An Investigation of Gender Parity in Basic Secondary Schools in Bayelsa State, Nigeria.

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ABSTRACT: The study investigates the achievement of the MDGs on gender parity in basic primary and secondary schools in Bayelsa State, Nigeria. The study adopted three objectives: to examine if Bayelsa state is implementing the goal 3 of the MDGs, to investigate the sex ratio of the population expected to be in school and to determine the disparity or otherwise of pupils/students in the basic secondary schools in the state. We used both Primary and Secondary data, in our analysis. A descriptive non-parametric statistical method of the Chisquare test statistic was adopted. We discovered that the state is on course in implementing the MDGs in the areas of school enrolment and gender parity in schools, and there is no gender disparity in school enrolment in bayelsa state South South Nigeria. We therefore recommend the sustainability of the programme and the goals achievement.

KEYWORDS: MDGs, Gender, Parity, Bayelsa State, School enrolment, Achievement, Universal Basic Education (UBE).

I. INTRODUCTION

Goal 3 of the United Nations Millennium Development Goals (MDGs) requires the promotion of gender equality and empowering women. Specifically the goal target is aimed at eliminating gender disparity in primary and secondary education by 2015. The key indicators for this target are;

- Ratio of girls to boys in primary, secondary and tertiary education
- Ratio of literate females to males of 15-24 years old
- ➤ Share of women in wage employment in the non agricultural sector and
- > Proportion of seats held by women in national parliament

The goal is to ensure that there is a voice of the female folk in Nigeria in general and Bayelsa State, Nigeria in particular. Over the years women have not been given their pride of place in the committee of nations. Often times than not, before the girl child gets upto secondary school level, she is either given out to marriage or neglected in favour of the boy child. However, with the implementation of the Millennium Development Goals in the state there seem to be a re-think on the position of women in all aspects of life.

Statement of Problem

A study by Igbuzor (2006) reveals that gender disparity in primary and secondary school enrollment has been consistently higher for boys 56% than for girls at 44%. Bayelsa State as an integral part of the country Nigeria aims at achieving the Millennium Development Goals of gender parity in primary and secondary school enrolment. The MDGs programme is almost at the terminal phase of its implementation. So much is said to be have been spent on achieving the MDGs in the state in particular and the country Nigeria in general both on raising awareness on this important goal in addition to encouraging the girl child in school enrolment and completing her educational career through the provision of school instructional materials. However, not much as to its success or failure is reported. Documented facts on the extent of the successes or failure of this goal are lacking. It is against this backdrop that we decided to investigate the level of achievement of this goal in Bayelsa State in Nigeria.

Objectives

The broad objective of this study is to investigate the level of achievement of Bayelsa state on gender parity in primary and secondary school enrolment. The specific objectives are as follows:

- ✓ to examine if Bayelsa state is implementing goal 3 of the MDGs
- ✓ to investigate the sex ratio of the population expected to be in school and
- ✓ to determine the disparity or otherwise of pupils/students in basic secondary schools in the state

Scope of the Study

The study concentrates on assessing the achievement of Bayelsa State on the Millennium Development Goals goal three in school enrolment. The study covers the entire eight local government areas of the state from 2000 to 2011.

Literature Review

This section examines the views and past works carried out on the MDGs in particular and economic development in general. The review is necessary not only to justify our study but to provide analytical framework for the study. The literature is replete with theories of development. The desire to develop and remain developed has been the desire of individuals and nations. Some widely accepted theories of economic development include: Adam Smith's theory of capital accumulation and economic growth, Richardian theory of distribution, Marxian theory of economic development, Mill's economic development theory, Schumpeterian economic growth theory, and Keynesian theory of underdeveloped countries amongst others. These theories according to Tombofa (2004) have long been of interest and have all contributed to the subject of development. He stresses that these economic development theories could be merged into two broad groups; Orthodox and Radical theories of development. The theoretical framework for this study is the general theory of development. According to the theory, economic development depends on a number of factors; material, human and institutional. The choice of this theory is premised on the fact that the theory is not only in line with the targets of achieving the MDGs but provide the framework for the state to galvanize the materials and humans resources needed to propel it in achieving the short term gender parity objective and also on the long run economic development. The emphasis here is the indispensable role of women in economic development.

The functional presentation of the theory according to Okowa (1996) is as follows:

 $\Delta Y/Y = f(WEC, ECI, KNE, CAP, LAB, NRS, GOV)$

Where ΔY is change in national income

Y is national income

WEC is willingness to economize

ECI is economic institutions

KNE is knowledge

CAP is capital

LAB is labour

NRS is natural resources and

GOV is government

All the independent variables are positively related to economic development. The achievement of the MDGs is on the front burner of most developing nations, development partners, scholars, commentators, change agencies and analysts. Much has been said on the subject matter of the MDGs, the literature is replete with studies anchoring on the possibilities or otherwise of achieving the MDGs or the challenges facing nations in their quest to achieve these lofty goals. It is worthwhile stating here that most of the studies carried out on the Millennium Development Goals are based on selected targets. For instance a recent UNESCO study published by the African Union Commission (2004) reports that in Sub Saharan Africa only few children have been exposed to early childhood care and education. The report has it that Mauritius and Seychelles reported a proportion of 100 percent school enrolment. In most African countries, primary education is concentrated in urban and more privileged areas of the countries with extreme low enrolment rates in remote areas. According to the report, gender disparity in primary and post primary schools is highly pronounced. It indicates that in regions where fee-free education is introduced, the gross intake rates have increased substantially. The study further reveals that there has been a remarkable gain in Benin, Chad, Guinea, Mali (before the political turmoil in that country) and Mauntania. It indicates that gender disparity in access to school seems to have increased in Burundi and Djibouti and to a lesser extent in Cameroun. The study concludes that despite the progress in intakes the overall picture is that girls still face considerable discrimination in access to schools. In a similar vein Baliamoune-lutz and McGillivray (2007) used panel data from Africa and Arab countries and Arellando-Bond estimates to empirically assess the impact on growth of two primary indicators that are associated with the

MDGs namely the ratio of girls to boys in primary and secondary school enrolment and the ratio of 15-24 year old literate females to males. The findings indicates that gender inequality in literacy have a statistical significant negative effect that is robust to changes in the specification. It shows that high gender inequality has an even stronger effect on income growth in Arab countries and that gender inequality in education tend to be greatest in poor countries and amongst the poor third world countries. Igbuzor (2006) in his study on gender disparity in primary and secondary schools education enrolment, reveal that school enrolment has been consistently higher for boys 56% than for girls at 44%. Finally in Bayelsa State, Nigeria, a study by Leigha and Abraham (2008) reveals that enrolment rate into primary schools in the State progressing towards full gender participation has been slow in the state, that over the period of analysis (2000-2006), the state net enrolment ratio though dropped slightly for boys that is up to 50.7% in 2006, from 51.6% in 2000, that of girls though increased to 49.3% in 2006, from 48.4% in 2000, is far below the average than that of boys. This slanted enrolment in favour of the boys though marginal, is a clear expression of male dominance in academic activities and a shift in gender issues. The MDGs Uganda's progress report (2007) states that the marginal successes and consequently narrowing down the gap in some regions in Africa on gender disparity in school enrolment is attributed to enlightenment, affirmative action, and most importantly to the introduction of Universal Basic Education (UBE) at the primary school level that has specific provisions to address gender and other inequalities.

II. METHOD OF STUDY

The study employed secondary data sourced from the National Bureau of Statistics (NBS) 2011, the Bayelsa State Hospitals Management Board (BHMB), the State Ministry of Budget and Economic Planning, the Bayelsa State Universal Basic Education Board (SUBEB), the Bayelsa State Post Primary Schools Board (BPPSB) and the State Ministry of Education. We collected data relating to school enrolment from 1990-2010. We complemented the secondary data with data from primary sources mainly through open-ended questions from the administration of questionnaire. We used the Chi-square (X^2) , a non parametric test to test the validity or otherwise of the research questions.

III. DATA AND RESULT PRESENTATION

In analyzing objective 1 and 2: if the Bayelsa state is implementing the United Nation's MDGs declaration goal 3 on gender parity.

Table 1a: Bayelsa State Population Projected from 2006

Year	Female Population	Male Population	Total Population
1997	623289	702858	1326147
1998	640391	722143	1362534
1999	659065	743202	1402267
2000	677716	764233	1441949
2001	696896	785861	1482757
2002	716618	808101	1524719
2003	736898	830970	1567868
2004	757752	854487	1612239
2005	779195	878667	1657862
2006	800710	902648	1703358
2007	824732	929728	1754460
2008	849475	957620	1807095
2009	874960	986349	1861309
2010	901209	1015940	1917149

Source: Bayelsa State Statistical Yearbook (2011).

Table 1^b: Primary 1 – JSS III Enrolment in Bayelsa State

Year	No of		Primary1-JSS III Enrolment				20% of state
	Schools	Male	% of	Female	% of	Total	Pop. Expected to
			Total		Total		be in school
1997	428	163259	52	147838	48	311097	265229
1998	428	177874	49	183491	51	361365	272501
1999	430	183874	51	177501	49	361375	280453
2000	490	209587	51	200451	49	410038	288390
2001	490	223575	51	217993	49	441568	296551

2002	512	257743	51	245715	49	503458	304944
2003	532	265068	56	212322	44	477390	313574
2004	685	246884	49	256371	51	503255	322448
2005	685	270924	50	271236	50	542160	331572
2006	685	271541	50	271514	50	543055	340672
2007	706	245388	50	240874	50	486262	350829
2008	706	207575	50	206984	50	414559	361419
2009	708	207977	50	210044	50	418021	372262
2010	711	203413	50	197551	50	400964	383430

Sources: Bayelsa State Ministry of Education and Bayelsa Sate Universal Basic Education Board (SUBEB) 2011.

To analyze objective 3; is there any form of preference of sending the boy-child to school rather than the girl-child? we used secondary data from the State Ministry of Education and the State universal basic Education Board. The apriori expectation here is that with the implementation of the MDGs, there is gender parity in school enrolment in the State.

Table 1c: Gender Parity in Primary and Secondary Schools' Enrolment in Bayelsa State South South

Year	Total	Male	% of Toatl	Female	% of Total	Gender Gap
1997	311097	163259	52	147838	48	15421
1998	361365	177874	49	183491	51	-5617
1999	361375	183874	51	177501	49	6373
2000	410038	209587	51	200451	49	9136
2001	441568	223575	51	217993	49	5582
2002	503458	257743	51	245715	49	12028
2003	477390	265068	56	212322	44	52746
2004	503255	246884	49	256371	51	-9487
2005	542160	270924	50	271236	50	-312
2006	543055	271541	50	271514	50	27
2007	486262	245388	50	240874	50	4514
2008	414559	207575	50	206984	50	591
2009	418021	207977	50	210044	50	-2067
2010	400964	203413	50	197551	50	5862

Sources: Bayelsa State Ministry of Education; Sate Universal Basic Education Board Bayelsa State Statistical Yearbook, (2011).

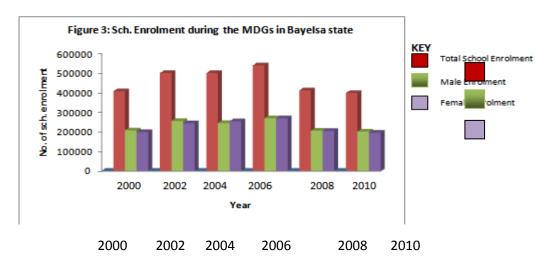


Figure 1 suggests that the gender parity in schools enrolment in Bayelsa state has been sustained before and with the implementation of the MDGs.

Empirical Results from Primary Data

School Dropout: Is there any significant difference in the percentage of school age children not in schools with the implementation of the MDGs?

Our theoretical assumption is that the implementations of the MDGs will significantly reduce the percentage of school age children not in schools.

Table 1^d: Before the year 2000 most children in your community were not attending primary schools

Responses	Frequency	Percentage
Strongly Disagree	0	0
Disagree	30	9.8
Not Sure	34	11.1
Agree	0	0
Strongly Agree	242	79.1
Total	306	100

Source: Field Survey 2011.

The responses on table 1^d reveals that before the implementation of the MDGs some children who are of school age were not attending Primary schools as indicated by 79.1 percent who strongly agree that before the year 2000 some children, who are of school age in their communities were not attending primary schools.

Table 1^e: With the implementation of the MDGs the number of children of school age that are not in schools in your community has reduced.

Responses	Frequency	Percent
Strongly Disagree	0	0
Disagree	0	0
Not sure	92	30.1
Agree	214	69.9
Strongly Agree	0	0
Total	306	100

Source: Field Survey 2011.

Response on table 1^e indicates that 69.9 percent of respondents agreed that there has been a reduction of school age children who are not in school with the implementation of MDGs. While the other 30.1 percent are not sure if with the implementation of the MDGs, the number of children of school age children that are not in schools has significantly reduced. This result points to the fact that the number of school age children that are not in school has reduced to some extent. This is evident in the number of children invoved in street hawking during school hours and also accompanying parents and guardians to farming and fishing activities. This agrees with the data given in table 1^b above.

Table 1^f: Was there any improvement in the number of children who could not complete Primary or Junior Secondary School in your household from 2000 to 2010?

Responses	Yes%	No%	Total
Brass	21(6.86%)	9(2.94%)	30(9.80%)
Ekeremo	28(9.15%)	6(1.96%)	34(11.11%)
Kolokuma/Opokuma	26(8.50%)	14(4.57%)	40(13.07%)
Nembe	20(6.54%)	23(7.52%)	43(14.05%)
Ogbia	22(7.19%)	18(5.88%))	40(13.07%)
Sagbama	23(7.52%)	15(4.90%)	38(12.42%)
Southern Ijaw	27(8.82%)	12(3.92%)	39(12.74%)
Yenagoa	24(7.84%)	18(5.88%)	42(13.72%)
Total	209(68.30%)	97(31.70%)	306(100%)

Source: Field Survey 2011.

Table 1^g: Contingency Table

	Yes	No	Total
Brass	21	9	30
Ekeremo	28	6	34
Kolokuma/Opokuma	26	14	40
Nembe	20	23	43
Ogbia	22	18	40
Sagbama	23	15	38
Southern Ijaw	27	12	39
Yenagoa	24	18	42
Total	209	97	306

Note: Observed (Expected) Values. **Source:** Authors Computation.

Table 1^h: Non parametric (Chi-square) analysis on the impact of MDGs on school enrolment

f_{θ}	f_e	Residuals
6	21.9	-15.9
9	21.9	-12.9
12	21.9	-9.9
14	21.9	-7.9
15	21.9	-6.9
18	21.9	14.1
20	21.9	-1.9
21	21.9	9
22	21.9	.1
23	21.9	24.1
24	21.9	2.1
26	21.9	4.1
27	21.9	5.1
28	21.9	6.1
Total 306	$X^2=68.431$	$X_{0.05}^2 = 7.96164$
	Asymp. sig .000	DF=13

Software use: SPSS 16.0

A statistically significant chi-square value indicates that there is a significant difference in the respondents' opinion that there is an improvement in the number of children who could not complete Primary or Junior Secondary School in their households from 2000 to 2011. Implying that within the period 2000-2011 in most of the households the number of children who could not complete primary and or secondary school has reduced significantly. This confirms our theoretical assumption.

For objective three; gender disparity on school enrolment in Bayelsa State.

Table 1ia: Gender Disparity

What is here?	Observed N	Expected N	Residual
-9487	1	1.0	.0
-5617	1	1.0	.0
-2067	1	1.0	.0
-312	1	1.0	.0
27	1	1.0	.0
591	1	1.0	.0
4514	1	1.0	.0
5582	1	1.0	.0
5862	1	1.0	.0
6373	1	1.0	.0
9136	1	1.0	.0
12028	1	1.0	.0
15421	1	1.0	.0
52746	1	1.0	.0
Total	14		

Source: Author's Computation.

Table 1ib: Chi-Square Test Statistics

	Gap
Chi-Square	.000°
Df	13
Asymp. Sig.	1.000

Source: Authors Computation.

The Chi-square test revealed that there is no significant difference between male and female school enrolment in Bayelsa state before and with the implementation of the MDGs. This implies that there is no gender disparity in school enrolment in Bayelsa state. Gender disparity has never been a serious issue in the state in school enrolment. Any such case is on voluntary withdrawal from school due to teenage pregnancy.

IV. DISCUSSION OF RESULT

The study with particular reference to eliminating gender disparity in primary and secondary education enrolment reveals that there is no significant gender disparity in the state basic secondary schools. A casual glance in most schools reveals that there are no serious problems on gender discrimination against the girlschild. In Bayelsa State the population statistics show that the female folk is 47% of the total population and the female school's enrolment as shown on table 1^b has a mean value of 47%. This also has placed the state on a high pedestal in the millennium development goals. The era of girls being abandoned at home at the expense of boys is over. What is common to both sexes today is voluntary withdrawal from schools, due to pregnancy and not due to gender discrimination. Because of the low morality and the desire for money, the dropout rate of girls is relatively high between SS1 and SS3. These group show up to register for the SSCE after they have given birth to their first babies. While their parents look after the baby thus increasing the financial burden of the family.

V. CONCLUSION

The study investigates Bayelsa State achievement of gender parity, in the Basic Secondary Schools, in accordance with the United Nation MDGs declaration. The result shows that the state is on course in achieving goal "3" of the UN, that children of school age are not only enrolled in the primary and junior secondary schools but also completed a full course of their basic education. There is no gender disparity in the primary and secondary education. However, we recommend regular appraisal of the basic educational sector to enhance

productivity, infrastructural development such as (ICT) in the rural areas which will foster information accessibility, prompt payment of teachers' emolument and a holistic appraisal of data management in all own institutions. This recommendation is against the backdrop of the lukewarm attitude of public institutions in the management of data. We therefore call for strategies to strengthen agencies to store and retrieve data. The much publicized Freedom of Information Act (FIA) should be put in to practice to enable researcher's access data for use.

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