% of intending non-users with secondary education	n	% of intending non-users with post-secondary education
Husband's decision	11	29.7	31	11.9	8	11.0	-	-
Fear of side effects	3	8.1	13	5.0	43	58.9	2	3.3
Need children	7	18.9	154	59.0	20	27.4	1	1.4
Old	5	13.5	15	5.8	2	2.7	3	4.1
Single	3	8.1	4	1.5	-	-	-	-
Sinful	8	21.6	44	16.9	-	-	-	-
Total	**37**	**100.0**	**261**	**100.0**	**73**	**100.0**	**6**	**0.8**

Source: Author's computations based on own 1989 survey data.

Respondents with secondary and post-secondary education indicated that they would not use family planning methods in the near future because they were afraid of 'side effects'. This clearly indicates that it is educated people who have the most access to family planning or, atleast, are aware of the most side effects associated with contraceptives. Some of them hear about side effects from friends. Knowledge about

side effects is relatively low among the illiterates and those with only primary school education attainment, most of whom live in rural areas where, as indicated earlier, use of family planning services is also relatively low.

Table 7.32 shows that those with primary education are more conservative in accepting innovations than those with secondary or post secondary education attainment. Respondents who feel that using family planning techniques for demographic reasons is sinful are limited to the categories of illiterates and primary education.

7.12: Summary

This chapter has examined foreseen obstacles of implementing Zambia's population policy. The following have been identified as the major problems which will slow the implementation process a) Zambians still desire large numbers of children, but desired numbers are slightly lower among the highly educated population, b) although awareness of the relationship between high population growth and economic development is relatively high among the educated and the youths, it is still very low among the majority of Zambians, c) dissemination of family planning information is still very poor in Zambia as a result of which only very few people use family planning services for demographic reasons, d) child mortality rate is still relatively high in Zambia as a result of which couples still desire many children for precautionary reasons, e) the status of Zambian women is still very low as a result of which it will be difficult to implement the newly adopted population policy, and f) the Zambian government still has certain laws in place which make it difficult to disseminate family planning information and distribute other family planning services. Unless these problems are resolved Zambia's population policy will not achieve the objectives it was intended for.

CHAPTER EIGHT

CONCLUSIONS AND RECOMMENDATIONS

8.1. Summary of findings

The overall intent of this research was to explore the status of population policy in Africa in general and in Zambia in particular and to provide explanations about the roots of resistance to anti-natalism. This study has used both secondary and primary data to analyze the development of anti-natalist attitudes and policies in Africa. It classified the policies into four broad categories: pro-natalist, anti-natalist, non-committal pro-natal and non-committalist anti-natalist and suggested reasons why countries have taken their respective positions on population problems. Socio-economic conditions under which population policies are adopted and implemented on the
one hand, and impeded on the other, have also been evaluated.

This study has shown that while world population growth rates have fallen in the past twenty years, Africa's growth rates have increased. CDRs declined throughout the world, but a concomitant decrease in CBRs, which results mainly from changing socio-economic conditions, has yet to be achieved in most African countries.

This thesis does not only highlight reasons why high growth rates have persisted, but also stresses that efforts to curb growth rates continue to meet resistance in many African countries. African countries' problems in regulating their high fertility result from deeply entrenched pro-natalism, which falls into two broad categories; 'cultural pro-natalism' and 'intensified pro-natalism'. 'Intensified pro-natalism' emanates from high infant and child mortality and religious and political contacts African societies have had with the outside world and ethnic tension within individual countries.

Current results support the general theoretical proposition that perceived economic benefits of children influence family size preferences of parents (*Espenshads 1977; Bulatao, 1979a; Caldwell and Caldwell, 1987*). For example, this study revealed that parents' perceived 'old age security' and 'access to child labour' are some of the reasons for preferring larger families to smaller ones.

As expected, and consistent with findings from the Value Of Children (VOC) studies carried out in a number of developing countries in Asia (*Arnold and Fawcett, 1975; Buripakdi 1977; Ahmed 1981; Cain 1981; Abdullah and Zeidenstein, 1982;*) parents in Zambia's rural areas value children's labour higher than urban parents do. Most rural parents view the economic contribution of children as being propitious since children are involved in agricultural work. Although in urban areas children also help in household chores and in informal businesses (for example street vending), there is little agricultural activity and demand for children's labour is lower.

Findings of this study also support the prevailing assumption that persistent high fertility in Africa in general and Zambia in particular is a behavioral response to high mortality in poor Third World countries (*Caldwell 1979; ECA 1985; Bongaarts 1987; Cain 1981*). African couples desire many children in anticipation of high infant and child mortality.

In addition to the foregoing reasons this study has cited examples from Kenya, Rwanda, Sudan, South Africa and Zambia (in the 1970s) to demonstrate that there is great ethnic diversity which tends to promote high fertility. The struggle for ethnic equality or supremacy in numbers exists to varying degrees in many African countries. Many Africans still identify more closely with their ethnic than with their nation state because of this factor.

The foregoing cultural conditions have created certain widespread traditions and attitudes, namely, fear of barrenness, early marriage, polygamous marriages and resentment against use of modern contraceptives, all of which further enhance high fertility.

Early marriage is a norm in most traditional African societies, which is in turn a consequence of the value Africans place on children. Most of the literature on marriage in traditional African society suggests that puberty tends to mark the age of marriage for girls and that marriage is closely connected with initiation or puberty ceremonies (*Colson 1958; Banda 1983; Dow and Linda, 1983; Caldwell and Caldwell, 1985; Omideyi and Van de Walle, 1988; Goody 1990*). This study has argued that early marriage is pro-natal

because it extends a woman's childbearing period.

In some cases the desire for many children forces individuals to be involved in polygamy, a marriage system which is also largely pro-natalist. First, it accords young women who would not have had a chance to marry to do so. Secondly, once married to a polygamous man, co-wives compete (among other ways) through the number of children they bear for their husband.

Most independent African countries have also shown a reluctance to control their population growth due to the promises regarding the need for the preservation of culture their political leaders made on attaining independence. The African extended family system is an integral part of that culture and attempts to implement birth control programs tend to be in conflict with these promises. Hence, such programs would make the leaders politically unpopular. Prevailing political ideologies have also retarded progress in anti-natalism in some countries. In Ghana, Tanzania, Mozambique and Guinea-Bissau, for example, family planning programs were resisted for a number of years after independence due to Marxist influence (*Gaisie, 1985*).

The influence of western religion on Africa's pro-natalism cannot be minimized. Attitudes towards family planning and contraception among Roman Catholics are an added impediment to the development of population programs in some countries. This study has cited the role of the Catholic sponsored Family Life Movement in Zambia (FLMZ) in opposing the use of artificial contraception. In addition to Catholicism, Islam has also hindered the success of recent family planning programs in the Magreb and in East African (*Caldwell et al., 1992*). To date, many committed Moslems strongly resist the use of artificial family planning methods. This is increasing with the expansion of fundamentalism.

In addition to the above mentioned constraints a number of countries, which may or may not have discernible pro-natalist policies, still strongly believe that arithmetic density should determine whether or not a country has a population growth problem.

Furthermore it has been stressed that despite the foregoing drawbacks, a number of African leaders have began to realize that the problem of high fertility is not a problem of individual families alone because it forces the government to cut expenditures on other

programs to provide for social needs, such as education health and housing.

Until the Bucharest World Population Conference in 1974, population policies received little attention from African leaders (*Frinkle and Crane, 1975; Demeney 1985*). Before this conference most newly independent African countries were mainly interested in economic and social development and campaigning for foreign assistance from industrialized countries.

Despite governments' reluctance to adopt anti-natal population policies, modern private family planning programs were already in place in a few African countries by the 1950s. Thirteen African countries, including South Africa, had family planning programs by the end of the 1950s, but most of these private programs received little or no material or moral support from governments until the mid-1970s.

In the early 1960s, private family planning programs were introduced in fifteen more African countries, but it was not until 1965 that some African governments started offering public family planning services as part of their health programs. Starting from the year 1966, the date when the Secretary General of the UN presented a declaration on population on Human Rights Day, African family planning programs started benefiting from international organizations.

By the end of the 1970s it became possible to begin categorizing African countries into four broad classes: discernible anti-natalist and pro-natalist, and undiscernible anti-natal and pro-natal. Before the Bucharest conference only six African countries - Mauritius, Kenya, Morocco, Ghana, Tunisia and Egypt had officially stated anti-natal population policies for demographic reasons. This group has increased since the 1974 Bucharest World Population Conference.

Of all African countries, only Mauritius, Egypt, Tunisia, Zimbabwe, Botswana and of late Kenya have had serious programs for curbing growth rate. The successes these countries have achieved can be attributed to the following reasons:

a) overall government moral and material commitment;

b) the increasing availability of contraceptives made possible by increased subsidies through external funding and the removal of sales tax and customs duty on the importation of contraceptives;

c) improvement of the status of women by increasing their access to formal education, employment and business opportunities. Efforts to develop a wider range of non-domestic roles for women have also been made;

d) liberalization of sterilization especially in Kenya, Tunisia and Mauritius,

e) educating the public about the advantages of regulating fertility by using modern family planning methods, as is the case in Kenya, Tunisia and Mauritius,

f) provision of maternal and paternal benefits for up to four pregnancies, and child allowances for up to the same number of children;

g) provision of information, advice and assistance for couples wishing to space or limit their reproduction by using persuasive and not coercive methods;

h) using positive incentives to encourage people to use family planning by rewarding communities and families who comply with the official population policy with development programs;

i) emphasizing the role of private family planning providers,

j) providing the public with free family planning services with the help of the government health system;

k) using traditional attendants to enhance the distribution of family planning services in rural areas as has been done in Zimbabwe and Tunisia;

l) abolishing polygamy and establishing equal rights between men and women as has been the case in Tunisia;

m) limiting maternity leave to two months at full pay, followed by four months at half pay to the first four children as in Tunisia and Mauritius;

n) increasing the minimum legal marriage age to 20-21 years as has in Tunisia, Botswana, Zimbabwe and Mauritius; and

o) legalizing induced abortion during the first 12 weeks of gestation, without any restrictions, as is the case in Tunisia.

Other countries such as Angola, Ethiopia, Gambia, Malawi, Somalia, Sierra Leone, Sudan, Uganda and Zaire which have no discernible anti-natalist population policies, but have indirectly supported family planning, have achieved very little. They face other population problems such as high out-migration rates due to political instability as in

Angola, Ethiopia, Somalia, Uganda and Zaire or high immigration rates such as in Malawi and Sudan. High levels of infant mortality, morbidity, uneven population distribution, and rural to urban migration are major concerns for Sierra Leone and many other African countries. These issues have been given higher priority than family planning.

In the case of those countries which have made some remarkable strides in population programs, many reasons for change from pro-natal to anti-natal attitudes can be suggested, but the most decisive ones are related to increased scientific information, stagnating socio-economic development, increasing absolute and physiological densities, high levels of infant and child mortality, and high population growth rates.

High population growth rates and densities in combination with stagnating social and economic development provided another catalyst for a re-evaluation of the role of population factors in development. The region's economic problems during much of the 1970s and 1980s have proven to be long-term, deep-seated and recalcitrant. With declining or stagnating national incomes, per capita expenditure on health, education, and other services have dropped. New attitudes toward population growth were therefore stimulated by pressure on public services, the worsening employment situation and shrinking food supplies.

This study has also emphasized that Zambia's major demographic problem is high fertility rate, resulting in an increasingly youthful population characterized by a broad-based and thin-apexed pyramid. The 1980 census revealed that 49.7 percent of Zambia's population was under 15 and 47.5 percent was aged between 15 and 64.

These data indicate that Zambia's population structure has been heavily dominated by youths during the last 30 years and that the population will increase greatly over the next generation, regardless of whether there is a significant decline in fertility.

The concern of the Zambian government and internal and international population agencies is that this type of population structure results in a high total dependency ratio which is currently 104 dependents per 100 working adults. A high population growth rate has had negative effects on savings and productive capacity of the nation. A large portion of the nation's investment has been on health, education and housing. However, these investments have failed to keep pace with the fast growing population. Even if the

current TFR of 6.5 dropped to either four or 2.1 today, Zambia's medical, education, employment infrastructures and other social resources would still be strained in the next 20-50 years as the population would still continue to grow due to the in-built momentum of population growth resulting from the current high TFR.

Unfortunately Zambia's economy is so weak that it cannot sustain such a population structure. Zambia's economic weakness partly stems from an over-dependence on a single export commodity: copper.

This unfavourable socioeconomic and demographic environment has stimulated the population debate, and the issue of adopting and implementing relevant anti-natalist programs by both private agencies and the Zambian government since mid-1970s.

Although private organizations established Planned Parenthood Association of Zambia (PPAZ) as early as March 1972, until the mid-1980s the Zambian government's attitude to population growth ranged from pro-fertility to laissez-faire. The Zambian government slowly started appreciating the effect of rapid population growth after the 1974 Bucharest World Population Conference. Its appreciation of the relation between population growth rate and socio-economic development increased during the 1980s due to the deterioration of the economy and the development of a population debate leading to the adoption of a population policy on May 17, 1989.

The Zambian government laid down a number of targets which include the reduction of population growth rate from 3.7 percent per annum in 1989 to 3.4 percent and 2.5 percent per annum by 2000 and 2015 respectively. It hopes to achieve these targets by making family planning services available, accessible and affordable to at least 30 percent of all adults in need of such services by the year 2000 (*Chipoma, 1989; GRZ, 1989a; Muchelemba, 1989*).

The government believes that the Population and Development Planning Unit of NCDP is the key local institution in population activities. As outlined earlier in this chapter, together with PPAZ, FLMZ, ZCTU and KDFPP, NCDP played a key role in promoting rapid population growth awareness before the adoption of the population policy.

This study has suggested that it will not be easy for the Zambian government and

local and international non-government organization to implement the newly adopted population policy because:

a) Zambians still desire large families;

b) the traditional Zambia marriage system favours early marriages and large families;

c) the traditional Zambian childrearing system gives biological parents the opportunity to share the costs of child rearing with other family members;

d) the status of Zambian women is still low;

e) there is inadequate appreciation of a population problem among Zambians;

f) family planning information is not accessible enough to Zambia's population;

g) the high malnutrition-related child mortality rates has an insurance response effect on couples;

h) the Zambia government does not have enough human and financial resources for effectively implementing the population policy and

i) Zambia's population policy is not yet supported by the Zambian constitution.

The average desired number of children among all the 796 respondents is 5.4. Differentials exist with respondents' rural-urban domicile, gender, age, marital status, religious affiliation, education attainment and household income category. It is significantly higher in rural areas (5.9) than in urban areas (4.8), where children have more roles to play than their urban counterparts. It is also significantly higher among women (6.5) than among men (5.3). Average desired number of children also differ with education attainment. The differences are significant between primary school leavers and post-secondary school leavers are significant. There is no difference in average desired number of children between Protestants and Roman Catholics but differences are evident among respondents from other religious affiliations, for example, average desired number of children are significantly higher among the Jehovah's Witnesses (JWs) than the RCZs.

Evidence from secondary data reveals that another aspect of demographic importance in Zambia is that females marry much younger (before they reach the age of 21) than males. On average females tend to be between five and ten years younger than their husbands. Early marriages are pro-natal because women have a much longer

childbearing period.

This study suggests that the traditional childfostering practice, which is common in Zambia, is also a stimulant to high fertility. Sixty percent of respondents in the sample were living with 1-4 relatives in addition to their biological children. This study also confirms earlier findings that Zambian households are large in both rural and urban areas (*ECA, 1984; Munachonga, 1989; Banda, 1989*). There are even more households with more than six members in urban areas than there are in rural areas. Some individuals or couples in urban areas have the responsibility of looking after their relatives who come from rural areas and who badly need material assistance, especially schooling.

Zambian women have not had equal opportunities in education, employment and politics compared to their male counterparts. In the sphere of education, women have been and continue to be worse off than men. Women can not compete effectively in business with their male counterparts because financial institutions do not entertain requests for loans from a married woman unless the application is accompanied by a consent form signed by her husband (*Baser et al., 1990; Mbulo 1990)*. As regards family planning hospitals demand letters of consent from husbands before any contraception can be given to a married woman (*Mbomena, 1989*). Thus, this study has emphasized that the low status of women is another factor which is likely to retard progress in the implementation of Zambia's population policy.

Another factor which is likely to impede the successful implementation of population policies is the negligible appreciation of the population growth problem among Zambians. While 51.5 percent of the 796 respondents believe that Zambia has some kind of population problem, 46.7 percent believe that Zambia has no population problem. The remaining 1.8 percent indicated that they had no idea whether Zambia has any population problem or not.

In terms of gender, this study has illustrated that population problems are appreciated more among males than females. This might be explained by the fact that men have more access to family planning information than women.

In the case of religious groups, perception of Zambia's population problems is highest among the respondents who are non-Christians, followed by the Protestants. The

RCs have the lowest rating. These results confirm further that the RCs and the JWs refrain from relating problems of low living standards to population numbers vis-a-vis high population growth rate. More respondents with post-secondary education than either the illiterate or those with primary school education think that Zambia has population problems.

Access to family planning information is limited among Zambia's population. In rural areas, family planning information is least accessible through printed media, followed by church meetings, public meetings, personal communication and electronic media. The proportion of people who are able to access family planning information increases with education attainment. More highly educated people have access to family planning information than the illiterate. While printed media still remain the most difficult to access, there are differences in access to information through electronic media among those with secondary and post-secondary education as compared to the illiterates and primary school graduates.

As a results of poor access to family planning information, is limited motivation for the discussion of family size and planning among Zambians. Such discussions are more common in urban areas and among the highly educated than they are in rural areas, or among the more poorly educated and the illiterate. Among traditional societies, discussing family size and family planning is still regarded as taboo.

As a consequence of the constraints outlined above only a very small proportion of adult Zambians use modern contraceptives. By the end of 1988 only 3.5 percent of Zambia's adult population (130,700 males and females) were using modern family planning methods (*Brown et al., 1987; GRZ, 1987*) in Zambia. Use of modern family planning services differs in terms of both geographical regions and methods. In both absolute and relative terms the two major urban provinces (Lusaka and Copper Belt) each have more users than any other rural province.

In terms of religion, use of modern family planning methods is highest among the RCZ affiliates, followed by the RC, the non-affiliates, the UCZ affiliates, the SA affiliates, the NAC affiliates and members of CC. It is negligible among the JWs.

Use of family planning increases with education level. The proportion of

respondents who use family planning is highest among the respondents who have post-secondary education, followed by those who have secondary school education. The relatively more educated are more advantaged in that they have been exposed to western values and can also read family planning posters which are commonly displayed in almost all hospitals and clinics in the country.

We can therefore reject all the five hypotheses because:

1. Although the classification of African countries according the population activities started in 1974 they had never been as clearly classified as has been done in this thesis.

2. The majority of African countries have very high CBRs and yet they have inadequate socio-economic resources. It is threfore logical for them to adopt and implement anti-natalist policies.

3. This thesis has provided that population growth rates for African countries have increased for the past thirty years and yet African governments have tended to wait until their high growth rates and pressure on their resources become very critical before adopting anti-natalist policies. To date traditional culture, and in some cases religious beliefs continue to retard progress in family planning while population continues to grow rapidly.

4. It has been demonstrated in Chapter Six that Zambia's population has been growing since the 1950's. Zambia's population growth rate is currently the highest in the world. An anti-natalist population policy was therefore adopted rather late. It is likely that population growth rate will continue inreasing if the long standing long-standing cultural practices and lack of government support for family planning programs persist as long as Zambia's socio-economic situation fails to improve.

5. There is enough evidence in Chapters Six and Seven which show that there are strong cultural practices and low education levels in Zambia. Zambia's economy is also very weak. The Zambian government will trully find it difficult to implement its newly adopted policy.

8.2. Recommendations

There is no single solution to the problems discussed above. Nevertheless, explicit anti-natalist population policies would help alleviate some of them. A decline in the *dependency ratio* may have favourable consequences at both the household and national levels. Meeting the basic needs of the dependent population would impose less of a burden on both households and the state. More could be invested per child for the improvement of nutrition, schooling, health and other services. Alternatively, households and the government could utilize the resources thereby liberated for capital investment and other productive purposes.

Efficiency in the adoption and implementation of a population policy might be affected by the existing administrative structure. Most Less Developed Countries (LDCs) which have successfully implemented population policies, such as Mauritius, Thailand and Indonesia, have used a decentralized system in which people implement their own programs in their own communities. Local governments at both district and community levels are given the necessary power to decide what programs to adopt. They also have the autonomy to decide how to implement the programs they have chosen. Most of the program officers are recruited from within the community rather than being imposed on the communities by the central government or family planning headquarters. This has proven to be a better system than the centralized one in which planners try to implement family planning programs from first order development centres (national capitals) without being familiar with their clients' customs or traditions.

Serious education programs should be initiated which aim at changing family size norms by emphasizing the varied economic and emotional advantages of having small families, "quality" over "quantity" in family life. The perceived economic costs of children should be highlighted in such programs. Information should stress the high costs of raising children even within the extended family. These motivational campaigns have to be aimed at relevant groups; in Zambia there should be a deliberate focus on rural areas than urban areas, women, the illiterate and those with only primary education and the JWs.

In general, information should be tailored to change attitudes of parents in favour

of small family size norms. Quality of life is enhanced with better health status, good education and less crowding. Most of these life goals may be difficult to achieve with a large number of children. Information programs on advantages of having small families should emphasize these improvements in the quality of life.

The current author's concern about African population programs is the over-reliance on foreign sponsorship. This dependence means that the life span of almost all African population programs depends on foreign donors. It is very likely that in time of recession, donor countries' support for African population programs will decline or disappear altogether, signalling the death of many population programs. There is nothing more frustrating to clients of anti-natal programs than dropping out because programs run short of either human or contraceptive resources. Unfortunately this is a common among most African anti-natal programs.

African governments should make efforts to adopt more viable population policy programs which use internal resources. This approach would help African countries sustain their anti-natalist programs. In the area of personnel, African governments should make serious efforts to train local personnel to fulfil their countries' fertility regulation needs in development and conceptualization of family planning information, education and communication, program planning, management, evaluation and training. In countries where it is necessary to transform people's traditional attitudes towards family size skill improvement in message design through radio, television and discussions, video production, relevant material development and distribution, program management and evaluation is crucial.

Evidence from Zambia and other African countries shows that at the time a population policy was adopted there is limited personnel with knowledge in family planning. It is strongly recommended that African governments should begin the implementation process of their population policies by training trainers of family planning providers. This will produce a 'multiplier effect', in that the larger the number of trainers, the greater the potential for providing training for family planning providers.

In order to effectively implement Zambia's Population Policy it is imperative to change some aspects of Zambian law. To begin with, the entire Population Policy needs

to be legalized. The Zambian government ought to include in its statute a commitment towards population policy. It is only logical that if the solution of the population problem is a matter of national urgency, this has to be reflected in the current legal provisions such as in the National Constitution.

Since available literature has shown that where literacy has improved, fertility has also dropped, deliberate efforts to further improve the education levels of Zambians should also be made. Findings of this study have illustrated that there is a significant positive relationship between parents' education and birth spacing.

Since more people are using modern family planning in Zambia today than in the 1950s, there is a need for contraceptive information updates. This can be achieved through research on the suitability of modern artificial contraception, SNFPMs and traditional methods. Such research should be systematically monitored, measured and evaluated. Research findings should be communicated accordingly.

The implementing agency of the newly adopted population policy should aim at getting information from both potential clients and field workers. Knowing what people need is an essential starting point for family planning projects in developing countries. This can be achieved by involving religious leaders, people at the grassroots level (including traditional leaders), social development officers, agricultural extension officers and teachers, to mention a few, in discussing how best family planning services can be provided to Zambia's adult population. There is need for consultation within communities.

In order to enhance the appreciation for small family sizes it is necessary to improve information networks and education related to family planning. Special focus should be put on the provision of accurate and stimulating information to both current and potential acceptors of modern family planning technology, child spacing, maternal and child health and overall benefits of family planning. This can be achieved by establishing commercial out-reach and community based distribution of family planning, especially in rural areas. Expansion and intensification of the Primary Health Care (PHC) and Maternal and Child Health Care (MCHC) programs should also be given special consideration because experience shows that it is through these programs that many

African women are introduced to modern family planning technology.

Seminars for senior government personnel, other politicians, and family planning providers should be held on regular basis. Where funds permit, such seminars should be followed by visits to countries like Botswana, Mauritius, Tunisia and Zimbabwe which have implemented successful programs. It is suggested that the political structure can be effectively utilized once the people who run it are well informed.

Empirical studies, as well as this study have emphasized the role of improving the status of women in enhancing their ability to access family planning information, to use modern family planning methods, improve their appreciation for smaller families, increase their average child spacing, indirectly increase their marriage age, increase their chance to participate in gainful employment and consequently reduce their TFRs. It is, recommended, therefore, that African countries in general and Zambia in particular should take special measures to raise all levels of female education.

Women's employment should be fostered not only because of the real benefits to the individual and the economy, but it may indirectly help regulate family size, first, by reducing their time for looking after children at home and second, by proving them with an income which lessens their reliance on their children and husbands for both immediate and old age security. Women wishing to participate in business should be given all possible encouragement by facilitating their access to credit. This has not been the case in Zambia where, for example, financial institutions do not entertain requests for loans from a married woman unless the application is accompanied by a consent form signed by their husbands.

Women should be given the freedom to choose whatever type of family planning method they want to use. The Zambian medical system, for example, should refrain from demanding letters of consent from husbands before any contraception can be started. Men who physically abuse their spouses for failing to obtain consent for using contraceptives should be proscuted.

Currently, as pointed out in Chapters Five and Six, there are numerous population units and agencies in Africa in general and Zambia in particular which are inadequately coordinated (through sharing information about constraints of the provision of family

planning services). Any effective implementation of a population policy requires that all such bodies be well coordinated. Each population unit needs to interact with other units as well as with various government sectors, namely, development planning, health, legal, labour and housing, to mention but a few. This would help avoid duplication of activities as well as conflicting programs which end up confusing would-be and current clients.

Empirical studies from Zambia cited in this thesis confirm that malnutrition-related child mortality rate has increased since the mid-1980s. It is therefore fitting to encourage the Zambian government, in cooperation with international institutions, to continue reducing infant and child mortality rates. Every family planning program should also educate parents on proper feeding methods for children.

While the contributions of international agencies to anti-natalist policies in Africa is highly appreciated, it is strongly recommended that such assistance should be rendered as a 'basket of goods'. Such packages should include the funding of small development programs especially in the rural areas which take the form of clubs or cooperatives with special emphasis on family planning education, investment in education, especially for women, provision of teaching aids in child nutrition and the prevention of AIDS. These recommendations are made with the aim of emphasizing that anti-natal policies are bound to fail in most African countries in general and Zambia in particular if the prevailing poverty, diseases and high infant and child death rates and low status of women continue to prevail. Structural adjustment programs by international agencies, which strongly recommend anti-natal policies to African countries should bear these hard facts in mind.

8.3. Suggestions for further research

Although results from this study can serve as a bench-mark for more detailed research, it has not been possible to examine all the facets of values and costs of children which can influence parents' response to an anti-natalist policy. Since the reasons why parents desire certain family sizes are complex and vary from one African culture to another, and even within an individual country like Zambia, it is suggested that interdisciplinary studies on the value of children be continued. This should include detailed anthropological studies. The aim of such studies should be to examine all facets

of the value and costs of children, including community level variables. For example, there is need to collect information on cost-sharing within an extended family. Such information is crucial to the understanding of the dynamics of costs of and values of children in specific African societies. Detailed studies about perceived and actual costs of children and their impact of anti-natalist policies are also necessary. Such information is lacking and difficult to get, yet it is indispensable for an accurate assessment of costs.

Studies regarding sexual behaviour among specific African groups, though sensitive and difficult, are worth pursuing as they would contribute further to not only the understanding of the reasons for high fertility, but also to ways of changing sexual behaviour which negatively affect child spacing, the spread of AIDS, and consequently high infant and child mortality.

9.0: APPENDICES

9.1: APPENDIX A: TABLES

Table A1:
Average desired number of children by rural-urban domicile, age group, marital status and religious affiliation.

Sample	Desired number of children									
	0		1-2		3-4		5-6		7+	
	n	% of row total	n	% of row total	n	% of row total	n	% of row total	n	% of row total
Rural	**-**	**-**	**29**	**5.9**	**123**	**24.9**	**195**	**39.6**	**146**	**29.6**
Kapalu	-	-	3	2.7	27	23.9	41	36.3	42	37.2
Luchena	-	-	5	3.4	39	26.5	63	42.9	40	27.2
Luwingu	-	-	-	-	28	27.7	37	36.6	36	35.6
Nyanje	-	-	18	13.6	32	24.2	54	40.9	28	21.2
Urban	**9**	**2.9**	**9**	**2.9**	**185**	**61.1**	**29**	**9.6**	**71**	**23.4**
Kabwe	-	-	-	-	32	58.2	6	10.9	17	30.9
Livingstone	-	-	-	-	38	71.7	4	7.6	11	20.8
Lusaka	4	-	-	-	86	64.7	6	4.5	37	27.8
Ndola	5	-	9	14.5	29	46.8	13	21.0	6	9.7
Age										
15-19	-	-	6	17.1	8	22.9	7	20.0	14	40.0
20-24	-	-	4	3.8	23	21.9	54	51.4	24	22.9
25-29	-	-	8	5.1	71	45.5	64	41.0	13	8.3
30-34	-	-	1	0.8	42	33.3	45	35.7	37	29.4
35-39	9	6.4	1	0.7	68	48.2	22	15.6	39	27.7
40-44	-	-	13	11.8	34	30.9	24	21.8	39	35.5
45-49	-	-	-	-	30	46.9	4	6.3	30	46.9
50+	-	-	2	3.4	36	61.0	5	8.5	24	40.7
Marital status										
Divorced	-	-	2	4.8	22	52.4	6	14.3	12	28.6
Married	9	1.5	26	4.3	216	36.0	176	29.3	173	28.8
Single	-	-	7	4.6	72	47.7	42	27.8	30	19.9
Separated	-	-	-	-	1	100.0	-	-	-	-
Widowed	-	-	-	-	-	-	-	-	2	100.0

Table A1: continued.

Sample	Desired number of children									
	0		1-2		3-4		5-6		7+	
	n	% of row total	n	% of row total	n	% of row total	n	% of row total	n	% of row total
Religious affiliation										
Protestants	**2**	**0.4**	**35**	**6.8**	**182**	**35.5**	**143**	**27.9**	**151**	29.4
CHC	-	-	-	-	2	40.0	3	60.0	-	-
NAP	-	-	4	10.5	6	30.8	23	60.5	5	13.2
RCZ	2	1.6	27	21.4	49	38.9	35	27.8	13	10.3
SA	-	-	-	-	6	75.0	2	25.0	-	-
SDA	-	-	-	-	33	37.9	15	17.2	39	44.8
UCZ	-	-	4	2.0	73	35.6	55	26.8	73	35.6
JWs	-	-	-	-	13	30.2	10	23.3	20	46.5
ZION	-	-	-	-	-	-	-	-	1	100.0
Roman Catholics	**7**	**3.1**	**-**	**-**	**103**	**46.1**	**62**	**27.8**	**51**	**22.9**
Non-christians	**-**	**-**	**-**	**-**	**26**	**43.3**	**19**	**31.7**	**15**	**25.0**

Table A2:
Additional members of the household apart from own biological children by rural-urban domicile, age group, marital status, and religious affiliation.

Sample	Additional children							
	0		1-2		3-4		5+	
	n	% of row total	n	% of row total	n	% of row total	n	% of row total
Rural	**299**	**61.0**	**123**	**25.1**	**53**	**10.8**	**17**	**3.5**
Kapalu	81	71.7	20	17.7	10	8.9	2	1.8
Luchena	81	51.1	41	27.9	17	11.6	8	5.4
Luwingu	40	39.6	42	41.6	18	17.8	1	1.0
Nyanje	97	73.5	21	15.9	8	6.1	6	4.6
Urban	**100**	**32.9**	**113**	**36.9**	**56**	**18.3**	**35**	**11.4**
Kabwe	19	34.6	27	49.1	9	16.4	-	-
Livingstone	20	37.7	5	9.4	17	32.1	11	20.8
Lusaka	38	28.6	60	45.1	15	11.3	20	15.0
Ndola	23	37.1	20	32.3	15	24.2	4	6.5
Age group								
15-19	31	88.6	2	5.7	-	-	2	5.7
20-24	75	71.4	28	26.7	2	1.9	-	-
25-29	98	62.8	41	26.3	15	9.6	2	1.3
30-34	52	41.3	53	42.1	28	22.2	2	1.6
35-39	36	25.5	41	29.1	29	20.6	35	24.8
40-44	41	37.3	45	40.9	18	16.4	6	5.5
45-49	20	31.3	29	45.3	13	20.3	2	3.1
50-54	19	76.0	-	-	4	16.0	2	8.0
55-59	-	-	18	94.7	-	-	1	5.3
60+	9	60.0	6	40.0	-	-	-	-

Table A2: continued

Sample	Additional children							
	0		1-2		3-4		5+	
	n	% of row total	n	% of row total	n	% of row total	n	% of row total
Marital status								
Divorced	14	33.3	9	21.4	11	26.2	8	19.1
Married	305	50.8	191	31.8	72	12.0	32	5.3
Single	77	51.0	36	23.8	26	17.2	12	7.9
Separated	1	100.0	-	-	-	-	-	-
Widowed	2	100.0	-	-	-	-	-	-
Religious affiliation								
Protestants	**257**	**50.5**	**51**	**33.2**	**51**	**10.0**	**32**	**6.3**
CHC	4	60.0	1	20.0	-	-	-	-
NAP	21	57.9	9	23.7	4	10.5	4	10.5
RCZ	51	28.6	40	31.7	15	11.9	20	15.9
SA	47	-	2	25.0	-	-	2	25.0
SDA	47	36.8	31	35.6	9	10.3	-	-
UCZ	105	36.6	75	36.6	19	9.3	6	2.9
JWs	29	46.5	10	23.3	4	9.3	-	-
ZION	-	-	1	100.0	-	-	-	-
Roman Catholic	**108**	**48.4**	**49**	**22.0**	**56**	**17.6**	**10**	**4.5**
Non-Christians	**30**	**50.0**	**18**	**28.1**	**6**	**10.0**	**10**	**16.7**

Table A3:
Gender comparisons of enrolment in higher education and labour force participation in Africa (1960-1989).

	% Enrolment in higher education				% Labour force participation			
	Rate 1960		Rate 1989		Rate 1960		Rate 1989	
Country	W	M	W	M	W	M	W	M
North Africa								
Algeria	-	-	3	7	4	83	14	78
Egypt	5	10	13	25	9	88	7	84
Libya	-	1	2	8	4	87	5	83
Morocco	-	-	4	11	9	90	14	82
Sudan	-	-	1	1	10	96	12	94
Tunisia	-	1	5	9	5	88	7	81
W.Sahara	-	-	-	-	-	-	-	-
West Africa								
Benin	-	-	1	3	75	95	69	91
B/Faso	-	-	-	-	-	-	-	-
C/Verde	-	-	-	-	-	-	-	-
I/Coast	-	-	2	5	81	95	75	93
Gambia	-	-	-	1	79	93	71	89
Ghana	-	-	-	2	63	87	56	82
Guinea	-	-	3	11	64	95	59	92
G/Bissau	-	-	-	-	-	-	-	-
Liberia	-	-	2	6	44	90	39	86
Mauritania	-	-	-	2	4	97	4	95
Niger	-	-	-	1	10	98	11	96
Nigeria	-	-	1	6	59	87	53	83
Senegal	-	1	2	5	60	92	54	88
S/Leone	-	-	-	1	48	90	43	85
Togo	-	-	1	6	53	93	54	88

Table A3: continued.

	% Enrolment in higher education				% Labour force participation			
	Rate 1960		Rate 1989		Rate 1960		Rate 1989	
East Africa								
Burundi	-	-	-	1	76	94	70	91
Comoros	-	-	-	-	-	-	-	-
Djibouti	-	-	-	-	-	-	-	-
Ethiopia	-	-	1	2	51	96	47	94
Kenya	-	-	1	3	48	95	44	99
Madagascar	-	-	2	4	80	96	74	94
Malawi	-	-	-	1	54	96	54	94
Mali	-	-	1	3	90	97	85	96
Mauritius	-	-	2	5	22	91	25	86
Mozambique	-	1	-	1	33	97	31	94
Reunion	-	-	-	-	-	-	-	-
Rwanda	-	-	-	1	90	96	85	94
Seychelles	-	-	-	-	-	-	-	-
Somalia	-	-	1	5	41	96	37	93
Tanzania	-	-	-	1	54	96	50	93
Uganda	-	-	1	1	50	96	46	94
Zambia	**-**	**-**	**1**	**6**	**46**	**95**	**41**	**95**
Zimbabwe	-	-	-	-	39	92	36	87
Middle Africa								
Angola	-	-	-	-	8	92	9	88
Cameroon	-	-	1	4	67	93	62	90
CAR	-	-	1	4	89	96	83	94
Chad	-	-	-	1	28	94	28	92
Congo	-	-	1	8	45	85	43	80
E/Guinea	-	4	1	6	4	95	4	92
Gabon	-	-	1	4	60	91	54	88
S/Principe	-	-	-	-	-	-	-	-
Zaire	-	-	1	3	68	90	60	86

Table A3: continued.

	% Enrolment in higher education				% Labour force participation			
	Rate 1960		Rate 1989		Rate 1960		Rate 1989	
South Africa								
Botswana	-	-	3	3	80	88	73	84
Lesotho	-	-	5	3	78	96	72	94
Namibia	-	-	-	-	-	-	-	-
S/Africa	-	-	-	-	28	91	46	86
Swaziland	-	-	5	5	78	90	71	86

Sources: Sivard (1985:41), UN (1987; 1989; 1990).

Table A4:
National ratification of selected international conventions on the rights of women in African countries (1985)

Region/ country	Elimination of all discrimination	Equal political rights	Equal marriage rights	Equality in education	Equal pay for equal value	Maternity protection	Equality in employment
North Africa							
Algeria	-	-	-	R	R	-	R
Egypt	R	R	-	R	R	-	R
Libya	-	-	-	R	R	R	R
Morocco	-	R	-	R	R	-	R
Sudan	-	-	-	-	R	-	R
Tunisia	S	R	R	R	R	-	R
W.Sahara	-	-	-	-	-	-	-
West Africa							
Benin	S	-	R	R	R	-	R
B/Faso	-	-	R	-	R	-	R
C/Verde	-	-	-	-	-	-	-
I/Coast	S	-	-	-	R	-	R
Gambia	S	-	-	-	-	-	-
Ghana	S	R	-	-	R	-	R
Guinea	R	R	R	R	R	-	R
G/Bissau	-	-	-	-	-	-	-
Liberia	-	S	-	R	-	-	R
Mauritania	-	R	-	-	-	-	R
Niger	-	R	-	R	R	-	-
Nigeria	-	R	-	R	R	-	-
Senegal	S	R	-	R	R	-	R
S/Leone	-	R	-	R	R	-	R
Togo	R	-	-	-	-	-	-
East Africa							
Burundi	S	-	-	-	-	-	-
Comoros	-	-	-	-	-	-	-
Djibouti	-	-	-	-	-	-	-
Ethiopia	R	R	-	-	-	-	R

Table A4: continued.

Region/ country	Elimination of all discrimination	Equal political rights	Equal marriage rights	Equality in education	Equal pay for equal value	Maternity protection	Equality in employment
East Africa							
Kenya	-	-	-	-	-	-	-
Madagascar	S	R	-	R	R	-	R
Malawi	-	R	-	-	R	-	R
Mali	-	R	R	-	R	-	R
Mauritius	-	R	-	-	-	-	-
Mozambique	-	-	-	-	R	-	R
Reunion	-	-	-	-	-	-	-
Rwanda	R	-	-	-	R	-	R
Seychelles	-	-	-	-	-	-	-
Somalia	-	-	-	-	-	-	R
Tanzania	S	R	-	R	-	-	-
Uganda	S	-	-	R	-	-	-
Zambia	**S**	**R**	**-**	**R**	**R**	**R**	**R**
Zimbabwe	-	-	-	-	-	-	-
Middle Africa							
Angola	-	-	-	-	R	-	R
Cameroon	S	-	-	-	R	-	R
CAR	-	R	-	R	R	-	R
Chad	-	-	-	-	R	-	R
Congo	R	R	-	R	-	-	-
E/Guinea	-	-	-	-	-	-	-
Gabon	R	R	-	-	R	-	R
S/Principe	-	-	-	-	-	-	-
Zaire	S	R	-	-	R	-	-
South Africa							
Botswana	-	-	-	-	-	-	-
Lesotho	S	R	-	-	-	-	-
Namibia	-	-	-	-	-	-	-

Table A4: continued.

Region/ country	Elimination of all discrimination	Equal political rights	Equal marriage rights	Equality in education	Equal pay for equal value	Maternity protection	Equality in employment
South Africa							
S/Africa	-	-	-	-	-	-	-
Swaziland	-	R	-	R	R	-	R

R -- Ratified or Acceded. **S --- Signed but did not ratify.**
Sources: Sivard (1985:30).

Table A5:
Whether or not Zambia has population problems by rural-urban domicile, age group, marital status and religious affiliation.

Sample	Response					
	Yes		No idea		No	
	n	% of row total	n	% of row total	n	% of row total
Rural	**253**	**51.3**	**13**	**2.6**	**227**	**46.1**
Kapalu	63	55.8	3	2.7	47	41.6
Luchena	75	51.0	2	1.4	70	47.6
Luwingu	50	49.5	-	-	51	50.5
Nyanje	65	49.2	8	6.1	59	44.7
Urban	**157**	**51.8**	**1**	**0.3**	**145**	**47.8**
Kabwe	32	58.2	-	-	23	41.8
Livingstone	27	50.9	-	-	26	49.1
Lusaka	74	55.6	1	0.8	58	51.1
Ndola	24	38.7	-	-	38	61.1
Age group						
15-19	25	77.4	2	5.7	8	22.9
20-24	71	67.6	3	2.9	31	29.5
25-29	82	52.6	4	2.6	70	44.9
30-34	61	48.4	-	-	65	51.6
35-39	60	42.6	2	1.4	79	56.0
40-44	44	40.0	-	-	66	60.0
45-49	33	51.6	-	-	31	48.4
50-54	13	52.0	-	-	12	48.0
55-59	13	68.4	1	5.3	5	26.3
60+	13	86.6	2	13.3	-	-
Marital status						
Divorced	36	85.7	-	-	6	14.3
Married	319	53.2	2	0.3	279	46.5
Single	52	34.4	12	8.0	87	57.6
Separated	1	100.0	-	-	-	-
Widowed	2	100.0	-	-	-	-

Table A5: continued.

Sample	Response					
	Yes		No idea		No	
	n	% of row total	n	% of row total	n	% of row total
Religious affiliation						
Protestants	**297**	**57.9**	**13**	**2.5**	**203**	**39.6**
CHC	3	60.0	1	20.0	1	20.0
NAC	24	63.2	-	-	14	36.8
RCZ	74	58.7	6	4.8	46	36.5
SA	4	50.0	2	25.0	2	25.0
SDA	53	60.9	-	-	34	39.1
UCZ	126	61.5	2	1.0	77	37.7
JWs	13	30.2	1	2.3	29	67.4
Zion	-	-	1	100.0	-	-
RCs	**68**	**30.5**	**-**	**-**	**155**	**69.5**
Non-Christian	**45**	**75.0**	**1**	**1.7**	**14**	**23.3**
Total	**410**	**51.5**	**14**	**1.8**	**372**	**46.7**

Table A6:
Frequency of exposure to family planning discussions on electronic media, at public meetings, in church and through personal communication and printed media by age group, marital status, religious affiliation, education attainment and household income groups.

Sample	Number of times per month							
	0		1		2		3+	
Source	n	% of age group	n	% of age group	n	% of age group	n	% of age group
Age group								
15-19								
Electronic media	25	78.1	8	22.9	2	5.7	-	-
Public meetings	27	77.1	8	22.9	-	-	-	-
Church meeting	29	82.9	6	17.1	-	-	-	-
Personal communication	19	54.3	16	45.7	-	-	-	-
Printed media	35	100.0	-	-	-	-	-	-
20-24								
Electronic media	66	63.5	28	26.9	5	4.8	5	4.8
Public meetings	67	64.4	30	28.9	3	2.9	4	3.9
Church meetings	94	90.4	8	7.7	-	-	-	-
Personal communication	58	55.8	27	26.0	15	14.4	4	3.9
Printed media	94	90.4	5	4.8	-	-	5	4.8
25-29								
Electronic media	67	43.0	26	16.7	15	9.6	48	30.8
Public meetings	89	57.1	48	30.8	9	5.8	10	6.4
Church meetings	111	71.1	27	17.3	6	3.9	10	6.4
Personal communication	71	45.5	34	21.8	24	15.4	27	7.0

Table A6: continued.

Sample	Number of times per month							
	0		1		2		3+	
Source	n	% of age group	n	% of age group	n	% of age group	n	% of age group
Age group 25-29								
Printed media	98	62.8	42	26.9	10	6.4	6	3.9
Age group 30-34								
Electronic media	46	36.5	28	22.2	12	9.5	40	31.8
Public meetings	67	53.2	38	30.2	17	13.5	4	3.2
Church meetings	83	65.9	24	19.1	14	11.1	5	4.0
Personal communication	61	48.4	31	24.6	25	19.8	9	7.1
Printed media	67	53.2	37	29.4	18	14.3	4	3.2
35-39								
Electronic media	38	27.0	31	22.0	19	13.5	53	38.7
Public meetings	49	34.8	49	34.8	24	17.0	19	13.5
Church meetings	97	68.8	28	19.9	9	6.4	5	3.5
Personal communication	46	32.6	34	24.1	44	31.2	17	12.4
Printed media	50	35.5	59	41.8	27	19.2	5	3.5
40-44								
Electronic media	30	27.3	28	25.5	20	18.2	32	29.3
Public meetings	47	42.7	38	34.6	20	18.2	5	3.5
Church meetings	87	79.1	11	10.0	7	6.4	5	3.5
Personal communication	50	45.5	32	29.1	20	18.2	8	7.3
Printed media	53	48.2	36	32.7	13	11.8	8	7.3

Table A6: continued.

Sample	Number of times per month							
	0		1		2		3+	
Source	n	% of age group	n	% of age group	n	% of age group	n	% of age group
Age group								
45-49								
Electronic media	15	23.8	18	28.6	11	17.5	19	30.1
Public meetings	22	34.9	17	27.0	13	20.6	11	17.5
Church meetings	57	90.5	2	3.2	4	6.4	-	-
Personal communication	21	33.3	14	22.2	18	28.6	10	15.9
Printed media	35	55.6	16	25.4	10	15.9	2	3.2
50+								
Electric media	16	27.1	14	23.7	10	17.0	29	32.2
Public meetings	33	55.9	8	13.6	14	23.7	4	6.8
Church meetings	34	57.6	7	11.9	14	23.7	4	6.8
Personal communication	35	59.3	9	15.3	13	22.0	2	3.4
Printed media	29	49.2	16	27.1	14	23.7	-	-
Marital Status								
Divorced								
Electronic media	18	42.9	4	9.5	5	11.9	15	35.7
Public meetings	16	38.1	10	23.8	5	11.9	11	26.2
Church meetings	25	59.5	4	9.5	4	9.5	9	21.4
Personal communication	14	33.3	11	26.2	9	21.4	8	19.1
Printed media	22	52.4	10	23.8	6	14.3	4	9.5

Table A6: continued.

Sample	Number of times per month							
	0		1		2		3+	
Source	n	% of marital group	n	% of marital group	n	% of marital group	n	% of marital group
Marital status								
Married								
Electronic media	222	37.0	157	26.2	60	10.0	161	26.8
Public meetings	327	54.5	171	28.5	70	11.7	32	5.3
Church meetings	442	73.7	91	15.2	40	6.7	27	4.5
Personal communication	263	43.8	136	22.7	107	17.8	94	15.7
Printed media	361	60.2	154	25.7	66	11.0	19	3.2
Single								
Electronic media	57	37.8	20	13.3	22	14.6	52	34.4
Public meetings	73	48.3	40	26.5	25	16.6	13	8.6
Church meetings	117	77.5	18	11.9	10	6.6	6	4.0
Personal communication	67	44.4	29	19.2	16	10.6	39	4.9
Printed media	76	50.3	47	31.1	20	13.3	8	5.3
Separated								
Electronic media	1	100.0	-	-	-	-	-	-
Public meetings	1	100.0	-	-	-	-	-	-
Church meetings	1	100.0	-	-	-	-	-	-
Personal communication	1	100.0	-	-	-	-	-	-
Printed media	1	100.0	-	-	-	-	-	-

Table A6: continued.

Sample	Number of times per month							
	0		1		2		3+	
Source	n	% of marital group	n	% of marital group	n	% of marital group	n	% of marital group
Marital status								
Widowed								
Electronic media	-	-	-	-	2	100.0	-	-
Public meetings	2	100.0	-	-	-	-	-	-
Church meetings	2	100.0	-	-	-	-	-	-
Personal communication	2	100.0	-	-	-	-	-	-
Printed media	2	100.0	-	-	-	-	-	-
Source	n	% of religious group	n	% of religious group	n	% of religious group	n	% of religious group
Religious group								
No affiliation								
Electronic media	24	40.0	17	28.3	6	10.0	13	21.7
Public meetings	34	56.7	19	31.7	-	-	7	11.7
Church meetings	44	73.3	3	5.0	6	10.0	7	11.7
Personal communication	26	43.3	12	20.0	12	20.0	10	16.7
Printed media	39	65.0	15	25.0	6	10.0	-	-

Table A6: continued.

Sample	Number of times per month							
	0		1		2		3+	
Source	n	% of religious group	n	% of religious group	n	% of religious group	n	% of religious group
Protestants								
Electronic media	207	40.4	108	21.1	48	9.4	150	29.2
Public meetings	284	55.4	129	25.2	66	12.9	31	6.0
Church meetings	393	76.6	64	12.5	33	6.4	23	4.5
Personal communication	239	46.6	111	21.6	78	15.2	85	16.6
Printed media	317	61.8	126	24.6	47	9.2	23	4.5
Roman Catholics								
Electronic media	67	30.0	56	25.1	35	15.7	65	29.2
Public meetings	98	44.0	73	32.7	34	15.3	18	8.1
Church meetings	150	67.3	46	20.6	15	6.7	12	5.4
Personal communication	82	36.8	53	23.8	42	18.8	46	20.6
Printed media	106	47.5	70	31.4	39	17.5	8	3.6
Source	n	% of education group	n	% of education group	n	% of education group	n	% of education group
Education attainment								
Illiterate								
Electronic media	34	72.3	11	23.4	-	-	2	4.3
Public meetings	35	74.5	12	25.5	-	-	-	-
Church meetings	38	80.9	9	19.1	-	-	2	4.3
Personal								

Table A6: continued.

Sample	Number of times per month							
	0		1		2		3+	
Source	n	% of education group	n	% of education group	n	% of education group	n	% of education group
Education attainment								
Illiterate								
communication	29	61.7	13	27.7	3	6.4	2	4.3
Printed media	44	93.6	3	6.4	-	-	-	-
Primary								
Electronic media	134	47.9	24	8.6	10	3.6	10	5.6
Public meetings	203	72.5	64	22.9	11	3.9	2	0.7
Church meetings	226	80.7	34	12.1	14	5.0	4	1.4
Personal communication	151	53.9	56	20.0	30	10.7	43	24.2
Printed media	247	88.2	20	7.1	11	3.9	2	0.7
Secondary								
Electronic media	66	22.7	86	29.6	33	13.3	106	36.4
Public meetings	141	48.5	85	29.2	39	13.4	26	8.9
Church meetings	198	68.0	39	13.4	25	8.6	29	10.0
Personal communication	117	40.2	59	20.3	46	15.8	69	23.7
Printed media	135	46.4	97	33.3	36	12.4	23	7.9
Post Secondary								
Electronic media	30	17.0	26	14.7	38	21.5	83	46.9
Public meetings	39	22.0	60	34.0	50	28.3	28	15.8
Church meetings	124	70.0	31	17.5	15	8.5	7	4.0

Table A6: continued.

Sample	Number of times per month							
	0		1		2		3+	
Source	n	% of education group	n	% of education group	n	% of education group	n	% of education group
Post Secondary								
Personal communication	49	27.7	48	27.1	53	29.9	27	15.3
Printed media	35	19.8	91	51.4	45	25.4	6	3.4
Source	n	% of income group	n	% of income group	n	% of income group	n	% of income group
Household income group								
High								
Electronic media	29	15.3	39	20.6	35	18.5	86	45.5
Public meetings	47	24.9	65	34.4	49	25.9	28	14.8
Church meetings	127	67.2	33	17.5	21	11.1	8	4.2
Personal communications	50	26.5	53	28.0	50	26.5	36	19.1
Printed media	38	20.1	97	51.3	45	23.8	9	4.8
Medium								
Electronic media	55	26.4	51	24.5	28	13.5	74	35.6
Public meetings	96	46.2	68	32.7	26	12.5	18	8.7
Church meetings	145	69.7	27	13.0	19	9.1	17	8.2
Personal communication	77	37.0	46	22.1	40	19.2	45	21.6
Printed media	86	41.4	81	39.0	30	14.4	11	5.3

Table A6: continued.

Sample	Number of times per month							
	0		1		2		3+	
Source	n	% of income group	n	% of income group	n	% of income group	n	% of income group
Low								
Electronic media	214	53.6	91	22.8	26	6.5	68	17.0
Public meetings	276	69.2	88	22.1	25	6.3	10	2.5
Church meetings	315	79.0	53	13.3	14	3.5	17	4.3
Personal communication	220	55.1	77	19.3	42	10.5	60	15.0
Printed media	338	84.7	33	8.3	17	4.3	11	2.8

Table A7:
Frequency of discussion of family planning with spouse.

Sample	Response									
	Never		Very rarely		Rarely		Often		Very often	
	n	% of row total	n	% of row total	n	% of row total	n	% of row total	n	% of row total
Rural	**248**	**50.3**	**4**	**0.8**	**48**	**9.7**	**55**	**11.5**	**138**	**28.0**
Kapalu	68	60.1	2	1.8	8	7.1	16	14.2	19	16.8
Luch-ena	83	56.5	-	-	12	8.2	20	13.6	32	21.8
Luwi-ngu	41	40.6	-	-	25	24.8	14	13.9	21	20.8
Nyanje	56	42.4	2	1.5	3	2.3	5	3.8	66	50.0
Urban	**7**	**2.3**	**-**	**-**	**66**	**21.8**	**131**	**43.2**	**99**	**32.7**
Kabwe	-	-	-	-	11	20.0	30	54.6	14	25.5
Living-stone	3	5.7	-	-	4	7.6	28	52.8	18	34.0
Lusaka	4	3.0	-	-	32	24.1	49	36.8	48	36.1
Ndola	-	-	-	-	19	30.7	24	38.7	19	30.7
Age										
15-19	27	17.1	-	-	6	7.1	-	-	2	5.7
20-24	68	64.8	3	2.9	10	8.2	8	7.6	16	15.2
25-29	45	28.9	1	0.6	12	2.3	34	21.8	64	41.0
30-34	33	26.2	-	-	16	20.0	29	23.0	48	38.1
35-39	24	17.0	-	-	27	7.6	46	32.6	44	31.2
40-44	31	28.2	-	-	8	24.1	44	40.0	27	24.6
45-49	8	12.6	-	-	23	30.7	12	18.8	21	32.8
50+	19	32.2	-	-	12	20.3	13	22.0	15	25.4

Table A7:
Frequency of discussion of family planning with spouse.

Sample	Response									
	Never		Very rarely		Rarely		Often		Very often	
	n	% of row total	n	% of row total	n	% of row total	n	% of row total	n	% of row total
Marital status										
Divorced	20	47.6	-	-	7	16.7	8	19.1	7	16.7
Married	169	28.2	4	0.7	93	15.5	133	16.7	201	33.5
Single	63	41.7	-	-	14	9.3	45	29.8	29	19.2
Separated	1	100.0	-	-	-	-	-	-	-	-
Widowed	2	100.0	-	-	-	-	-	-	-	-
Religious affiliation										
Protestants	**189**	**38.0**	**4**	**0.8**	**59**	**11.9**	**94**	**18.9**	**152**	**30.5**
CHC	3	60.0	-	-	-	-	-	-	2	40.0
NAP	22	57.9	-	-	2	5.3	-	-	8	21.1
RCZ	36	28.6	2	1.6	9	7.1	19	15.1	60	47.6
SA	-	-	-	-	4	50.0	2	25.0	2	25.0
SDA	32	36.8	-	-	13	14.9	29	33.3	13	14.9
UCZ	75	36.6	-	-	8	24.1	44	21.5	48	23.4
JWs	20	46.5	2	4.7	23	30.7	-	-	19	44.2
ZION	1	100.0	-	-	-	-	-	-	-	-

Table A7:
Frequency of discussion of family planning with spouse.

Sample	Response									
	Never		Very rarely		Rarely		Often		Very often	
	n	% of row total	n	% of row total	n	% of row total	n	% of row total	n	% of row total
Religious affiliation										
RCs	**48**	**21.5**	**-**	**-**	**40**	**17.6**	**73**	**32.7**	**62**	**27.8**
Non-Christian	**18**	**30.0**	**-**	**-**	**6**	**10.0**	**13**	**21.7**	**23**	**38.3**
Education attainment										
Illiterate	29	60.4	2	4.2	2	4.2	-	-	15	31.3
Primary	153	54.6	-	-	30	10.7	34	12.1	63	22.5
Secondary	66	23.6	2	0.8	45	18.4	88	36.1	90	38.0
Post-secondary	7	4.0	-	-	37	20.9	64	36.2	69	29.1
Household income group										
High	10	5.3	-	-	37	19.6	72	38.1	70	37.0
Medium	35	16.8	2	1.0	38	18.3	59	28.4	74	35.6
Low	210	52.6	2	0.5	39	9.8	55	13.8	93	23.3

Table A7:
Frequency of discussion of family planning with spouse.

Sample	Never		Very rarely		Rarely		Often		Very often	
	n	% of row total	n	% of row total	n	% of row total	n	% of row total	n	% of row total
Number of live births in family										
0	61	41.8	2	1.4	8	5.8	39	28.1	29	20.9
1-2	71	23.4	-	-	28	13.3	37	17.6	74	35.2
3-4	47	47.6	2	1.1	25	13.8	45	24.9	62	34.3
5-6	28	28.2	-	-	33	22.5	38	25.9	47	32.0
7-8	29	41.7	-	-	16	21.3	20	26.7	10	13.3
9+	18	40.9	-	-	4	9.1	7	15.9	15	34.1

Table A8:
Frequency of discussion of family planning with other relatives and friends by rural-urban domicile, gender, age group, marital status, religious affiliation, education attainment, household income group and number of live births.

Sample	Response									
	Never		Very rarely		Rarely		Often		Very often	
	n	% of row total	n	% of row total	n	% of row total	n	% of row total	n	% of row total
Rural	**319**	**63.7**	**2**	**0.4**	**70**	**14.0**	**41**	**8.2**	**69**	**13.8**
Kapalu	93	82.3	-	-	14	12.4	2	1.8	4	3.5
Luch-ena	101	68.7	-	-	29	19.7	10	6.8	7	4.8
Luwi-ngu	48	47.5	-	-	25	24.8	8	7.9	20	19.8
Nyanje	77	58.3	2	1.5	2	1.5	13	9.9	38	28.8
Urban	**16**	**5.3**	**-**	**-**	**88**	**29.0**	**112**	**37.0**	**87**	**28.7**
Kabwe	2	3.6	-	-	14	25.5	28	50.9	11	20.0
Living-stone	3	5.7	-	-	8	15.1	13	24.5	29	54.7
Lusaka	11	8.3	-	-	42	31.6	49	36.8	31	23.3
Ndola	-	-	-	-	24	38.7	22	35.5	16	25.8
Gender										
Fem-ale	183	49.1	-	-	77	20.6	51	16.6	62	16.6
Male	152	35.9	2	0.5	81	19.2	94	22.2	94	22.2

Table A8: continued.

Sample		Response									
		Never	Very rarely		Rarely		Often		Very often	
	n	% of row total	n	% of row total	n	% of row total	n	% of row total	n	% of row total
Age group										
15-19	29	82.9	-	-	4	11.4	2	5.7	-	-
20-24	78	67.8	1	0.9	14	12.2	4	3.5	8	7.0
25-29	68	43.6	1	0.6	23	14.7	24	15.4	40	25.6
30-34	58	46.0	-	-	25	19.8	21	16.7	22	17.5
35-39	33	23.4	-	-	31	22.0	33	23.0	44	31.2
40-44	33	0.3	-	-	27	24.6	35	38.8	15	13.6
45-49	15	23.4	-	-	17	26.6	18	28.1	14	21.9
50-54	5	15.2	-	-	8	24.2	2	6.1	10	30.3
55-59	6	31.6	-	-	6	31.6	4	21.1	3	15.8
60+	10	66.7	-	-	3	20.0	2	13.3	-	-
Marital status										
Divorced	22	52.4	-	-	7	16.7	-	-	13	31.0
Married	241	40.2	2	0.3	117	19.5	117	19.5	123	20.5
Single	69	45.7	-	-	34	22.5	28	18.5	20	13.3
Separated	1	100.0	-	-	-	-	-	-	-	-
Widowed	2	100.0	-	-	-	-	-	-	-	-

Table A8: continued.

Sample	Response									
	Never		Very rarely		Rarely		Often		Very often	
	n	% of row total	n	% of row total	n	% of row total	n	% of row total	n	% of row total
Religious Affiliation										
Protestants	**228**	**61.5**	**2**	**0.5**	**99**	**26.7**	**90**	**24.3**	**90**	**24.3**
CHC	-	-	-	-	-	-	1	20.0	-	-
NAP	20	52.6	-	-	16	42.1	2	5.3	-	-
RCZ	38	30.2	2	1.6	20	15.9	23	18.3	43	34.1
SA	-	-	-	-	4	50.0	2	25.0	2	25.0
SDA	46	52.9	-	-	20	23.0	11	12.6	10	11.5
UCZ	92	44.9	-	-	39	19.0	50	24.4	24	11.7
JWs	31	72.1	-	-	-	-	1	2.3	11	25.6
ZION	1	100.0	-	-	-	-	-	-	-	-
Roman Catholics	**73**	**32.7**	**-**	**-**	**50**	**22.4**	**49**	**22.0**	**51**	**22.9**
Non-Christian	**30**	**50.0**	**-**	**-**	**9**	**15.0**	**6**	**10.0**	**15**	**25.0**

Table A8: continued.

Sample		Response									
		Never	Very rarely		Rarely		Often		Very often		
	n	% of row total	n	% of row total	n	% of row total	n	% of row total	n	% of row total
Education attainment											
Illiterate	43	89.6	-	-	-	-	-	-	5	10.4
Primary	189	67.0	2	0.7	43	15.2	21	7.5	27	9.6
Secondary	94	32.3	-	-	64	22.0	64	22.0	69	23.7
Post-secondary	9	5.7	-	-	51	32.3	62	39.2	36	22.8
Household income group											
High	18	15.1	-	-	53	44.5	36	30.3	12	10.1
Medium	52	25.0	1	0.5	44	21.2	46	22.1	65	31.3
Low	265	66.4	1	0.3	61	15.3	31	7.8	41	10.3

Table A8: continued.

Sample		Response									
		Never	Very rarely		Rarely		Often		Very often		
	n	% of row total	n	% of row total	n	% of row total	n	% of row total	n	% of row total
Number of live births in family											
0	63	45.3	2	1.4	26	18.7	36	25.9	12	8.6
1-2	96	45.7	-	-	38	18.1	29	13.8	47	22.3
3-4	73	40.3	-	-	36	19.9	26	14.4	46	25.4
5-6	50	34.5	-	-	34	23.4	28	19.3	33	22.8
7-8	33	44.0	-	-	16	21.3	24	32.0	2	2.7
9+	20	45.5	-	-	6	13.6	2	4.6	16	36.4
Total	**335**	**42.1**	**2**	**0.3**	**158**	**19.9**	**145**	**18.2**	**156**	**19.6**

Table A9:
Current use of family planning services by rural-urban domicile, age group, marital status, religious affiliation, education attainment and household income group, .

Sample	Response					
	No		No response		Yes	
	n	% of row total	n	% of row total	n	% of row total
Rural	**321**	**65.4**	**-**	**-**	**169**	**34.6**
Kapalu	100	88.5	-	-	13	11.5
Luchena	110	74.8	-	-	37	25.2
Luwingu	63	62.4	-	-	38	37.6
Nyanje	50	37.9	-	-	82	62.1
Urban	**115**	**37.6**	**-**	**-**	**191**	**62.4**
Kabwe	20	36.4	-	-	35	63.6
Livingstone	24	24.3	-	-	29	54.7
Lusaka	43	32.3	-	-	117	67.7
Ndola	26	41.9	-	-	36	58.1
Age						
15-19	28	80.0	-	-	7	20.6
20-24	78	74.3	-	-	27	25.7
25-29	75	48.1	-	-	81	51.9
30-34	55	46.2	-	-	71	59.7
35-39	53	37.6	-	-	88	62.4
40-44	56	50.9	-	-	54	49.1
45-49	42	65.6	-	-	22	34.4
50-54	21	84.0	-	-	4	16.0
55-59	14	73.7	-	-	5	26.3
60+	14	93.3	-	-	1	6.7
Marital status						
Divorced	22	52.4	-	-	20	47.6
Married	331	55.2	-	-	269	44.8
Single	80	53.0	-	-	71	47.0
Separated	1	100.0	-	-	-	-
Widowed	2	100.0	-	-	-	-

Table A9: continued.

Sample	Response					
	No		No response		Yes	
	n	% of row total	n	% of row total	n	% of row total
Religious affiliation						
Protestants	**289**	**56.3**	**-**	**-**	**224**	**43.7**
CHC	4	80.0	-	-	1	20.0
NAC	27	71.1	-	-	11	29.0
RCZ	44	34.9	-	-	82	65.1
SA	5	62.5	-	-	3	37.5
SDA	59	67.8	-	-	32	32.2
UCZ	128	62.4	-	-	77	37.6
JWs	21	48.8	-	-	22	51.2
Zion	1	100.0	-	-	-	-
Roman Catholic	**118**	**52.9**	**-**	**-**	**105**	**47.1**
Non-Christian	**29**	**48.3**	**-**	**-**	**31**	**56.7**
Education attainment						
None	31	64.6	-	-	17	35.4
Primary	193	68.9	-	-	87	31.1
Secondary	141	48.5	-	-	150	51.6
Post Secondary	71	40.1	-	-	106	59.9

Table A9: continued.

Sample	Response					
	No		No response		Yes	
	n	% of row total	n	% of row total	n	% of row total
Household Income group						
High	79	41.8	-	-	110	58.2
Medium	83	39.9	-	-	125	60.1
Low	274	68.7	-	-	125	31.3
Total	**354**	**44.5**	**-**	**-**	**440**	**55.4**

Table A10:
Expected future use and non-use of family planning services.

Sample	Response					
	No		No response		Yes	
	n	% of row total	n	% of row total	n	% of row total
Rural	**263**	**53.4**	**2**	**0.4**	**228**	**46.2**
Kapalu	74	65.5	-	-	39	34.5
Luchena	107	72.8	2	1.4	38	25.9
Luwingu	39	38.6	-	-	62	61.4
Nyanje	43	32.6	-	-	89	67.4
Urban	**74**	**24.4**	**-**	**-**	**229**	**75.6**
Kabwe	16	29.1	-	-	39	70.9
Livingstone	6	11.3	-	-	47	88.7
Lusaka	30	22.6	-	-	103	77.4
Ndola	22	35.5	-	-	40	64.5
Gender						
Female	185	49.6	-	-	188	50.4
Male	152	35.9	2	0.5	269	63.6
Age cohort						
15-19	28	80.0	-	-	7	20.0
20-24	54	51.4	2	1.9	49	46.7
25-29	53	34.0	-	-	103	66.0
30-34	50	39.7	-	-	76	60.0
35-39	39	27.7	-	-	102	72.3
40-44	43	39.1	-	-	67	60.9
45-49	38	59.4	-	-	26	40.6
50-54	15	60.0	-	-	10	40.0
55-59	7	36.8	-	-	12	63.2
60+	10	66.7	-	-	5	33.3

Table A10: continued

Sample	Response					
	No		No response		Yes	
	n	% of row total	n	% of row total	n	% of row total
Marital status						
Divorced	18	42.9	-	-	24	57.1
Married	257	42.8	-	-	343	57.2
Single	59	39.1	2	1.3	90	59.6
Separated	1	100.0	-	-	-	-
Widowed	2	100.0	-	-	-	-
Religious affiliation						
Protestants	**84**	**16.4**	**-**	**-**	**429**	**83.6**
CHC	2	40.0	-	-	3	60.0
NAC	25	65.8	-	-	13	34.2
RCZ	36	28.6	-	-	90	71.4
SA	6	75.0	-	-	2	25.0
SDA	36	41.4	-	-	51	58.6
UCZ	120	58.5	-	-	85	41.5
JWs	17	39.5	-	-	26	60.5
Zion	-	-	-	-	1	100.0
Roman Catholic	**33**	**14.8**	**-**	**-**	**190**	**85.2**
Non-Christian	**28**	**46.7**	**-**	**-**	**32**	**53.3**
Education attainment						
Illiterate	23	47.9	2	4.2	23	47.9
Primary	175	53.4	-	-	105	32.0
Secondary	83	28.5	-	-	188	64.6
Post Secondary	36	20.3	-	-	130	7.4

Table A10: continued

Sample	Response					
	No		No response		Yes	
	n	% of row total	n	% of row total	n	% of row total
Household Income group						
High	44	23.3	-	-	145	76.7
Medium	56	26.9	1	0.5	151	72.6
Low	237	59.4	1	0.3	161	40.4
Total	**337**	**42.3**	**2**	**0.3**	**457**	**57.4**

9.2: APPENDIX B: SOURCES OF SECONDARY DATA

A. **In Canada and the US**

. at University of Manitoba Dafoe Library, in Winnipeg

- general background information on population policy.

. at the United Nations Headquarters (Population Policy Section), New York

- Population policy briefs, individual country files and UN minutes for program planning,
- Reports on inquiries among governments on population and development,
- Volumes 1, 2 and 3 (a complete set) of the most recent population policies for individual countries, and
- International Family Planning field reports.

. Population Council (PC), New York

- Relevant articles (focusing on anti-natal population policies and programs) from different issues of the Population and Development Review,
- Relevant issues from Studies in Family Planning, and
- the Population Council working papers on population policies.

. at Futures Group (FG), Washington DC

- Country reports of the Rapid II population policy workshop held in Zimbabwe from May 12 to May 16, 1989, and
- country reports on the interrelationship of population and development.

. at the Population Crisis Committee (PCC), Washington DC

- annual reports on population stabilization and access to contraception.

. World Bank (WB), Washington DC

- country report (Zambia) - Population, health and nutrition status,
- Africa's population policy reports,
- the 1984 World Development reports, and
- World Bank Staff working papers.

. Population Reference Bureau (PRB), Washington DC

- relevant issues of the Population Bulletin,
- current and back issues of the World Population Data Sheet, and

- individual country population policy briefs.

B. In Zambia

. University of Zambia, Lusaka

- Times of Zambia, Zambia Daily Mail, Sunday Times and National Mirror News
- newspaper feature articles and commentaries on population issues.

. Planned Parenthood Association of Zambia (PPAZ), Lusaka

- PPAZ annual research projects and branch reports.

. Central Statistical Office, Lusaka

- 1969 and 1980 census reports,
- country profiles,
- population monographs, and
- survey reports on Zambian fertility, labour and household income situation.

. Family Life Movement of Zambia, Lusaka

- FLMZ annual reports and field work reports.

. National Commission for Development Planning (NCDP), Lusaka

- National Development Reports, and
- National Population seminar papers and reports.

9.3: APPENDIX C:

INTERVIEW SCHEDULE ON STATUS OF POPULATION POLICIES IN AFRICA WITH SPECIAL EMPHASIS ON ZAMBIA.

A: BASIC INFORMATION:

I would like to have some basic infirmation about you.

1. How old are you?

.....

.....

2. In which province were you born?

.....

.....

(*If you were born outside Zambia indicate country of birth as well*)

3. Gender:

Male.....

Female.....

4. What was you highest education attainment?

.....

.....

5. What is your religious denomination?

.....

6. What is your occupation?

.....

(*If you are in formal employment state what your current rank is?*)

7. In which residential area do you live?

.....

B: MIGRATION HISTORY

Please assist me by informing me about your migration history.

8. For how long have you lived in this residential area?

.....

.....

9. Where did you live before you moved to this residential?

.....

.....

10. For how long did you live in that area?

.....

.....

11. Where did you live before moving to the area you indicated in Q10?

.....

.....

12. For how long did you live in the area you indicated in your answer to Q11?

.....

.....

C. FAMILY HISTORY

I now would like to know about your family history.

13. What is your marital status?

Single.....

Married.....(date of marriage or union.....).

Widowed.....

Separated.....

Divorced.....

14. When did you marry your spouse?/When did you start seeing your partner?

.....

.....

15. How many live births have you had so far?

.....

.....

(Please indicate each child's date of birth and date of death (in the case of those children

who died)

First born:.....

Second born.....

Third born.....

Fifth born.....

Sixth born.....

Seventh born.....

Eighth born.....

Ninth born.....

Tenth born.....

If the number of births exceed 10 the research assistant is advised to write the additional information at the back of this questionnaire.

16. Which of your children is/are currently within your household (i.e. under your direct support in terms of feeding, clothing, school expenses and provision of shelter)?

First born.....

Second born.....

Third born.....

Forth born.....

Fifth born.....

Sixth born.....

Seventh born.....

Eighth born.....

Ninth born.....

Tenth born.....

17. How many more children would you like to have?

Boys.....

Girls.....

If you want to bear more children proceed to Q18. If you do not want to skip Q18 and

*attempt Q*19.

18. State reasons why you want to have more children

.....

.....

.....

19. How many other dependants do you have apart from your own children?

.....

.....

*If you do not stay with any other dependants apart from your own children skip Q20 and attempt Q*21.

20. In what ways do you support these dependants?

.....

.....

21. How well do you think you are managing in supporting your children and your dependants?

Not well.....

Not very well.....

Fairy well.....

Well.....

Very well.....

22. Briefly explain why you think the answer you have given to Q21 is the best you can ever give.

.....

.....

.....

D. YOUR OPINION ABOUT ZAMBIA'S POPULATION SITUATION:

I would like you to tell me what you think about Zambia's population situation.

23. Do you think Zambia has any population problem?

Yes.....

No.....

If your answer to Q23 is Yes attempt Q24. If it is No skip Q24 and go straight to Q25.

24. List the problems in order of their importance.

i).....

ii).....

iii).....

E. ATTITUDE TO AND USE OF FAMILY PLANNING:

I would like to know about your attitude to and use of family planning.

25. How many children would you like to have in your life time?

.....

26. Why do you think so?

.....

27. How often do you discuss your family size with your spouse?

Never	Very rarely	Rarely	Often	Very often.
.....	.....	.....	.....	.....

28. How often do you discuss your family size with your other relations and friends?

Never	Very rarely	Rarely	Often	Very often.
.....	.....	.....	.....	.....

29. How often do you hear people discuss family planning on/in/through

	Daily	3x/wk	2x/wk	1x/wk	2x/m.	1x/m.	Never.
electronic media?	.....						
public meeting?	.....						
church meeting?	.....						

personal

communication .....

printed media? .....

30. Have you ever used any family planning method?

Yes.....

No.....

31. Which ones have you ever used?

.....

.....

.....

32. Which ones are you still using?

.....

.....

.....

33. Do you think you and your spouse may use any method to prevent pregnancy at any time in the near future?

Yes.....

[proceed to Q34]

No.....

[Go to Q35]

34. Why?

.....

.....

35. Why not?

.....

36. Do you know where you can go and get family planning advice?

Yes.....

[proceed to Q37]

No.....

[proceed to Q41]

37. Have you ever gone there to get family planning advice?

Yes.....

[proceed to Q38]

No.....

[*proceed to Q41*]

38. Where did you go last time? [*check (/)* the appropriate response]

Family planning clinic.....

Hospital.....

Family planning field worker.....

Pharmacy.....

Family doctor or mid wife.....

Other *[specify]*.....

39. How would you rate the satisfaction you got on your last visit to the source you indicated in question 38?

.....

.....

40. Will you go to.....*[last place or person visited]* in the future when you will be in need of either family planning advice or supplies?

Yes.....

[proceed to Q42]

No.....

[proceed to Q41]

41. Why not?

.....

.....

42. Do you think it is advisable for the Zambian government to take action in order

their families?

Yes.....

[proceed to Q43]

No.....

[Go to Q44]

43. Why should it do so?

.....

.....

.....

44. Why not?

.....

.....

THANK YOU FOR YOUR COOPERATION.

END INTERVIEW

9.4: APPENDIX D: QUESTIONS FOR UNSTRUCTURED INTERVIEWS

I would like to know about your institution's stand and role about Zambia's population situation.

1. To the best of your knowledge, when was your institution established?
2. What are your organization's objectives?
3. How does your organization intend to achieve these objectives?
4. What has been your organization's achievement since its inception?
5. What kind of support does your institution get from the central government?
6. What kind of support does your institution get from other governmental ministries or departments?
7. Do you think this support is adequate?

very adequate	adequate	fairly adequate	inadequate	very inadequate
.....	.....	.....	.....	.....

8. Briefly explain why you think so.
9. What kind of support does your organization get from local non governmental organizations? (please give specific names of such organizations where ever possible)
10. Do you consider this support to be adequate?

very adequate	adequate	fairly adequate	inadequate	very inadequate
.....	.....	.....	.....	.....

11. What role in your institution playing in order to speed up the implementation of the population policy?
12. What do you anticipate it will do?
13. What problems do you think your institution will encounter in trying to help the government implement the population policy?

THANK YOU FOR MAKING THIS INTERVIEW SUCH A SUCCESS.

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