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TITLE: THE SOCIO-ECONOMIC CHARACTERISTICS OF CURRENT
CONTRACEPTIVE USERS: A COMPARATIVE ANALYSIS
OF NYERI AND SOUTH NYANZA //



BY

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DECLARATION

This paper is my original work and has not been presented for an award in any other University.

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25th Oct' 1990

This paper has been submitted for examination with my approval.

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{111}

DEDICATION:

This work is dedicated to my husband Dr. G.G. Kamau without whose encouragement my academic achievements would never have been the same, and to my children, Christine, Steven, Virginia and Nelson for their patience and understanding.

ACKNOWLEDGEMENT.

Several people contributed a lot to the completion of this work. I am grateful to them for their active cooperation.

I feel happy to mention the names of the persons who have helped me in the completion of this work. I am grateful to them for their active cooperation.

Especially I would like to mention the names of the persons who have rendered me valuable suggestions and advice. I am grateful to them for their active cooperation. I am also grateful to them for their assistance they were always ready to offer to us.

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My special thanks go to Mrs. Kamau for tirelessly
typing my work when the time limit was so short.

(vi)

ABSTRACT:

This study was set up to investigate how the socio-economic background of currently married women influences current contraceptive use in Nyeri and South Nyanza. The characteristics investigated were wives' education and working status, husbands' education and working status. General reasons for non-use were also outlined.

The data used was collected from KDHS (1989).

The method of data analysis included percentages cross tabulation but the main statistical technique was the chi-square test.

The findings show that women's socio-economic status have greatly influenced contraceptive use in Nyeri where women are more literate and more independent of their husbands than in South Nyanza where the husbands' socio-economic status seems to influence the contraception.

As a whole Nyeri enjoys a more socio-economic development than South Nyanza whose development lags behind while infant mortality, diseases, climate, lack of funds and lack of project implementations seem to block any attempts to improve the situation and to raise the level of contraceptive use.

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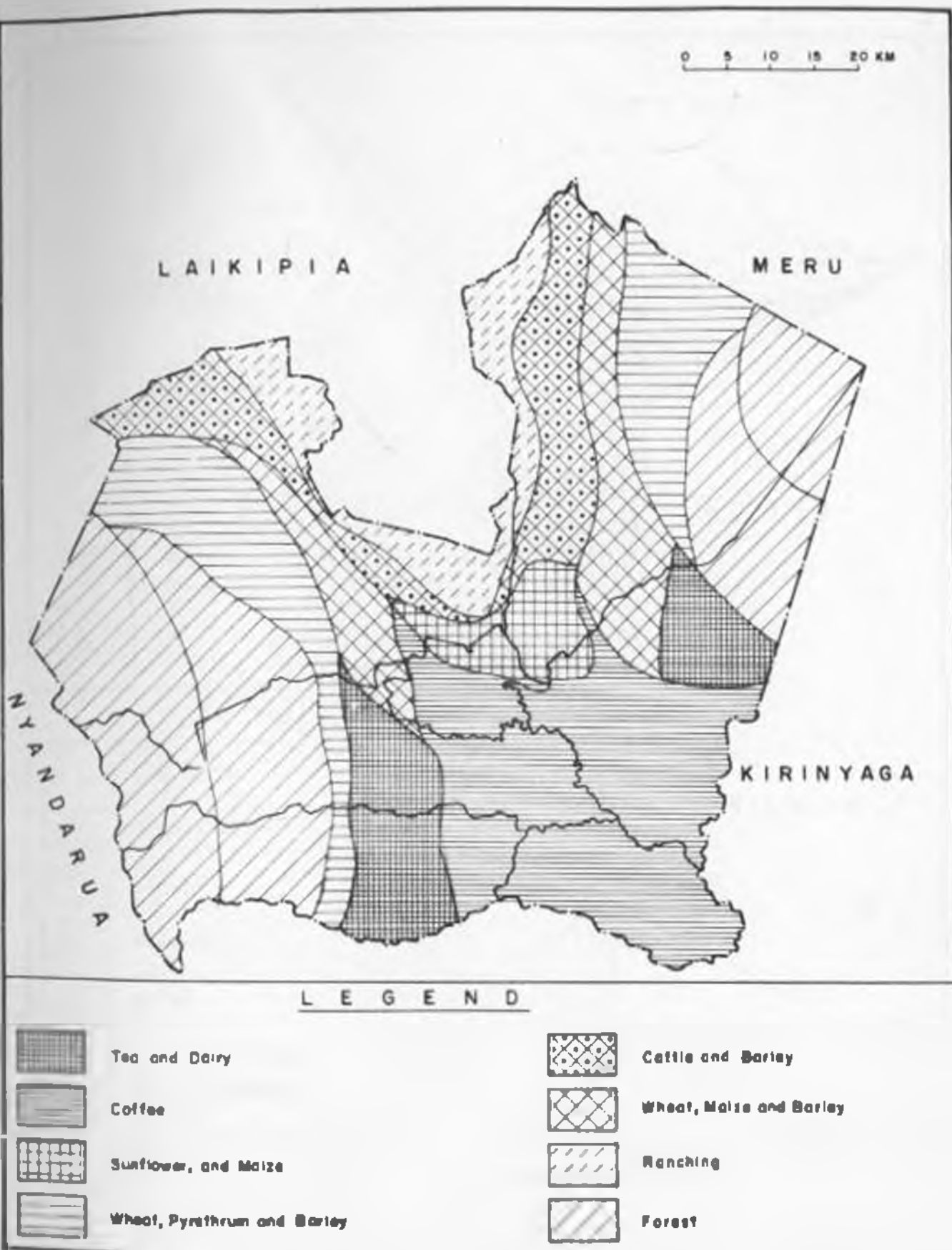


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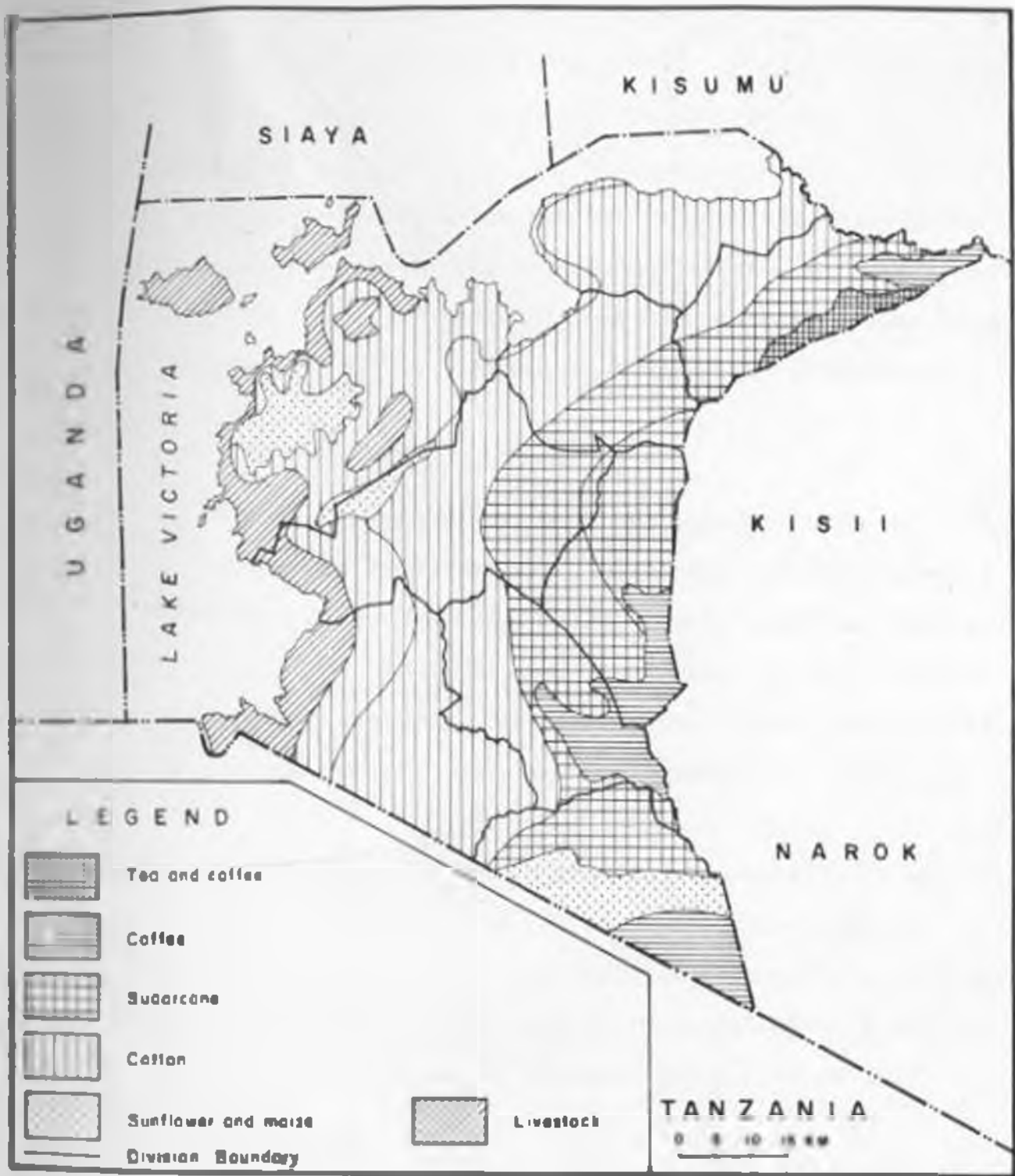


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CHAPTER 1.

1.1 INTRODUCTION:

The high population growth rate has been one of the major global concerns and especially in the second half of this century. One of the fears is that the above problem may eventually lead to a "possible global depletion of resources which sustains mankind", (Omindo, 1984).

It was partly due to the population growth concern that the 1974 UN World Population conference in Bucharest, adopted a World population Plan of Action where governments were advised to integrate population measures and programmes in their nation development plans arguing that population issue shouldn't be ignored as it was interrelated to development.

However, although high population growth is a global problem, it is however more acute in the Third World countries and in particular in Africa where the population is said to have doubled between 1950-1975. The Natural Rate of Increase (NRI) is said to have reached 2.9% while that of the world was 1.7% in 1979.

As for Kenya the growth rate is said to be among the highest in the world. Its 1948 census recorded a population of 5.4 million people and by 1969 it had doubled to 10.9 million with an annual growth rate of 3.3%. The 1979 census recorded 15.3 million people with a growth rate of 3.8% thus placing the country in the 90th position of the most populous in Africa and the 42nd in the world, and as if this was not high enough in 1984 the population was estimated to be 20.2 million (CBS 1984) with an annual growth rate of 4.1% (IPPF) the highest

This very high population growth was attributed to improvements in health services standards of living and the general decline in mortality. The Kenya Government and various international organizations have been concerned and efforts to regulate fertility rates started as far back as the 1950s during the colonial period. In 1957 the first Family Planning Clinic in Kenya for an African clientele was opened and in 1959 the Pathfinder Fund (USA) gave the first overseas grant for family planning work in Kenya.

In 1961 the Family Planning Association (FPA) was established and in the following year it was affiliated to the International Planned Parenthood Federation (IPPF).

Efforts to regulate fertility were initiated after the country gained independence. In 1955 the 'Sessions' paper No.10, "African Socialism and its implications to Planning" noted that population growth had an impact on natural resources and development. In the following year (1966)

the Government invited a Population Advisory Council Mission to study the population situation in Kenya and to give

On the council's recommendation, the National Family Planning Programme (NFPP) was officially started in Kenya in 1967 and it was integrated with Maternal-Child Health.

In 1982 the National Council of Population and Development was set up to coordinate all family planning programme activities for both government and NGOs. Despite all these activities, the programme has

not made a major impact on reducing the country's fertility. Even the attempt to reduce the growth rate from 3.3% in 1975 to 3.0% in 1979 backfired when the growth rate shot up to 4.1% in 1984.

It's because of the above failure of the programme to have made a major impact in reducing the high growth rate that research is needed. If the programme is to

achieve its aims, it is important to investigate why there is high knowledge on contraceptives (90% KDHS) and sources (90% KDHS) and yet low contraceptive use.

My study is therefore an attempt to investigate generally why some women contracept while others don't and also to determine the influence of socio-economic background characteristics on current contraceptive use.

1.2 PROBLEM STATEMENT:

Since the inception of the Family Planning Programme the services and those of most NGOs have been offered free while a lot has been done on informing, educating and communicating to the people on the need to regulate the couples fertility. But in spite of all that there is ~~high level of wastage of the government's and donor~~ this results to a lot of wastage of the government's and donor

1.3 STUDY OBJECTIVES:

The immediate objectives of this study are:

- a). To outline the general reasons that influence ~~some women~~ not to use contraceptives.
- b). To outline the fertility levels and trends ~~in the two~~ districts.
- c). To investigate the socio-economic differences ~~between~~ the two districts (Nyeri/South Nyanza).
- d). To investigate how socio-economic factors ~~influence~~ the current contraceptive use in Nyeri/S. Nyanza.
- e). To provide information ~~to~~ the policy makers and planners on the characteristics they should look for ~~when~~ recruiting contraceptive acceptors (i.e. ~~target~~ target groups).

1.4. STUDY JUSTIFICATION:

Since the contraceptive use is low among current users (27% 1989) the study on the socio-economic background characteristics of the current contraceptive users may be used to develop educational and communicational strategies on which target groups could be recruited.

1.5. STUDY HYPOTHESIS:

It has been recorded that there are positive relationships between the following socio-economic variables and contraceptive use:

- a). Wives level of education and contraceptive use;
- b). Husband's level of education and contraceptive use.
- c). Wife employment status and the contraceptive use.
- d). Husband's employment and contraceptive use.

1.6. STUDY METHODOLOGY:

The study will be descriptive and cross-sectional. KDHS

The data analysis will include:

- i). cross tabulations.
- ii). Percentages - Chi-square test.

1.7. SCOPE/LIMITATION:

The study will focus on current married women who are at the risk of falling pregnant. All forms of contraceptives will be recognized.

As the secondary data source is the basic source of information, the analysis may lack too detailed information. The DHS was a national survey involving other topics and merely the one I am studying.

1.8 LITERATURE REVIEW:

My research on female fertility, marital status, and economic characteristics of women in rural areas of Kenya to contraceptive use.

REASONS FOR NON-USE OF CONTRACEPTIVES:

Several general reasons have been identified in the literature for non-use of contraceptives:

- i). Women who are not using the contraceptives do not believe they are at risk of conception.
- ii). They may suspect that they are pregnant.
- iii). Their fecundability is still depressed because of a recent birth or because their husbands are temporary absent.
- iv). Some women who want no more children go on having them because their husbands desire more or due to pressure from relatives.
- v). They found the available contraceptives unsatisfactory.
- vi). They disapprove of birth control in general.

They may not know any contraceptive method (i.e. lack knowledge). Other reasons could be due to religious convictions, a lot of time wastage in travelling to the source of the services, etc.

CHARACTERISTICS OF THE

The characteristics of the population here are:-

- 1. FOLK
- 2. RURAL
- 3. Unemployed.

CONTRACEPTIVE USE.

It has been documented that educated women have fewer children than the uneducated ones.

The more educated women are, the more they use contraceptive methods.

In the year 1960-61, the total population was 1000 (1000000).

- (i) Illiterate women 6.4
- (ii) Primary School Education 5.9
- (iii) With secondary Education 4.0
- (iv) University 2.7

The above information is available from the census data which has enlightened them on regulating family sizes.

From America, Caldwell (1988) found out that, contraception practices rose steeply with the level of wives education. He noted that women with post-secondary and university education had as high a percentage of contraception as 71% as compared to the 5% of those with no education.

In Thailand, Clelland (1979) found out that women's education was directly related to contraception use which resulted to 7% variance in current use of modern methods of contraceptives.

While carrying out a study in Poland, Mazur (1981) found out that contraceptive use increases with the wife's level of education. He noted that 75% of the married women who contraceptive use secondary, and post secondary education while 25% use primary and primary levels of education.

The same findings about education and contraception were reported by Abdular [1984] after a study in the Caribbeans. He reported that there is a positive relationship between wife's education and contraceptive use which explained 4.3% variance in current use among the exposed women in Guyana.

WIFE EMPLOYMENT AND CONTRACEPTION USE.

It has been recorded that jobs that take women far from home for long hours are seen to discourage child bearing. Girls then marry late if they are working since their parents see them as economic advantages rather than reliability (Newland, 1977). She

further argued that what employment offers to women is above all a higher degree of control over their own lives (no longer dependent)". She contends that child bearing becomes the only fulfilment to all women's needs only in those societies that are isolated, lack of opportunities for remunerative employment and are blocked by illiteracy from contact with the larger so

Caldwell (1968) found out in Ghana (West Africa) that there was a positive relationship between wives occupational status and their contraceptive use.

In Colombia, 62% of employed women were said to be contracepting as compared to 51.7 of the unemployed (U.N. 1979)

HUSBAND'S EMPLOYMENT STATUS AND CONTRACEPTIVE USE.

The above variable is seen by many scholars as an indicator of a wife's socio-economic status in any given society. It has been seen to relate positively to contraceptive use but has been seen to vary with the type of employment of the husband.

Amidon (1966) reported that in the Caribbean, there were differential contraception levels due to different types of husbands' employment status. He noted that contraceptive use was high among exposed women whose husbands were professionals, administrators, clerks, etc.

Amidon (1975) reported that, in Nigeria, the type of the husband's residence influenced modern contraceptive use and he recorded

the capital, 7% use in urban areas while as low as 0% in rural areas. Some findings were reported in an Egyptian fertility survey (1983) where 52% of the women who lived in urban areas were contracepting while only 16% were doing so in the rural areas.

Lighthourne (1983) came up with the same conclusion when he carried a comparative study of 19 developing countries. The exposed women in urban areas were reported as having a higher rate of contraception than their counterparts in the rural areas.

In Paraguay, Monteitt, (1987) reported that a high percentage of contraceptive users were found among married women living in the metropolitan city of Asuncion while only a third of rural women used contraceptives.

The high use of contraceptives in the urban areas may be due to the fact that more women could be working outside home and so breast feed for shorter periods, have short postpartum amenorhea and so substitute with contraceptives.

1.9 THEORIES OF FERTILITY:

It has been documented by scholars that contraceptive use is a function of socio-economic setting, (King 1974) that people do not decide on regulating their fertility (demographic change) there must be a change in their economies.

LEIBENSTEIN THEORY

Those who advocate this theory see human fertility more of an economic process than merely a biological one, this being the rationale behind what is popularly known as the 'Demographic Transition Theory'.

It was Leibenstein (1958) who advocated the now famous economic theory of fertility and in which he argued that parents are rational beings who weigh the direct and the indirect costs of an additional child, that the couple will regulate their fertility if the cost of an additional child outweighs the benefits.

Since then the theory has emerged in different versions but using the same argument as the one advocated by Leibenstein. Such is the version by Becker [1960] who stated that fertility is related to various factors family preferences and

conscious decisions of limiting child bearing. The household income is the one that often determines the number of children a couple will have. Becker talked of child quality that parents want to give their children the best they can afford and this may not be possible if they are many hence the need to control the fertility.

On the other hand came up with an economic framework for fertility analysis where he talked about demand and supply of children. In it he says that if the children's output is

higher than the motivate to control fertility will be low but otherwise then it will be higher. He maintains that demand for children is affected by background characteristics such as religion education, residence, etc. (Easterolin 1978).

In my study, I will adopt the economic theory of fertility as a part of Demographic Transition Theory as it affirms that family planning practice is possible where by there is enough social and economic development (or changes) because that is the only time that people will stop depending on the family institution.

CHAPTER II.

2. STUDY METHODOLOGY:

In my study, the basic source of data will be the Kenya Demographic and Health Survey, from 1989.

INTRODUCTION:

The survey was conducted between December of 1989. The sample was designed to produce completed interviews with 10,000 women 15-49 and with a subsample of 1000 husbands of those women.

2.2 SURVEY ORGANIZATION:

The KDHS was a national survey that was carried out by the National Institute of Population and Development in collaboration with the Central Bureau of Statistics and the Institute for Resource

Development (IRD). The funding was done by the Government of Kenya assisted by USAID and IRD. It excludes the entire N.E. Province and the four Northern Districts.

The KDHS sample is based on the National Sample Survey and Evaluation Programme (NASSEP) master sample maintained by CBS.

The sample is a two stage design stratified by urban/rural residence and within the rural stratum by individual districts. In the 1st stage the 1979 census concentration areas (EA) were selected and then segmented into the expected number of standard sized clusters, one of which was selected randomly to form the NASSEP cluster. Then such clusters were mapped and

In rural areas the household listings made between 1984/1985 were used to select the KDHS households while KDHS pretest staff were used to re-list households in selected urban clusters.

In order to have a sample of manageable size 13 districts out of 32 were selected and these districts were Kilifi, Machakos, Nyeri, Muranga, Kirinyaga, Kericho, Aush, Kisumu, Kisii, Siaya, Kakamega and Bungoma. A total of 24 rural clusters in the NASSEP were therefore selected for inclusion in the KDHS and the rest from

The KDHS had three questionnaires, one on the list households, another on the information from the women aged 15-

... who were present on the night before the interview and the third one on the information from

... of the interviewed women thus there were household/woman's/husband's Questionnaire.

2.3 OBJECTIVES

The general objectives were:

- a) To assess the current demographic situation in Kenya.
- b) To assist in the evaluation of the population and health programmes.
- c) To advance survey methodology.
- d) To assist the NCPD to strengthen and improve its technical skills and conduct demographic and health surveys.

SPECIFIC OBJECTIVES

- 1) Provide data on the family planning and fertility behaviour of the Kenyan Population to enable the NCPD to evaluate and enhance the National Family Planning Programme.
- 11) Measure the changes in fertility and contraceptive prevalence and at the same study the factors which affect these changes, such as marriage patterns, urban/rural residence, availability of contraception, breastfeeding

(11) To examine the basic indicators of maternal and child health in Kenya.

2.4 BACKGROUND CHARACTERISTICS OF WOMEN RESPONDENT

8836 Households were selected for the KDHS and out of the above households 8,343 were identified as occupied while 8,173 were successfully interviewed women respondents were those aged 15-49 and had spent the night before the interview. Of the eligible 7424 women 7,160 were successfully interviewed i.e. 96% of the females while out of eligible 1,397 husbands 1,116 were interviewed which amounted to 81% response rate.

The background characteristics included marital status/type of the place of residence/level of education, religion, etc. The general findings were that, there was a steady increase of women living in urban areas and that those are more educated women than those in the rural areas. Adult literacy is on decline from 44% in 1977/78 to 25% in 1989.

The KDHS (1989) report is divided into seven chapters

Chapter one deals with the background information that is the introduction to the survey.

Chapter two deals with nuptiality and covers topics such as age at marriage/breastfeeding and postpartum immunisability.

Chapter three is on fertility where levels, trends, differential

The reproductive fertilities are declining.

The next chapter is on fertility and reproductive health, contraceptive availability, sources and practices are reviewed. This chapter is followed by fertility preferences in the form of the fertility transition, ideal number of children and spacing fertility is discussed.

The other two topics are mortality and health of both mothers and children and family status in the household survey.

2.5 SUMMARY OF FINDINGS

It was noted that fertility is declining due to family planning. Currently there were 27% of women who are using contraceptives unlike the 17% in 1984. Abstinence is still the commonest method with some 8% users. Some 2/3 of married women using contraceptives are choosing a modern method (condom - 10%, sterilization - 5%, etc).

The survey also noted that knowledge of contraceptives and their use is increasing. There is also a higher approval of family planning use by couples than in KCPS (1984).

It was also noted that the desire to limit childbearing appears to be greater than other countries of Africa. It is evident that Kenyan couples wish to have small family sizes hence the decline of ideal family size from 5.8 in 1984 to 4.4 in 1989.

The DHS also indicated that the government programmes on health for mothers and children are effective in that 8 out of 10 women from ante-natal care while one half of births had an assisted delivery by qualified staff.

CHAPTER III.

3.0 SOCIO-ECONOMIC DIFFERENCES BETWEEN NYERI/ SOUTH NYANZA.

NYERI DISTRICT.

3.1 SOCIO-ECONOMIC PROFILE.

BACKGROUND-INTRODUCTION.

The district covers an area of 3,284sq.km and it is situated between Mt. Kenya to the east and Aberdares to the west.

Administratively, it is divided into seven divisions

- 1). Tetu
- 2). Mukurweini
- 3). Mathira
- 4). Kiini East
- 5). Kiini West
- 6). Nyeri Municipality

It has four local authorities, Nyeri Municipal Council, Karatina Town Council and Othaya Urban

its topography varies from 1,800m to 3,000m above sea level. The northern quarter is flat while the southern part of the district has ridges and valley terrains which are interrupted by Tumutumu, Karima and Nyeri Hills. The soils are generally good for cultivation and grazing. The district has a moderate climate with temperature averaging at 24°C while the rainfall at 1000mm per annum (except in the Kieni division which are a bit dry).

Land used could be divided into three categories according to rainfall patterns, temperatures and soil types.

- 1). High potential 78,927 ha
- 2). Medium potential 144,500 ha
- 3). Marginal potential 28,000 ha

3.3. DEMOGRAPHIC PROFILE:

The 1969 population census recorded 360,845 people in the district and in 1979 census, 486,477, this shot up to 687,675 in 1988. This reflected a growth rate of 3.03% annually. The population density is 233 persons per sq. km. when the forests and national parks are left out but the densities vary in the Kieni division have the lowest population density, while the highest is Othaya, Mathira, Tetu and Mukurweini.

characteristics of the district from 1979 census reflects that there are more females than males as shown below.

1981 Census	486477 people
Males	234405
Females	252072

The male "shortage" has been explained by their loss during the struggle for independence. The effect of this has been more female labour force participation and population distribution while a social pattern is seen to exist between the sexes with women generally doing household work as they were before (see 1979 Census).

AGE PROFILE

In this district the population has a high birth rate and a low death rate. The population is concentrated in the age group between 0-14 years.

3.4 EMPLOYMENT

The district is predominantly agricultural and the majority of people are small scale farmers. In 1987 the population of the district was estimated to be 272,044 and the agricultural labour force was estimated to be 127,044.

The unemployment rate is 35% with the rest of the population being either in wage employment or in self-employment.

Cash crops grown are Tea, coffee, pyrethrum, wheat and barley.

3.5 INCOME

There is no MTR data not available but the indicators of the district's fair standard of life can be reflected by Harambee contributions that amounted to Sh. 21.9 million. The distribution of food is sufficient food production and there is no famine relief programme in Nyeri. However, there are marked economic differences in the form of rather comparatively poor divisions of the district, Kieni East, Kieni West respectively.

There are 44000 and 100000 members of cooperative societies whose membership in 1984 was 100000 with the annual turnout was KSh.363 millions DDP 1984-1988.

The district also earns a considerable amount of foreign currency from tourism. There are two national parks namely the Aberdare and Mt. Kenya. There are also spectacular campsites, etc. In 1987 the Aberdare National Park received 20,000 visitors, while the not so successful Mt. Kenya only Sh.8'050. More tourists and projects in the parks were improved.

EDUCATION

The district is well served with schools and some are overutilized. Most of the teachers are trained and only 6% are untrained. There are 346 primary schools, 128 secondary schools, 121 youth polytechnics, 2 teachers training colleges and 2 special schools. The teacher/student ratio is 1:40. The District Development Plan (DDP) for the district (DDP) is as follows:

3.7 HEALTH:

The Integrated Rural Survey of 1983 showed that 12% of households have access to health facilities.

The infant mortality rate is low, 40 per 1,000 i.e. 40 infants per 1000 and is on the decline. Cases of malnutrition and infant diseases are few. The district is well served with health facilities.

Table 1.a.

HEALTH FACILITIES:

INSTITUTION	GOVT./BEDS	MICS/BED	PRIV/BE	
HOSP.	2 /512	2 /419	-	
H/CENTRES	9 /118	3	1	12
DISPENSARIES	46	8		54
HOMES	-	-	8 /1	

Source: M.O.H. (Nyeri).

SOUTH NYANZA DISTRICT

THE SOCIO-ECONOMIC PROFILE

BACKGROUND INTRODUCTION.

The district covers an area of 7,778 sq.km of which 2,064Sq km is water. It is bordered by Kisumu/Siaya in the north, Kisii/Narok in the East, and the Republic of Tanzania and Uganda to the south and west respectively. South Nyanza is one of the four districts of Nyanza Province.

Administratively,

name's:-

- 1). Homa Bay
- 2). Kendu Bay
- 3). Rangwa
- 4). Rongo
- 5). dhiwa
- 6). MBita
- 7). Migori
- 8). Kahancha.
- 9). Macarder

There are five local authorities, South Nyanza County Council, Homa Bay Town Council, Oyugis Urban Council, Kahancha Urban Council and Migori's Urban Council, the headquarter is Homa Bay.

3.9 ECOLOGY & LAND USE

The district enjoys an inter-tropical climate that is modified by altitude, distance, relief and the influence of the large body of water in the form of lake Victoria. Temperatures range from 17°C to 27°C. Rainfall occurs almost throughout the year with a maximum on the months of April and May. The district is mainly dry in the western part.

The district is mainly covered by forest which is mostly in the medium and lower zones.

The main crops grown are Arabica coffee, banana, maize, wheat, rice, beans and peas. Other crops include sugarcane and fruit trees.

4.0 DEMOGRAPHIC PATTERNS:

The 1982 census recorded population of 817,601 people and the 1988 census was estimated to be 1,240,428 people. Most of the population is concentrated in Oyugis, Migori and Rongo. The overall population density was estimated to be 217 persons per sq.km.

4.1 ECONOMIC PROFILE:

The district is predominately an agricultural one but fisheries also plays a significant role.

EMPLOYMENT

In 1988 the estimated labour force was 579113 or 47.1%. There were 7,000 people employed by public sector excluding the teachers while about 200,000 were employed in the private sector firms e.g. banks and factories. Employment in the agricultural sector is the largest with 48,481 people.

4.2 INCOME

Most of the people in the district derive their income from farming especially maize and beans. The district produces surplus maize and beans and the excess food (e.g. maize) is sold to Cereals and Produce Board.

Table 1:b.

MAIZE PRODUCTION BY NATIONAL CEREALS PRODUCE BOARD.

1981/82	1982/83	1983/84	1984/85
28351230	43370210	50706782	39723096

Source: District Data Handbook (RPD 1984).

Many farmers and fishermen have joined Cooperative Societies. There are 97 registered societies but only 66 are active while the rest are either dormant or liquidated. 14 fisheries cooperatives with over 4000 members are said to be active but little is known of their activities as its members are illiterate. However, fisheries offers full time employment to 25,000 fishermen. More revenue could be derived if cold storage and marketing facilities were offered.

Little revenue is derived from tourism industry because there are only one road which is not paved while the area is infested with mosquitoes.

4.3 EDUCATION:

The district has 475 schools 1,255 primary and 110 secondary schools but there is a problem of enrolment as only 15% of those eligible join secondary schools. Enrolment is poor. The literacy rate is 35% and the rest do not know how to read and write while almost half of the teachers are untrained.

4.4 HEALTH:

In this district there is still a lot to be desired. The district has two hospitals and 96 health centres but the services offered are inadequate due to general lack of enough staff, equipment and

supplies. According to 1983-1988 development plan, only 30% of the population had access to health facilities. Also there is poor mobile clinic services. The district suffers high infant mortality (216 per 1,000). Malnutrition is prevalent with over 50% of children being seriously malnourished and 83% of children having at one time suffered from the same problem.

Due to problems of water supply and general poor environmental sanitation and hygiene, diseases such as vector borne (diarrhoea, cholera, typhoid etc) are common. It is also a Malaria Zone and 90% of the population suffer from the disease.

4.5 SOCIO-ECONOMIC DIFFERENCES IN THE TWO DISTRICTS

(LOOKING SOUTH NYANZA).

The two districts vary in size Nyeri being the larger of the two. But when one compares the socio-economic profiles of the two districts one doesn't really come up with many reasons (causes) for the two districts differences. This is because the two are predominantly agricultural and also practise animal husbandry. In the two districts the climates and soil and rains allow productive farming and keeping of livestock. Both districts also grow cash crops from where most farmers derive their income.

Despite the above sources, Nyeri seems to be far more developed in terms of socio-economy. One of the indications is the

rambee contributions that amounted to KSh.21.9 million in Nyeri in 1988 a factor that is missing in South Nyanza. The fact that such an amount was contributed by the people indicates that people's standard of life are fairly high.

The other ~~difference~~ difference in the two districts is education. In South Nyanza the literacy rate is only 35% while that one of Nyeri is well above 40%. From the Districts Development plan (1984-88/90-93) we note that in both districts, primary enrolment is well represented probably because it is free but when it comes to secondary education, South Nyanza is under represented as only 15% of those eligible enrol while Nyeri is well represented at both the two levels.

It is also interesting to ~~note that~~ note that in South Nyanza females are more common than men and yet in South Nyanza women are poorly represented in schools. This may explain partly the high infant mortality rate in that district. It is also documented that mortality rate in South Nyanza increases from 21% of all children under 2 years to 28% of children whose mothers have received no education to 24% where mothers received only primary education.

When the two districts health facilities are compared, we find that South Nyanza is poorly served while its hot and wet climate, shortage of water supply and generally poor environmental sanitation and cleanliness have given way to diseases such as malaria (90% of population), vector borne (diarrhoea, cholera, typhoid) etc. It is recorded that only 30% of the population has

access to health facilities in South Nyanza while in Nyeri over 12% of the households were just 12km, 21% within 5 km and 76% between 10-20 km of rural health facilities (DDR 1984-88). Nyeri also greatly benefits from the Provincial General Hospital that is situated in the district and also from 2 mission hospitals, Health Centres and nursing homes. The mobile clinic services are also available 240 times in a year unlike South Nyanza where lack of personnel, staff houses, equipment and all weather roads have hindered the population from acquiring health facilities. It is therefore no wonder that infant mortality rate is among the highest in the republic 216 per 1000(CBS). Malnutrition is also prevalent with 21% of children suffering from malnutrition and as high as 50% of all children having at one time suffered from malnutrition. On the other hand Nyeri infant mortality was estimated at 40 per 1,000 (KDHS,

1989) while cases of malnutrition are quite minimal and the immunization programme is quite successful in the area.

As for income we note that the highest percentage of the population in both districts rely on farming but data on how much is derived from that variable is not available. Small holders (small holders) join the cooperative societies and of the two districts, Nyeri had a higher annual turnover of KSh.363,202,000 but that one of South Nyanza has not been reported even though 97 societies have been registered. Of these 86 societies are active, 75 are dormant while the rest are liquidated. There are also 14 fisheries cooperatives with over 4000 members but nothing is known about them.

CHAPTER IV.

DATA ANALYSIS & FINDINGS.

4.1 INTRODUCTION:

When percentages will be used the main method of analysing data will be the chi-square test.

The chi-square is used to test whether there exists a significant relationship between variables. The principle use of X^2 is for testing the Null Hypothesis (H_0), that there is no relationship between two nominal variables.

Formula for X^2 is $\sum \frac{(O-E)^2}{E}$

Where:

O (=) number of observed values.

E (=) Number of cases one expects for that cell

there were no relationships between the variables in that cell. To determine whether the values of X^2 is significant, we first calculate the degrees of freedom (D/F). This is got by the calculating the following $df=(r-1)(c-1)$ where:

r(=) rows

FERTILITY & CONTRACEPTIVE PRACTISE IN NIGERIA.

4.2 IN RELATION TO SOCIO-ECONOMIC CHARACTERISTICS

The two districts have distinctive fertility and contraceptive use differences.

As noted in KDHS (1989) Nyeri has 41.2% contraceptive users while S. Nyanza has 5.9% only although there are 83.3% currently married women in S. Nyanza while Nyeri has only 64.8%.

From KDHS (1989) it is also noted that the near ideal number of children is 4. This is probably because polygamy is more practised there than in Nyeri. But interesting enough, is that both districts have an average number of children of 4.

It is also noted that the prevalence of HIV/AIDS is more prevalent (14.3%) in Nyeri while in S. Nyanza it is the

Figure a.

NYERI	
Age	Births
15-19	100
20-24	329
25-29	282
30-34	137
40-44	75
45-49	8

Total Fertility rate 6.3

From the above table we can see that the TFR in Nyeri is 6.3 (total births a woman would have if she reached age 60 and continued the

childbearing performance) - Age group 20-24 is the most productive followed by, 25-29/30-34 respectively.

SOUTH NYANZA.

Figure b.

Age	Fertility Rates (KDHS 1989)
Age	Births
15-19	228
20-24	451
25-29	385
30-34	245
35-39	177
40-44	109
45-49	46
Total fertility rate	

As can be seen from the tables S. Nyanza district has a higher fertility (IFR: 8) than Nyeri (with 6.3) but the most fertile group is the same (20-24 age) followed by ages 25-29/30-34/35-39. The fertility rate in S. Nyanza is 8.0 compared to 6.3 in Nyeri districts: S. Nyanza group doubles that of Nyeri in births meaning that probably women in S. Nyanza engage in reproductive performance earlier than those in Nyeri.

Women who approve of family planning are more in Nyeri (92.7% than in S. Nyanza 87.5 (KDHS 1989). The same trend was noted among husbands in the two districts while 48% of those husbands respondents approved of family planning in Nyeri only 26.4% did so in South Nyanza. The rest either didn't know (42.9%) or disapproved.

NYERI

Table 2.a. Current users and the number of children at 1st use

children	N. Method	Trad. Method	Modern	Total
1	11	1	3	15
2	11	0	1	12
3	1	0	4	5
4	4	0	0	4
5	0	0	3	3
6	0	1	1	2
7	10	0	4	14
8	0	1	0	1
9	10	0	0	10
10	0	0	0	0
Total	25	3	11	49

$DF = (r-1)(c-1) \Rightarrow (11-1)(3-1)$

(Missing observations were 100)

$\chi^2 = 37.89022.$

Using 0.05 as the level of significance the table value is 31.410.

31.410 (table value) is < (less 37.89022. We accept the hypothesis that there is a significant relationship between users in Nyeri and the number of children at 1st use.

NYERI.

Table 3.a. Current use by method type in relationship to number of living children.

Children	No. Method	Trad.	Modern	Total
1	37	4	8	49
2	23	1	12	36
3	20	1	7	28
4	9	1	1	11
5	1	1	1	3
6	1	1	1	3
7	1	1	1	3
8	1	1	1	3
9	1	1	1	3
10	1	1	1	3
11	1	1	1	3
12	1	1	1	3
13	1	1	1	3
Total	140	22	55	217

26.

$\chi^2 = 74.33902.$

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The value of χ^2 from the table using 0.05 level of significance is 38.885, since the table value is 74.33902 (C.V), we accept the H_0 that there is a significant relationship between the number of living children and contraceptive method type in Nyeri district. It is also noted that people with no living children rarely use modern contraceptive methods. Use of modern contraceptive methods is on the increase (28.8%) in Nyeri.

SOUTH NYANZA:

Table 10: Current contraceptive use by number of living children.

No. of living children	No. Method	Trad.	Modern	Total
0	17	1	16	18
1	45	1	44	46
2	19	1	18	20
3	32	1	31	33
4	42	1	41	43
5	30	1	29	31
6	28	1	27	29
7	20	1	19	21
8	8	1	7	9
9	5	1	4	6
10	10	1	9	11
11	1	1	0	2
Total	245	14	231	259

The value of χ^2 (at 0.05 level of confident) from the table is 33.924. Since 33.924 > 22.52385 we

accept the H_0 hypothesis that there is no significant relationship between current use by method type by the number of living children in South Nyanza whether one has many or few living children.

Unlike in Nyeri where use of modern contraceptive is increasing (26.8%) in South Nyanza has low rate of 3.34%.

SOUTH NYANZA:

Table 4.a. The relationship between level of education and respondents (women) current use of method type.

	No method	Traditional	Modern	Total
Primary	10	1	1	12
Secondary	19	1	1	21
Other	1	1	1	3
Total	30	3	3	36

Df = 6, $\chi^2 = 12.592$.

Table value is 12.502 using 0.05 as the 'level' of significance. Since 12.592 > (greater) than 1.36907 we note that there is no significant relationship between respondents level of education and current contraceptive use. Since the contraceptive use and literacy rate are low in the district this may explain why education has not made an impact in the fertility regulation.

NYERI:

Table 4.11: The relationship between the level of education and respondents current use.

	No method	Traditional	Modern	Total
Primary	147	118	53	318
Secondary	66	9	31	106
University	2	-	1	3
Other	1	-	-	1
Total		218	85	303

$Df = 6, \chi^2 = 6.81245.$

Table value is 12.592 when 0.05 level as a level of significance.

Since $12.592 > 6.81245$ we accept the H_0 meaning that there is no significant relationship between current users by method and the level of education. But since contraceptive use is high in the district we can assume that women in Nyeri use contraceptives regardless of their level of education.

NYERI:

Table 4.12: The relationship between husband level of education and current use by method.

No. Educ.	Traditional	Modern	Total
Primary	2	11	28
Secondary	6	13	24
University	-	-	-
Total	24	8	32

NB: (Missing Observations 294).

$Df = 6, \chi^2 = 10.47446.$

table value using a 0.05 level of significance is 12.592.

12.592 > 10.47446 and so we accept H_0 that there is no significant relationship between level of husbands education and current use of contraceptives by method in the district.

SOUTH NYANZA

Table 2.5: The relationship between husbands level of education and current contraceptive use by methods.

	No Method	Traditional	Modern	Total
No Educ.	8	8	0	16
Primary	7	11	0	18
Secondary	1	3	0	4
University	4	0	0	4

NB: Number of missing observations = 270.

$$Df = 8 = 16.68513.$$

The table value for the chi-square test of independence is 12.59. Since 16.68513 > 12.59, we note that there is a significant relationship between husbands level of education and current contraceptive use unlike in the case of Nyeri where husbands education level is seen not to be significantly related to contraceptive use.

The same trend was indicated when the relationship between husbands education and the No. of children at first use.

In Nyeri there is no significant relationship between the two variables but in South Nyanza husbands level of education is seen to be related significantly to the number of children at the 1st use.

NYERI.

TABLE 3.4. Currently use by method type and respondents women currently working.

	No method	Traditional	Modern	Total
Not working	217	14	18	249
Working	15	8	15	38
Total	232	22	33	348

$$d/f = 2, X^2 = 21.82658.$$

Let H_0 / null hypothesis that there is no relationship between the use of methods and currently working women in Nyeri. H_a that there is a relationship, and if the 0.05 level from the table is used to show the level of significance, then the 0.05 level of significance is 5.991.

H_0 is accepted if the table value is greater than the calculated value and is rejected if vice versa.

21.82657 so we reject the H_0 null hypothesis). This indicates a positive relationship between the use and currently working women in Nyeri.

S. NYANZA.

TABLE 3.5. Currently use by method type by respondents (women currently working).

	No method	Traditional	Modern	Total
Not working	294	1	1	296
Working	1	1	1	3
Total	305	2	2	309

$$Df = (r-1) (c-1) = 2$$

The value of X^2 (at 0.05 significance level) from the table is 5.991.

5.991 (table value) > 4.41493 (calculated value) and so we accept the H_0 hypothesis that there is no significant relationship between current users and their working status in S. Nyanza District.

So when comparing the two districts, we note that currently working status of women in S. Nyanza District is significantly different unlike in Nyanza where working status made no difference to the use of contraceptives.

NYERI:

Table 10: Frequency distribution and current use of contraceptive methods by husband's occupation in Nyeri District.

Occupation	Traditional	Modern	Total
Professional	0	4	4
Clerical	1	1	2
Sales	1	1	2
Unemployed	1	11	12
Agr. Employed	2	10	12
Household/	1	1	2
Skilled	1	1	2
Total	24	28	52

The value from the table using a 0.05 level of significance is 12.54652 therefore we accept the hypothesis H_0 that is no significance relationship between husband's occupation and current use by method type.

The above table may not represent a true picture of the above relationship as there were 294 missing observations.

SOUTH NYANZA.

Table 7.b. The relationship between husbands occupation and current contraceptive by method type.

Occupation	No method	Traditional	Modern	Total
Prof/Tech	2	1	2	5
Clerical	1	1	1	3
Sales	1	1	1	3
Agr.Self-emp	1	1	1	3
Agr.-Employee	1	1	1	3
Household/Domes	1	1	1	3
Skilled manual	1	1	1	3
Unemployed	4	1	1	6
Total	49	10	10	69

Chi-square test for independence
 $\chi^2 = 23.685$

The value from the table using a 0.05 level of significance is 23.685, and $23.685 < 28.10078$, so accept the H_0 hypothesis that there is a significant relationship between husband's occupation and current contraceptive use by method type.

Note: The above may not be a true picture as there were 270 missing observations.

NYERI:

Table 11.1: The relationship between husbands education level and the number of children at first use.

	0	2	3	4	Never used	Total
No education	2	1	3	3	3	12
Primary	4	14	4	8	42	35
Secondary	3	13	10	8	20	54
Higher	1	1	1	1	1	5
Don't know			1	4	10	15
Total	14	39	18	15	75	145

$Df = (r-1) (c-1) = (6-1) (5-1) = 20$

$\chi^2 = 29.11755$.

Table value using a 5.05 level of significance is 31.410. Since 29.11755 < than 31.410, we concluded that in Nyeri the husbands educational level and the number of children at first use are not significantly related. This means husbands in Nyeri

SOUTH NYANZA:

Table 4.1 The relationship between husbands education level and the number of children at first use.

	1	2	3	4	Never used	Total
No education	1	2		1	45	50
Primary	1	1	2	1	136	140
Secondary	1	3	4	1	56	70
Higher		1	1		2	2
Don't know	1				15	16
Total	4	6	7	2	247	266

$Df = 20 \quad \chi^2 = 36.84618.$

Table value using a 0.05 level of significance is 31.410, and $\chi^2 = 36.84618$ so we note that there is a significant relationship between education level of husbands and children at first use in S. Nyanza unlike in Nyeri. But it is also interesting to note that while the number of those who have never used contraceptives is low in Nyeri 33%, in S. Nyanza, the number is quite high 84%.

to be better off than South Nyanza.

CHAPTER V:

SUMMARY OF THE FINDINGS:

5.1 CONCLUSION:

It is clear that in Nyeri the high contraceptive use (41.2%) is influenced by women's socio-economic independence (DDP 1984-1988), unlike South Nyanza where husbands socio-economic variable influence contraceptive use more heavily.

The other interesting thing is that Nyeri women seem to favour sterilization as a method of contraception (14.2%) while those in South Nyanza favour period abstinence (1.8%).

Another interesting thing is that while in Nyeri, current use and the number of living children are significantly related, the opposite is the case in S. Nyanza, where we would expect people to contracept only with the assurance of the number of living children as infant mortality rate is high (215%).

In the study it was also noted that education level among Nyeri/South Nyanza women doesn't influence contraceptive use. However since literacy rate is low in S. Nyanza (35%) and especially among women, this may explain the low contraceptive

in the district. As for Nyeri where literacy rate is high, contraceptive use is high, we can assume that Nyeri women use contraceptives regardless of their level of education.

The working status of Nyeri women influences contraceptive use unlike in South Nyanza probably because in the latter there are few working women.

In my conclusion, I feel that socio-economic characteristics influence contraceptive use and especially among women whereby the case study of Nyeri shows that women developed an independent way of life due to "male loss" during the Mau Mau Rebellion. This has been seen to give women a chance to participate in labour force in occupations and in developing a "new pattern of relationship between the sexes." (DDP 1984-88) and an increased independence of women in the household work.

RECOMMENDATIONS:

In this study, it was noted that while there is high contraceptive use in Nyeri, the opposite is the case in South Nyanza. It is also clear that literacy rate is low while the diseases and shortages of health services are prevalent the district also lags behind in terms of socio-economic development.

My recommendations are that in order to raise the level of contraceptive use in South Nyanza, Family Planning Services should be made more available to the people but most of all more health facilities should be provided to the people. The

Government should seriously look into the infant mortality problem as it is quite acute in this district as it has already been pointed out.

South Nyanza and especially in the field of education so that they can raise their standard of living and also learn hygiene and nutrition because these are important in child rearing.

Lastly, more research should be done in the two districts so as to come up with any underlying causes to low contraceptive use in South Nyanza and the extent to which women's socio-economic dependence in Nyeri has played to contraceptive use as the reason why it does not do as well as it does in S. Nyanza.

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