EFFECT OF FAMILY PLANNING ON POPULATION GROWTH IN NIGERIA: A STUDY OF BWARI AREA COUNCIL, ABUJA

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Abstract

Population growth is central to the sustained existence of human species; it determines the stability human numbers in an eco-system and its advancement. However the galloping increase in population witnessed the world over in the last quarter of the 20th century and its adverse effect on resource availability and distribution; health and livability; infrastructure and development and so on has necessitated the imperative to check population progression by way of family planning. This study aimed at assessing the relationship between family planning and population growth using Bwari Area Council of Abuja as a case study. This was achieved by investigating the determinant of Population increase via the use of family planning. Systematic sampling was however employed to administer four hundred questionnaires in the study area to select women in the reproductive age group of 15-49 to sample their views on family planning issues. Information gathered was analysed and with a view to account for the reasons for or against family planning in the area. The result shows that education motivates couples to take joint decision on how to reduce number of children to be born for sustainable development. When couples have a good perception of family planning, they are likely to adopt a method to space children to be born for sustainable development. Hence, public enlightenment and formal education have significant influence on the adoption of family planning in the study area.

Introduction

Population growth varies spatio-temporarily across the globe. The United Nations Economic Commission for Africa (2016) submitted that, world population has increased by 2.9 billion over the past 35 years, from 4.4 billion in 1980 to 7.3 billion in 2015. In Africa, Wu Hongboan (2013) opined that, population is still growing rapidly with its attendant problems. This according to Chandna (2014) may be adduced to fertility, mortality and migrational factors. In Nigeria, the United Nations (2015) affirmed that, population has continued to grow steadily without stagnation, with the projection that, Nigeria's population may attain a size of close to four hundred million (400million) people by the year 2050.

Population growth is central to the development of human society; it determines the stability and development of the people. It encourages the growth of large market for goods and services, makes available human resources or labour. However, has its counterpoint; for example increased pressure on resources, infrastructure and habitat. It can also aid rise in crime and unemployment rates which engender problem of management of population and resources (Daniel-Kagbare, 2017). Because of the aforementioned, the need to curtail population growth is germane for the development of not the rural areas, but the urban areas as well. Akanbi (2014) and Taylor (2017) advanced the relevance of family planning to the making of human society. This view has also been shared by Delano (2002) who averred that, family planning was introduced to reduce the

population of under-developed countries in terms of human resources for technological development.

It is in the light of the above that this work is conceived. It aimed at examinig the relationship between family planning and population growth in the rural areas, using Bwari Area Council, Federal Capital Territory (FCT), Nigeria as a case study. This aim is achieved through the following objectives: evaluation of the status of family planning and examination of the relationship between family planning and population growth of rural areas of Bwari Area Council Federal Capital Territory, Nigeria.

Literature Review
State family planning programs were introduced in the 1970s in China. By 1975, the average family size had fallen to three children, but this was still regarded by the state as being too many. By 1979 government, desiring to slow population growth for sustainable development began to encourage a "one child per family" policy to have only one child and benefit from free education, priority housing, and pension and family benefits. The birth rate therefore fell from 40 per 1000 in 1968 to 17 per 1000 by 1980 which positively affected sustainable development in China. Unmarried young people were persuaded to postpone marriage, women with unauthorized pregnancies were pressured to have abortions, and those who already had children were urged to use PRT or undergo sterilization (Andy, 2007). Couples with more than one child were exhorted to be sterilized.

Besides, in 1976, compulsory sterilization was introduced in India, in the state of Maharishi. Until the introduction of involuntary sterilization, the mainstay of the voluntary program had been sterilization, IUD and condoms. The major incentive is a financial award offered to men or women with two or more children who undergo a sterilization operation for sustainable development.

In 17th century in Europe, a physician in the court of King Charles II of England created a condom made of sheep intestine. This shows that it was not until after the vulcanization of rubber in 1839 that the condom was widely used as population regulation technology. The recent event with respect to fertility trends is that fertility has fallen dramatically in the developed countries to quite low levels which facilitate national sustainable development. Fertility rates are below replacement in United States (Student Handbook, 2002). European countries are already experiencing low population growth rate which means population is no longer growing. Some countries (Bulgaria, Romania, Germany and Hungary) have growth rate of less than zero percent which means that the national population is declining. Looking at the pattern of world population growth, therefore, it seems that while the rich countries are getting richer, the poor ones are getting more children and were poorer (Emielu, 2008). A major element in low fertility in Europe has obviously been the effect of high and raising socio-economic status, coupled with urbanization. The use of modern family planning methods is an added aid to the maintenance of low fertility levels for sustainable development (Abrasive-Astronomy 1, 2006). Around 1/3 of the married couples in the world now practice some form of PRT (Microsoft Encarta, 2008).

Also, in Chad, only 2% of married women between the ages of fifteen to forty nine use family planning, 5% in Niger and 6% in Mali (Okonofua, 2003), those percentages are very low. The fact remains that a country's population growth is based on fertility rate which can affect sustainable development. Hence, a country's fertility rate has a tremendous impact on the future sustainable development (Andy, 2007).

Report on Nigeria states that only 48% married women recognized any form of family planning method (Akman, 2002). This is because recognition of PRT methods varies according to women's level of education and other socio-economic characteristics among women of reproductive age of 15 to 49 years (Federal Office of Statistics and IRD, 1992). Nevertheless, Nigeria population is about 140 million with growth rate of 3.2% annually (National Population Commission, 2006). It is expected that Nigeria population would be more than 200 million in 2020 which would adversely affect national sustainable development. This trend suggests that Nigeria would have to double its entire infrastructure for water supply, housing, energy and services in 14 years just to maintain today's low standard of living. Doubling infrastructure in the next 14 years in a country where the GDP per capital is currently low will be a difficult task. For living standard to rise, the rate of growth of the economy and the provision of social services would have to be much higher than the rate of population growth to balance nexus between population and national development. While efforts are being made to improve the economy however, an effective population programme should be aggressively pursued to reduce and manage population growth rate for sustainable development (Student Handbook, 2002). But, Malthus' (1820) prediction may fail in Nigeria because the people are aware of the dangers of overpopulation like pressure on natural resources, increase in crime wave, insufficient food, unemployment, inadequate
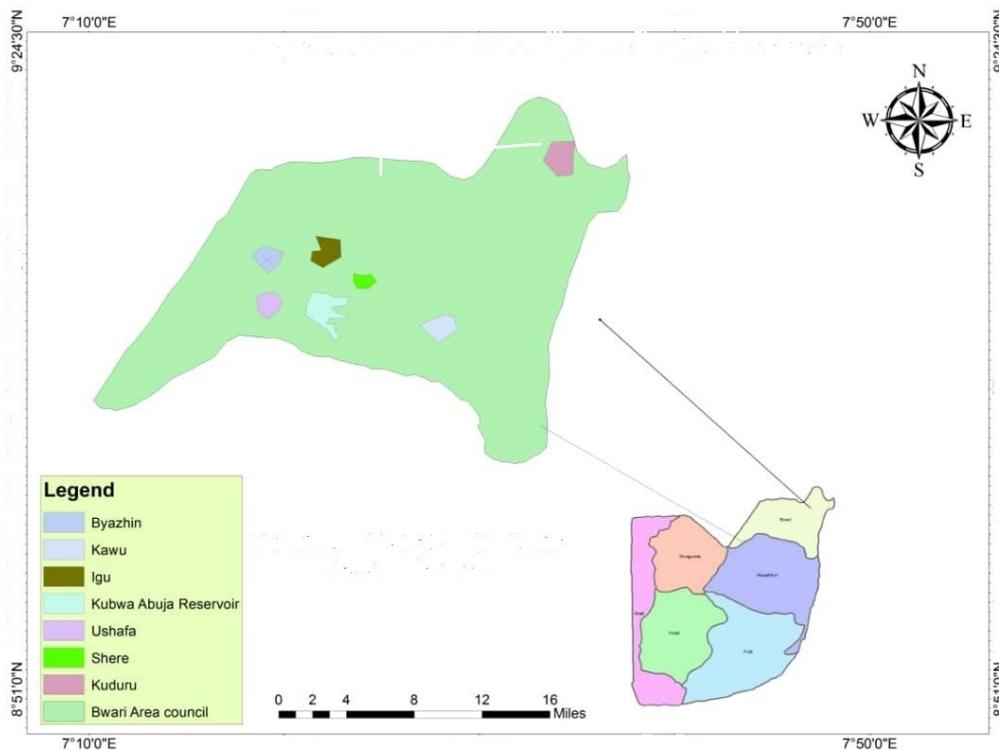
housing, traffic congesting and development of slums and ghetto just to mention but a few (Iwena, 2008). People are therefore doing everything possible to reduce the size of their family. They believe that although some people still oppose birth control on moral grounds, majority of the people have accepted it.

Methodology
Study Area
Bwari Area Council is one of the six area councils in Federal Capital of Nigeria; it is located between Latitudes $6^045'$ and $7^045'$ north and Longitudes $8^025'$ and $9^035'$ east. It covers a total of about 2,300

square kilometres, and lies in the north –eastern part of the Federal Capital Territory (FCDA, 2004), it is located in the Northern part of confluence of Rivers Niger and Benue. According to National Population Commission (2006), Bwari Area Council has an estimated population of about 227,216 persons. The relief of the study area is made up of terrain and rounded hills and clusters of rock outcrops. The hilly areas are found towards the eastern part, posing constraint to physical development while the plains occupy the central and western areas. The study area is the highest part of the FCT with several peaks that are about 760 meters above sea level (Balogun, 2001).

Source: Uniabuja GIS Lab, 2017.

Fig. 1: Map of FCT, Nigeria with an insert of Bwari Area Council

Sources of Data
The information used in this study was obtained from primary sources which is the questionnaire and in-depth interview. In obtaining relevant data for the study, purposive sampling technique was adopted to the reproductive age group of women within the ages of 15-49. The choice of purposive sampling is informed because these are women that are actively reproducing and all participants of the study are selected because they fit a particular profile (Foley, 2018).

Sample Size and Sampling Technique
The population of study area is 227,216 persons (NPC 2006). It consists of Seven wards, Byazchi, Kuduru, Shere, Ushafa, Usuma, Igu and Kawu which were randomly selected because of their

rural nature, which fits into the study. There are 33 settlements in the area, out of which 60% were sampled. In selecting the sample size, the multistage sampling technique was used to select 60% of the total wards in Bwari area council. The choice of selected wards were based on the criteria of settlement classification of size (Population), functions (Purposes) and form (Shapes) which tallies with the submission of Balasubramanian (2015).   The questionnaires were administered using the systematic sampling technique.

Socio-Economic Characteristics of Respondents
This section of the study explains the socio-economic characteristics of the respondents in relation to sex, marital status, occupation, educational attainment, religion and income. This

was to ascertain if any relationship exists between socio-economic characteristic of the respondents and adherence to family planning and the effect on population growth. The distribution of respondents by socio-economic characteristics was 65% are male, while the remaining 35% are female. In Africa society, discussions that has to with family lies with heads, who are mostly men in a patriarchal system. Furthermore, 53% of the respondents are married, while 47% are widowed. In the same vein, majority of the respondents are farmers and they constitute 45%, while the artisan constitute 15 % of the respondents. The professionals and traders 13.5% and 11.5% of the respondents respectively; the unemployed is 7.5%. In the same vein, 17.5 % of the respondents have non-formal education, and 30% have primary

education. Similarly, 20% and 10 % of respondents have secondary and tertiary education respectively. Respondents without formal education constitute 22.5%.

Furthermore, Christians and Muslims constitute 30% and 27.5% respectively, while African Traditional Religion is 42.5%.   Table 3 reveals that, 52.5% of respondents earn less than ₦5, 000 per month, while 22.5% earns between ₦5, 000 and 10,000.

In the same vein, 12.5% of respondents earn between ₦11, 000 and ₦16, 000 and 7.5% earns between ₦ 17,000 and ₦22, 000 monthly. Suffice to add that 3.7% and 1.3% earn between ₦23, 000 and ₦28, 000 and above respectively.

Table 1: Population growth of the Study Area

S/N	Ward	1991 Population	Population (2006)	*Projected Population (2017)
1.	Byazchi	2,048	3,653	7,182
2.	Kuduru	6,892	12,292	21,166
3.	Shere	4,477	7,985	15,698
4.	Ushafa	2,534	4,519	8,884
5.	Usuma	15,578	27,783	54,621
6.	Igu	2,064	3,681	7,237
7.	Kawu	2,288	4,081	8,023
Total	7	35,881	63,994	122,811

Source: NPC, 1991and 2006
*Author's Projection, 2017 at annual growth Rate of 2.62%

From Table 1, the population of the selected rural area in 2006 in Bwari Area Council was 63,994 people, with an increase 58,817 people in 2017. The above scenario indicates increase in population, the effects of which are felt in all the facets of socio-economic sector of the study area; this is despite the introduction of family planning not only in the study area, but Nigeria as a whole. In an interview, a resource person observed that:

> *'Introduction of family planning in our area has little influence on the social fabric of our communities; the population is increasing to provide the required labour force on our farms since we are predominantly farmers and our disposable income is very low.*
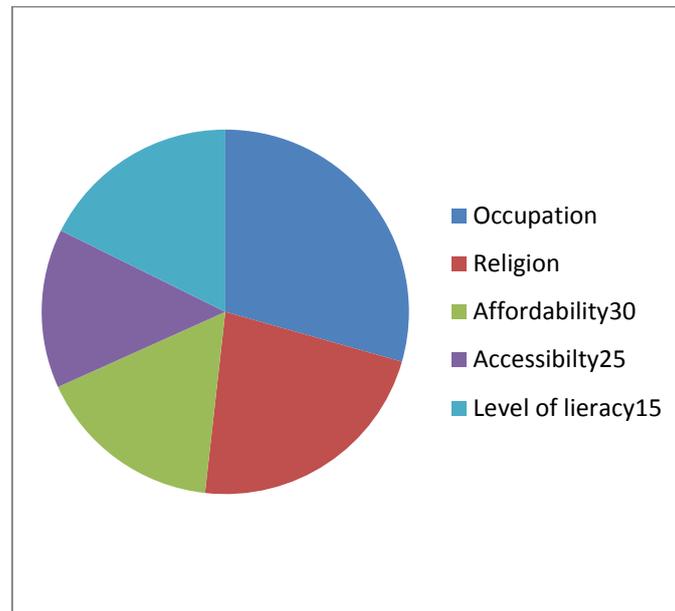
> *Limiting the number of children through family planning is inhuman and uneconomic (IDI, Igu Ward, 2017).'*

This may be associated with the level of ignorance, inaccessibility to the family planning devices among others. According to National Population Commission (2013) teenage mothers in Nigeria may rise to 60 million by 2015; however no recent trends data have not proved contrary. It has also been submitted that, teenage pregnancy is a common phenomenon in the rural area where poverty and illiteracy are worse. Suffice to add that, North-West zone with 36 per cent has the highest level of incidence of teenage pregnancy, while South-East and South-West zones have 8 per cent each of the scourge (National Population

Commission, 2013). The above trends are happening despite the family planning programmes.

Factors Determining the Effects of Family Planning on Population of the Study Area

Source: Author's Field Survey, 2017.

Fig. 2: Factors Determining the Effects of Family Planning on Population.

From Figure 2, 20% of the respondents attribute the ineffectiveness of the family planning to cost of contraceptives. Globally Food and Agricultural Organisation as cited by World Bank (2016), 95% of the rural poor live in East Asia, South Asia and sub-Saharan Africa.

Poverty is widespread in both rural and urban areas in Nigeria; the rural areas, however, record a higher incidence, depth and severity of poverty than the urban areas (ActionAids, 2015). *International Fund for Agricultural Activities (IFAD-2016)* submitted that, 44.9% Nigerians live in poverty. Nigeria poverty is especially extreme in rural areas, where up to 80 per cent of the population lives below the poverty line, and social services and infrastructure are limited. A resource person in the area submitted that:

> *'Getting money for important essentials of life such as food, health bill, clothing and children's school fees have been difficult talkless of procurement of contraceptives. This is manifested in the cloth we wear, food we eat and accessibility to heath and educational institution (IDI, Dobi Ward, 2017)'.*

Ogboghodo, Adam and, Wagbatsoma (2017) account that cost is one the determinants of family programmes in the rural areas of Nigeria. Furthermore, 20.0% are of the opinion that accessibility to the family planning devices is very slow and this by extension makes its uses very difficult. Probably if these devices are available, its uses would have been more than what it is now. This view is shared by Mavhudzi (2017) who concurred that**,** the plight of women in rural and peripheral areas with regards to access to contraception is still miserable. In the same vein, 15.0% opined that, level of literacy has much effect on the family planning devices in the study area with its attendant relation to population growth. However, 12.0% of the respondent shares the view that ignorance is a major obstacle to family planning in the rural areas of the study area, resulting in population growth; about 19.0% agreed that occupation is a major obstacle to family planning in the study area. Majority of the people in the areas are farmers, who depend mostly on family labour on their farms. An elder in one of the wards of the study area confirm:

> *'We are majorly subsistent farmers; we need youthful population to work on our farms as we cannot afford tractor and modern farming equipment; thus, an attempt to curtail population growth is rebuff (IDI, Ibwa, 2017)'.*

Lastly, 14% affirmed that, religion is a major determinant of the uses of the family planning. The two major religions in Nigeria are not against family planning (Akanbi, 2014). This is an indirect encouragement of population growth, not only in the study area but Nigeria as a whole.

Method of Analysis
In carrying out the analysis of data collected, The Kolmogorov-Smirnov (K-S) which is based on the empirical distribution function (ECDF) was used and is of form:

Y1, Y2, ..., YN, the ECDF is defined as:

EN=n (i)/N

Where: **n=** is the number of points less than **Yi** and the **Yi**

N= total number of ordered data points **Y_1, Y_2..........**

Y_i= ordered data points **Y_1**

Y_2= ordered data points **Y_2**

Results
Test of Hypothesis

Ho: There is no significant relationship between family planning and population growth in Bwari Area Council, FCT-Nigeria.

Decision Rule:
The hypothesis regarding the distributional form is rejected if the test statistic, *D*, is greater than the critical value obtained from a table.

Table 2: One-Sample Kolmogorov-Smirnov Test

		Positive	Negative	No difference
N		7	7	7
Normal Parameters	Mean	3.6914E2	1.4257E2	156.2857
	Std. Deviation	1.55927E2	5.81603E1	112.18543
Most Extreme Differences	Absolute	.285	.203	.279
	Positive	.204	.203	.279
	Negative	-.285	-.178	-.198
Kolmogorov-Smirnov Z		.755	.538	.738
Asymp. Sig. (2-tailed)		.620	.935	.647

Source: STATA OUTPUT

Table 3 shows the statistical distribution of one sample Kolmogorov- Smirnov test for normal distribution. The table shows the minimum, maximum, absolute, positive and negative data distribution. In a normal distribution, the significant value must be greater than 0.05 (Sig> 0.05). From the result of the Kolmogorov- Smirnov normal test distribution as shown in the table above, the Significant value for the three variables of Positive impacts, Negative impacts and No Difference impacts are 0.620, 0.935, and 0.647 implying that the decision to plan and control family size has a significant impact on population growth in the study area.

Hence, all the variables are greater than 0.05. Calculated value of the one sample Kolmogorov-Smirnov test is greater than 0.05 significant levels, thus the hypothesis is rejected.

Conclusion and Recommendations
The need for family planning is central to the making of human society; for one it determines accessibility to essentials of life such as water, hospital, good road, school among others. The more the population, the more the greater the instability of political system with its attendant problems. The study confirms that, population is growing in the rural areas of the study areas and by extension other rural areas of Nigeria; this has manifested in insecurity and fall in the standard of living.

As a result of the above, the study recommends that for family planning programme to curtail population growth in the rural areas, the need for further enlightenment of rural populace on the need for family planning.

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