POPULATION AND DEVELOPMENT IN NIGERIA: AN ASSESMENT OF THE NATIONAL POLICY ON POPULATION AND SUSTAINABLE DEVELOPMENT

INGIABUNA Theophilus E. and UZOBO Endurance

Department of Sociology and Anthropology
Niger Delta University, Wilberforce Island
Bayelsa State

* Corresponding Author’s email: enduzobo@yahoo.com

Abstract

The purpose of this review article is to explore the level of success and failure of the National Policy on Population and Sustainable Development (NPPSD). From the review of relevant statistical publications and other relevant documents, the aim of the policy which is to improve the quality of life and standard of living of the Nigerian population through the targets of the NPPSD, revealed that despite the fact that the NPPSD gave Nigeria a focus to tackling her many population and development challenges, it still failed to meet up with its targets. This failure, the study added, might not be unconnected with the same factors that have always stood against other development plans and policies ranging from lack of commitment, lack of political will, corruption, poor attitude from the populace, funding etc. Nevertheless, two targets seemed to be very promising so far from the review and which include reducing the HIV/AIDS prevalence and incidence rate, and gender equality and women empowerment. Based on the findings, the study recommended the following: the need for policy makers to set out on a search for a more veritable replacement, urgent and desperate need for a radically different approach to understanding and tackling the challenges associated with the NPPSD, and a new development plan that will address issues on education, youth, equity and sustainable development.

Keywords: Development, Population, Policy, National Policy on Population and Sustainable Development, Population Growth etc

Introduction

The role played by population variables in the development of a country cannot be overemphasized. This is because, majority of the programmes and policies most governments implement are either directly or indirectly linked with population dynamics and characteristics, all of which are geared towards sustainable development. The commitment of the Nigerian government to improve the quality of life of the Nigerian population has been expressed in development plans, programmes, policies
and projects. This is because they recognize the intricacy of population – development relationship and the importance of population factors in the development of the country.

Currently, there are increased consciousness of population related issues and the need to integrate population elements into development planning. All stakeholders need to appreciate the linkages of population factors with broader developmental issues like housing, education, health, agriculture, energy, environmental, gender concerns, food security and the security of life and property.

Nigeria in its quest to attain sustainable development has come up with several policies ranging from economic, political, social, demographic etc. programmes. However, the achievement these goals set aside for development through these policies, has always been problematic due to several constrains such as poor implementation plans, corruption, lack of political will etc. One of such policies aimed at the development of Nigeria through demographic and population characteristics is the National Policy on Population and Sustainable Development. The objective of this paper is therefore to assess the level of achievement and failures of the national policy on population and sustainable development and how this has impacted on the development of Nigeria.

Population Policy

A policy is a formalized set of procedures designed to guide behaviour. Its purpose is to either maintain consistency in behaviour or alter behaviour to achieve a specified goal. According to Demeny (2003:752), a population policy is a deliberately constructed arrangement or programme “through which governments influence, directly or indirectly, demographic change”. These arrangements typically are “legislative measures, administrative programmes, and other governmental actions intended to alter or modify existing population trends in the interest of national survival and welfare” (Eldridge, 1968: 381). The demographer John May (2005: 828) wrote that “population policies are designed to regulate and, if possible, mitigate the problems [of too rapid growth or decline] by adjusting population size and structure to the needs and aspirations of the people”.

May (2005), went ahead to add that population policies are usually understood to represent strategies for governments or sometimes, albeit less frequently, nongovernmental organizations (NGOs) to attain specific goals. The procedures or programmes are put into place to ensure that the goals of the policy are attained. As already noted, a policy is generally intended to either reduce or increase population levels. Policies are typically developed “in the interest of the greater good, in order to address imbalances between demographic changes and other social, economic and political goals”.

Given the importance attached to population dynamics or processes (Birth, Death and Migration), any policies aimed at restoring demographic balance must be oriented toward one or more of the three demographic processes. Nevertheless, it is not very often that all of the three options are used as the bases for making population policies.
Population policies dealing with mortality are usually intended to reduce, not to increase, its levels. Manipulating mortality via reduction, however, is not as popular or prominent a strategy of population policy. Most policies focus on manipulating fertility and/or migration (Poston and Bouvier, 2010).

Governments generally try to influence the demographic behaviour of people indirectly, by often persuading people to act voluntarily in a desired manner, rather than force people. However, oftentimes when mere legislation and propaganda are insufficient to attain the intended goal, then governments act directly, say, to either raise or lower levels of fertility or to force people to move or not to move.

The task of formulating a population policy is complicated by the fact that often there is no consensus on the appropriate size of the population and/or its fertility or migration rates. There may be some disagreement as to the magnitude of the problem of population growth or decline. More frequently, there evolves a “laissez-faire” attitude as opposed to a “let’s do something about it now” position. For example, today in the United States, there is widespread disagreement as to whether levels of immigration should be reduced or increased. Some groups argue for the former, others the latter (Poston and Bouvier, 2010).

Poston and Bouvier (2010) further noted that, it is not everyone that agrees on the true meaning of a population policy. Some of the issues they observed as being at the centre of disagreement among demographers as well as non-demographers include:

1. Must there be an explicit statement by a government that a policy exists? The United States has no official population policy. Nevertheless, the US government finances and sponsors programmes designed to eliminate unwanted childbearing and to make contraception available to certain target populations.

2. Does there have to be a planned course of action or programme? Sometimes doing nothing is a policy. In 2008, U.S. fertility was about the replacement level of 2.1 children per woman. The U.S. government is not concerned at all about raising its level of fertility, or lowering it, to compensate for increases to the population via immigration.

3. Must the goals of a policy be demographic, or may they be social and economic? In other words, do the goals have to be direct or indirect? For example, it is well known that, on average, increased educational attainment of women results in lower fertility; the higher the education of women, the fewer, on average, the number of children born to them. If a developing country decides to improve the educational levels of its female youth, is this a population policy? Yes, but only indirectly. Similarly, opening job opportunities for women tends to result in lower fertility. This is another example of an indirect population policy (Poston and Bouvier, 2010:399-340).

The above point raised is just to illustrate that there are no correct nor wrong definition of what should constitute a population policy. Governments may differ in their definitions and the formulation of population policies, and it is sometimes difficult to decide whether a specific country has a population policy.
Rationale for Population Policy

Modernity—the rise of democratic state formations reflecting the public interest and the emergence of rapid economic development—brought about the realistic promise of realizing age-old human aspirations for a better life. The state increasingly came to be seen as an institution created by the voluntary association of free individuals to further their interests. The central function of the state was to produce public goods—goods that individuals cannot secure for themselves. The US Constitution, promulgated in 1789, articulated key items in the collective interest concisely and with universal validity. The aim of the union formed by the people was, in the words of the Constitution’s Preamble, to “establish Justice, insure domestic Tranquility, provide for the common defense, promote the general Welfare, and secure the Blessings of Liberty to ourselves and our Posterity.” In pursuing such goals, regulation of immigration into a state’s territory is clearly defined as a public good, thus delineating a particular role for population policy. And aggregate fertility may also be construed as a public good, if its level as determined by spontaneous social interaction is too high or too low in terms of the collective interest (Demeny, 2003).

To claim a role for the state in the matter of fertility is more problematic. Additions to the population are the result of a multitude of individual decisions concerning childbearing. Within the constraints of their social milieu, these decisions reflect an implicit calculus by parents about the private costs and benefits of children to them. But neither costs nor benefits of fertility are likely to be fully internal to the family: they can also impose burdens and advantages on others in the society. Such externalities, negative and positive, represent a legitimate concern for all those affected. An individual’s influence on the fertility of other families, however, is very limited: there are no private markets offering preferred patterns of aggregate demographic processes to individual buyers. Remedying such market failure may then be attempted through intervention by the state so as to affect individual behaviour in order to best serve the common good—the good of all individuals (Demeny, 2003).

The earliest clear formulation of the population problem as a problem of coordination among individual preferences, hence establishment of the rationale for potential state intervention in the matter of fertility, was given by William Foster Lloyd, an Oxford mathematician and economist, in an essay published in 1833. In the spirit of the Malthusian concerns of his time, Lloyd (1833/1968: 22–23) envisaged the possibility of overpopulation even under conditions when all families have only the children they actually want and suggested the direction in which remedy ought to be sought:

_The simple fact of a country being overly populous...is not, of itself, sufficient evidence that the fault lies in the people themselves, or a proof of the absence of a prudential disposition. The fault may rest, not with them as individuals, but with the constitution of society, of which they form part._
Population policy should therefore strive toward institutions and incentive systems—a constitution of society—that provide signals to individuals guiding them to behave in harmony with the collective interest.

**Nigeria’s National Population Policy**

The National Policy on Population for Sustainable Development was approved on the 4th of February 1988 in response to the pattern of population growth rate and its adverse effects on national development. With emerging issues such as HIV/AIDS, poverty, and gender inequality gaining wider recognition, it became necessary to review the 1988 National Population Policy, giving way to the National Policy on Population for Sustainable Development, which was signed in January 2004 by Chief Olusegun Obasanjo, then president and Commander-in-Chief of the armed forces of the Federal Republic of Nigeria. The policy recognises that population factors, social and economic development, and environmental issues are irrevocably interrelated and are therefore critical to the achievement of sustainable development in Nigeria.

The overall goal of the National Policy on Population for Sustainable Development is to improve the quality of life and standard of living of the Nigerian population (NPC, 2004). This is to be achieved through the attainment of a number of specific goals that include:

- Achievement of sustainable economic growth, protection and preservation of the environment, poverty eradication, and provision of quality social services
- Achievement of a balance among the rate of population growth, available resources, and the social and economic development of the country
- Progress toward a complete demographic transition to a reasonable growth in birth rates and a low death rate
- Improvement in the reproductive health of all Nigerians at every stage of the life circle
- Acceleration of a strong and immediate response to the HIV/AIDS pandemic and other related infectious diseases
- Progress in achieving balance and integrated urban and rural development

**NPPSD Objectives**

To achieve the above goals, the Policy sets out the following objectives:

1. Increase understanding and awareness of the interrelationships between population factors, social and economic development, and the environment, and their mutual importance to the long–term sustainable development of Nigeria.
2. Expand access and coverage and improve the quality of reproductive and sexual health care services.
3. Strengthen and expand a comprehensive family planning and fertility management programme that ensures that all couples / individuals who want them have uninterrupted access to a reasonable range of contraceptive methods at affordable prices, and is also adequately responsive to the needs of infertile and sub-fertile couples.
4. Strengthen and improve safe motherhood programmes to reduce maternal mortality and morbidity and enhance the health of women.

5. Reduce infant and child mortality and improve the health and nutritional status of Nigerian children through expanded access to high quality productive, preventive, and curative health care services.

6. Promote Behavioral Change Communication (BCC) programmes to increase reproductive and sexual health knowledge, awareness, and behavioral change among Nigerians.

7. Empower women to participate actively and fully in all aspects of Nigeria’s development and effectively address gender issues.

8. Enhance the involvement of men in reproductive health programmes and health care.

9. Increase the integration of adolescents and young people into development efforts and effectively address their reproductive health and related needs.

10. Increase and intensify coverage of population and family life education programmes.

11. Accelerate the integration of reproductive health and family planning concerns into sectoral programmes and activities.

12. Use effective advocacy to promote and accelerate attitudinal change towards population and reproductive health issues among public and private sector leaders.

13. Reduce and eventually eliminate harmful social and cultural practices that adversely affect the reproductive health of the population through the promotion of behavioral change and appropriate legislation.

14. Strengthen the National response to HIV/AIDS to rapidly control the spread of the epidemic and mitigate its social and economic impacts.

15. Encourage the integration of population groups with special needs, including nomads, refugees and displaced persons, the elderly, persons with disabilities, and remote rural dwellers into the development process.

16. Accelerate progress towards integrated urban and rural development and balanced population distribution.

17. Increase enrolment and retention of children, especially girls, in basic education and raise literacy levels among Nigerians.

18. Accelerate the integration of population factors into development planning at national, state and local government levels.

19. Improve the population, social, and economic database; promote and support population and development research; and help leadership groups recognize the important contribution that planning and data utilization make to the good governance of Nigeria.

20. Improve systems for monitoring and evaluating the implementation of the population policy and for reviewing the policy at periodic intervals.
The National Policy on Population for Sustainable Development operates on the principle that achieving a higher quality of life for people today should not jeopardize the ability of future generations to meet their own needs (NPC, 2004). To guide policy, programme planning, and implementation, the following targets were set:

- Reduce the national population growth rate to 2 percent or lower by 2015
- Reduce the total fertility rate by at least 0.6 children every five years by encouraging child spacing through the use of family planning
- Increase the contraceptive prevalence rate for modern methods by at least two percentage points per year through the use of family planning
- Reduce the infant mortality rate to 35 per 1,000 live births by 2015
- Reduce the child mortality rate to 45 per 1,000 live births by 2010
- Reduce the maternal mortality ratio to 125 per 100,000 live births by 2010 and to 75 by 2015
- Achieve sustainable universal basic education as soon as possible before 2015
- Eliminate the gap between males and females in school enrolment at all levels and in vocational and technical education by 2015
- Eliminate illiteracy by 2020
- Achieve at least a 25 percent reduction in HIV/AIDS adult prevalence every five years

Principles

The guiding principles for the National Policy on Population for Sustainable Development (NPPSD) are not only derived from the Programme of Action of the ICPD, but are also in accordance with the Constitution of the Federal Republic of Nigeria. The guiding principles are also consistent with the provisions of other existing National Policies, such as, the National Policy on Women, Poverty Alleviation Policy, National Reproductive Health Policy, National Health Policy, National Policy on the Environment, and the National Adolescent Health Policy and the National Policy on Education. The principles are as follows:

**Principle 1**
The people of Nigeria are the most important and valuable resource of the nation. They are at the centre of concerns for sustainable development.

**Principle 2**
To achieve sustainable development and a higher quality of life for all the people, Nigeria shall promote appropriate policies including population–related policies, to meet the needs of current generations without compromising the ability of future generations to meet their own needs.

**Principle 3**
Everyone has the right to the enjoyment of the highest attainable standard of physical and mental health. Universal access to health care services should be guaranteed.
Principle 4
The family is the basic unit of the Nigerian society and as such shall be strengthened.

Principle 5
Every Nigerian has the right to information and education, which shall be directed to the full development of human resources, dignity and potential, with particular attention to women and children.

Principle 6
Nigeria shall give the highest possible priority for the well-being of the child. The child has the right to standards of living adequate for his / her well-being.

Principle 7
Young people are the future leaders of the nation. Appropriate provisions for their growth and development shall be made in recognition of their special needs.

Principle 8
Government shall pursue issues relating to gender equality before the law, equity and women empowerment, and the elimination of all forms of gender-based violence and all forms of harmful practices.

Principle 9
Government shall recognize the potentials and address the special needs of vulnerable groups such as persons with disabilities, widows, the elderly and refugees in accordance with the principles of the fundamental human rights of all Nigerians.

Nigeria’s Demographic Trends Prior to Policy Enactment
Census taking in Nigeria dates back to 1863. Other censuses were taken in 1962, 1963, 1973 and all the results were disputed by different regional groupings in the country. The 1962 and 1973 censuses were nullified. Until 1991, data on 1963 census was in use for official purposes. Such nation-wide surveys as Nigerian Demographic Sample Surveys, Nigeria Fertility Survey of 1981/82, monthly National Integrated Household Survey by the Federal Office of Statistics have been conducted (Odimegwu, 1998).

Because of the lack of accurate and reliable census data, it was not possible to obtain accurate and reliable estimates of growth rates. Estimated annual population growth rate between 1952 and 1962 stood at 6.1 % whereas the rate for 1963-73 was 3.6%. The estimated crude birth rate of 52.3 per 1,000 population in 1965-1970 declined only slightly to 50.5 per 1,000 by 1985-1990. The projected crude death rate was 22 and 15.7 per 1, 000 for the same periods. With the persistent gap between fertility and mortality levels, the country's population growth rate is estimated to be 3% and a recent estimate by UN is 3.3% (UNFPA cited in Odimegwu, 1998). A glaring consequence of rapid population growth is the increasing proportion of young people in the population. In 1960, 45 % of the population was under 15 years. This has increased
since then and the dependency burden has also intensified because the proportion of the
colouration in the economically active ages (15-64 years) is less than half the population.

Fertility estimates showed that the Total Fertility Rate is 6.4 (6.39 for village
and 6.16 for urban areas). Fertility was highest in the south-east, followed by south-west
and was least in the north-east and the north-west health zones (NFS cited in
Odimegwu, 1998). Mortality is also high, especially infant and childhood mortality,
though it has declined considerably in the past three decades.

The 1965/66 Rural Demographic Sample Survey (the first National
Demographic Sample Survey ever undertaken in Nigeria) put the crude death rate for
rural Nigeria at 27 per 1,000 population and infant mortality rate at 178 per 1,000
expectancy at birth rose from about 31 years in 1931 (Ayeni, 1974) through 36 years in
1950 to about 48 years in 1980 (Federal Ministry of Health 1985; National Population
Bureau, 1995). The crude death rate also fell from 27 to about 17 per 1,000 population
over the same period of time. The 1981/82 Nigeria Fertility Survey put the life
expectancy at birth at 52 years for females and 49 years for males (National Population
Bureau, 1995).

Both infant and childhood mortality rates have been on the decline in recent
years. Infant mortality rate was estimated at 84.4 per 1,000 live-births in 1975-79; 96.6
per 1,000 live-births in 1970-74 and 109.7 per 1,000 live-births in 1965-69. These
represent a decline of 22.7% from 1965 to 1979 (National Population Bureau, 1984).
With fertility almost constant while mortality has been on the decline, the rate of
population growth due to natural increase has risen from 2.5% in the 1960s to a little
above 3%. At that rate the estimated population, projected from the 1963 census,
reached almost 100 million in 1980 and this is expected to double within the next 18-20
years. The future demographic outlook of the country is that the population will
substantially increase in the future. This was the demographic scenario before the

Nigeria’s Current Demographic Trends after Policy Enactment

The demographic trends in Nigeria seems not to have changed much after more
than two decades of the National Population Policy in Nigeria. In this section of this
paper, we shall be assessing current situations of the policy’s target to know how far the
nation has gone in its quest to meet up with the established objectives of the policy.

National Population Growth Rate

Population growth rate (PGR) is the increase in a country’s population during a
period of time, usually one year, expressed as a percentage of the population at the start
of that period. It reflects the number of births and deaths during the period and the
number of people migrating to and from a country (World Bank, 2015). The
"population growth rate" is the rate at which the number of individuals in a population
increases in a given time period, expressed as a fraction of the initial population.
Specifically, population growth rate refers to the change in population over a unit time
period, often expressed as a percentage of the number of individuals in the population at
the beginning of that period. This can be written as the formula, valid for a sufficiently small time interval:

\[ \text{Population growth rate} = \frac{P(t_2) - P(t_1)}{P(t_1)(t_2 - t_1)} \]

A positive growth rate indicates that the population is increasing, while a negative growth rate indicates that the population is decreasing. A growth ratio of zero indicates that there were the same number of individuals at the beginning and end of the period—a growth rate may be zero even when there are significant changes in the birth rates, death rates, immigration rates, and age distribution between the two times.

A related measure is the net reproduction rate. In the absence of migration, a net reproduction rate of more than 1 indicates that the population of females is increasing, while a net reproduction rate less than one (sub-replacement fertility) indicates that the population of females is decreasing.

Population Growth rate is determined by three main factors: Fertility, Mortality and Migration. The targets of the National Policy on Population for Sustainable Development (NPPSD), was to reduce the national population growth rate to 2 percent or lower by 2015. The set year has already come to an end. The interesting question is now: has Nigeria been able to meet this target? Various reports show that this target has not been met. For example, the National Institute for Policy and Strategic Studies, NIPSS (2008) estimated that the population of Nigeria was growing at about 3.2%. It further stated that at that rate, the population will double in size in just 24 years. This means that Nigeria has one of the fastest growing populations in the world. Similarly, Isiugo-Abanihe (2010), stated that the rate of natural increase of Nigeria’s population is high, a product of past trends in fertility and mortality. National Population Commission & ICP Macro (2009) added that persistent, high fertility and generally declining though slow mortality has resulted in a high population growth rate estimated at 3.2 percent per year.

Again, the Population Reference Bureau (2014) report indicated that the rate of natural increase in Nigeria was 2.5%, with a current population of 177 million. The Report further showed that if the population continues to grow at that rate, the total population of Nigeria would be 261.7 million in mid 2030 and 396.5 million in mid 2050, making Nigeria the 3rd most populous country in the world. Nevertheless, the PRB (2015) reported a slightly different situation. Though there was no growth rate in the report, it however indicated that Nigeria’s current population is 182 million with a projected population of 397 million by 2050 making it the 4th most populous country in the world. Commenting on the growth rate of Nigeria’s Population, Isiugo-Abanihe (2010:13) noted that:

*Nigeria’s high population growth rate, the youthfulness of the population with its inbuilt momentum for further growth, and a high dependency burden will undoubtedly have adverse effects on all aspects of life and will constitute a drag to sustainable development which is the goal of successive governments.*
National Total Fertility Rate

The level of current fertility is one of the most important population agents of population change because of its direct relevance to population policies and programmes. The second target of the National Policy on Population for Sustainable Development is to achieve a reduction in the total fertility rate of at least 0.6 children every five years. The fertility measures outlined here provide insight into current fertility rates, allowing a determination of whether Nigeria is achieving this. The total fertility rate (TFR) is the average number of children that would be born to a woman by the time she ended childbearing if she were to pass through all her childbearing years conforming to the age-specific fertility rates of a given year. The TFR is one of the most useful indicators of fertility because it gives the best picture of how many children women are currently having. The TFR sums up, in a single number, the fertility of all women at a given point in time. In effect, it says: This is the total number of children a woman would have if the fertility rates for a given year applied to her throughout her reproductive life. TFR if expressed as; TFR = 5 x ∑ ASFR per 1000 women

The 2013 NDHS results indicate that the TFR is 5.5 births per woman. This means that, on average, Nigerian women will give birth to 5.5 children by the end of their childbearing years. The current TFR of 5.5 is 0.2 children per woman less than that reported in the 2003 and 2008 NDHS surveys (5.7 each) (NPC & ICP Macro, 2014). This is also similar to the report of PRB (2015) that also puts the TFR of Nigeria at 5.5, with a crude birth rate of 39 per 1,000 population.

Fertility peaks in the 25-29 age group in urban areas (237 births per 1,000 women) and the 20-24 age group in rural areas (267 births per 1,000 women) and declines thereafter. The general fertility rate is 190, which means that there were 190 births for every 1,000 women (NPC & ICP Macro, 2014).

Rural areas have a much higher TFR than urban areas (6.2 versus 4.7), and there are large urban-rural differences in ASFRs for all age groups. The largest variations are in the 15-19 and 20-24 age groups; in these groups, the rates for rural women exceed those for urban women by 100 and 79 births per 1,000 women, respectively. Adolescent fertility in rural areas more than doubles that in urban areas (NPC & ICP Macro, 2014).

NDHS 2014 also revealed that TFR differs by zones, education and wealth quintile in Nigeria. The more urbanized zones, the South-East (4.7), South-South (4.3), and South-West (4.6), have lower fertility rates than the three mostly rural northern zones. The highest TFR is seen in the North West (6.7), followed by the North East (6.3). The TFR decreases with increasing level of education. Women with more than a secondary education have a TFR of 3.1, as compared with a TFR of 6.9 among women with no education. Women in the highest wealth quintile have an average of three fewer children than women in the lowest quintile (3.9 and 7.0 births per woman, respectively) (NPC & ICP Macro, 2014).

Modern Contraceptive Prevalence Rate in Nigeria

The modern Contraceptive prevalence rate is the proportion of women of reproductive age who are using (or whose partner is using) a modern method of a contraceptive at a given point in time. It is expressed as:
MCPR = \frac{\text{no. of women of reproductive age using MCMX}}{1000\times \text{Total no. of women of reproductive age}}

Contraceptive prevalence rate is the most widely used and valuable measure of the success of family planning programmes. Furthermore, it can be used to estimate reductions in fertility attributable to contraception; this is why the third target of the National Population Policy for sustainable development is to increase the contraceptive prevalence rate for modern methods by at least two percentage points per year through the use of family planning.

Reports about modern contraceptive prevalence rate seem to be harmonious among agencies. For instance, PRB (2014) reported that Nigeria’s Modern contraceptive prevalence rate was just 9%, while in 2015, the report puts it at 10% (PRB, 2015). In its report of NDHS 2013, NPC & ICP Macro (2014) succinctly captures the contraceptive prevalence rate thus:

*Overall, 15 percent of currently married women in Nigeria are using a contraceptive method, an increase of only 2 percentage points since the 2003 NDHS. Most of these contraceptive users rely on a modern method (10 percent); 5 percent use traditional methods. Injectables (3 percent), male condoms (2 percent), and the pill (2 percent) are the most commonly used modern methods. Other modern methods are used by 1 percent of women or less. Interestingly, 3 percent of currently married women use withdrawal as a method of contraception.*

Similarly, a study carried out by Igbodekwe, Oladimeji, Oladimeji, Adeoye, Akpa, & Lawson, (2014), revealed the following about modern contraceptive use; the prevalence of modern methods was 9.4%. Twelve percent of those who use modern contraceptives belonged to the age group 30-39 years, while the lowest prevalence was among the respondents between 40 and 49 years. Respondents that were never married were significantly likely to use modern contraceptive methods than those currently married or formerly married. Women with employment were more likely to use contraception compared to those unemployed. Women in South-south and south-west regions were significantly likely to use modern contraceptive when compared to their contemporaries in the other zones. A larger number of the respondents who had tertiary education were more likely to use modern contraceptive method compared to those with lower grades of education. Christians were more likely to utilize modern contraceptive than Muslims and Traditionalists. The highest use of modern contraceptive is found among the richest wealth quintile.

The overall contraceptive prevalence among women in Nigeria is 16 percent. The use of any family planning method increases with age from 6 percent among women age 15-19 to 21 percent among women age 35-39, after which it declines to 12 percent among women age 45-49. Most women currently using contraception use a modern method (11 percent), while 5 percent use traditional methods. The male condom is the most commonly used modern method (5 percent), followed by injectables and pills (3 percent and 2 percent, respectively), while female sterilization and implants are
the least used modern methods (less than 1 percent each). Among the traditional methods, the rhythm method and withdrawal are the most commonly used (2 percent each) (NPC & ICP Macro, 2014).

With regards to source of modern contraceptive method, the NDHS 2013 indicated that the private medical sector is the most common source for users of modern contraceptive methods (60 percent). Less than one-third (29 percent) of current users of modern methods obtain their method from the public sector, mostly public government hospitals (17 percent). Nine percent of users of modern methods use other sources. The public sector supplies the majority of implants and IUDs (65 percent each), injectables (58 percent), and female sterilization (56 percent). The private sector is the main source for male condoms (74 percent) and oral contraceptives (72 percent). Use of the public sector as a source has increased over the past five years (from 23 percent to 29 percent) (NPC & ICP Macro, 2014).

**Infant Mortality Rate in Nigeria**

The infant mortality rate (IMR), the most common measure of infant death, is the number of deaths in a year to persons under age 1 per 1,000 babies born in the year. It is expressed as:

\[
\text{Number of deaths of infants under age 1 in a given year} \times K
\]

\[
\text{Total live births in that year}
\]

The fourth target of the NPPSD is to reduce the infant mortality rate to 35 per 1,000 live births by 2015. Both reports from NDHS (2013) and PRB (2014/2015), put IMR in Nigeria at 69 per 1,000 live births. This is a far cry from the target of 35 by 2015. This implies that one in 15 Nigerian children die before their first birthday. Nevertheless, this figure is different from that of National Bureau of Statistics (NBS) (2015) report which puts the IMR at 58. The NBS (2015) revealed the situation of IMR as thus:

*The deaths of infants under one year per 1,000 live births in Nigeria was also very high in 2004 where 100 children died without seeing their first birth day in every 1,000 live births. The deaths of infants have been on the decrease since 2008 in which 75 infants died per 1000 till 2014 with a record of 58. The prevalence of infant mortality in 2014 was more prominent in the rural areas with a record of 63 deaths than the urban with a record of 46 deaths per 1000 live births.*
The socio demographic characteristics associated with IMR reveals that IMR in urban areas are consistently lower than those in rural areas. Infant mortality is 43 percent higher in rural areas (86 deaths per 1,000 live births) than in urban areas (60 deaths per 1,000 live births) (NPC & ICP Macro, 2014). In the zones, the North West with 77%, followed by South East with 69, had more infants dying without seeing their first birth day in every 1000 live births (NBS, 2015).

IMR are generally higher among male children than female children. With the exception of mothers in the 40-49 age group, infant mortality is higher for mothers under age 20 than for older mothers. Infant mortality is also higher for first births and seventh- and higher-order births than for births of orders 2-6. Short birth intervals, especially intervals of less than two years, substantially reduce children’s chances of survival. For example, children born less than two years after the preceding birth are more than 2.5 times as likely to die within the first year of life and more than twice as likely to die within the first five years of life as children born three years after the preceding birth. NDHS (2013) data show that children who were small or very small at birth were more likely to die before their first birthday than those whose weights were average or above (NPC & ICP Macro, 2014).

Child Mortality Rate in Nigeria

The fifth target of the NPPSD is to reduce the child mortality rate to 45 per 1,000 live births by 2010. Child mortality rate also called Under 5 mortality rate (U5MR) refers to the number of deaths in a year to persons under 5 years per 1,000 babies born in the year. It is expressed as:

\[
\text{Number of deaths of children under 5 in a given year} \times K
\]

\[
\text{Total live births in that year}
\]

There are slight variation in the reports of United Nations Development Programme (UNDP) Nigeria (2014), NDHS (2014) and NBS (2015) concerning child mortality rate. According to UNDP Nigeria (2014) report, the U5MR was 191 deaths per 1000 live births in 2000, it dropped to 157 per 1000 in 2008; it dropped further to 94 deaths per 1000 live births in 2012. In its report of NDHS (2013) and NPC & ICP Macro (2014) stated that the Under-5 mortality declined from 201 deaths per 1,000 live births in the 2003 survey to 128 deaths in 2013.

NBS (2015) on its own part noted that about ten years ago specifically 2004, Nigeria’s average under five mortality rate was very high at 201. But right from then, there has been a steady decrease till 2014 when there was a record of only 89 children dying before their fifth birthday in every 1000 live births. Although the national average in 2014 was 89, yet some states had numbers much higher than the national average. The states include Kogi (169), Katsina (155), Kaduna (167) etc. The death prevalence in
2014 however was much more in the rural areas with 98 deaths against the 66 in the urban. North West zone with 121 and North East zone with 78 had the highest under five mortality rate than the other zones. South West zone had 45 as the least. If the rate in 2004 is adopted as the base value, it implies that some zones and states would have met the MDGs target on under five mortality before 2015. Though the target is 45 which was supposed to be achieved latest in 2010, we are in 2015, and from all reports so far, the U5MR is still 897.

**Maternal Mortality Trend in Nigeria**

The sixth target of the NPPSD is to reduce the maternal mortality ratio to 125 per 100,000 live births by 2010 and to 75 by 2015. The maternal mortality ratio is the number of women who die as a result of complications from pregnancy or childbearing in a given year per 100,000 live births in that year. Deaths due to complications from spontaneous or induced abortions are included. The **maternal mortality ratio (MMR)** gauges the extent to which mothers die immediately before, during, or after giving birth because of a problem or problems associated with the pregnancy or childbirth. The World Health Organization (1982) defined a **maternal death** as “the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration or site of pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes” (Maine and Stamas, 2003: 628). The MMR refers to deaths in a year to women dying as a result of complications of pregnancy, childbirth, and the puerperium (that is, the condition of the woman immediately following childbirth, usually ending when ovulation begins again), per 100,000 births occurring in the year. Sometimes the deaths (the numerator) are referred to as deaths due to puerperal causes. It is expressed thus:

\[
\text{Number of maternal deaths} \times K \\
\text{Total live births}
\]

Again, various reports have given different figures concerning the maternal mortality ratio in Nigeria. NDHS (2013) report shows that the maternal mortality rate which can be converted to a maternal mortality ratio (expressed as deaths per 100,000 live births) by dividing the rate by the general fertility rate (GFR) of 183 that prevailed during the same time period and multiplying the result by 100,000, produces a maternal mortality ratio (MMR) of 576 deaths per 100,000 live births during the seven-year period preceding the survey. In other words, for every 1,000 live births in Nigeria during the seven years preceding the 2013 NDHS, approximately six women died during pregnancy, during childbirth, or within two months of childbirth. The lifetime risk of maternal death (0.033) indicates that about 3 percent of women died during pregnancy, childbirth, or within two months of childbirth.

The estimated maternal mortality ratio in 2013 (576) is almost the same as in the 2008 NDHS (545). The confidence interval surrounding the maternal mortality ratio of
576 deaths per 100,000 live births is 500-652, while the confidence interval for the 2008 ratio of 545 deaths per 100,000 live births is 475-615, showing that the MMR confidence intervals overlap for the 2008 and 2013 surveys. The difference between the 2008 and 2013 MMR estimates is not statistically significant. Based on these results, the main conclusion is that there is no evidence to suggest that the maternal mortality ratio changed between these surveys.

In a different report, UNDP Nigeria gave its own report as: Nigeria has made steady progress in reducing maternal deaths and moving towards the achievement of MDG 5. From a high of 1000 deaths per 100,000 live births in 1990, maternal mortality fell to 800 deaths per 100,000 live births in 2004, 545 deaths per 100,000 live births in 2008 and 350 deaths per 100,000 live births in 2012. Maternal mortality declined by 20.0% between 1990 and 2004 and by 36.0% between 2004 and 2008. However, Nigeria's current status, estimated at 350 maternal deaths per 100,000 live births, is still 40.0% short of the 2015 target of 250 maternal deaths per 100,000 live births.

NBS (2015) gave a lower MMR in its report. According to the report, the 2004 Maternal Mortality ratio of 800 in every 100,000 live births crashed to 545 in 2008. The performance tracking survey of 2012 recorded a further decrease to 350 per 100,000 live births and the downward trend consistently maintained its course to 2014 with a record of 243 per 100,000 live births. As a remark, the 2014 estimation was strictly based on women within the age bracket of 15 to 49 years, as opposed to the 2012 age bracket of 15 to infinity. The rationale behind this is that the child bearing age for women is within that bracket. Based on this, Nigeria is at the verge of meeting the target on maternal mortality. Also, PRB (2015) report indicated an MMR of 560 per 100,000 births. Despite, the variations in all these reports, the target of 125 per 100,000 live births by 2010 and to 75 by 2015 is still very far from being met.

**Universal Basic Education in Nigeria**

The 7th target of the NPPSD is to achieve sustainable universal basic education as soon as possible before 2015. Universal basic education is often measured in net enrolment and completion level in primary education. Both civilization and development leverage very much on education. Education is a weapon for liberation from ignorance and diseases. Hence, it cannot be isolated from any development agenda as it is the pivot upon which several other programmes rotate. Although the emphasis is on achieving primary education, but it has to be realized that to sustain progress towards other goals such as full employment, poverty reduction, health related programmes, etc, attention should be extended beyond primary education (NBS, 2015).

UNDP Nigeria’s (2013) report revealed that Nigeria's net enrolment ratio in primary education, which stood at 68.0% in 1990, increased significantly to 95.0% in 2000. Net enrolment peaked at 95.0% in 2000, decreased to 80.0% in 2004 and gradually increased to 88.80% in 2008.

NBS (2015) which has a more recent report shows that at the national level, the net attendance ratio was 61% in 2008 and it increased to 71% in 2012. In 2014, there was a shortfall of 2.3% and the net attendance for 2014 thus dropped to 68.7%. When classified by sectors, net attendance in the urban (84.3%) was much higher than in the
rural areas (62.2%). Across the geopolitical zones, it was very encouraging in the South East (90.5%), South South (88.1%), South West (87%) and North Central (80.2%). But in the North West (50.5%) and particularly North East (42.5%) net attendance was not impressive. Although one hundred per cent enrolment and attendance are expected of children within this cohort, the achievement within the sub regions shows that Nigeria is on track of meeting the target.

The states with very high attendance ratios included: Anambra (94%), Delta (92.8), Imo (90.7), Lagos (92), Ondo (92.4), Osun (91.6), Edo (91.0), Ekiti (93.6) and FTC (94.1) while the least were Bauchi (29.9), Sokoto (24.8), Yobe (23.7), Zamfara (37.8) (NBS, 2015).

The report further added that nationally, completion rate in 2004 was 82%. It increased to 87.7% in 2012 and dropped to 74.0 in 2014. Within the 2014, the completion rate was higher in the urban (84.4%) when compared with the rural (69.7). In the zones, completion rate was highest in South East (98.7%) zone, followed by South West (94.1%). Primary six completion rate was poorest in the North East (49.5%) zone (NBS, 2015).

Completion rate is very important in Primary School education as it marks the beginning of transition to secondary school. Children often enroll without attending due to one challenge or the other. Those of them who eventually commence attending may withdraw or drop out without completing. This underpins the education indicator defined as ‘Proportion of pupils starting grade one and reaching final grade’. Final grade in this context is the completion grade.

**Gap between Males and Females in School Enrolment at all Levels in Nigeria**

The target on gender equality and women empowerment seeks for the elimination of this disparity by encouraging and supporting equal educational opportunities in both primary and secondary schools. Hence the monitoring indicator tagged ratio of girls to boys in primary, secondary and tertiary education. This is also called gender parity index. It appears that this target has been the most progressive in comparison with the other NPPSD.

A report by UNDP Nigeria (2013), since 1990, there has been a gradual but steady increase in the ratio of girls to boys in primary education. From 76.0% in 1990, it rose gradually to 79.0% in 2003, to 83.0% in 2006, and then to 85.40% in 2008. It further indicated that it rose to 90.0% in 2012. Going by this rate of increase, the report stated that Nigeria is, without doubt, on track to meet the target in 2015.

At the secondary level, this target has fluctuated over the years, albeit with an overall upward trend. From 75.0% in 1990, the ratio of girls to boys in secondary schools rose to 87.0% in 2000, but declined to 78.0% in 2003. It rose again to 80.60% in 2005, and then declined to 75.40% in 2007. In 2008 it rose to 79.90% and in 2012, it rose once more to 88.0% (UNDP Nigeria, 2013).

The tertiary level has not witnessed the level of progress that the primary and secondary levels have achieved. It rose from 66.0% in 2000 to 87.0% in 2002. Thereafter, it started fluctuating. It decreased to 72.0% in 2003, but increased to 75.50% in 2004. It then continuously declined to 70.10% in 2005, 69.0% in 2006 and 66.40% in
2007. It rose marginally to 66.80% in 2008 (UNDP Nigeria, 2013). According to Fatunde (2010), although there are no hard statistics from 2009 to 2012, there were indications of a considerable rise in female enrolment in universities, which helped to close the wide gap in the female : male ratio in tertiary education. The proportion of female students in the universities rose from 27.0% in 1990 to 45.0% in 2009.

In another report, the NBS (2015) stated that nationally, the gender parity in the primary school in 2008 was 0.9. The interpretation is that in every 9 girls in primary school in 2008, there were 10 boys. It increased to 1.0 in 2012 implying 10 girls in every 10 boys. The parity index increased to 1.02 in 2014. The rural (1.01) and urban (1.01) were equal. The GPIs across the zones were exceedingly encouraging. In the secondary schools in 2012, the gender parity index was 1.02. The decline to 1.01 in 2014 was insignificant. There were no disparity in both the rural (1.0) and urban (90.98) in 2012.

**Literacy Rate in Nigeria**

There are hardly any current data in Nigeria that shows the illiteracy and literacy rate in Nigeria. However, a recent report relating literacy rate is given in MDGs reports in Nigeria for those aged 15–24. Literacy rate of 15–24 year olds, or the youth literacy rate, is the proportion of the population's 15–24 year olds that can both read and write with understanding a short simple statement on everyday life. The definition of literacy sometimes extends to basic arithmetic and other life skills.

NBS (2015) shows the literacy rate of youth women between 2004 and 2014 at the national level. According to the report, the literacy rate increased from 60.4% in 2004 to 80% in 2008. In 2012, it declined to 66%. Although it slightly appreciated in 2014 (66.7%), but that is insignificant. At the state level, literacy of youth women aged 15 – 24 was very encouraging in states like Rivers (98%), Enugu (97%), Imo (95%), Akwa Ibom (95%), Delta (94.1), and Anambra (93%), Ekiti (92.7%), Abia (91.3%). Conversely, literacy rate among woman of age 15 – 24 was poor in Sokoto (10.7%), Bauchi (13%), Yobe (16%) etc.

Sectorally, the survey showed that there were more literate youth women (85.3%) in the urban as against the 57.8% recorded in the rural areas. In the zones the literate youth women in the South East (93.5%) were much higher than the rest of the zones. North East (33.0%) and North West (35%) had the lowest percentage of literate youth women in 2014 (NBS, 2015).

The 1991 census data showed that 57 per cent of Nigerians can be said to be literate. Although this seems to be an improvement on the situation in the 1980s, when it was estimated that Nigeria was about 40-45 % literate, the census data on literacy is still relatively low on the basis of age group. In 1991 as reported by NPC, 33% of Nigerians within the ages of 6- 14 are literate while 67% of them are illiterates. This further increased adult illiteracy rate which is not favourable to development of Nigeria. The 1991 census data further revealed that only 29.9% of adults within the ages of 15-24 were literate while 24% of them within the ages of 25-39 were literate. This indicates that literacy rate was relatively low on the basis of age group (NPC, 1991).
The 2006 National Census indicates the level of literacy among male and female children population in rural and urban areas which varies between 40.9% and 82.6% among male while that of female ranges between 14.6% and 74.7%. With regard to adult population aged between 15 and above, the level of literacy ranges between 14.6% and 62.8% for female while that of male ranges between 40.9% and 81.3% (Nigerian National Population, 2006). The most recent published data by National Bureau of Statistics in 2010 estimated that a population of 3 million (8.1%) children under 15 years of age have never attended school while dropout rate among children in school was estimated at a little above 1 million. Entire population of all ages who can read and write in any language is 78.6% consisting of 84.35% male and 72.65% female (NBS, 2010).

HIV/AIDS Prevalence and Incidence Rate in Nigeria

Between 1991 and 2001, Nigeria witnessed an increase in the prevalence of HIV in the country. The first HIV Sentinel Survey in 1991 showed a prevalence of 1.8%. Subsequent sentinel surveys produced prevalence of 3.8% (1993), 4.5% (1996), 5.4% (1999), 5.8% (2001), 5.0% (2003), 4.4% (2005), 4.6% (2008) and 4.1% (2010). The National HIV/AIDS and Reproductive Health Survey (NARHS) was adopted in 2003 to provide information on key HIV/AIDS and Reproductive Health knowledge and behaviour-related issues. In 2007, the scope was expanded to include estimation of HIV prevalence in the country. A more comprehensive survey was conducted in 2012, (NARHS plus II 2012) which showed a decline to 3.4% in HIV prevalence, indicating a reversal of the epidemic in the country, compared to the 2007 figure of 3.6% (National Agency for the Control of AIDS (NACA), 2015).

Recent estimates indicate that the annual number of new infections in the country has been on a steady decline, decreasing from 270,667 in 2010 to 253,506 in 2012 and to 227,518 in 2014. The total number of new infections in females continued to surpass that of the males. In 2014, the female made up of 54.3% of total new infections. Among young people age 15-24 the estimated number of new HIV infections showed similar trends. The number of new HIV infections dropped from 66,111 in 2010 to 63,485 in 2011 to 60,804 in 2012 to 57,758 in 2013 and 54,766 in 2014. Similarly, the estimates over the years showed that more of the new infections occurred among young women age 15-24 than their male counterparts. In 2014, the female made up about 64% of new infections (NACA, 2015).

Conclusion

From the discussion above, it clear that we are yet to achieve the targets of the policy or its goals. For instance, the most recent report from PRB (2014, 2015) indicated that Nigeria’s rate of natural increase was 2.5%, with a population of 182 million and a projected population of 397 million by 2050 making it the 4th most populous country in the world. This is against the targets of the National Policy on Population for Sustainable Development (NPPSD), whose target is to reduce the national population growth rate to 2 percent or lower by 2015. Again, with regards to the TFR of Nigeria, various reports have put the TFR at 5.5 births per woman (NPC &
ICP Macro, 2014; PRB, 2015). Going by this, the target of the National Policy on Population for Sustainable Development to achieve a reduction in the total fertility rate of at least 0.6 children every five years cannot be met as previous reports had earlier on put the TFR at 5.7 and 5.8 over the last five years. This means a reduction of 0.2-0.3 was what has been achieved for a period of about five years.

In addition, the third target of the National Population Policy for Sustainable Development of increasing the contraceptive prevalence rate for modern methods by at least two percentage points per year through the use of family planning has not been achieved. For instance, PRB (2014) reported that Nigeria’s modern contraceptive prevalence rate was just 9%, while in 2015, the report puts it at 10% (PRB, 2015). This is just a one-point increase. Furthermore, the fourth target of the NPPSD which is to reduce the infant mortality rate to 35 per 1,000 live births by 2015 is still very far from being achieved as both reports from NDHS (2013), PRB (2014/2015), put IMR in Nigeria at 69 per 1,000 live birth, which is a far cry from the stated target. More so, the fifth target of the NPPSD whose target is to reduce the child mortality rate to 45 per 1,000 live births by 2010. Despite the variations in the report of various agencies, it is still very clear that the target is still far from being met though the set year 2010 has long gone. For instance; UNDP Nigeria (2014) puts it at 94 deaths per 1000 live births in 2012, NDHS 128 deaths in 2013 and NBS (2015) 89 deaths.

Still, the sixth target of the NPPSD to reduce the maternal mortality ratio to 125 per 100,000 live births by 2010 and to 75 by 2015 is also very far from being achieved as various reports have put the MMR at 576, 545, 350 and 243 between the period of 2008-2014. Though there were significant improvements, the targets are still far from being met. Again, the 7th target of the NPPSD to achieve sustainable universal basic education as soon as possible before 2015, though has been stated by many scholars as achieving reasonable progress, it still falls short of the target as UNDP Nigeria’s (2013) report revealed that Nigeria's net enrolment ratio in primary education stood at 88.80% in 2008. NBS (2015) which has a more recent report shows that at the national level, the net attendance ratio was 61% in 2008 and it increased to 71% in 2012. In 2014, there was a shortfall of 2.3% and the net attendance for 2014 thus dropped to 68.7%.

The target on gender equality and women empowerment which seeks for the elimination of gender disparity by encouraging and supporting equal educational opportunities in both primary and secondary schools, seems to be the most successful among all the targets. UNDP Nigeria (2013) indicated that the ratio of girls to boys in primary education was 90.0% in 2012, while in secondary school it was 88.0% in 2012. In another report, the NBS (2015) stated that nationally, the gender parity in the primary school in 2008 was 0.9. The interpretation is that in every 9 girls in primary school in 2008, there were 10 boys. It increased to 1.0 in 2012 implying 10 girls in every 10 boys. The parity index increased to 1.02 in 2014. Going by this, we can conclude that this is the only target that has been met so far by the NPPSD.

With respect to NPPSD target on improving the literacy rate, the NBS (2015) shows that the literacy rate increased from 60.4% in 2004 to 80% in 2008. In 2012, it declined to 66%. Although it slightly appreciated in 2014 (66.7%), but that is
insignificant. By implication, Nigeria still has a high rate of illiteracy which means the target is still very far from being achieved.

Finally, with regards to reducing the HIV/AIDS prevalence and incidence rate, which is the last target of the NPPSD, has also recorded a most encouraging and significant progress. A survey in 2012 by NACA showed a decline to 3.4% in HIV prevalence, indicating a reversal of the epidemic in the country, compared to the 2007 figure of 3.6%. Recent estimates indicate that the annual number of new infections in the country has been on a steady decline, decreasing from 270,667 in 2010 to 253,506 in 2012 and to 227,518 in 2014.

In conclusion, despite the fact that the NPPSD gave Nigeria a focus to tackling her many population and development challenges, it still failed to meet up with its targets. This failure might not be unconnected with the same factors that have always stood against other development plans and policies ranging from lack of commitment, lack of political will, corruption, poor attitude from the populace, funding etc. Until these factors are properly looked into and trashed, the current population policy for sustainable development goals will also fail like the MDGs and the NPPSD.

**Recommendations**

In view of the under achievement record of the NPPSD, there is the need for policy makers to set out on a search for a more veritable replacement of the policy to take off from the 2015 expiration date. Already, the United Nations has proposed a post 2015 development agenda, which if properly adopted and implemented will go a long way in curbing the failures and challenges of the NPPSD.

Still, there is the urgent and desperate need for a radically different approach to understanding and tackling the challenges associated with the NPPSD. As Professor Alioune Sall of the African Future Institute rightly said, there is need for a paradigm shift in discussing a post MDGs agenda for Africa. He called for Africans to “think differently, to talk differently and to act differently (CBN, 2014).

Finally, similar to what Igbuzor (2013) stated, a new development agenda policy should contain the following: (i) It must address primary, secondary and tertiary education (ii) It must address the issue of people’s active engagement in shaping development, equity and sustainability (iii) It must address inequality (iv) A new development policy must address the challenges of the youth.

**References**


