

REPUBLIC OF GHANA

MINISTRY OF EDUCATION

**EDUCATION SECTOR PERFORMANCE REPORT
2010**

SEPTEMBER, 2010

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Abbreviations

AESOP	Annual Education Sector Operational Plan
AESR	Annual Education Sector Review
BE	Basic Education
BECE	Basic Education Certificate Examination
BED	Basic Education Division
BoG	Board of Governors (Senior High)
COTVET	Council for TVET
CPM	Consultative Panel Meeting
CRDD	Curriculum Research and Development Division (of GES)
CRS	Catholic Relief Services
CREATE	Consortium for Research on Education Access, Trends and Equity
DEO	District Education Office/Officer
DACF	District Assembly Common Fund
DPs	Development Partners
EFA	Education for All
EM	Educational Management
EMIS	Education Management Information System
ENG.	English
ESAR	Education Sector Annual Review
ESP	Education Strategic Plan
ESPR	Education Sector Performance Report
ESPR	Education Sector Performance Review
FCUBE	Free Compulsory Universal Basic Education
FIS	Financial Information Systems
FPMU	Funds and Procurement Management Unit
GAR	Gross Admission Rate

GDP	Gross Domestic Product
GER	Gross Enrolment Rate
GES	Ghana Education Service
GETFund	Ghana Education Trust Fund
GEU	Girls Education Unit
GH¢	Ghana Cedis
GLSS	Ghana Living Standards Survey
GoG	Government of Ghana
GPI	Gender Parity Index
GPRS	Growth and Poverty Reduction Strategy
GSFP	Ghana School Feeding Programme
HIPC	Highly Indebted Poor Country
ICT	Information and Communication Technology
IGF	Internally Generated Funds
IPPD	Integrated Personnel Payroll Database
JHS	Junior High School
KG	Kindergarten
MDG	Millennium Development Goals
M&E	Monitoring and Evaluation
MIS	Management Information System
MoE	Ministry of Education
MoFEP	Ministry of Finance and Economic Planning
MTEF	Medium Term Expenditure Framework
NAR	Net Admission Rate
NABPTEx	National Board for Professional and Technical Examination
NCTE	National Council for Tertiary Education
NER	Net Enrolment Ratio
NFE	Non-Formal Education
NFED	Non-Formal Education Division
NFLP	National Functional Literacy Programme
NNED	Northern Network Education Development
PBME	Planning, Budgeting, Monitoring and Evaluation
PTR	Pupil Teacher Ratio
RECOUP	Research Consortium on Educational Outcomes and Poverty
SEN(s)	Special Education Needs(s)
SHS	Senior High School
SIF	Social Investment Fund
SpED	Special Education Division (of GES)
SSCE	Secondary School Certificate Examination
STME	Science, Technology and Mathematics Education
TVET	Technical and Vocational Education and Training
UBC	Universal Basic Completion
UNESCO	United Nations Education, Scientific and Cultural Organisation
UPC	Universal Primary Completion
VOTEC	Vocational and Technical
WASSCE	West African Examinations Council
WFP	World Food Programme

EXECUTIVE SUMMARY

INTRODUCTION

The Education Sector Annual Review (ESAR), instituted with the implementation of the Education Strategic Plan (ESP) in 2004, provides the opportunity for all stakeholders in the sector to work together and participate in the review of the sector's performance annually under the overall lead of the Ministry of Education. This collaborative approach is to ensure the involvement of all stakeholders in the review, pool together resources and ensure harmonization of programmes and activities for the realization of the goals and objectives of the education sector. It also enhances accountability and transparency within the sector. The yearly reviews have led to tremendous improvement in education delivery in the country.

As education service delivery moves into a decentralised system, more responsibility and authority is also given to the regions and districts to manage education development. The first Regional reviews in all the ten regions took place in May 2007 as a prelude to the organisation of the ESAR. The regional consolidated reports and reviews are assessment mechanisms that are bottom-up, with the outcomes of district performance reports providing information for the regional reports and review. The ESAR 2007 also culminated in the signing of an Aide Memoire between the Ministry and the Development Partners (DPs). The Aide Memoire outlined some next steps to be taken including the development of a monitoring framework to monitor the implementation of the recommendations of the review. These best practices have further enriched the quality of the performance reports and the review to further improve education delivery in the country.

The Preliminary Education Sector Performance Report (PESPR): is the report used in the discussions at the Education Sector Annual Review (ESAR). It provides details on the sector's progress throughout the year under review and guides the discussion by outlining specific issues for the technical groups to discuss. The report is prepared by the PBME Division with inputs from the Regional Reviews. Arising out of the feedback from the ESAR, amendments are made to the preliminary report, culminating in the finalized Education Sector Performance Report (ESPR).

The ESPR 2010: draws on numerical data such as the EMIS reports, national statistics, payroll data, budget and expenditure tables; reports on education sector annual reviews; regional consolidated and district performance reports; studies and papers such as the CREATE research publications, RECOUP papers, and various papers and studies by the

Ministry of Education and others supported by the Development Partners published during the period. Regional Education Reviews and other national and international agreements.

The above sources are identified and acknowledged in more detail as and where appropriate in the report. The report therefore is informed by a number of key documents and frameworks. However, since it is a review of progress, the goals that the sector is working towards must be clearly defined. First and foremost it is the Education Strategic Plan that defines the goals and targets of the sector.

Reviewing progress of the sector: the focus has been outputs and outcomes, basically using the EMIS figures to assess the Education Sector Performance. What appear not to have been explored sufficiently are the process and implementation challenges: how the Education sector achieves the outputs and outcomes. This year's review focuses on: implementation challenges, clear-cut strategy to implement the whole ESP concept, clarification of key concepts, benchmarks and the way forward. With much analytical work on the ESP (2010-2020), ownership deepened through annual reviews and consultations, the Government's Better Ghana Agenda, the focus is now not only on the outputs and outcomes, but the processes and challenges as well, and hence the theme for this Year's review is: **Revitalising Education for a Better Ghana**

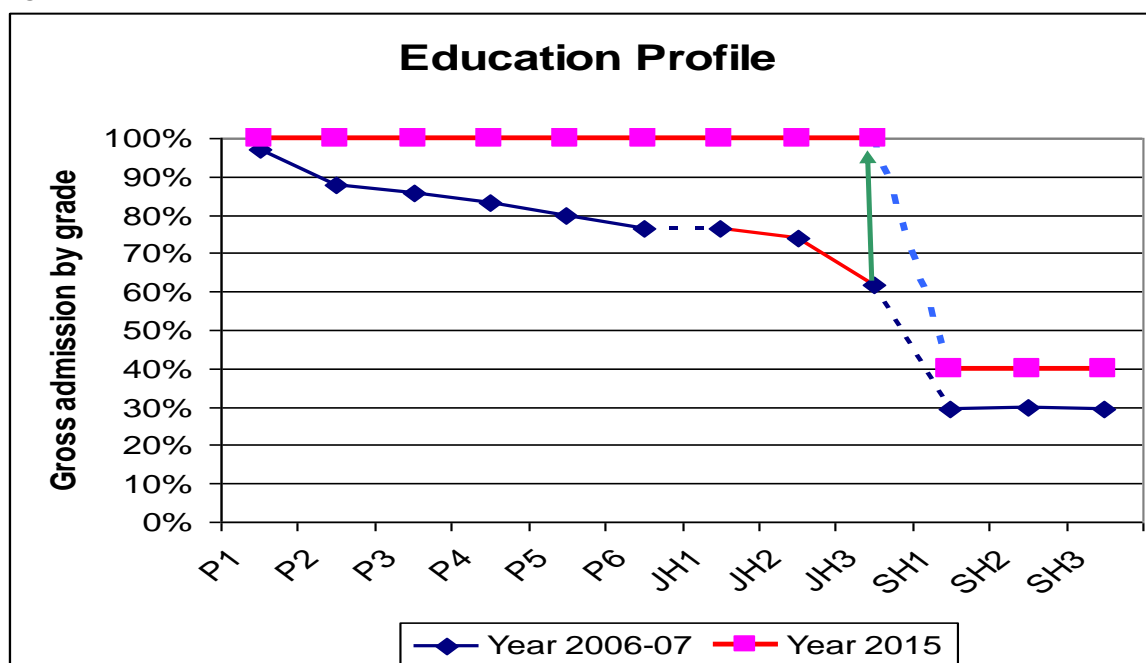
Implementation challenges noted in the preparation of the report are communication policy, plan and activity to guide the implementation of the ESP (MOE, 1999); long term manpower and development policy linked to a clear-cut economic policy with credible labour statistics to help the education system to design definitive programmes with job market readiness (Baah-Boateng, 2004; Ghana Statistical Service, 2005; MOE, 2007); performance management policy with responsibility and roles clearly spelt out and linked to the implementation of the ESP to determine how the outputs of the various units/ departments and agencies within the MOE will be assessed; problem of low institutional memory due to the high level of staff turnover, most of them in key strategic positions; lack of efficient financial information systems (FIS) in all the districts to provide comprehensive information on income, funding and expenditure and resource management. Linked to these challenges is also the need to clarify key concepts and vision. The kind of quality education/ science and technology/ or technical/ vocational education that are to be pursued in the country (MOE, 2007). There is also lack of analysis of labour market and economic needs to make the curriculum much more relevant. Changes in the structures and policies are not informed by cost-benefit analysis to inform budgetary choices.

These challenges, among others, appear to have culminated in the slow performance of the Education sector in Ghana. Consequently, figure I below presents the Education Profile in

Ghana. In the figure, the drop out increases as the pupils move along the education ladder, especially at the Basic Education level with massive drop-outs from Primary One (P 1) to Primary Six (P 6) depicting an increasing gap between expected and achieved even though the systems in place appears to stabilise at the senior high school level.

The trend of the education profile suggests that it is much easier to fix the 'hardware' problems of education than the 'software' ones. With huge investments from internal and external sources, structural and infrastructural problems of education can be fixed. With expanded facilities, access can improve. However, completion rates remain the problem, especially at junior and senior high school level where low completion rates deprive the country of much needed educated youth prepared for work and for further education and training. The lesson is that it is easier to increase enrolments but much harder to retain them and come out as productive citizens (Akyeampong, n, a cited in CREATE, Ghana, 2009).

Figure I: Education Profile in Ghana



Source: Ministry of Education, 2009

Consequently, a big challenge to the achievement of the EFA/MDG is the out of school children and those dropping out from schools. In the light of the new developments in the education sector such as the revision of the Education Strategic Plan; the new Education Act 2008; the 2007 Education Reform and the Government policy direction to ensure a better Ghana, it has become imperative to speed up interventions to attain the MDGs and EFA educational goals by 2015 and align education delivery to meet Ghana's goal of attaining a middle income status by 2020.

The total education expenditure, as a percentage of GDP, has increased from 6.20 percent in 2003 to 10.1 percent in 2009. Ghana is also one of the highest recipients of education aid in sub-Saharan Africa (World Bank, 2004 cited in RECOUP, 2008, p. 6). The question arises as to why the increase in funds devoted to Public Education has not boosted access to quality education in Ghana? With value for money as one of the key thematic areas in the ESP (2010-2020), again how is the education sector decentralisation going to be implemented to ensure value for money? Against this background the report focuses on the following:

- Trend of Enrolment;
- Textbook development, availability and utilisation;
- Science and Technology Education;
- Skills development;
- Management of Education Resources;
- Education Decentralisation;
- Monitoring and Evaluation;
- Financing and Outcomes;
- Consistency in Policy Formulation and Implementation;
- Medium Term Expenditure Framework (MTEF)

Trend of Enrolment. The introduction of poverty alleviation interventions such as the capitation grant, the school feeding programme, free exercise books and school uniforms

have increased enrolment at all levels of education. The deprivation criteria developed by GES/MOE has also increased educational achievement and equity. The challenge in the achievement of the EFA/MDG as noted earlier is the out of school children and those dropping out of schools. While the increase in enrolment is helping the country to move towards meeting its objective of providing universal basic education for all Ghanaian children of school-going age, there is a decline in education quality as the provision of additional teachers, facilities and logistics lagged behind the increase in enrolment.

Textbook development, availability and utilisation. Adequate access to textbooks (i.e. one relevant textbook per student) is an important indicator of the quality of education. Under the MOE policy, each student in basic schools should have access on an individual basis to three government-designated core textbooks, namely, English, Mathematics, and Science. A textbook ratio of 1:1 means complete individual access to these books. A core textbook ratio of more than 1:1 indicates that children have access to more than one book in the classroom. The data available shows a substantial rise in textbook availability (World Bank, 2004). The challenge, however, is effective utilisation of the textbooks.

In the public basic schools the core textbook ratio as at 2009/10 at the Kindergarten level is 0.2; primary level is 1.6 while JHS is 1.5. In the private basic schools the core text book ratio at the Kindergarten level is 0.3; Primary level is 1.2 and JHS level is 1.4

Science and Technology Education. The implementation of the official government policy on Ghana's technological and industrial development planning policy at the education level was for the nation to achieve a ratio of 60:40 sciences to humanities manpower base by the year 2020. It was not clear whether the 60:40 ratios are the right policy to implement the ESP. In the ESP (2010-2020) 60% of all university are registered in science and technology-related disciplines by 2020. Achievement by 2007/08 is 38 percent. The target at the Polytechnic level is that 80% in the Polytechnics and Vocational institutes are registered in science and technology-related disciplines by 2020. Achievement by 2007/08 is 30 percent.

The enrolment ratio for 2006/07 stands at 38 percent for Science & Technology and 62 percent for Humanities for Public Universities; and 32 percent for Science and Technology and 68 percent for Humanities for Public Polytechnics. The situation is even worse for private universities, which for 2006/07 has 87.6 percent for Humanities and 12.4 percent for Science and Technology (Somuah, 2008). Unfortunately, the present enrolment is still heavily skewed towards Humanities.

Skills Development: There is no research investigating how effectively the skills acquired are being translated into jobs on the labour market. To remain competitive both nationally and internationally and to drive the economy from the present status to about 9 percent by 2012, the country must be strategic in developing the relevant skills in its workforce.

Management of Education Resources. There are problems with the use of resources such as GETfund. NCTE has developed a guideline for the disbursement of GETFund allocations for the tertiary education sector.

A tertiary education funding strategy has been developed and presented to the Ministry. NCTE has also developed a draft budget manual for the tertiary education sector. This will be

finalized in 2010. The Ministry of Education needs to take policy decisions on the report on funding tertiary education.

The control weaknesses in the management of resources and recording of Assets in the Colleges of Education and Senior High Schools as indicated in the audit reports also suggest that much more work needs to be done on how to ensure judicious use of the available resources.

Education Decentralisation: The problem of education decentralisation is undue political interference in education management and delivery of policies. There is also weak political and management will to decentralise.

Monitoring and Evaluation: While the Ministry of Education has the capacity to conduct high quality research, monitoring and evaluation to inform policy direction, delivery in the education sector is not connected to effective monitoring and evaluation to achieve the objectives of the sector.

Financing and outcomes: Curriculum, Learning and Teaching at the tertiary level have not been reformed to improve relevance and increase effectiveness to make expanded enrolment through improved resource allocation to contribute directly to development goals.

Consistency in Policy Formulation and Implementation: While the real per capita education expenditure is higher at the tertiary level than at the primary or basic education level, the consistency in policy formulation and implementation at the basic level is better than the tertiary level, suggesting the lack of clear focus in policy formulation and implementation not only at the pre-tertiary but also at the tertiary level.

Medium Term Expenditure Framework (MTEF) approach in budgeting: The MTEF approach in budgeting has not been able to achieve its intended purpose to improve the predictability of the education sector funding to enhance effective planning and instil confidence in the system to achieve the objectives in the education sector. The delay/non-release of approved budget for Service and Investment affect the activities of the regional/district directorates and institutions to enhance quality of education in Ghana. This trend has also affected the implementation of recommendations made at the regional and national reviews especially implementation of the MOE Aide Memoire concept with the Development Partners effectively. This concept is one of the innovative practices introduced by MOE with the support of the Development Partners to ensure that MoE, is focused to deliver and achieve the objectives of the sector derived from the regional and national reviews. Tables (1-8) below contain list of key targets and achievements followed by policy briefs to inform Management decisions.

Table 1: Kindergarten Education

Indicator	Target		Achievements		
			2007/08	2008/09	2009/10
Gross Enrolment Rate (GER)	100%	By 2015	89.9%	92.9%	97.3%
% of Girls Enrolment	50%	By 2015	49.7%	49.5%	49.6%
% of Trained Teachers	95%	By 2015	25.3%	25.9%	26.5%
Pupil-Teacher Ratio (PTR)	35	by 2020	35:1	35:1	33:1
% Private Kindergarten Enrolment	25%	By 2020	17.1%	19.4%	19.5%

Table 2: Primary Education

Indicator	Target		Achievements		
			2007/08	2008/09	2009/10
Gross Enrolment Rate (GER)	107.4%	by 2012	95.2%	94.9	94.9
Gross Admission Rate (GAR)	100%	by 2006/07	107.3%	102.9	101.3
Net Admission Rate (NAR)	90%	by 2009/10	74.3%	72.1%	71.1%
Net Enrolment Rate	90%	by 2015	83.4%	88.5%	83.6%
P6 Completion rate	100%	by 2012	88%	88.7%	87.1%
% of Girls Enrolment	50%	by 2015	48.6	48.6%	48.7%
Percentage of Trained Teachers	90%	by 2015	59.4%	48.0%	47.6%
Pupil-Teacher Ratio (PTR)	45	by 2020	34	32	20
Gender Parity	1.0	By 2015	0.96	0.96	0.96

Table 3: Junior High School Education

Indicator	Target		Achievements		
			2007/08	2008/09	2009/10
Gross Enrolment Rate (GER)	100%	by 2015	78.8%	80.6%	79.5%
Gross Admission Rate (GAR)	100%	by 2012	84.57%	84.6%	86.6%
Net Admission Rate (NAR)	90%	by 2012	44.56%	43.6%	43.8%
Net Enrolment Rate (NER)	90%	by 2015	53.0%	47.8%	47.8%
JHS Completion rate	100%	by 2015	62.9%	75.0%	66.0%
% of Girls Enrolment	50%	by 2015	-	46.7	47.0
Percentage of Trained Teachers	95	by 2015	-	65.0	61.5
Pupil-Teacher Ratio (PTR)	35	by 2020	17	17	14
Gender Parity	1.0	By 2015	0.92	0.92	0.92

Table 4: Senior High School Education

Indicator	Target		Achievements		
			2007/08	2008/09	2009/10
Gross Enrolment Rate (GER)	40%	by 2015 All students to attend Second Cycle School by 2020	32.2%	33.9%	36.1%
Gross Admission Rate (GAR)	-	-	31.5%	35.0%	39.4%
% Female	50%	by 2015	44.0%	44.3%	44.7%
% Trained Teachers			82.4	83.3%	82.2%
Student Teacher Ratio	-	-	20.1	21.8	20.8

Table 5: TVET Education

Indicator	Target		Achievements		
			2007/08	2008/09	2009/10
Gross Enrolment Rate (GER)	15%	by 2015 All students to attend Second Cycle School by 2020	-	-	-
% Female	50%	by 2015	44.0%	44.3%	44.7%
% Trained Teachers			57.0	57.20%	82.48%
% of Teachers with technical	-	-	-	85.70%	86.55%

Table 6: Tertiary Education

Indicator	Target		Achievements		
			2007/08	2008/09	2009/10
Tertiary Gross Enrolment Rate	12 %	by 2015	-	9.7%	-
University (Science and Technology-related disciplines)	60% of all university are registered in science and technology-related disciplines by 2020		38%	-	-
Polytechnics ((Science and Technology-related disciplines)	80% in the Polytechnics and Vocational institutes are registered in science and technology-related disciplines by 2020		30%	-	-
% Female (Accredited Tertiary Institutions)	50%	by 2015	34%	-	-

Table 7: ICT in Education

Indicator	Target		Achievements		
			2007/08	2008/09	2009/10
Primary: Community Learning Centres	1000	by 2013	-	-	-
Junior High School: Community Learning Centres	2000	by 2013	-	-	-
Senior High School (SHS): Deployment of ICTs in Education	496 SHS	by 2013		-	274
TVET: Deployment of ICTs in Education	26 TVET	by 2013	-	-	26
Colleges of Education: Deployment of ICTs in Education	38 Colleges	By 2013	-	-	38

Table 8: ESAR Performance Targets and Achievements

Indicator	Target	Achievements		
		2007/08	2008/09	2009/10
Receive EMIS Data	May	May	June	August
Prepare Preliminary Education Sector Performance Report	May	May	June	August
Conduct Education Sector Annual Review	June	June	June	August
Prepare Aide Memoire	July	June	June	August
Prepare Final Education Sector Performance Report	July	July	-	September

Policy Briefs.

The following are some policy briefs to inform Management decisions:

Increasing Access and Equity: In order to achieve the target of 100% GAR by 2012 the GAR would have to grow at a rate of 3.85 percentage points per year. In the past, this growth rate has been achieved and thus, Universal Basic Completion again in this respect had looked potentially achievable (Government of Ghana, 2008). However, between 2008/09 to 2009/10 the growth rate is 2 percent slightly below 3.85 percent.

Quality Education: Also to make education in Ghana influence economic behaviour, attention must also be given to increasing quality at the same time as access. This appears not to have happened.

In the ESP (2010-2020) the PTRs are set at 35 in Kindergarten; 45 for primary; 35 for JHS; and 30 in SHS by 2020. The PTR at the Kindergarten was 35 in 2008/09 and decreased to 33 in 2009/10 by 6.3% percentage point. The PTR at the Primary level was 32 in 2008/09 and decreased to 20 in 2009/10 by 36.5 percentage point. The PTR at the JHS was 17 in 2008/09 and decreased to 14 in 2009/10. The Education Sector Performance Report for the 2008 points out that there are significant inefficiencies in the current utilisation of basic education teachers. The current performance is therefore challenging and must be arrested.

Science and Technology Education: The ESP target is that 60% of all universities are registered in science and technology-related disciplines by 2020 and 80% in the Polytechnics and Vocational institutes are registered in science and technology-related disciplines by 2020.

Despite the achievement so far, the present enrolment is still heavily skewed towards programmes under humanities ; and a look at the trend in the previous Education Sector Performance reports and Ghana Statistical Service reports, suggest that except for the immediate post-independence period when there was a definite conscious effort to promote science and technology as a vehicle for economic development, it appears the country has not given the desired attention to scientific and technological education and a better integration of science and humanity.

School Age Population: It is time for the Ministry to review the population growth rate used by EMIS currently 2.7% which appears high compared to the growth in school age population observed in other Sub-Saharan African countries.

1.0 BACKGROUND

1.1 Introduction

The ESP (2010-2020) is a long-term plan concurrent with and in support of the 1992 Constitution; Growth and Poverty Reduction Strategy of the Government of Ghana; the 2007 Education Reform; the 2008 Education Act; the current policy interventions of the Government, other national and international commitments. The Plan defines the medium and long term goals and targets of the Education sector.

The ESP (2003-2015) was underpinned by ten broad policy goals grouped within access to education, quality of education, education management and science, technology and TVET while the revised ESP (2010-2020) is a sub-sector approach to reflect the actual structure of the education system and the way it is frequently reported to assist reporting and accounting. It also helps to bring into focus areas such as equity and welfare; skills development; and efficiency and effectiveness that used to be subsumed under access, quality and management respectively in the previous ESP. In addition to access, quality and general management of the sector the MTEF budget will also focus on equity, welfare, skills development, efficiency and effectiveness. With the cost implications known, this will enhance effective monitoring and evaluation to achieve the sector goals and objectives.

1.2 Revision of the Education Strategic Plan (ESP)

The Ministry of Education revised the ESP (2003-2015) to cover the period 2010-2020 following the publication in 2007 of a Government White Paper on the reform of the Education Sector and the enactment of new Education legislation in 2008. In 2008, Director (PBME) was delegated to oversee the ESP revision and Mr. Matthew Karikari-Ababio was appointed as the Co-ordinator to enhance effective revision and implementation of the plan. The harmonisation of the ESP covered the 2007 Education Reform, the 2008 Education Act and the Education proposals of the current Government. Following the commission of the concept papers, various studies were conducted. The studies cover Policy Planning, Pre-Tertiary Policy, Tertiary Policy, Education Sector Analysis (Desk Review), TVET policy, Industry Engagement, Costing and Policy Evaluation. SWOT analyses in key thematic areas were also conducted: Access & Equity; Teaching & Learning; Decentralisation; Skills Development; and Tertiary Education. Existing policies such as National Tertiary Education Policy, National Science and Technology Education Policy, National Inclusive Education Policy, National Skills Development Policy, ICT Policy, Education Sector Decentralisation Policy and In-Service Training Policy were updated by the responsible agencies. Apart from subjecting the plan to critical appraisal in all regional and national reviews since 2008, political groupings, university communities, private sector, trade unions, non-governmental organisations and civil society including development partners provided their inputs. The plan with policy drivers such as Education Act Provisions, Sub-sector Policies, Government Policy Commitments, EFA/MDG goals and targets used a computerised finance simulation model to project the likely resource envelope and likely costs of the plan period, while the derivative AESOP and M&E plan are to provide further detailed costing of the programmes, activities and cost-driving variables and targets. The plan is appraised in accordance with the FTI Guidelines to ensure the country's continued membership of the Fast Track Initiative.

Implementation of the Plan: The Education Strategic Plan (ESP) 2010-2020 is being scheduled to be done by end 2010. The finalization of the appraisal report and the endorsement of the ESP by the DP group is expected to be done by the end of 2010, based on the successful realignment of the ESP appraised in August 2010 by the key stakeholders in education including the country development partners defines the goals and targets of the Education sector. The Education Act, 2008 (Act 778) which is the legal outcome of the 2007 National Education Reform programme, the Ghana Education Service Act, 1955 (Act 506), the National Council for Tertiary Education and Training Act, 1993 (Act 454), the Council for Technical and Vocational Education Act, 2006 (Act 718), and the National Accreditation Board Act, 2007 (Act 744) are the underpinning Acts of the plan to regulate education delivery in the country.

To support the implementation of the plan are sub-sector policy reforms such as National Tertiary Education Policy, National Science and Technology Education Policy, National Inclusive Education Policy, ICT Policy and the Technical and Vocational Education and Training (TVET) Policy. The plan is also in consonance with the first Ghana Poverty Reduction Strategy (2003-2005) and the new Growth and Poverty Reduction Strategy (2006-2009) and

international policies such as Education For All (EFA), Millennium Development Goals (MDG) and New Partnership for Africa' Development (NEPAD).

The derivative Annual Education Sector Operational Plan (AESOP) and Monitoring and Evaluation Plan (Plan) is to ensure effective implementation of the plan. The Education Management Information Systems, Donor Budget Support (MDBS) mechanisms, Vehicle Inventory and Management systems, Financial Management Systems (Financial Administration Act (FAA) 2003, Act 654 and Section 190 of the Financial Administration Regulations (FAR) 2004 L. I 1802; Internal Auditing System using IAA Act, 2003 (Act 658; and procurement plan based on the Public Procurement Act 2003, Act 663) also support the implementation of the plan. The Children's Act, 1998, Act 560 also support the implementation of the plan.

In implementing the plan, financial reporting obligations of the Ministry as required by Sections 41 and 190 of the FAA and FAR will be fulfilled. Financial reports that seek to present a comprehensive account of all other financial reporting obligations of the Ministry will be produced yearly and this will be supported by the Internal Auditing System using IAA Act, 2003 (Act 658).

To achieve this, the Ministry since 2007 has fulfilled Section 41 of the Financial Administration Act (FAA) 2003, Act 654 and Section 190 of the Financial Administration Regulations (FAR) 2004 L.1 1802 to produce financial reports that seek to present a comprehensive account of all other financial transactions and further produced a very comprehensive audit manual to ensure consistency in work ethics.

Key policy focus of the ESP (2010-2020): The policy focus of the ESP includes access, equity, welfare, quality, skills development, efficiency and effectiveness in the areas of:

1. Universal Basic and Second Cycle Education;
2. STME policies to strengthen the teaching and learning of science, technology, mathematics at all levels of the system so as to produce a critical mass of human resource that will stimulate Ghana's technological capacity;
3. ICT policies to transform Ghana into an information rich knowledge based and technology driven high income economy and society;
4. TVET policies to integrate the various types of formal and non- formal TVET, from the elementary to the tertiary levels, into a single comprehensive demand-driven system, under a single umbrella management council for TVET, COTVET;
5. Tertiary education policies to facilitate the development of world-class human resources and to support national development;
6. Teacher professional development and management policies to provide standards regarding the professional development, registration and licensing of teachers;
7. Disabilities and Special educational needs policies to provide the right to equality of educational opportunities to young people;
8. Decentralisation policies to devolve routine managerial and fiscal activities to provide quality education which is equitable, affordable and accountable;
9. Financing policies to use prudent strategic and operational planning to make efficiency savings to fund the ESP to achieve the goals and objectives in the education sector;

10. Monitoring and Evaluation policies to provide result-oriented approach to enhance accountability, improve efficiency and effectiveness in education delivery in the country;
11. EMIS policies to link the forward planning of the Education sector to the payroll, cost-related items and the ESP Indicators.

Against this background, the Millennium Development Goals (MDG) aim for universal primary education by 2015 and gender equality in enrolments at all levels of education. The Education for All (EFA) initiative lays out a strategy for achieving these goals (World Bank, 2004). The 2007 Education reform focuses on Universal Basic Completion (UBC) by 2015 instead of just Universal Primary Completion (UPC), and by 2020 all JHS graduates are to be exposed to Second Cycle education or training (MOE, 2007, p.3).

Appraisal of the ESP (2010-2020): Ghana is a signatory to the Education for All (EFA) goals adopted in Jomtien in 1990, and since 2004 has been a member of the EFA Fast Track Initiative (FTI) and recipient of financial assistance from the EFA FTI Catalytic Fund (CF). These benefits were based on a positive appraisal of the country's Education Strategic Plan (ESP) covering the period 2003 to 2015. The ESP (2010-2020) is also appraised for the country's continued membership of the Fast Track Initiative and for the submission of a proposal for a further tranche of funding from the Catalytic Fund. The appraisal report being prepared in accordance with the FTI Guidelines for Appraisal of the Primary Education Component of the Education Sector Plan, adapted to the Ghanaian context (refer: Appraisal of the Government of Ghana Education Sector Plan 2010-2020, Education For all –Fast Track Initiative Ghana Local Education Donor Group).

1.3 The 2010 ESAR

Against this background, the Education Sector Annual Review (ESAR) is the primary means by which the education sector in Ghana engages all stakeholders to annually review the progress of the sector. It provides the opportunity for all sector stakeholders to participate in the review of the sector performance annually. The 2010 ESAR is the 7th in the series. The first ESAR took place in 2004, followed by the 2005, 2006, 2007, 2008 and 2009 ESAR.

The Education Management Information System (EMIS): is the established structure to monitor and evaluate the implementation of the Education Strategic Plan (ESP) in Ghana. With the late delivery of the EMIS data and report, this year's review took place in August instead of June.

Adjusted data in the EMIS yearbooks report is used in the Preliminary Education Sector Performance Report (PESPR) report. The formula for adjustment is as follows:

Adjusted Enrolment = [(Recorded Enrolment / No. of Responding Schools) x No. of Non-Responding Schools] + Recorded Enrolment.

The following indicators were calculated on the basis of adjusted enrolment:

- Gross Enrolment Rate (GER);
- Net Enrolment Rate (NER);
- Gross Admission Rate (GAR);
- Net Admission Rate (NAR);
- Completion Rate;
- Gender Parity Index;
- Pupil Teacher Ratio and
- Percentage of Trained Teachers.

The figures for Basic Education (KG, Primary and JHS) were adjusted on a district by district basis.

The figures for Senior High School were not adjusted using districts. Since most students do not attend Senior High school in the district (or even region) in which they grew up. Enrolment rates by districts (and regions) do not have any clear meaning because they entail comparing enrolment of students from various regions with population from one region. Thus, the national figure is adjusted on the basis of coverage of schools in the public and private sectors. Public enrolment is adjusted based on public coverage and private enrolment is adjusted based on private coverage. The two figures are then aggregated to get a total adjusted figure for SHS, which is then divided by population to get enrolment rates.

Aide Memoire: In 2007, the Government of Ghana, represented by the Ministry of Education and all its sub-vented Agencies agreed to institutionalise the preparation and signing of the annual Aide Memoire with its development partners after each year's education sector review. The Aide Memoire was to serve as a reference document to drive the commitments of the development partners as well as a guide for future policy implementation for the education sector. Additionally, the document is to serve as a reference point to identifying emerging priorities in education that would need support/assistance in the ensuing year.

In 2007, out of 34 recommended activities, 7 activities were fully implemented, 15 partially implemented and 12 not implemented. In 2009 out of the 25 recommended activities 19 were fully implemented and 6 partially implemented. Activities recommended in 2010 are 28.

ACCESS TO EDUCATION

2.1 Introduction

This section outlines the progress towards the achievement of the ESP. The focus is on enrolment figures, trend, growths and targets. Table 9 below presents key indicators and targets that are to be achieved:

Table 9: Basic education level key indicators and targets

Indicator	Target	Actual 2009-10
KG	100.0 % by 2015	97.3%
Primary GER	107.4 % by 2012	94.9%
Primary GAR	100.0% in 2006/07	101.3%
JHS GER	100.0% by 2015	79.5%
Primary Completion	100.0% by 2012	87.1%
JHS Completion (Universal Basic Completion)	100.0% by 2015	66.0%

2.2 Kindergarten

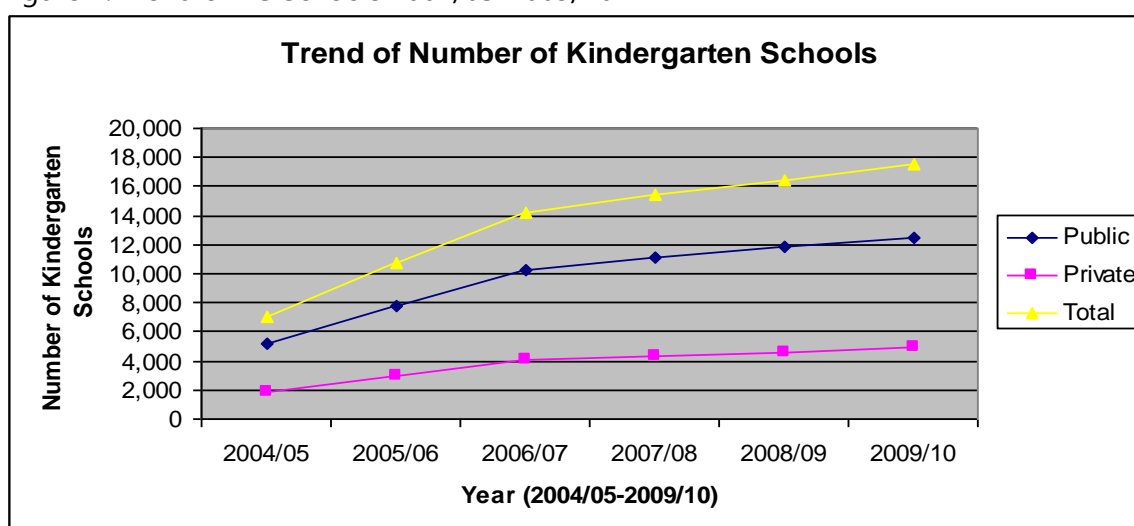
The number of kindergarten schools has increased from 7,009 in 2004/05 to 17, 471 in 2009/10. While the increase in the number of Kindergartens increased from 16, 439 in

2008/2009 to 17, 471 in 2009/10 by 6.3 percent, increase from 2007/08 to 2008/09 is 8 percent. Compared to the increase from 2004/05 to 2007/08 which was 35% suggests a declining trend on increase in Kindergarten in spite of the Government's policy that each Primary School should have a kindergarten attached to it. This may also indicate the need to encourage the private sector to increase its enrolment to enhance the attainment of universal basic education completion and ensure improvements in the literacy levels. Table 10 and figure 2 provide the trend of KG schools increasing, but at a decreasing rate, in both the public and private kindergarten schools in the country.

Table 10: Number of Kindergarten Schools

Type of Education	2004/05	2005/06	2006/07	2007/08	2008/9	2009/10
Public	5,205	7,818	10,193	11,140	11,827	12, 481
Private	1,804	2,913	4,053	4,309	4,612	4, 990
Total	7,009	10,731	14,246	15,449	16,439	17, 471

Figure 2: Trend of KG Schools 2004/05-2009/10



Enrolment in Kindergarten (Table 11) has increased significantly since 2003/04. In 2008/09 enrolment was 1,338, 454 and increased to 1,440, 732 in 2009/10, growing by 7.6 percent. The GER has increased significantly since 2003/04, with the biggest increase occurring between 2004/05 and 2005/06 with a percentage change of 25.2 percent and a growth rate of 42 percent. Since then, progress has been slower with the GER increasing only from 89% to 89.9% in 2007/08. In 2008/09 the GER increased to 92.9 percent and in 2009/10 increased to 97.3 percent with a percentage change of 4.8 percent and a growth rate of 0.05 percent. The percentage Private Enrolment is also decreasing as a result of the Government policy to have each Public Primary school with a Kindergarten attached. Consequently figures 3 & 4 suggest improvement in trend of enrolment and gross enrolment ratios respectively but at a decreasing rate.

Table 11: Kindergarten Enrolment Trends

	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Enrolment	687,643	778,109	1,065,963	1,142,784	1,262,264	1,338,454	1,440,732
Gross Enrolment	54.60%	60.10%	85.30%	89.00%	89.90%	92.90%	97.30%
% Private Enrolment	31.2%	36.8%	29.4%	18.9%	17.1%	19.4%	19.5%

Figure 3: Trend of Enrolment.

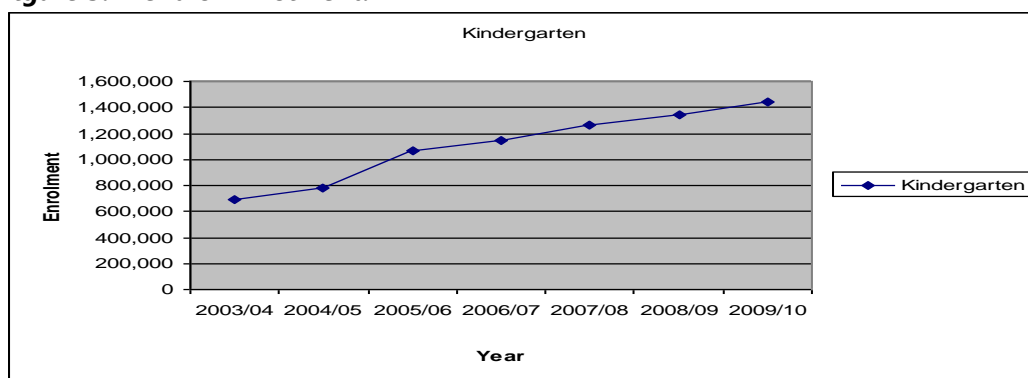
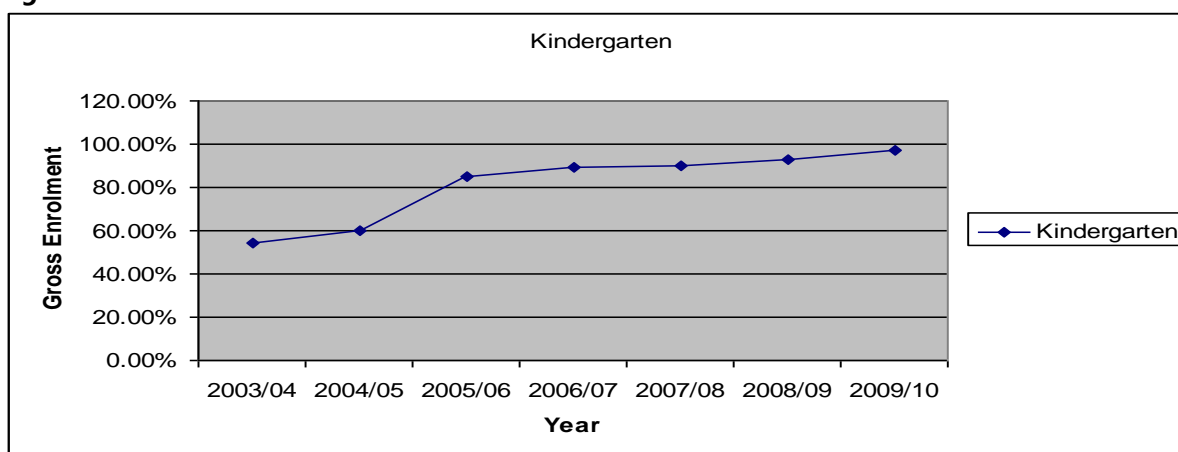


Figure 4: Trend of Gross Enrolment



2.3 Primary

The number of primary schools has increased from 15,417 in 2005/06 to 18,579 in 2009/10 by growing at 9 percentage point. Between 2005/06 to 2006/07 the number of primary schools grew by 2%. The percentage growth between 2006/07 and 2007/08 was 3 percent while between 2008/09 to 2009/10 there was a further growth of 3 percent. The public schools contribution to this growth between 2008/09 to 2009/10 is 2 percent while the private sector contributed by 8 percent growth. Table 12 Figure 5 and Table 13 provide the trend of number of primary schools and key enrolment indicators.

Table 12: Number of Primary Schools

Type of Education	2005/06	2006/07	2007/08	2008/09	2009/10
Public	12,427	13,093	13,247	13,510	13,835
Private	2,990	3,810	4,068	4,371	4,744
Total	15,417	16,903	17,315	17,881	18,579

Figure 5: Trend of No. of Primary Schools

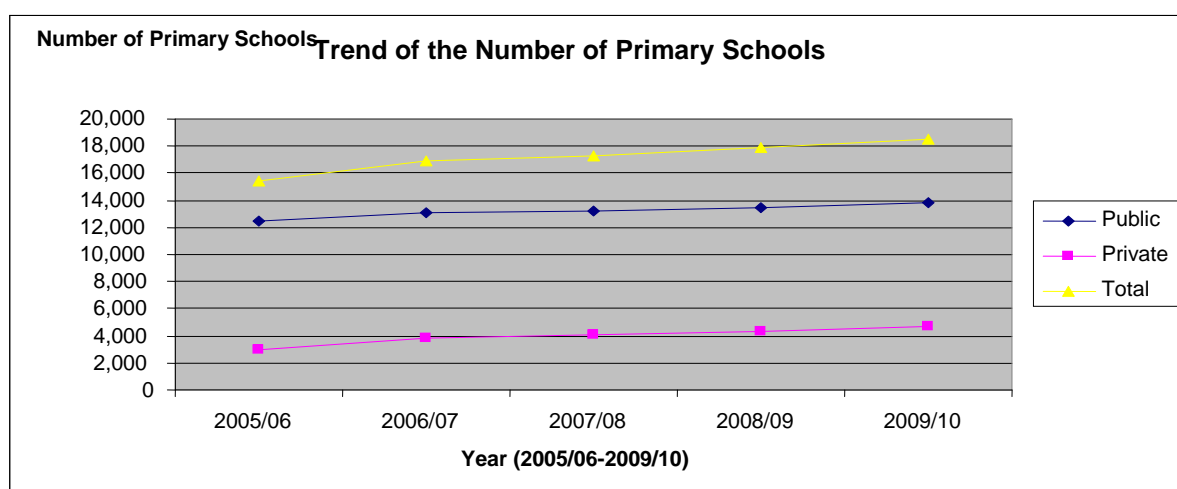


Table 13: Key Enrolment Indicators

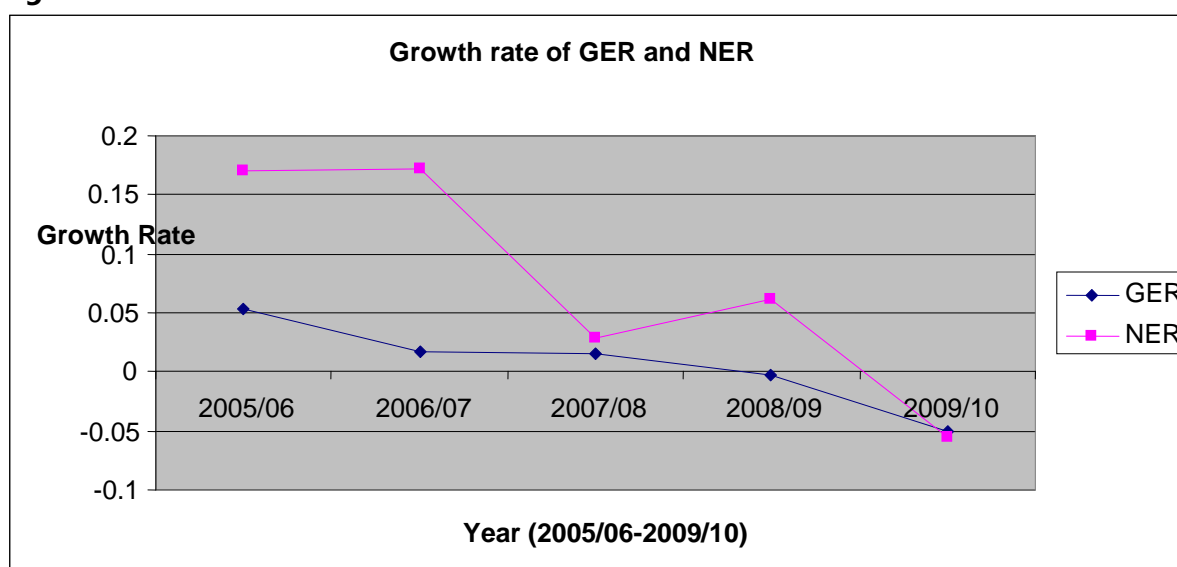
Indicators/ Year	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Enrolment Total	2,957,491	3,077,489	3,111, 753	3,473, 229	3,622,724	3, 710,647	3,809,258
Enrolment Public	2,418,696	2,455,913	2,727,044	2, 870,656	2,990,782	3,041,895	3,099,234
Enrolment Private	538,795	631,576	489, 546	692, 573	531, 942	668,752	710,024
GER	86.50%	87.50%	92.10%	93.70%	95.20%	94.90%	94.90%
Pop. 6-11 yrs						3,910,349	4,016, 930
Enrolment (6-11yrs)		2, 079, 986	2,484,855	3,007,172	3,174,459	3,461,087	3,356,743
NER		59.10%	69.20%	81.10%	83.40%	88.50%	83.60%
Enrolment P 1				693,665	741, 172	729,391	738,101
GAR	88.20%	89.40%	92.30%	103.20%	107.30%	102.90%	101.30%
NAR		26.20%	61.70%	69.10%	74.30%	72. 10%	71.10%
Total Completion Rate	77.90%	78.70%	75.60%	85.40%	88.00%	88.70%	87.10%
Male Completion Rate	81.70%	82.30%	78.70%	91.20%	88.90%	89.30%	89.70%
Female Completion Rate	74.00%	75.10%	72.40%	79.60%	82.40%	85.50%	84.30%

While enrolment at both public and private schools are progressing steadily, the GER stagnated in the years 2008/09 and 2009/08 at 94.9 percentages, while the net enrolment reduced from 88.50% in 2008/09 to 83.6% in 2009/10 by about 5.6 percentage change. This significant reduction may affect the gains made between 2004/05 to 2008/09 with the net enrolment increase from 59.10% to 69.20% between 2004/05 and 2005/06 by 10% change. Between 2006/07 and 2007/08, the percentage change is 2.30 percent. It suggests asking if the capitation grant policy is losing its efficacy to normalise the enrolment of the correct age at the primary education level. Similarly the NAR also reduced slightly by 1.4% from 72.10% in 2008/09 to 71.10% in 2009/10. Consequently the total completion rate was reduced by 1.6% from 88.7% in 2008/09 to 87.1% in 2009/10. The impact of the reduction was not on the male completion rate which rather increased by 21.2 % from 74.0% in 2008/09 to 89.70% in 2009/10 but on the female completion rate from 85.5% in 2008/09 to 84.3% in 2009/10 by a percentage decrease of 1.4%.

Consequently, Figure 6 below suggests that between 2005/06 to 2007/08 the predictive power and efficacy of the policy intervention was very strong to increase the net enrolment growth rate above the gross enrolment growth to get the correct age group into the primary education. This trend reduced in 2007/08 and increased in 2008/09 and in 2009/10 reduced

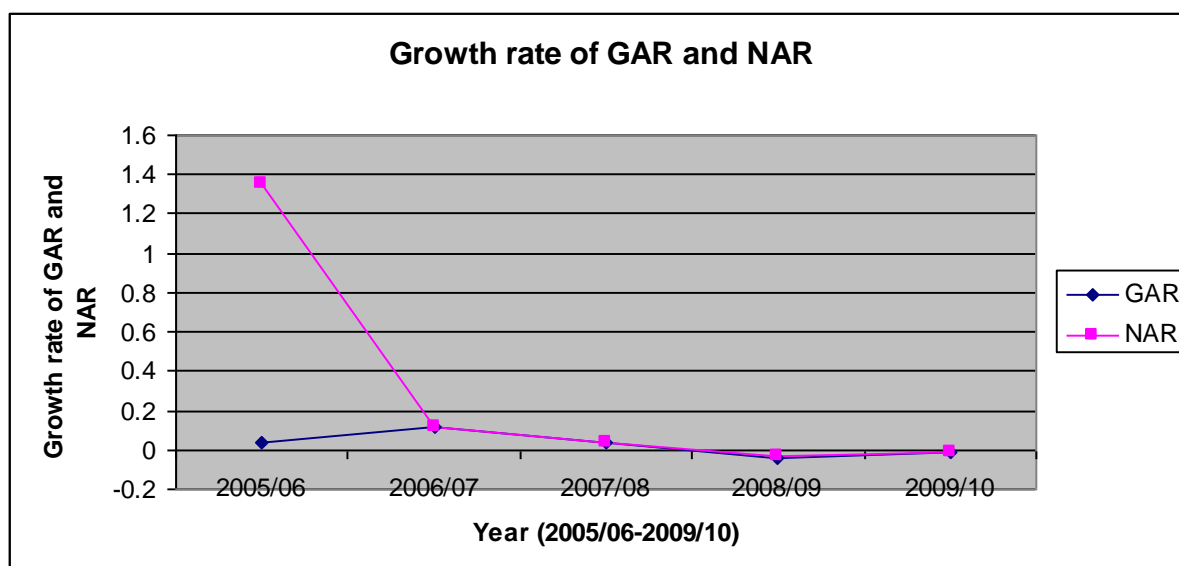
even slightly below that of the GER. These points need further analytical work and inquiry to achieve the MDG/EFA and UBC goals and targets by 2015.

Figure 6: Growth rate of GER and NER



Similarly with the introduction of the Capitation grant policy in 2004/05 enrolment in Primary One of appropriate age (6 year olds) grew at an impressive rate in 2005/06 as noted in figure 7 below but from 2006/07 the trend of growth rate reduced drastically. There is need for further inquiry into the various policy interventions between 2006/07 to 2009/10. Enrolling at the correct age is essential, especially at higher levels. Children who are too old for their grade have difficulty relating to their peers, and it is also very difficult for a teacher to teach students of such varying maturities and abilities (CREATE, p. x cited in Government of Ghana, 2008, p. 49).

Figure 7: Growth Rate of GAR and NAR



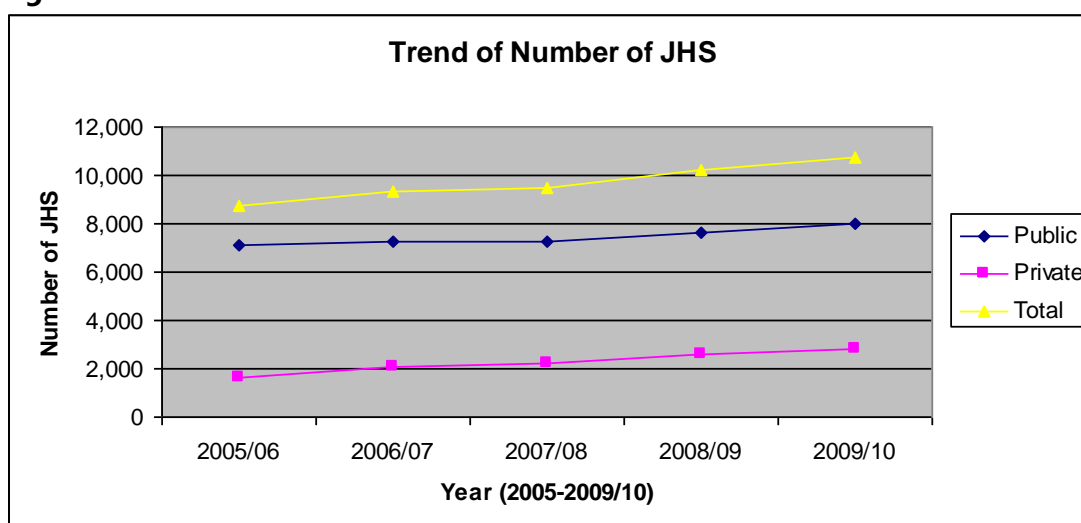
Junior High School

Similarly, from table 14 and figure 8 the number of Junior High Schools increased from 8,749 in 2005/06 to 10,768 in 2009/10 but the growth rate between 2005/06 to 2006/07 was 7% while that of 2008/09 to 2009/10 was 5 percent, a difference of 2 percentage point decrease.

Table 14: Number of Junior High Schools

Type of Education	2005/06	2006/07	2007/08	2008/09	2009/10
Public	7,130	7,251	7,267	7656	7969
Private	1,619	2,083	2,240	2,557	2,799
Total	8,749	9,334	9,507	10,213	10,768

Figure 8: Trend of Number of JHS



From Table 15 below, Junior High School enrolment also increased from 984,111 in 2003/04 to 1,301,940 in 2009/10 but also with a decreasing trend that calls for further inquiry to understand the underpinning factors. The GER decreased by -1.4 %, change from 80.6% in 2008/09 to 79.5% in 2009/10. The net enrolment stagnated at 47.8 between 2008/09 to 2009/10. However, the GAR increased slightly by 2.4% from 84.6% in 2008/09 to 86.6 in

2009/10 and NAR also increased slightly by 0.2% from 43.6% in 2008/09 to 43.8 % in 2009/10 while the completion rate decreased by 12.0 percent from 75.0% in 2008/09 to 66 percent in 2009/10.

Table 15: Enrolment Trend in JHS

Indicators/ Year	2003/04	2004/05	2005/06	2006/07	2007/06	2008/09	2009/10
Enrolment Total	984,111	1,048,367	1,121,887	1,170,801	1,224,964	1,285,577	1,301,940
Enrolment Public	828,517	853,230	951,573	969,351	1,015,491	1,064,088	1,075,036
Enrolment Private	155,594	195,137	170,214	201,450	209,473	221, 489	226,906
GER	70.20%	72.80%	74.70%	77.40%	78.80%	80.60%	79.50%
Enrolment (12-14yrs)		1,012,258	1,119,530	793,208	824,091	1,595,620	1,638,690
NER		70.30%	74.50%	52.40%	53.00%	47.80%	47.80%
Enrolment JHS 1		380,973	387,964	418,726	453,505	465,758	489,812
GAR	75.60%	76.60%	77.30%	80.20%	84.60%	84.60%	86.60%
Enrol JHS age 12		60, 670	130,151	150,135	238,923	240,188	247,696
NAR		12.20%	25.30%	28.80%	44.60%	43.6%	43.8%
Total Completion Rate	58.00%	60.00%	77.90%	64.90%	67.70%	75.00%	66.00%
Male Completion Rate	61.90%	60.00%	81.20%	69.80%	72.40%	79.70%	70.10%
Female Completion Rate	53.80%	55.00%	74.70%	60.00%	62.90%	70.10%	61.80%

In order to achieve the target of 100% GAR by 2012, the GAR would have to grow at a rate of 3.85 percentage points per year. In the past, this growth rate has been achieved and thus, UBC again in this context looks potentially achievable (Government of Ghana, 2008). However, between 2008/09 to 2009/10 the growth rate is 2 percent, slightly below 3.85 percent.

To achieve the national targets of 100 percent by 2015 the completion rate would have to grow at a rate of 8 percentage points per year (Government of Ghana, 2008) but between 2008/09 and 2009/10 the completion rate is growing at a negative 12 percent.

2.5 Senior High School

The number of Senior High School covered in 2009/10 was 697 with 496 Public and 201 Private schools while in 2008/09 the number of Public Senior School covered was 493 and the Private Schools covered was 177. The regional breakdown of Public and Private Senior High Schools covered in 2009/10 were as follows:

Table 16: Regional Breakdown of Public and Private Schools:

Region	Number of Senior High School		
	Public	Private	Total
Ashanti	86	38	124
Brong/Ahafo	54	24	78
Central	51	39	90
Eastern	78	21	99
Greater Accra	38	36	74
Northern	36	12	48
Upper East	22	1	23
Upper West	18	1	19
Volta	72	20	92
Western	41	9	50
Total	496	201	697

Table 17: Enrolment Trend in SHS

Indicators/ Year	2003/04	2004/05	2005/06	2006/07	2007/06	2008/09	2009/10
Enrolment Total	328,428	333,002	384,455	485,742	454,681	490,334	537,332

Enrolment Public				387,850	396,839	441,324	478,296
Enrolment Private				62,657	58,842	49,010	58,036
GER	26.6%	25.6%	28.4%	29.1%	35.8%	33.9%	36.1%
% Female	n/a	43.5%	49.5%	43.8%	44.0%	44.3%	44.7%
Enrolment SHS 1				157,437	153,402	174,692	201,819
GAR				33.3%	31.5%	35.0%	39.4%

From Figure 9 and Table 18, enrolment in Senior High has increased overall, but inconsistently. Between 2008/09 and 2009/10 the enrolment in SH 1 increased by 15.5% from 174,692 to 201,819. The public schools increased from 156,743 to 179,752 by 14.7 percent while the Private increased from 17,949 to 22,067 by 22.9 percent in 2008/09 and 2009/10 respectively. The GER increased from 33.9% in 2008/09 to 36.1% in 2009/10, 6.5 percentage increase. The GAR increased from 35.0% in 2008/09 to 39.4% in 2009/10 by 12.6 percentage increase. The GAR increase was 37.6% in 2008/09 to 41.8 percent in 2009/10, registering about 11.2% increase; while that of girls experienced a slight increase, and recorded about 4.5 percentage change from 32.3 percent in 2008/09 to 36.8% in 2009/10.

Figure 9: Enrolment Trend

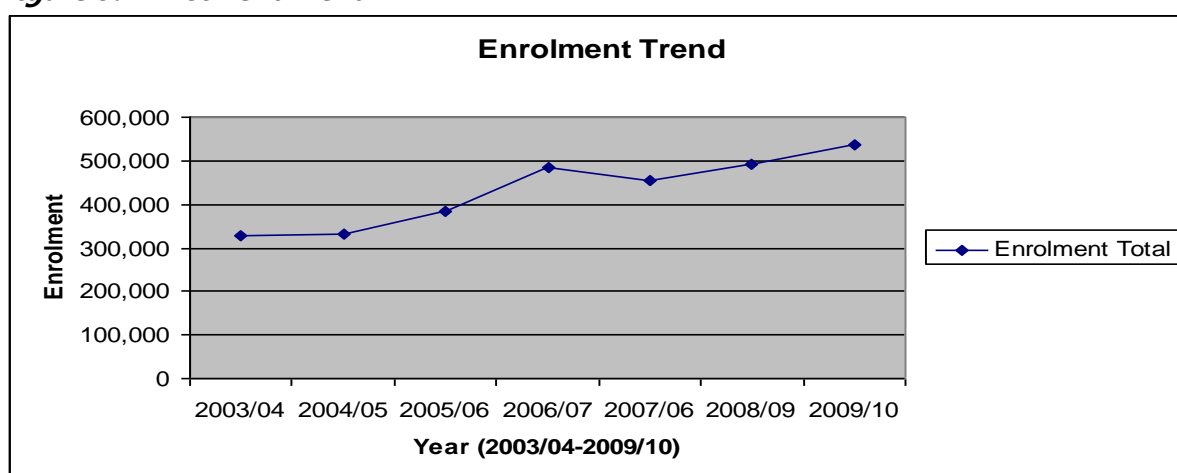
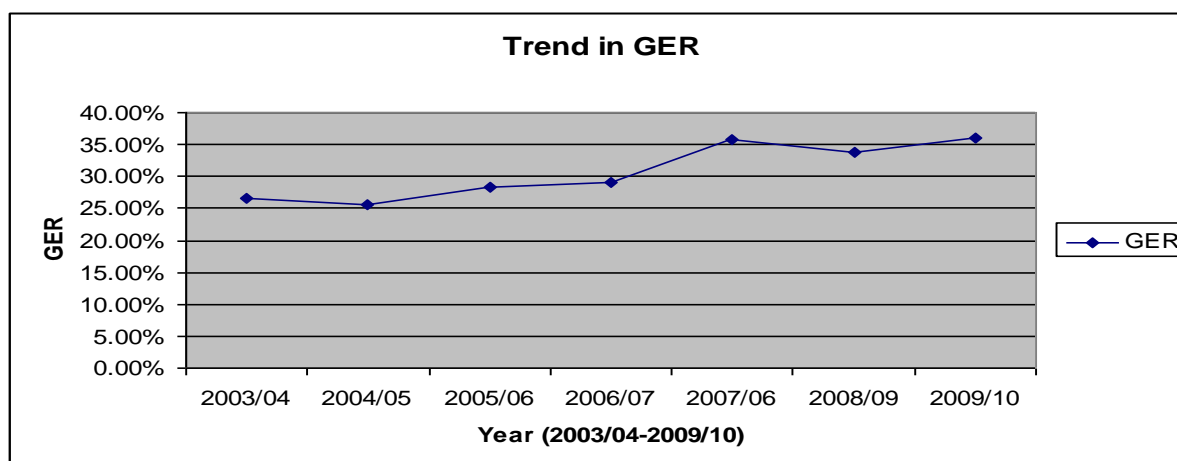


Figure 10: Trend in GER



2.6 Technical and Vocational Education

The number of TVET Institutions covered in 2009/10 was 280. In 2008/09 the coverage was 296. The breakdown is as follows:

Table 18: Number of TVET (Public and Private)

Type of TVET Institutions	2008/09	2009/10	% Change
GES Technical Institute	26	26	0.0%
NVTI Centres	28	24	-14.3%
Integrated Community Centres for Employable Skills (ICCES)	33	34	3.0%
Social Welfare Centres	13	13	0.0%
Leadership Training Institutes	5	7	40.0%
Opportunities Industrialisation Centres (OIC)	0	1	100%
Community Development Centres	23	20	-13.0%
Agriculture Training Institutes	1	1	0.0%
Roads & Transport Training Centre	0	0	0.0%

In 2008/09, the number of Public TVET covered was 133 and Private covered was 163. In 2009/10 the Public TVET covered was 129 and the Private was 151. Enrolment in TVET Institutions in 2009/10 was 39, 608 for Public and 24, 547 for Private, registering a total enrolment of 64,155 for Public and Private TVET institutions.

Enrolment in TVET in 2009/10 is 64, 156. The breakdown is 56, 965 for Full-Time, 7, 190 for Part-Time. The enrolment in TVET institutions in 2009/10 is 64, 155. The Intermediate enrolment is 55, 235; the Advanced enrolment is 4, 624 while the Technicians are 4,296.

GES Technical Institutes: The provision of Technical Vocational Education Training seeks to provide the middle –level human resource required for the technical and socio-economic development of the nation. This gave the impetus for the establishment of 20 VOTEC Resource Centres and the choice of their location. These Centres have been well equipped to support the training of students with the knowledge and skills required for the advancement of the technological and industrial sectors of the nation. Consequently, enrolment in GES Technical Institutions (TIs) has increased from 17, 130 in 2008/09 academic year to 20, 694 in the 2009/10 academic year. Enrolment appears to be increasing since the introduction of the following measures:

- A new TVET qualification framework that allows for academic progression for Technical Institute graduates, especially, to the Polytechnics.
- The teaching and examination of all 5-core SHS subjects of English, Mathematics, Social Studies, Integrated Science and Computer Studies compulsory.

The establishment of COTVET and its added value through advocacy and sensitization; TVET continued collaboration with NABPTEX and the Polytechnics on the implementation of Pre-HND course for Technical Institutes' graduates; and Implementation of VOTEC Resource Centres Maintenance Agreement that has repaired/serviced some broken-down equipment in twenty (20) VOTEC Institutions.

In spite of these measures the trend of enrolment and the negative growth rates as depicted in table—and figure-- suggest that as a sector the country has not been consistent in policy formulation and implementation. This may call for an intensive study to identify the root cause of low enrolment in VOTEC in spite of the innovative practices introduced in the Centres. Table 19, figure 10 and 11 also suggest a focused action to improve the trend in enrolment and quality on TVET education in Ghana and the trends in TVET education suggest how education sector has not in reality shown commitment to TVET education in

Ghana. The trend and statistics below suggest in consistency in policy formulation and implementation to achieve the desired impact.

Table 19: Trend and growth rate of enrolment in the Public Technical Institutes (2002-2010)

Year	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Trend of TVET Enrolment Growth	-0.05587	0.147386	-0.05232	-0.09215	-0.0663	0.00407	0.197569

Figure 11: TVET enrolment trend (2002-2010)

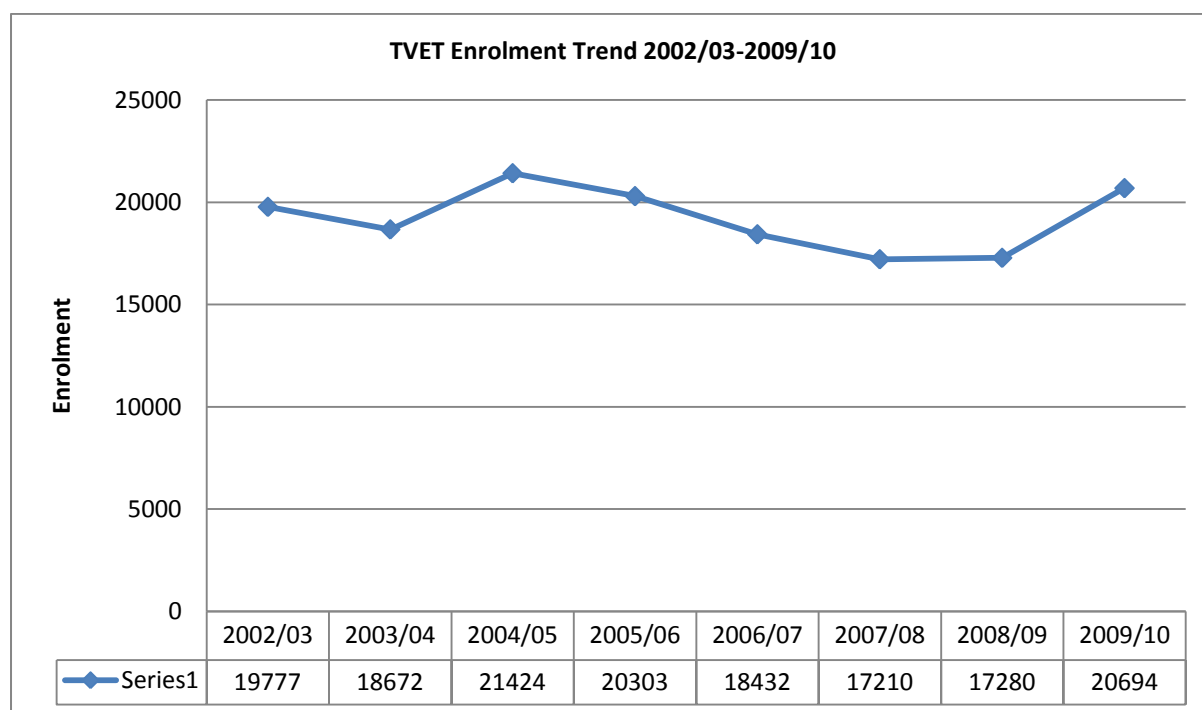


Figure 12: Trend of TVET Enrolment Growth

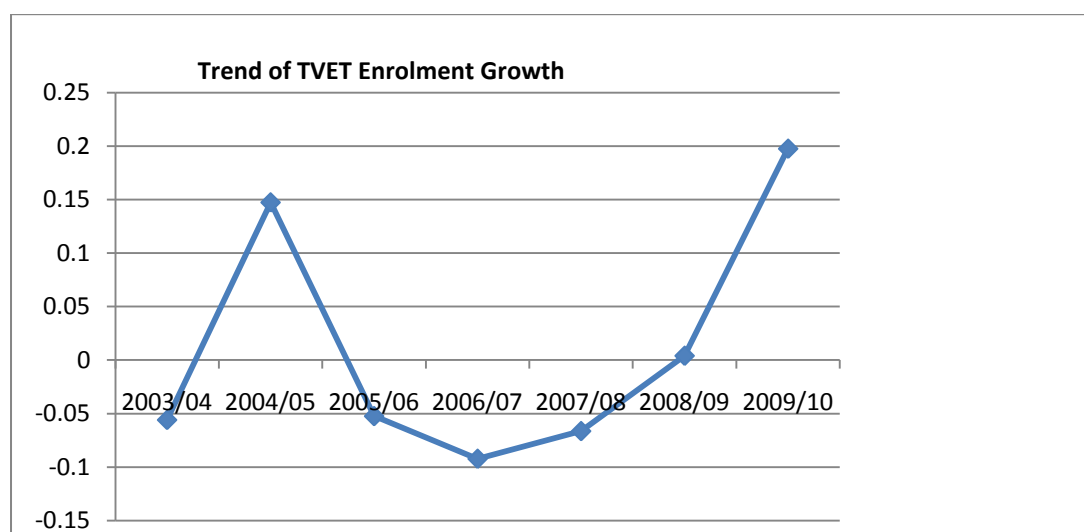


Table 20 GES TVET: Data			2002/03			2003/04			2004/05			2005/06			2006/07			2007/08	2008/09	2009/10
REGION	NO.	INSTITUTION	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	T	T	T
Greater Accra	1	Accra Tech. Trg. Centre	1,316	26	1,342	1,632	27	1,659	1,521	36	1,557	1311	24	1335	1611	30	1,641	747	1,128	1,081
	2	Ada Tech. Institute	1,424	153	1,577	429	156	585	330	158	488	443	136	579	374	132	506	510	601	656
	3	Sacred Heart Tech Inst.	87	312	399	104	344	448	143	325	468	156	292	448	235	298	533	598	602	619
	4	Tema Tech Inst.	400	168	568	726	105	831	1,285	114	1,399	615	102	717	815	215	1030	1,144	945	1,037
Eastern	5	Abetifi Tech Inst.	230	95	325	330	112	442	386	91	477	324	78	402	245	79	324	598	299	482
	6	Akwatia Tech Inst.	341	9	350	373	75	448	415	7	422	373	11	384	343	11	354	262	281	323
	7	Amankwakrom F.A.T.I.	22	1	23	38	14	52	43	13	56	67	16	83	81	20	101	115	119	264
	8	Koforidua Tech Inst.	680	8	688	724	9	733	778	11	789	635	15	650	577	12	589	674	508	823
	9	St. Joseph Tech (K'Tafo)	175	133	308	237	116	353	189	132	321	166	114	280	155	115	270	274	255	353
	10	St. Paul Tech. School	1,114	-	1,114	1,059	-	1,059	1,081	-	1,081	953	-	953	943	-	943	553	928	951
Central	11	Asuansi Tec Inst	746	10	756	699	15	714	650	12	662	501	4	505	476	7	483	578	720	825
	12	Cape- Coast Tech Inst.	1,240	180	1,420	1,548	221	1,769	1,393	232	1,625	1308	164	1472	1315	166	1481	1,013	660	662
Western	13	Kikam Tech Inst	786	9	795	822	11	833	694	3	697	694	3	697	503	10	513	533	544	627
	14	Takoradi Tech Inst	1,452	656	2,108	1,372	75	1,447	1,583	93	1,676	1501	87	1588	1607	93	1700	912	1,010	1,447
Volta	15	Anlo Tech Inst.	1,041	212	1,253	438	236	674	481	249	730	501	191	692	569	201	770	753	572	700
	16	Kpandu Tech Inst	245	90	335	1,066	227	1,293	1,047	192	1,239	1027	329	1356	618	330	948	791	753	1,004
	17	Have Tech Inst.	414	200	614	378	95	473	332	133	465	150	317	467	100	209	309	406	161	341
	18	Comboni Tech. Voc. Inst.	-	-	-	-	-	-	-	-	-	241	250	491	243	252	495	633	688	738
Ashanti	19	Kumasi Tech Inst	2,900	93	2,993	1,294	17	1,311	3,369	51	3,420	3400	294	3694	1860	24	1884	1,831	1,950	2,103
	20	Krobea Asante Tech. Voc	-	-	-	-	-	-	-	-	-	50	1	51	53	2	55	157	157	264
Northern	21	Dabokpa Tech Inst	105	125	230	133	126	259	288	130	418	256	163	419	443	170	613	897	1,159	1,402
	22	St Joseph Tech (Saboba)	250	6	256	267	6	273	206	39	245	198	36	234	181	37	218	242	325	453
U-East	23	Bawku Tech Inst	592	98	690	562	77	639	629	101	730	627	101	728	619	111	730	740	718	1,040
	24	Bolga Tech Inst.	1,190	636	1,826	1,274	630	1,904	1,293	773	2,066	1334	804	2138	1060	490	1550	1,745	1,480	1,575
U-West	25	Wa Tech Inst.	310	88	398	384	89	473	304	89	393	393	89	482	301	91	392	421	575	660
B-Ahafo	26	Nkoranza Tech. Inst. *	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	83	142	264
TOTAL			17,060	2,717	19,777	15,889	2,783	18,672	18,440	2,984	21,424	16,933	3,370	20,303	13467	3081	18,432	17,210	17,280	20,694

2.7 Enrolment in Tertiary Education

There are 7 Public Universities including GIMPA, 10 Polytechnics, and Specialised Institutions like IPS, GIL, GIJ; 38 Colleges of Education and 55 Accredited Private Tertiary Education Institutions. The Colleges of Education bill is yet to be passed.

Student Enrolment: In the Public Universities enrolment rose by 9% from 93, 973 in 2007/08 to 102, 543 in 2008/09 while additionally 47.9% of applicants for the 2008/09 academic year obtained admission. Polytechnic enrolment increased by 12% from 34, 448 in 2007/08 to 38, 656 in 2008/09. The Private Universities increased enrolment by 19 % from 18, 278 in 2006/07 to 21, 857 in 2007/08. Student enrolment in distance learning programme in the publicly funded universities increased by 54% from 20,772 in 2006 to 31,994 in 2009 as per the details in the tables below.

Quota System: The universities continue to mount bridging programmes for science students who do not meet the cut-off points for admission, to enable them gain admission. The universities have introduced a quota system for admission of students from less endowed senior high schools. Polytechnics continue to mount bridging programmes in Mathematics, Science and English for Students in Technical institutions to enable them enrol into Higher National (HND) Diploma programmes

Establishment of Open University: The Committee on Open University has been reconstituted to review the previous work on the establishment of the Open University. GETFund has made allocations and the GOG has provided budgetary support for the establishment of the Open University. The establishment of two new public universities may delay the process for the establishment of the Open University. The Task force for the establishment of two new universities, University for Health and Allied Science (Volta Region) and University for Energy and Renewable Resources (Brong/Ahafo) have started work.

The ESP target is that 60% of all universities are registered in science and technology-related disciplines by 2020 and 80% in the Polytechnics and Vocational institutes by 2020. The achievement as at 2007/08 was 38 percent for universities and 30% for polytechnics. The mismatch between academic and physical facilities, on one hand, and growing demand for tertiary education, on the other hand, have impact on access. Inadequate ICT facilities in rural areas limit participation in distance education in these areas. Facilities of the Colleges of Education, if not improved will limit their student intake. Fees at the private institutions have a bearing on participation. Inadequate incentives to promote private sector participation in industrial attachment of students will impact on quality of programmes.

The table below provides tertiary GER to be 9.7 percent. This resulted in the phenomenal rise in intake and participation rate of students from 5 percent to 10 percent in 2008. This phenomenal rise, notwithstanding, it is still very low compared to developed countries (over 50%)(Akyeampong, 2008). There is still some way to go before the full benefits of the expanded university education can be felt in the Ghanaian economy (p.10). Further details are provided in the tables below.

Table 21: Tertiary GER

<i>Indicators</i>	<i>2008</i>
Population of Ghana (18-21)	1,730,944
Total Student Enrolment (Tertiary)	167,346
Gross Enrolment Ratio (Tertiary)- %	9.7

The figure below also presents policy implications of the Academic Staff Pyramid by Disciplines for the Public Universities in 2008/09. The norms are as follows:

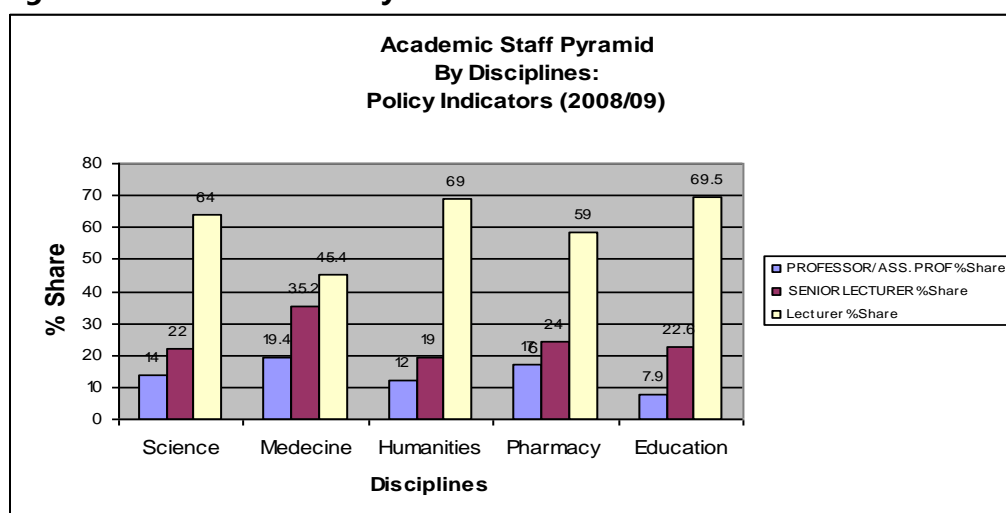
Professors /Ass. Professors: 20
 Senior Lecturer: 30
 Lecturer 50

Science, for instance, is to have 20 Professors/Associate Professors in the Public Universities. The achievement for Science is 14; Medecine is 19.4; Humanities is 12, Pharmacy is 17 and Education is 7.9.

Table 22: Academic Staff Pyramid:

Disciplines	PROFESSOR/ASS. PROF	SENIOR LECTURER	Lecturer
	% Share	% Share	% Share
Science	14	22	64
Medecine	19.4	35.2	45.4
Humanities	12	19	69
Pharmacy	17	24	59
Education	7.9	22.6	69.5

Figure 13: Academic Staff Pyramid



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Table 23: STUDENT ENROLMENTS FOR PUBLIC UNIVERSITIES (2003/2004 - 2008)																		
ACADEMIC YEAR	2003/04			2004/05			2005/06			2006/07			2007/08			2008/09		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
INSTITUTIONS																		
UNIVERSITY OF GHANA	14817	9081	23898	16601	10813	27414	16927	11555	28482	16546	11690	28236	17,187	11,733	28,920	19,741	14,458	34,199
UNIV. OF SCIE. & TECH.	9682	3709	13391	11524	4622	16146	14133	5790	19923	15921	6639	22560	16,967	6,899	23,866	16,896	6,763	23,659
UNIV. OF CAPE COAST	8702	4033	12735	9015	4526	13541	11387	5703	17090	11523	5449	16972	11396	5439	16835	11108	5296	16,404
UNIV. COLL. OF EDUCATION	6833	3082	9915	7330	4166	11496	8003	4459	12462	8551	4536	13087	10154	5224	15378	10819	5504	16,323
UNIV. FOR DEV. STUDIES	2088	677	2765	2781	1167	3948	3677	1587	5264	4674	1955	6629	5583	2308	7891	4561	6151	10,712
UNIV. OF MINES AND TECH.	820	52	872	804	59	863	802	55	857	883	78	961	980	103	1083	1095	156	1,251
TOTAL	42942	20634	63576	48055	25353	73408	54929	29149	84078	58098	30347	88445	62267	31706	93973	64220	38328	102548

TABLE 24: ENROLMENT IN PUBLIC UNIVERSITIES, 2003 TO 2009												
ACADEMIC YEAR	2002 / 2003						2003 / 2004					
	ARTS			SCIENCE			ARTS			SCIENCE		
INSTITUTIONS	M	F	T	M	F	T	M	F	T	M	F	T
UNIVERSITY OF GHANA	8818	5513	14331	2448	1114	3562	11960	7705	19665	2857	1376	4233
UNIV. OF SCIE. & TECH.	2246	1192	3438	6576	1962	8538	2504	1442	3946	7178	2267	9445
UNIV. OF CAPE COAST	6291	3040	9331	1842	464	2306	6480	3433	9913	2222	600	2822
UNIV. COLL. OF EDUCATION	5320	2607	7927	1356	626	1982	5031	2430	7461	1802	652	2454
UNIV. FOR DEV. STUDIES	540	208	748	849	199	1048	881	369	1250	1207	308	1515
WESTERN UNIV. COLLEGE	0	0	0	649	35	684	0	0	0	820	52	872
TOTAL	23215	12560	35775	13720	4400	18120	26856	15379	42235	16086	5255	21341

ACADEMIC YEAR	2004 / 2005						2005 / 2006					
	ARTS			SCIENCE			ARTS			SCIENCE		
INSTITUTIONS	M	F	T	M	F	T	M	F	T	M	F	T
UNIVERSITY OF GHANA	13471	9215	22686	3130	1598	4728	13657	9810	23467	3270	1745	5015
UNIV. OF SCIE. & TECH.	4074	2171	6245	7450	2451	9901	4373	2628	7001	9760	3162	12922
UNIV. OF CAPE COAST	7030	4001	11031	1985	525	2510	8290	4826	13116	3097	877	3974
UNIV.COLLOF EDUCATION	3775	2229	6004	3555	1937	5492	5084	3254	8338	2919	1205	4124
UNIV. FOR DEV. STUDIES	1263	583	1846	1518	584	2102	1661	872	2533	2016	715	2731
UMaT	0	0	0	804	59	863	0	0	0	802	55	857
TOTAL	29613	18199	47812	18442	7154	25596	33065	21390	54455	21864	7759	29623

Table 25: STUDENT ENROLMENT IN PUBLICLY FUNDED UNIVERSITIES												
ACADEMIC YEAR	2006 / 2007						2007 / 2008					
INSTITUTIONS	M	F	T	M	F	T	M	F	T	M	F	T
UNIVERSITY OF GHANA	12649	9600	22249	3897	2090	5987	13074	9553	22627	4113	2180	6293
UNIV. OF SCIE. & TECH.	5449	3184	8633	10472	3455	13927	6360	3532	9892	10607	3367	13974
UNIV. OF CAPE COAST	8186	4544	12730	3337	905	4242	7890	4546	12436	3506	893	4399
UNIV.COLLOF EDUCATION	4997	3230	8227	3554	1306	4860	6050	3780	9830	4104	1444	5548
UNIV. FOR DEV. STUDIES	2029	1182	3211	2645	773	3418	2480	1307	3787	3103	1001	4104
UMaT			0	883	78	961			0	980	103	1083
TOTAL	33310	21740	55050	24788	8607	33395	35854	22718	58572	26413	8988	35401

2.8 Special Education

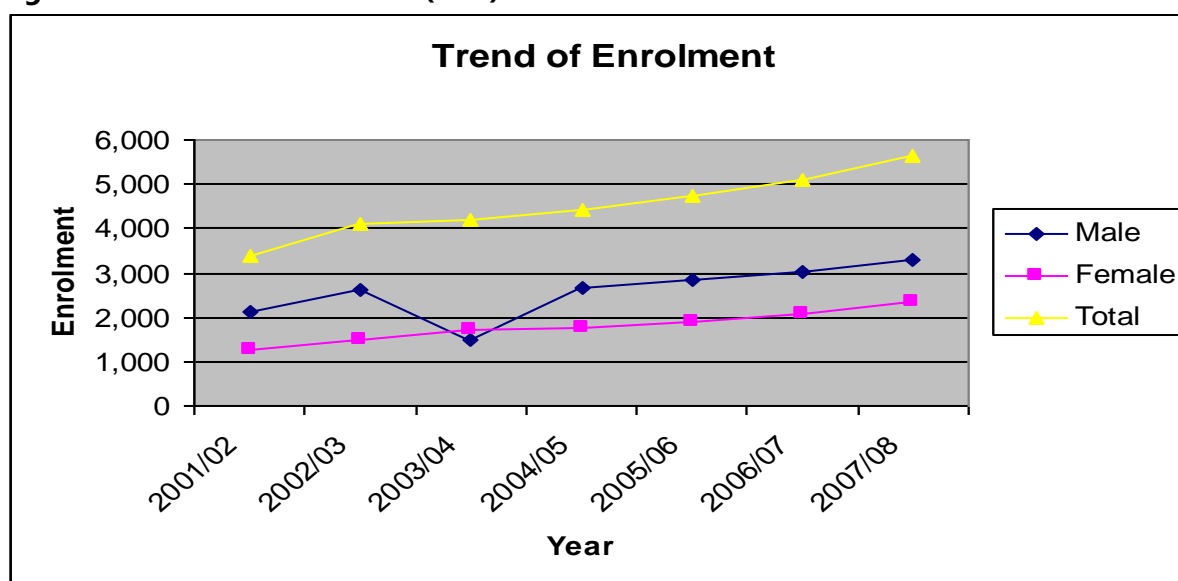
In the ESP the indicative target is:

- Integrate all children with non-severe special needs in mainstream schools by 2015;

Challenges militating against the achievement targets include funding, fewer screening and assessment centres, inadequate training of teachers in SNE, Inclusive technology and pedagogy, inadequate sign language interpreters, lack of tangible support for vocational training, inadequate monitoring and evaluation of special schools leading to low performance, lack of training exposures and resource support materials and motivation packages for special education teachers.

The schools and units are mainly concentrated in the Southern part of the country with Greater Accra, Central and Eastern Regions being adequately resourced. They are the only regions with inclusive schools. The schools for the deaf in particular are concentrated in two regions (Eastern Region and Central Region) and the units for the blind are exclusively in the south (Central Region, Brong Ahafo Region and Volta Region). The figure below presents the trend of enrolment.

Figure 14: Trend of Enrolment (SNE)



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Table 26: Trend of Enrolment (SNE)

Enrolment	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Male	2,112	2, 617	1,509	2,666	2,821	3,004	3,315	3,760	4,101
Female	1,249	1,497	1,694	1,769	1,901	2,088	2,339	2,548	2,799
Total	3,361	4,114	4,203	4,435	4,722	5,092	5,654	6,308	6,900
% Female	37. 2%	36.40%	40.30%	39.90%	40.30%	41.00%	41.40%	40.39%	40.56%

Source: Special Education Division

SCHOOL ENROLMENT 2008/2009 – 2009 – 2010

No		ENROLMENT AS AT 2008/2009			ENROLMENT AS AT 2009/2010		
		M	F	T	M	F	T
1	Basic Schools for the Blind	414	296	710	377	351	628
2	Basic Schools for the Deaf	2065	1514	3579	2150	1611	3761
3	School for the intellectually disabled	750	472	1222	795	465	1260
4	Second cycle schools for the deaf / blind	276	190	466	380	164	544
5	Second cycle schools for the blind(integrated)						
6	Teacher training College (Deaf/Blind)integrated	23	13	36	31	15	46
7	(Unit Schools)	232	63	295	348	293	641
	Total	3760	2548	6308	4101	2799	6900

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Though the Division is one of the 10 divisions of the Ghana Education Service (GES), it receives less than one percent of the GES total budget. The Division has only four assessment centres/units located at Jamasi, Achimota, Hohoe and Bechem. There is the urgent need to establish one (1) in each district. The National Assessment and Resource Centre at Achimota are in bad shape. Efforts to rehabilitate this facility have reached an advanced stage but progressing at a slow pace. Right attitudes to disability, knowledge as well as improved professional and managerial skills in SNE for all teachers must engage the attention of MOE/GES.

The only language for the deaf is sign Language. There is no substitute. Not many people can use the sign language. There are also very few private sign language interpreters in the system. Government should encourage University of Education, Winneba, to expand, intensify and enrich the Sign Language programme.

Government spends a lot of money on the education of children/youth in Special Schools. However, the vocational training aspect does not receive any tangible support, especially for the intellectually disabled, so only a handful of students graduate. Some have stayed there for 20-30 years. However, the Division's humble effort has led to the graduation of 25 students with skills in a programme dubbed, 'Transitional-Vocational Programme' started in 2005. Government's commitment to this programme in terms of financial and technical support can turn out at least 60 students every two years.

Monitoring and evaluation in schools is inadequate owing largely to insufficient funding. SpED is best suited to do M&E, inspection etc in the special schools because of the specialised nature of the system. MOE/GES must provide adequate financial resources for this exercise.

Courses such as Speech and Language Therapy, Physiotherapy, Occupational Therapy, Sign Language Interpretation, are not available in Ghana. To promote quality SNE delivery and Inclusive Education, Special Education Teachers need to be given training exposures in the US, UK, Canada, Germany etc to broaden and enhance their professional and managerial skills and competences.

It appears that in other countries like Kenya, Uganda and South Africa Special Education Teachers receive allowances ranging from 10-30% of their basic salary (as special allowance). In Ghana this is not the practice. There is the need for further inquiry and support to Special Education in Ghana.

There is also a problem with lack of resource support in terms of assistive technology/devices, ICT together with software, special TLMs ranging from low to high tech. Designing and redesigning school/classroom structures, removal of honey-comb windows, construction of hand rails, ramps, resource rooms for resource work with students having problems -ADHD, dyslexia, dysgraphia, dyscalculia. Learning difficulties-are all very critical in the provision of SNE.

difficult conditions of Blind and Deaf result in average performance. Regrettably, a good number of them do not gain admission into SHS and Tertiary institutions. This is so especially when they get 6/7/8 (BECE) and E7/8 (WASSCE) in Mathematics, Science or English. They are refused admission but when given the opportunity into SHS/Universities they can make it.

2.9 Non-Formal Education

The key education strategic plan target for the non-formal education (NFE) sector is to reduce the national adult illiteracy rate and improve the gender parity of literate adults. The NFED of the MOE is primarily responsible for the development and delivery of functional literacy programmes for out of school youth and illiterate adults. At present, its programme focus is the coordination and implementation of the National Functional Literacy Programme (NFLP) which aims to increase the basic functional literacy skills for adults and the youth, with emphasis on females and the rural poor, aimed at alleviating their poverty through the provision of income generating activities. Since its inception as a major part of the Education Sector, the Non-Formal Education Division has implemented two phases of National Literacy Programme (1992 to 1997 and 1997 to 2006). The two literacy projects contributed 2.2 million literates to literacy rates as per details in the Table—below. The lessons learnt in the past two decades will guide in the implementation of future programmes more effectively and efficiently in order to derive maximum gain from the contribution of functional literacy to national development.

The main EFA goals relating to NFED are:

- Goal 3: Promote learning and life skills for young people and adults.
- Goal 4: Increase adult literacy by 50%, over that of year 2000 by the year 2015 with emphasis on women and equitable opportunities for adults to go on learning throughout their lives.

The Programme is implemented in collaboration with other literacy providers who also target women and increase access to functional literacy. Some of the major ones are:

- Ghana Institute of Languages, Literacy and Bible Translation (GILLBT)
- World Vision Ghana (WVG)
- Action Aid Ghana
- Care International, etc

The curriculum of the NFLP covers three broad areas of life: Health /life skills, Occupational skills, Civic awareness and good citizenship and 21- month learner –centred facilitation and participatory learning period and about 504 Instructional Hours.

The current NFLP is based on 10 years of best-practice lessons in this sub-sector. The development objective is to increase the number of functionally literate adults¹, particularly women and the rural poor by 1 million over the next five years. To date, this programme has been hugely successful in providing youth and adults with the skills needed to succeed in the informal and formal sectors. Since 1992, more than two million youth and adults have graduated from the NFLP, the majority of whom are women. Furthermore, 74% of learners enrolled in the NFLP fall within the productive age bracket of 15-44 years².

An insightful recommendation made by a senior MOE manager during the work conducted on the ESP Harmonization project concerned the synergies that could be realised through formally linking the NFLP with the COTVET-coordinated Apprenticeship Programme. For example, youth (aged 15-24) enrolled in the NFLP could be given opportunities to enter the Apprenticeship Programme upon graduation. This would be an excellent way to reward learners, especially women³, who complete the NFLP.

¹ A functional literate person is defined as a person who can engage in activities in which literacy is required for effective functioning in his/her group and community, enabling them to continue to use reading, writing and numeracy skills for their own and community development.

² 29% are aged 15-24, and 45% aged 25-44. MIS data provided by the NFE Division, May 2008.

³ The NFE Division has found that significant numbers of its graduates transition to the informal sector, demonstrating the high economic growth return from this programme.

The establishment of Reading Centres, for instance, in Bawku West District-Zebilla in all the 25 literacy zones, meant that the National Functional Literacy Programme had some positive results. The last phase of donor funding to the NFLP ended in 2006 and Government of Ghana's own project completion report rated the NFLP II satisfactory (NFED, 2006). The donor funded completion report also confirmed satisfactory achievement. These reports confirm the relevance of the programme in the country's educational agenda and development effort (World Bank, 2010). The reports suggest the need to strengthen some programme areas, particularly, Monitoring, Evaluation and Research and also having baselines against which to measure achievement in basic literacy adequately. The creation of a literate environment and training for implementation of Income Generation Activities were also identified as areas to address in any future programme. Consequently, the adult literacy rate in Ghana is increasing, but at a very slow pace. There was a big jump between 2005/06 and 2006/07 but that seems to have tapered off. For the substance of NFED, the government commitment to adult literacy ought to be demonstrated by an increased allocation in the GOG budget.

GOG has sustained the programme since the completion of the second phase in 2006 albeit at a reduced enrolment (0.6% of Education Budget):

- 2007-35,000 (1,400 classes)
- 2008-40,000 (1,600 classes)
- 2009-40,000 learners (1,600 classes)
- 2010-50,000 learners (2,000 classes)
- 2011-200,000 learners (8,000 classes)(anticipated)

Plan to focus on more youth, difficult to reach areas, PWDS and other marginalised groups. In 2003, the Division enrolled 66,928 male and 115,109 female learners giving a total of 182,037 learners. These learners were handled by 7,281 facilitators in the literacy classes. Most of these facilitators attended classes for at least 300-400 hours during the Cycle and had at least 70% of the learners doing the same.

The Division aims at enrolling 1,000,000 more learners during Phase III of the Programme, possibly from 2009 to 2015. There would be a corresponding recruitment and training of 40,000 facilitators to handle literacy classes. Learners and facilitators would meet for at least six hours a week, i.e one and a half hours-four times, or two hours-three times. Hence number of instructional hours per Cycle of 21 months is 504 hours. Learner enrolment up to 2007 stood at 2,740,566 made up of 1,050,783 males and 1,689,783 females. There was a corresponding recruitment of 109,623 facilitators comprising 92,083 males and 17,540 females who handled literacy classes. A 16% female facilitator participation showed that serious efforts would have to be geared towards encouraging more female facilitators to take part in the Programme since the Programme focuses on women and the rural poor

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Table 27: Statistics on Non-Formal

Batch Number	Learners Enrolled			Graduated			Drop - Outs			Drop-Outs Rates		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
1 (1992/94)	80,224	121,536	201,760	66,586	100,875	167,461	13,638	20,661	34,299	17	17	17
2(1994/95)	108,078	170,131	278,209	83,137	126,626	209,763	24,941	43,505	68,446	23.08	25.57	24.6
3(1995/96)	85,488	125,738	211,226	65,915	108,144	174,059	19,573	17,594	37,167	22.9	13.99	17.6
4(1995/97)	82,615	126,611	209,226	71,712	103,719	175,431	10,903	22,892	33,795	13.2	18.08	16.15
5(1996/98)	87,120	132,179	219,299	70,153	105,230	175,383	16,967	26,949	43,916	19.48	20.39	20.03
6(1997/99)	78,051	129,274	207,325	71,425	109,129	180,554	6,626	20,145	26,771	8.49	15.58	12.91
7(1998/2000)	75,010	112,540	187,550	64,987	98,794	163,781	10,023	13,746	23,769	13.36	12.21	12.67
8(2000/2002)	74,411	121,759	196,170	69,571	102,882	172,453	4,840	18,877	23,717	6.5	15.5	12.09
9 (feb 2003/2005)	121,797	191,110	312,907	94,363	154,755	249,118	27,434	36,355	63,789	22.52	19.02	20.39
10 (nov2003/2005)	66,928	115,109	182,037	54,491	87,278	141,769	12,437	27,831	40,268	18.58	24.18	22.12
11 (jun05/mar07)	106,311	166,046	272,357	90,422	142,339	232,761	15,889	23,707	39,596	14.95	14.28	14.54
12(jano6/oct 07)	60,750	141,750	202,500	48,722	127,961	176,683	12,026	13,789	25,817	19.8	9.73	12.75
13 (nov06/aug08)	12,164	19,204	31,368	10,756	17,357	28,113	1,408	1,847	3,255	11.58	9.62	10.38
14(oct07/jul09)	11,573	19,612	31,185									
15(aug08/may10)	14,813	24,041	38,854									
16(sept09/jun11)	16,000	24,000	40,000									
TOTAL	1,081,333	1,740,640	2,821,973	862,240	1,385,089	2,247,329	176,707	287,898	464,605	17.01	17.21	17.13

2.10 Colleges of Education

The ESP (2003-2015) set the goal of 95% trained teachers by 2015. In 2003, the baseline figure was that 21.2% of teachers at the primary level and 12.8% of the teachers at the junior secondary level were untrained.

The Teacher Education Division aimed at reducing these figures to 5% by 2015 through both the regular pre-service 3 year Diploma Programme for teachers and through the 4 year Untrained Teachers Training Programme (UTDBE) (by distance learning). Enrolment for both Diploma and Cert. 'A':

- Phase 1: 5187-Completed
- Phase 2: 7283-Completed
- Phase 3: 7533-Yet to be completed in December, 2010
- Phase 4: 5018-Yet to be completed in December 2011

A total of 25021 teachers are to be awarded either Diploma or Certificate, 'A'.

The percentage of trained teachers in public primary schools was 58.4 in 2008/09 and changed by -0.4 percent to 58.2 percent in 2009/10. In the private primary schools the percentage of trained teachers in 2008/09 was 11.6 and reduced by -2.5 percent to 11.3 percent in 2009/10. The total percentage of trained teachers in both public and private was 48 percent and reduced by 0.4 percent to 47.6 percent. At the Junior High School the percentage of trained teachers in the public schools was 76.7 in 2008/09 and has been reduced to 72.8 percent in 2009/10 by negative 5 percent. For the private schools the percentage of trained teachers was 22 percent in 2008/09 and reduced to 20.5 percent in 2008/10 by negative 6.9 percent. The total percentage of trained teachers in both public and private Junior High School was 65 percent in 2008/09 and reduced to 61.5 percent in 2009/10 by negative 5.3 percent.

Upgrading Colleges of Education, the College of Education bill is under consideration. The process of appointing interim councils for the Colleges has started. GETFund has allocated funds to the Colleges for infrastructure development and the acquisition of ICT facilities. Interim Principals have been appointed for the Colleges. Facilities of the Colleges need to be expanded and improved to satisfy their tertiary status. The number of Colleges of Education in 2009/10 is 38. The percentage change of enrolment in Colleges of Education (CoE) is 6.1 percent from 25,103 in 2008/09 to 26,629 in 2009/10. The male population has increased by 10.4 percent from 14,409 in 2008/09 to 15,907 in 2009/10 while the female population shot up by 0.3 percent from 10,694 in 2008/09 to 10,722 in 2009/10.

Enrolment in technical programmes at the Colleges of Education rose from 2,464 in 2008/09 to 2,640 in 2009/10, by 7.1 percentage increase. While male enrolment has increased by 7.1 percent from 2,213 in 2008/09 to 2,377 in 2009/10, female enrolment has increased by 4.8 percent from 251 in 2008/09 to 263 in 2009/10. The tables below present percentage of female enrolment in Colleges of Education by year; number of tutors in Colleges of Education by sex; and percentage of trained tutors in Colleges of Education by sex, 2008/09-2009/10.

From the tables, there was an overall increase of the numbers of tutors in Colleges of Education by 6.7 percent from 2008/09 to 2009/10 while percentage of trained tutors in Colleges of Education by sex reduced by 5 percent. However, the student/tutor ratio (i.e. the number of students per tutor) increased from 16:1 in 2008/09 to 16:7 in 2009/10

Table 28: Number of Tutors in Colleges of Education by Sex 2008/09-2009/10

Sex	Number of Tutors		
	2008/09	2009/10	% Change
Male	1,155	1,232	6.7
Female	373	362	-3.0
Total	1,528	1,594	4.3

Table 29: Percentage of trained tutors in CoE by sex 2008/09-2009/10

Sex	Number of Tutors		
	2008/09	2009/10	% Change
Male	99.7	99.4	-0.3
Female	99.7	98.9	-0.8
Total	99.7	99.2	-0.5

Table 30: Student-Tutor Ratio in Colleges of Education 2008/09-2009/10

Year	Student/Tutor ratio
2008/09	16:1
2009/10	16:7
% Change	3.7

2.11 Gender Parity

In Ghana, educating the mother reduces the probability of malnutrition to an extent equivalent to a 29% increase in per capita income (Belfied, 2008, p. 28) yet the gender gap worsens at succeeding levels of education. Female enrolment rates as a proportion of total enrolments in 2005/06 were 68.7 per cent at JHS level, 43.4 percent at senior secondary and 33 per cent at the tertiary level (RECOUP, 2008, p.35). The table below presents data on Gender Parity at the national level.

Table 31: Gender Parity

	2003/04	2004/05	2005/06	2006/07	2007/08
Indicators / Year					
KG GPI	0.98	0.98	1.03	0.99	0.98
KG FGER				83%	89%
KG MGER				84%	91%
Primary GPI	0.93	0.93	0.93	0.96	0.96
Primary FGER	83.10%	84.40%	88.80%	91.60%	93.00%
Primary MGER	89.50%	90.50%	95.30%	95.80%	97.30%
JHS GPI	0.88	0.88	0.93	0.91	0.92
JHS FGER	65.80%	68.10%	76.30%	73.70%	75.30%
JHSMGER	74.50%	77.30%	83.50%	80.90%	82.20%

While the capitation grant, the school feeding programme, free school uniforms and deprivation criteria developed by GES/MOE have increased access (MOE, 2008) the gender gap is widened as we move from the lower basic levels to higher levels of education (RECOUP, 2008, p. 34). As the Ministry and the GES create a database that tracks the information used in deprivation criteria, the database should be regularly updated to reflect current information to serve as the backbone of a true knowledge bank that could support operations and decision-making throughout the sector to increase efficiency and effectiveness of education sector programmes (MOE, 2007, p.8).

The table below also points out that the completion rate for girls had been consistently lower than that of boys. Perhaps teenage pregnancy could be a factor. This may need further inquiry for appropriate policy intervention

Table 32: Completion Rates for Girls

Indicators/ Year	2003/04	2004/05	2005/06	2006/07	2007/06	2008/09	2009/10
Primary Total Completion Rate	77.90%	78.70%	75.60%	85.40%	88.00%	88.70%	87.10%
Primary Male Completion Rate	81.70%	82.30%	78.70%	91.20%	88.90%	74.00%	89.70%
Primary Female Completion Rate	74.00%	75.10%	72.40%	79.60%	82.40%	85.60%	84.30%
Total JHS Completion Rate	58.00%	60.00%	77.90%	64.90%	67.70%	75.00%	66.00%
JHS Male Completion Rate	61.90%	60.00%	81.20%	69.80%	72.40%	79.70%	70.10%
JHS Female Completion Rate	53.80%	55.00%	74.70%	60.00%	62.90%	70.10%	61.80%

Ghana needs a balanced trend to ensure that all children complete primary school, as well as to ensure that gender parity is achieved. The need for equitable access to education by the girl child is highlighted and well –documented but there are no guidelines or policy direction for educational institutions to develop and promulgate policies to increase accessibility for females in programmes offered, especially, in science and technology. These challenges notwithstanding, female enrolment in public universities increased by 20.9 percent, from 31, 706 in 2007/08 to 38, 328 in 2008/09. There was a 12.49 percent increase in the female enrolment of Polytechnics for the same period.

Table 33: Percentage of female enrolment in Colleges of Education 2008/98-2009/10

	% of Female Enrolment			
Grade	Year 1	Year 2	Year 3	Total
2008/09	41.5	41.7	44.7	42.6
2009/10	41.1	39.9	39.9	40.3
Change	-0.4	-1.8	-4.8	-2.3

2.12 School Feeding

The current country programme “Support to Basic Education” began in 2006 with two components: Take-Home ration for girls from P.4 – JHS 3 and on-site school feeding for boys and girls in KG and primary schools.

Take-Home Ration (THR) Component

At the end of the previous Country Programme – “Assistance to Girl's Education in the 3 Northern Regions” which run from (1998/99 – 2004/05) and which ended in 2004/2005, all P1-3 classes in all project primary schools in the three regions were phased out. This is because it became apparent that the enrolment of children at that early age was not much of a problem. There was ample evidence that girls aged between 10 and 18years and beyond in the upper primary and JHS were usually engaged in income generating activities among other socio-cultural practices by their parents and were often prone to dropping out of school. The focus was to help with the achievements of gender parity and to use the dry rations as an incentive for girls to complete basic education and make the transition to senior high schools. The programme was implemented in the three northern regions

because they contain 19 out of the 40 educationally most deprived districts where gender parity at the inception of the programme in 1999 was yet to be achieved.

The objectives of the component were:

- Increased enrolment of girls, increased school attendance and reduced drop-out of girls
- Reduced disparity between boys' and girls' enrolment rates in school

In the long term, increased gender equity in terms of access to and completion of basic education through increased enrolment and attendance rates for girls.

Thus in 2005/2006, a cohort of 42,000 girls in P.4-JHS.3 from the previous activity was targeted for the duration of the country Programme and the classes were progressively phased out until the initial P.4 class reached JHS3 in September 2010. The Girls Take – Home Ration component covered a total of 804 schools in 25 districts in all three northern regions.

The minimum monthly attendance criterion for qualification for food rations for girls continued to be 85%. The food basket of maize; vegetable oil (palm oil) and iodized salt all procured locally also supported the stimulated increased domestic food production and increased rural farmers' incomes.

The programme ended in July 2010 with a total of 22,910 girls in 291 JHS.

Achievements

- Improved retention rates of girls in most schools from about 60% to 90%.
- Academic performance of girls in junior high schools in the basic Education Certificate Examination improved tremendously resulting in some girls becoming recipients of the President's Independence Day Awards. Additionally, for the period of the CP, ninety (90) girls have been supported with scholarships to continue their Senior high School education with some of them transiting to Tertiary institutions.
- Increased community awareness on the benefits of girls' education brought about an attitudinal change on the part of parents towards the education of the girls.
- Mothers were prepared to undertake the early morning chores for girls to enable them attend school early as well as provide school supplies for them to go to school.
- School Management Committees (SMCs), were well informed about the need community support in education and also participated actively in school activities.
- Over the lifespan of the project, percentage of qualified girls out of the enrolled numbers continued to be 100% which showed a remarkable performance.
- There was strong commitment of District Assemblies which resulted in multi-sectoral inputs and this enhanced synergies for positive outcomes.
- There was active participation and commitment by communities and this was key in ensuring positive outcomes.
- Involvement of women and women's groups in food management ensure food delivery to targeted beneficiaries and proper use of food items.
- Partnerships increase achievement for partners ensure accountability and facilitate sustainability. Collaboration also has a positive spill-over effect.

The table below indicates the trends in enrolment and qualifying figures for the period of the Country Programme.

Table 34: trends in Enrolment and Qualifying figures for Girls in the 3 Northern GES/WFP project Regions for 2005/2006 – 2009/2010

Year	Targeted Quotas	No. Enrolled	No. qualified for rations	% Qual. Out of enrolled figure	% Qual. Out of targeted quotas
2005/06	42,000	42,232	42,232	100	101
2006/07	34,000	39,884	39,884	100	117
2007/08	26,000	34,754	34,754	100	134
2008/09	18,000	27,506	27,506	100	153
2009/10	10,000	22,910	22,910	100	229
2010/11	10,000	-	-	-	-

Way Forward

As WFP is in the process of preparing its next Strategic Document for 2012-2017, there is a planned extension of one year for the take-home ration for girls in JHS only in the Northern region. This extension means 10,000 beneficiaries will continue to benefit from dry rations from a food basket consisting of maize, vegetable oil and iodized salt.

Four districts with low GPI's in this JHS category and with low completion rates for girls in the Northern region are going to be targeted with the hope that Gender parity will be achieved and the completion rates for the girls will be improved for them to transition to Senior High Schools and beyond.

On-Site School Feeding Component

In November 2006, a Memorandum of Understanding (MOU) was signed between the World Food Programme and the Ghana School Feeding Programme (GSFP) for collaboration in the on-site School feeding Programme.

The GSFP started in September 2005 with 10 pilot schools drawn from each region. Implementation of the WFP/GSFP collaboration began in March 2007. For the first year, WFP provided food for 3 days in the week whilst the Ghana School Feeding programme (GSFP) provided the funds for feeding the pupils 2 days per week as well as condiments to complement WFP's inputs. This took place in all the 34 districts of the three Northern regions.

With the signing of the MOU there were on the average, 2 schools per district per region. The total number of school children fed was 32, 881 in 79 schools.

At the end of 2007, there were 41,324 school pupils who fed in schools under the collaboration in 80 schools. At the beginning of the 2008/2009 academic year, when new districts were created, the total number of districts under the programme in the 3 northern regions increased to 38. In addition, the mainstreaming of KG into the formal public school system saw an increase in the number of schools to 104 with 47,866 beneficiaries under the collaboration with GSFP.

Additionally, in 2007/08, WFP scaled up after discussions with GSFP and increased the number of beneficiaries from 47,866 to 102,106. The additional beneficiaries were from 200 schools phased out by the Catholic Relief Services (CRS). This addition brought the total number of schools benefitting from on-site feeding to 304. These beneficiaries from the CRS were fed for five (5) days with the food basket from WFP only.

Food Basket

The food basket for the on-site school feeding consist of: fortified corn soya-blend, palm oil and iodized salt and the daily ration for cooked meals per pupil consisted of: 150g of fortified corn soya-blend, 10g palm oil and 3g iodized salt. In 2008/2009 the corn soya blend in the food basket was replaced with rice, whilst pulses were added and a Micronutrient Powder was also introduced all to improve the quality of the meals served to the pupils. Table 3 below indicates the trend for on-site school feeding.

Table 35: Achievements over the last four years of the programme,

Indicator	2007	2008	2009	2010
Number of schools benefiting from WFP School feeding programme	79	80	304	371
Number of children benefiting from WFP School feeding programme	32,881	41,324	102,106	121,130
Enrolment (boys & girls: Average annual rate of change in number of boys and girls enrolled)	*1	25.7%	147%	5.2%
Attendance rate (boys and girls): number of school days in which boys and girls attend classes as a percentage of total number of school days	*1	89%	91%	97%

Source: GES Quarterly Project Implementation report

Way Forward

During this one year extension as WFP is in the process of preparing its next strategic documents for 2012 – 2017. There is a planned increase under the collaboration with GSFP, in the number of beneficiaries especially for the Upper West Region. In 124 KG and Primary schools in Upper West, WFP and GSFP will feed 28,075 beneficiaries. This forms part of the extension plan for the school feeding programme.

WFP and GSFP are working on a pilot scale to link the home grown school feeding with local smallholder farmers and caterers so that food commodities for school meals can be purchased directly from the farmers under the Purchase for Progress initiative (P4P).

3.0 QUALITY OF EDUCATION

3.1 Introduction

The following table lists the key targets for indicators relating to quality:

Table 31: Quality Indicators

Indicator	Target	Actual 2009-10
Core Text book ratio: Basic Schools (Eng., Maths., Science)	1:1	-
% Preschool Teachers Trained	90.0% by 2015	26.5%
% Primary Teachers Trained	90.0% by 2015	47.6%
% JHS Teachers Trained	95.0% by 2015	61.5%
BECE Pass Rate		62.4%
SSCE Pass Rate	70.0% by 2015	-
KG Pupil Teacher Ratio (PTR)	35:1 by 2020	33:1
Primary Pupil Teacher Ratio (PTR)	45:1 by 2020	20:1
JHS Pupil Teacher Ratio (PTR)	35:1 by 2020	14:1
SHS Student Teacher Ratio (STR)	30 by 2020	20.8:1
JHS Teaching Hours Per Week	28 by 2020	-
SHS Teaching Hours Per Week	25 by 2020	-

This section assesses performance as regards quality of teaching and learning in Ghana. The focus is on:

- Textbooks development, availability and utilisation;
- Absenteeism in Public Basic Schools;
- Teaching Methods;
- Teacher motivation and morale;

3.2 Textbooks Development, Availability and Utilisation

Adequate access to textbooks (i.e. one relevant textbook per student) is an important indicator of the quality of education. Under the MOE policy, each student in basic schools should have access on an individual basis' to three government-designated core textbooks, namely, English, Mathematics, and Science. A textbook ratio of 1:1 means complete individual access to these books. A core text book ratio of more than 1:1 indicates that children have access to more than one book in the classroom (RECOUP, 2008, p. 43). The data available shows a substantial rise in textbook availability (World Bank, 2004). The percentage of primary schools having at least one English textbook per pupil has risen from 21 percent in 1998 to 72 percent in 2004 (World Bank, 2004). While data on textbook ratio appears fragmentary and sometimes contradictory, on average, a Ghanaian child has fewer than 2 text books at the primary school level and average of 2.5 text books at the JHS level. Several studies conducted in northern Ghana suggest that the core textbook ratio is far worse in the deprived areas (NNED, 2006 cited in RECOUP, 2008, p. 44).

The quality of record keeping by District Education Office (DEOs) in schools is also found to be very poor. Only 50 percent of DEOs provided the public expenditure tracking survey teams (PETS) with their distribution records to schools. Shortfalls in school textbook receipts was in the magnitude of 473 for English (0.7%), 665 for Science (3.4%) and 1, 619 for Mathematics (2.4%) for roughly 24 districts. This suggests a disparity or leakage of 20 English textbooks, 28 Science textbooks and 67 Mathematics textbooks per District (Government of Ghana, 2007).

Consequently on lessons learnt and progress made towards the MDGs, while textbooks are essential inputs to achieve the intended outcomes (World Bank, 2004, p. 43) and expenditure on textbook is about 85% on the list of the Ministry's procurement transactions from 2007 to

date (MOE, 2009, P.9) on the average 2.2% of primary school textbooks reportedly dispatched by the DEOs do not get to the intended target schools (Government of Ghana, 2007). The regional monitoring teams also failed to monitor the textbooks (MOE, 2009, p. 36). The structure of Ghana's economy, with an over-reliance on primary products (e.g. agriculture, timber, gold) and a large informal economy has changed little since independence in 1957 (Palmer, 2007). However, the country has undertaken about five educational reforms and curriculum and textbooks at the pre-tertiary level changed about five times. The new knowledge that has emerged is that the regular changes of textbooks and curriculum when no major economic transformation has taken place in the country create confusion and affect effective teaching and learning in Ghana (MOE, 2007).

Also policy directives to guide the revision/development of the curriculum are unclear and not properly defined especially with regard to ICT, Basic Design and Technology (BD & Technology) (MOE, 2009a). There is also no analysis of labour market and economic needs to make the curriculum much more relevant. Consequently most Teachers interviewed are still not sure of the relevance of the curriculum and syllabus to labour market needs (MOE, 2009).

3.3 Teacher Absenteeism and loss of Contact Hours.

Linked to effective utilisation of textbooks, is teacher absenteeism and loss of contact hours. In 1993 contact hours lost through teacher absenteeism in public basic schools was 20 percent. In the study 14 percent of the teachers and 16 percent of the head teachers were absent. In 2003 similar studies conducted in the southern sector of Ghana (GT Accra, Eastern, Central and Volta) recorded 27 percent loss of teacher contact hours. In the study loss of 28 percent of teachers and 15 percent of Head teachers were absent. In the middle belt (Ashanti, Brong Ahafo) the contact hours lost was 14 percent. In the study 16 percent of the teachers and 22 percent of the Head teachers were absent. In all the study approximately 4 percent of the staff reported sick on the day of the visit (Karikari-Ababio, 2004, p. 28)

In 2008 absenteeism on average was about 37 percent (Brookings institution, 2007 cited in MOE, 2008, p. 16).). Compared to 2003, nearly 13 percent of teachers had been absent in the past month compared to just over 4 percent in 1988 (World Bank, 2004, p.103). With a high level of teacher absenteeism, time on task has been estimated to be as low as 39% of available class time (West, 2010).

3.4 Teaching Methods

A key structural problem is also the neglect of participatory and interactive teaching methods in favour of lecture and rote methods in schools. There is also lack of appropriate motivation package to get the best out of the teachers. There are ineffective teaching, learning and assessment procedures in schools to achieve curriculum objectives. The timetable at the primary level appears to be still congested with too many subjects and heavy work load that lead to ineffective teaching. There is also the absence of appropriate workshops, equipment and tools for the effective teaching/learning of practical subjects in line with recommendations made in the syllabuses (MOE, 2009a, p.50).

3.5 Teacher Motivation and Morale

In spite of the fact that at the initial implementation of the 2007 education reform various means of transport were provided to motivate teachers, much still need to be done on teacher motivation and morale to enhance effective teaching and learning and supervision. Means of transport provided included:

- 4x4 Nissan Patrols for all 38 Principals of the Teacher Training Colleges;
- 4x4 Nissan Patrols for all 10 Regional Directors of Education;
- 4x4 Pickups for all 138 District Directors;

- 12 33-seater TATA Busses and 20 Ford Ranger Pickups supplied to Special Needs Schools;
- 60 bicycles have been given to each of the 138 Districts for teachers as incentives; and,
- 1,358 motorbikes purchased and sold to teachers at a five-year period with no interest.

Teacher morale also affects effective utilisation of textbooks. There is non-acceleration of the process to motivate teachers especially in hard to reach areas (MOE, 2009). In every education reform the teacher is the central focus. The teacher could modify the syllabus and time table to enable effective teaching and learning to take place. The teacher could improvise to make up for lack of textbooks. The welfare and motivational factor of the teacher is, therefore, the first consideration in implementing education reforms. It appears this has not happened in Ghana (MOE, 2009A, p. 46). A study conducted by PBME of MOE in collaboration with UNICEF, Ghana outlined the following problems (refer Table 32 below) that militate against teacher motivation and retention policy in Ghana (MOE, 2009b, p.6).

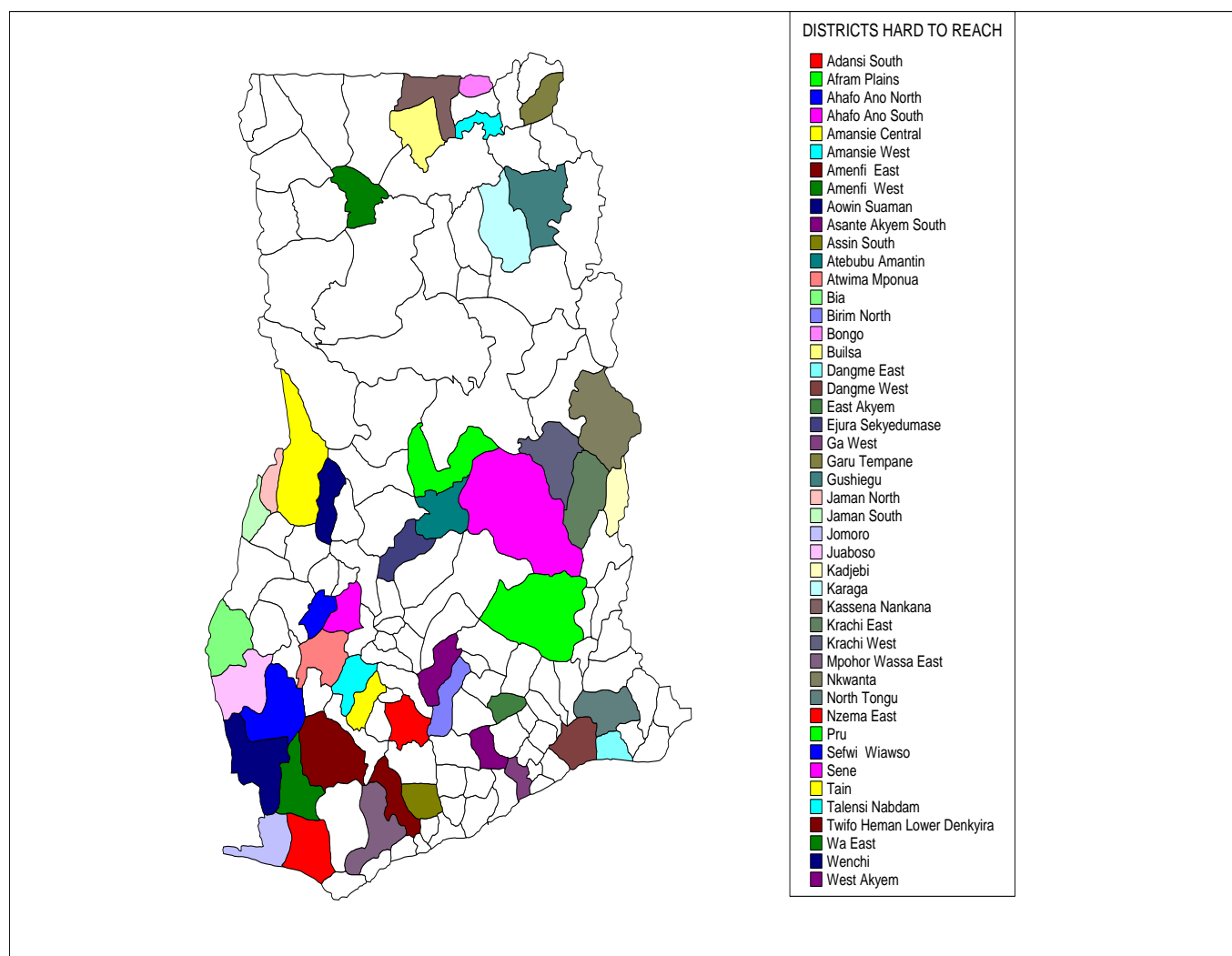
Table 37: Militating problems against the Teacher Motivation and Retention Policy in Ghana

	Region	Problem	Nature of the Problem
1	Eastern	Inaccessibility, Infrastructure and negative public attitude towards Teachers.	In some of the communities Teachers had to cross lakes and streams or walk several miles to get to their posts. There was always a problem when the rivers/lakes overflow their banks. Some of the parents were found not to be cooperative and attacked teachers for punishing their wards.
2	Western	Negative Public attitude towards Teachers, inaccessibility and Infrastructure.	The affected communities did not cooperate with teachers in promoting education because of their unfriendly attitude towards the teachers. Some of the communities in districts like Sefwi Wiaso were found to be committing atrocities like decapitation.
3	Northern	Negative Public and Teacher Attitude, Inaccessibility and Infrastructure	Some of the affected communities were not friendly to teachers and did not also value education. The "overseas" areas faced problems of inaccessibility especially during the rainy season. Incentives such as bicycles, ghetto blasters and utensils supplied to teachers in the remote areas did not attract them to the area but rather encouraged them to come to areas they could have access to enjoy these facilities easily. Some districts like Gushiegu were regarded as conflict zones with unfriendliness and uncooperative attitude to attract and retain teachers.
	Regions	Problems	Nature of the Problems
4	Central	Infrastructure and food security	The major challenges in the affected communities are accommodation, food security, transportation, electricity and access to further education.
5	Upper East	Infrastructure and food security	Lack of communication facilities, roads, transportation, accommodation and food security and lack of access for further education had affected teacher motivation and retention.
6	Upper West	Remoteness	Apart from remoteness of the affected areas with bad road network and lack of potable water which had led to high incidence of guinea worm infection, there was also a perceived discrimination towards rural teacher in granting study leave. For instance, it was pointed out that in 2007 out of 39 who applied only five (5) were granted study leave.
7	Volta	Poor Public Attitude	In Kedjebi District, for instance, the people stopped the teachers from farming because they wanted to compel the teachers to buy their food stuff at higher prices. There was a case where the community seized a farm belonging to a teacher
8	Greater Accra	Water Problems	Some of the area had acute water problems and other infections that discourage teachers to the area
9	Brong/Ahafo	Infrastructure	Problems such as poor roads and lack of better facilities for the children and teachers
10	Ashanti	Poor and bad nature of the roads	Poor and bad nature of the roads affected some of the communities to attract and retain teachers.

Source: MOE, 2009b

In this study conducted by PBME of MOE in collaboration with UNICEF, Forty seven (47) districts were identified in the study to have got some public primary schools which are least attractive to Trained Teachers. The districts classified as Hard to Reach and Post Terrain (HRPT) areas in Ghana are shown below ((MOE, 2009b, p.8).

Hard to Reach and Post Terrain (HRPT) Areas in Ghana



¹ "HRPT" are areas hard to reach and difficult to post teachers in Ghana. These areas are coined in the study as "Hard to Reach and Post Terrain" (HRPT) and cut across the country.

As depicted in the table below, the study further identified 26 out of the 47 districts in the Ministry list of the 53 deprived districts as also "Hard to Reach and Post Terrain" (HRPT). Also 27 of the 47 Districts were found to be among the 53 Deprived Districts but not in the HRPT areas while 21 Districts were found to be New Emerging Districts that were in the HRPT areas but not in the 53 Deprived Districts. Further enquiry is therefore needed on the status of the 48 Districts that are classified as HRPT but not in the 53 Deprived Districts (MOE, 2009b, p.8). The table below presents statistics of the number of districts that need further inquiry to determine their status as underserved or deprived.

Table 38: Underserved Areas

Number of Deprived Districts	HRPT Districts	Districts among the 53 Deprived Districts but not in the HRPT Areas	New Emerging Districts that are in the HRPT areas but not in the 53 Deprived Districts
53	47	27	21
No Further enquiry: Districts	26	Further inquiry:	48 Districts

Source (MOE, 2009b, p.8).

The implications of the contents in the above-mentioned tables suggest the need for the Education Sector to ensure an effective teacher management, deployment and utilisation to improve quality and relevance of education in Ghana.

Linked also to teaching and learning, textbook utilisation, teaching methods and teacher motivation and morale is the condition of classrooms in the schools. At the initial implementation of the 2007 Education reform, District Directors were instructed to ensure that all Primary Schools are progressively attached to KGs over a three year period. In terms of classrooms, 11,228 were currently in good condition. 6,046 were in need of rehabilitation (35%). There were 3,609 Basic Schools that were not linked to KGs and would need KG classrooms. District Directors, in collaboration with District Assemblies, Faith Based Organizations and NGOs were to set up interim KGs by converting available community centres and churches into classrooms. There was also the urgent need for the construction of KG classrooms, provision of a KG Teacher Training Centres each year until there is one in each region, and further training of teachers to handle KG pupils. On teacher development, 19,208 Kindergarten teachers have been trained. Consequently the tables below provide textbook, seating and writing places at the Basic Education level as at 2009/10.

**Table 39: Public Basic Schools Core Ratios
(Textbook ratio, Seating and Writing Places (2009/10))**

	Public	Textbook		Seating Places	Writing Places
		Core	Other		
Creches/Nurseries	No	408	428	23,062	20,900
	Per pupil	0.0	0.0	0.7	0.7
Kindergarten	No.	174,983	71,207	570,204	525,153
	Per pupil	0.2	0.1	0.5	0.5
Primary	No.	4,805,854	3,650,394	2,258,978	2,175,120
	Per pupil	1.6	1.2	0.7	0.7
Junior High School	No.	1,615,466	4,097,622	821,965	800,400
	Per Pupil	1.5	3.8	0.8	0.7

(Source: 2009/10 EMIS)

**Table 40: Private Basic School Core Ratios
(Textbook ratio, Seating and Writing Places (2009/10))**

	Public	Textbook		Seating Places	Writing Places
		Core	Other		
Creches/Nurseries	No	429	427	194,701	190,374
	Per pupil	0.0	0.0	0.9	0.9
Kindergarten	No.	80,421	34,715	258,520	254,797
	Per pupil	0.3	0.1	0.9	0.9
Primary	No.	852,535	438,060	667,485	673,078
	Per pupil	1.2	0.6	0.9	0.9
Junior High School	No.	324,061	645,323	229,535	231,425
	Per Pupil	1.4	2.8	1.0	1.0

(Source: 2009/10 EMIS)

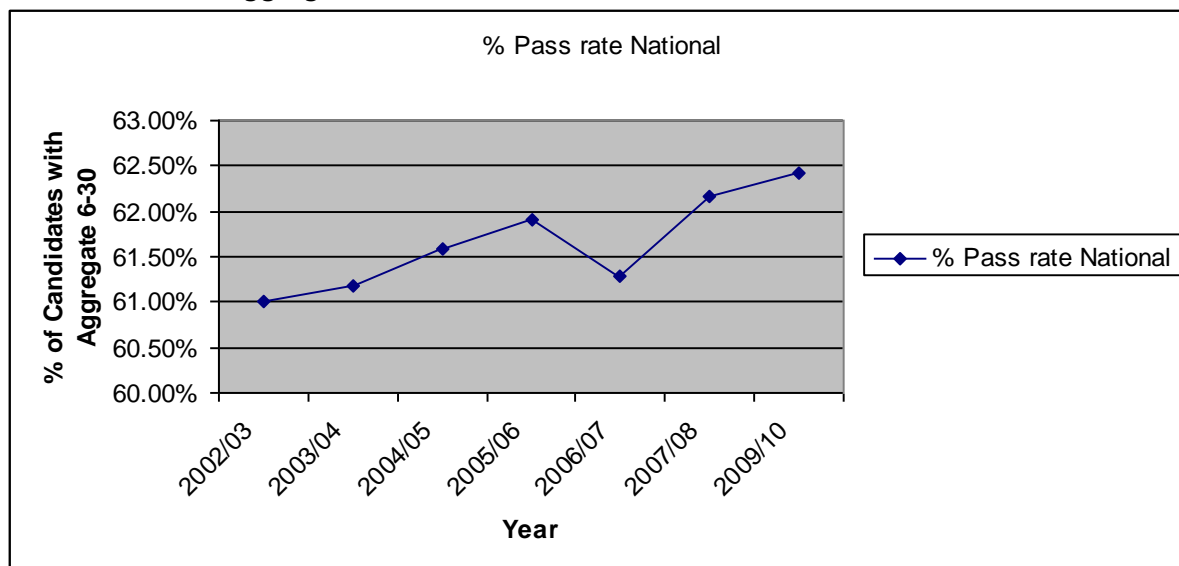
Consequently the following table and figure present the national trend of percentage BECE Candidates with Aggregate 6-30. As a country, it appears a steady and consistent progress in performance has not been achieved.

Table 41: Trend of BECE Performance

(Percentage of Candidates with Aggregate 6-30)

	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2009/10
% Pass rate of Candidates with Aggregate 6-30 at the National Level	61.00%	61.18%	61.59%	61.91%	61.28%	62.17%	62.42%

Figure 14: Trend BECE Performance
(Candidates with Aggregate 6-30)



To achieve a steady and consistent performance, pupils books, teacher's guides, big books, readers, conversational posters, alphabets cards have been developed and transposed into the eleven local languages (i.e. Akwapem Twi, Asante-Twi, Fante, Nzema, Ewe, Ga, Dangme, Dagbani, Dagaare, Gonja and Kasem) and distributed to school in all the 170 districts. To also build the capacity in the use of the new classroom instructional approach, a 40 member National Resource Training team was trained in the methodology. These in turn, trained a thousand and ninety-two (1092) Master Trainers who have trained about Eighty thousand (80,000) lower primary teachers (both public and private), thirteen thousand (13,000) Head teachers. All Circuit Supervisors and all Early Childhood Development Coordinators have been trained.

Multi-grade Teaching: To ensure that all children, especially, in the rural areas where there are small classes, have access to quality education and also to improve efficiency, multi-grade approach to teaching has been introduced. This approach addresses efficiency and inadequacy issues in deployment of teachers, especially in the rural areas. So far about 719 District personnel have been trained. 101 College of Education tutors have also been offered professional training on the multi-grade programme.

District Training teams have been established to carry on district-based training of teachers and training modules (' Principles and Practice of Multi-grade Teaching in Primary Schools in Ghana') have been supplied to all district training teams. Colleges of Education (CoE) have also been supplied with modules for pre-service teacher training.

Teaching Learning Material Programme (TLMP): Under Phase 1 of Teaching Learning Materials Programme, about 3.3 million copies of high quality, cost effective educational materials, with five million dollars (\$5,000,000) funding have been developed and distributed to all pupils in kindergarten in 14 districts throughout the country. Under the Phase 2 of the programme, a total of about three million copies (3,000,000) of TLMs will be printed for distribution nationwide by September 2009 to August 2012. The impact assessment of the

programme in all the beneficial districts is on-going by a joint team of researchers from Chicago State University, the CRDD, UEW and UCC. The outcome of the research will appropriately inform the smooth up-scaling of TLMP nationwide.

A Health and HIV/AIDS Programme: For 10-18 years olds for national implementation was developed and piloted in deprived districts.

4.0 SCIENCE AND TECHNOLOGY/ TVET/ICT

4.1 Introduction

The table below presents targets at the tertiary level:

Table 42: National Targets at the Tertiary level: (Science and Technology)

Level	Target
University	60% of all university are registered in science and technology-related disciplines by 2020
Polytechnics	80% in the Polytechnics and Vocational institutes are registered in science and technology-related disciplines by 2020

This section focuses on:

- Science and Technology Education
- TVET/Skill Development
- ICT

4.2 Science and Technology Education

The implementation of the official government policy on Ghana's technological and industrial development planning policy (Ghana Statistical Service, 2005a, p.111; (Government of Ghana, 2007, p. 42)) at the education level was for the nation to achieve a ratio of 60:40 sciences to humanities manpower base by the year 2020 (Ghana Statistical Service, 2005a, p.111). The report on the visitation panel to the University of Ghana indicates that there is no scientific basis for this science/humanity ratio of 60:40 (Government of Ghana, 2007, p. 42). It is, therefore, not clear whether the 60:40 ratios were the right policy to implement the ESP (Government of Ghana, 2008, p.143). There was also lack of research to ensure a better integration of science, technology and humanities.

The enrolment was also heavily skewed towards humanities. The enrolment ratio for the 2006/07 stood at 38 percent for Science & Technology and 62 percent for Humanities for Public Universities; and 32 percent for Science and Technology and 68 percent for Humanities for Public Polytechnics.

The situation was even worse for private universities, which for the 2006/07 has 87.6 percent for Humanities and 12.4 percent for Science and Technology (Somuah, 2008). NCTE recommends the future growth in humanities and Science and Technology to be pegged at 5 percent for Science and Technology and 3 percent for humanities in all the public universities.

Some Analysts think this approach will take 57 years to reverse the current trend to achieve the desired 60%/40% ratio in favour of Science and Technology (Somuah, 2008). A more realistic growth rate suggested is 0% for humanities and 8% for Science & Technology over a period of 12 years for both public Universities and the Polytechnics or 1% for humanities and 6% for Science & Technology over a period of 19 years for both public Universities and the Polytechnics while universities with the mandate to focus on science and technology are given specific growth rate targets (Somuah, 2008).

ESP (2010-2020): the target set in the ESP (2010-2020) is that 60% of all universities are registered in science and technology-related disciplines by 2020 and 80% in the Polytechnics and Vocational institutes are registered in science and technology-related disciplines by 2020.

Contributing causes of low enrolment in Science and Technology: the contributing causes of low enrolment in Science and Technology are inadequacy of science laboratories

and workshops in the Universities and Polytechnics; lack of lecturers and laboratory technicians in Science and Technology; lack of enforcement of enrolment target for the tertiary institutions; few Senior High Schools offering General Science and limited opportunities for post-graduate training in Science and Technology in Ghanaian Universities.

Out of the total population in public universities in Ghana, less than 5% are pursuing post-graduate studies (Somuah, 2008). Science and Technology (S&T) post-graduates students are about $\frac{1}{4}$ of the total post-graduate student population or about 1% of the total population in the public universities. The situation is worse in the private Universities where 261 representing 93.5% of the total post-graduate students are in Business administration. There are no students pursuing post-graduate studies in Science and Technology in private Universities (Somuah, 2008). Low participation in science and TVET education at the pre-tertiary level is also a challenge to science and technology education in Ghana. Bridging programmes have been introduced for Science students who have met the minimum university entry requirements but have missed the cut-off points due to the competitive nature of admission. Polytechnics similarly introduce programmes for students in Technical Institutions to prepare them for HND.

Institutions are using funds from GETFund and TALIF to equip science laboratories and ICT facilities so as to enable them admit science students.

It is a fact that establishing and running science and technology programmes is more expensive than the humanities. The amount involved in acquiring academic facilities/equipment for science and technology programmes outweigh the financial capabilities of public institutions offering such programmes. The government's quest to promote science and technology in Ghana will be a mirage if institutions such as the Kwame Nkrumah University of Science and Technology are not given a special financial dispensation in terms of provision of laboratory/studio equipment or facilities etc to enhance quality teaching and learning. This assistance should be separated from the normal budget line to such institutions.

Science, Technology, Mathematics and Education (STME): Between January –December, 2009 about 4, 547 Junior High School students in a ratio of 2: 1 girls and boys participated in Science, Technology and Mathematics Education (STME) Clinics. Almost all regions hosted more than 300 students. Among other things, activities at Clinics have been designed to demystify science and technology and to create interest among young people.

Science Agriculture Mathematics AND Information Technology (SAMIT) Teacher Support Teams: SAMIT is established in three regions (Western, Central and Greater Accra). This is a special working /Advisory group to advise the District Directors/DEOC on School/Office based ICT in Education issues.

Science Resource Centres: There are 109 Science Resource Centres in the country. These are equipped to facilitate the teaching of Science and Computer skills in a cluster of Senior High Schools. It must, however, be noted that about 50% of the teachers who were originally selected and trained for this programme within the GES, left after receiving the training, for well-paid jobs owing to poor remuneration in the GES. Besides, buses, which were provided to serve the cluster of schools using the Resource facilities have now become very difficult to operate owing to high fuel consumption and maintenance cost. There are no longer special funds allocated by Government to run these buses. Currently, the buses have stopped picking students from the clusters to the Centres because the huge maintenance costs are being borne by the schools where the Centres are located alone (GES, 2010a, p. 63)

The new public universities: to be established are science and technology universities. NCTE puts emphasis on science and technology in approving B. Tech. programmes in polytechnics.

The need for a technical and vocational training university is emphasised in policy documents. Restructuring and upgrading the University College of Technology, Kumasi Campus would best serve the purpose. The College is already offering technical and vocational programmes and therefore strengthening it to accomplish this task would be appropriate. Improving and upgrading of the polytechnics in the country will also improve technical education at the tertiary level.

4.3 Skills Development

King, Kroboe and Palmer (2006 cited in World Bank, 2008, p.72 and cited again in MOE, 2009, p. 47) note that in Ghana there has been virtually no research investigating how effectively the skills acquired are being translated into the labour market. Policy making, therefore, is not rooted in evidence-based arguments to meet the objectives of the training schemes of the graduates. Against this background, it is further noted that the Education sector operates on the assumption of an educational system with a structure and content which reflect the socio-economic environment and the manpower needs of the country even when such needs have not been assessed (Atta -Quayson, 2007 cited in MOE, 2009, p. 47).

To remain competitive both nationally and internationally and to drive the economy from the present status of about 6.3 percent growth rate to 9 percent by 2012, Ghana must be strategic about developing the relevant skills in its work force. New businesses in Ghana list lack of skills as a key factor in their decision to relocate elsewhere. Job vacancies cannot be filled because of lack of skills. Ghana is losing business to competitors as a result of inadequate skilled workers. Skill gaps within employers' existing workforce are also a significant problem. Many employers say the skills of their workforce are not up to scratch. Having an under-skilled workforce adversely affects the profitability of industries as it leads to higher operating costs. Many small businesses also lose orders because of poor quality and customer service stemming from a lack of skilled staff. The implications for the Ghanaian economy are significant. These were some of the revelations in a Skills Development Workshop organised by the Ministry of Education at Erata Hotel, in Accra, Ghana on Thursday, 20th November, 2008.

Ghana therefore, needs to fill the gaps relating to policy formulation and implementation, relevance, financial and managerial /leadership skills. On policy gaps policy makers and curriculum developers seldom discuss with the business community especially in the informal, small and medium size enterprises which usually represent a majority of employment and this results in policies that do not appropriately reflect the real situations of the labour market and or the industry.

Relevant gaps occur when the contents in skills development do not meet labour market needs or the skills requirement of the industry. The curriculum also fails to be responsive to the reality on the ground due to old equipment and technology that are no longer used in the workplace. TVET providers tend to equip its trainees with knowledge and skills that are immediately applicable upon employment, but some of the employers favour human resources that are capable to respond flexibly to changing and new technology to those with outstanding skills and in one specific area.

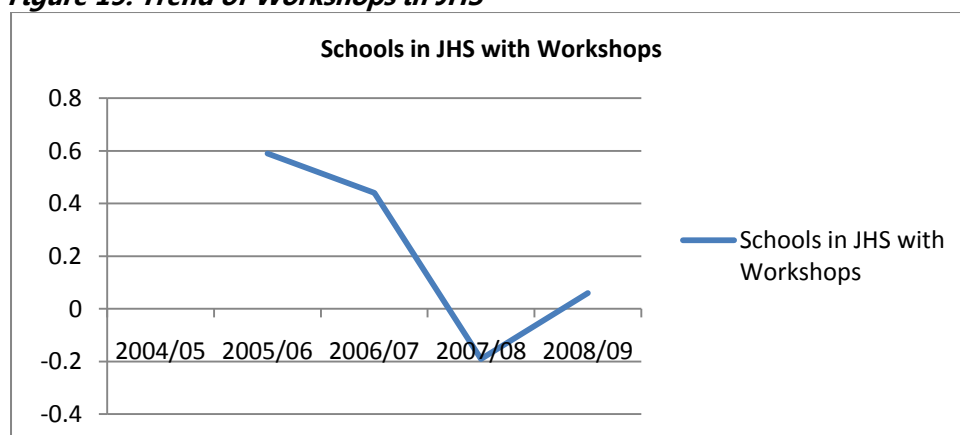
The standard academic curriculum has to develop skills such as effective communication, initiative, working with others in a team work, use of technology, problem solving, time management, planning, health safety and environmental awareness, sense of corporate responsibility, information communication technology. In most instances the labour market does not directly need the physics and economics taught but associated skills such as quick learning, flexibility, adaptability, inquiring minds, creativity and innovative skills associated

In order to achieve the ESP/EFA/MDG targets, a number of problems in areas of strategic policy and governance within the Ministry will also need to be addressed. All these require

financial commitment of government. The country also faces a heavy financial burden to invest in equipment and provide skills training that are applicable as the needs of the labour market face constant changes and progresses (Yoshida, K. p. 14). There are also problems with leadership and managerial skills in the Education enterprise. Waste, inefficiencies and slack in management practices also compound the problem (Government of Ghana, 2007, p.94). Inclusion of vocationalized subjects into general education streams cannot be expected to increase economic relevance and does not prepare students for self-employment (lauglo 2004 cited in World Bank, 2008, p. 29)

District Performance Reports: Tracking Junior High Schools with workshops, the trend depicted below in figure 15 is not encouraging to enhance skills development in the schools. Taking 2005/06 as the base year the number of Junior High Schools with work shop started to decrease, picking up again in 2008/09. This trend suggests lack of consistency in policy formulation and implementation in providing functional skills at the basic education level.

Figure 15: Trend of Workshops in JHS



4.4 Inadequate Funding For Research Facilities

There has been also inadequate funding for research facilities at the tertiary level. There is no road map for the provision of research facilities, especially, equipment to enhance the teaching of science and technology related courses in the country. Education in Ghana is, however, constructed to the overall objective of development, namely, economic growth and poverty reduction. However, the over-emphasis on primary education at the expense of other levels of education might have removed the indigenous capacity for research and innovation which is centrally important to link education to indigenously determined future development priorities of the country (Tikly, 2004). The NCTE must set targets for growth in post-graduate Education for public Universities. This will require allocation of funds to support post graduate education.

4.5 Information and Communication Technology (ICT)

In support of the evidence from large studies and meta-analysis that suggest that the use of ICTs, in particular computer technologies is correlated to positive academic outcomes, including higher test scores, better attitudes towards schools, and better understanding of abstract concepts ICT have been identified as important factors in the delivery of quality education.

The Ministry has put in place a Deployment Plan that covers the different levels of the education structure in Ghana. The target by 2013 is 1000 Community Learning Centres at the Primary level and 2000 Community Learning Centres at the JHS level while at the Second Cycle level the deployment will cover 496 SHS; 26TVET and 38 Colleges of Education at the tertiary level.

Basic School: the challenges at the level include, lack of physical space to accommodate computer labs while the bulk of teachers (over 70%) are not computer literate.

Second Cycle Institutions: At a first glance it would appear that Ghanaian Second Cycle Institutions are well equipped, with 87% of all institutions reporting as having a computer laboratory. However, e- READINESS ASSESSMENT by the Ministry of Education suggests that the number of functioning computers in the system was only 56.92%. The student computer ratio at the national level is 42: 1(i.e. forty two students to one computer), with the Northern Region having the highest (or worst) at 50: 1 and Volta Region the lowest at 33: 1. The student computer ratio according to the regions is as follows:

Table 43: Student Computer Ratio

Region	Student: Computer Ratio	Region	Student: Computer Ratio
Northern	50: 1	Western	41:1
Ashanti	48:1	Upper East	41:1
Upper West	48:1	Central	39:1
Brong Ahafo	44:1	Eastern Region	38:1
Greater Accra	43:1	Volta Region	33:1

Student computer ratio at the school level ranged from a low of 3:1 to a high of 650:1. Of the five hundred and one (501) second cycle schools, one hundred and eleven (111) had local area networks in place while three hundred and ninety (390) did not. Only eighty nine (89) representing 17.7% of the total number of schools had internet, with eighty of the eighty nine being in urban or semi-urban areas. Further analysis revealed that only 8.3% of the total number of computers in the system was connected to the internet.

Teachers: the study suggests that 97.4% of the schools did have ICT Teachers, though the distribution of these was not equitable amongst the schools, with 2.6% of the schools not having ICT teachers. Furthermore, 68.8% of the schools had professional teacher taught ICT while the remaining 31.2% did not have professional teachers teaching the subject.

Maintenance and Support: Two hundred and fifty five (255 out of 501 schools) or 51% indicated that they did not have maintenance support.

Establishment of ICT in Education Support Teams (ICTEST): Returns are being received from all districts on the formation of ICTESTs and the determination of sites for Community Learning Centres (CLCs) to inform management on additional ICT provisions and deployments to be made to Basic Schools on cluster basis across the country.

One Laptop Per Child Project: a thousand XO Laptops have been made available to thirty Primary Schools (Three in each Region) across the country. The project is good in concept but has serious sustainability concerns and can only be continued as and when there are sufficient guarantees regarding physical, electrical and communication infrastructure as well as security

Public Technical Institutes and Colleges of Education: A set of Hardware comprising 20 computers, 1 each of LCD Projector, Network Printer, Scanner has been deployed in all the 38 Colleges of Education and 26 Public Technical Institutes. Internet connectivity for one year which is yet to be deployed is part of the package.

Pilot Projects: School Write, school management software has been piloted in three schools. The software is recommended for use in Pre-Tertiary schools that have access to the use of computers.

In-Service Training/ Capacity Building Programmes: With sponsorship from Intel Corporation over One Thousand (1000) Senior High School teachers have been trained in the 'Intel Teach to the future' programme on how to integrate technology in the teaching/learning process to enhance teaching and learning. The initial train the trainer workshop, material customization and training materials were sponsored by Intel Corporation. By November, 2010 it is hoped that 2000 teachers would have been trained.

A \$22,000.00 funding support from UNESCO helped the Ministry to implement Education Management Efficiency Project. One of the three components of the eGhana Project is the **e-Government Project** that seeks to contribute to improved efficiency and transparency of government functions, through improved Government Communications & e-Government Applications. To this end the Ministry of Communication, through the National Information Technology Authority (NITA) has expanded the network infrastructure with the laying of new cables, 250 additional ports, installation of new switches and cabinets.

Awards: Ghana represented by Mr Sadique Boateng of T.I. Ahmadiyya SHS, Kumasi in Ashanti Region, won the Bronze Medal at the Pan African competition in Mauritius and a credit award at the World Innovative Education Forum held in Brazil in November 2009. At the World Forum, WA SHS, was among three schools selected from Africa, admitted into the elite Global Path finder Schools and presented with an award for demonstrating significant innovation in Education in the school.

5.0 EDUCATION MANAGEMENT

5.1 Introduction

The table below present some indicative benchmarks

Table 44: Indicative Benchmarks in Management

Systems	Target
Delivery Systems of Education Sector	By 2020 all delivery systems of the education sector will be located at the district level.
Monitoring and Evaluation systems	Progress under ESP2010-2020 rigorously monitored
EMIS systems	Reviewed and strengthened by 2015

This section focuses on the following:

- Management of Financial Resources;
- Education Decentralisation;
- Monitoring and Evaluation.
- EMIS

5.2 Management of Financial Resources

The Financial Management System in the Education sector since 2007 has fulfilled Section 41 of the Financial Administration Act (FAA) 2003, Act 654 and Section 190 of the Financial Administration Regulations (FAR) 2004 L.1 1802 to produce financial reports that seek to present a comprehensive account of all other financial transactions engaged in. The Financial Statements and Report For the Year Ended 31st December, 2009 essentially presents the amount of funds generally made available to the Ministry of Education and its Agencies in 2009 and how these funds were expended in the same period. The funds in question cover grants from the Government of Ghana (GOG) i.e. the consolidated fund and HIPC funds as well as Internally Generated funds (IGF) and funds from Donor sources. A total of GH ₵ 1, 107, 132, 235.00 was approved as GOG funds but GH ₵1,474,788,084.19 was released including Item 5 (other activities) and GH ₵1, 474, 213, 078.35 was spent.

In addition GH ₵ 213, 354, 952.71 IGF funds and GH ₵73, 478, 510.35 Donor funds were generated in the course of the year and expenditure made from these funds amounted to GH ₵210, 524, 566.77 and GH ₵57, 423, 656.37 respectively.

Furthermore, HIPC expenditure in 2009 amounted to GH ₵31,818,711.12. Finally, the Cash at hand as at the close of the year 31st December, 2009 came to GH ₵43, 386,864.16.

There are, however, problems with the use of resources such as GETFUND. At Wiaso College of Education, in the Western Region, for instance, a Multi-purpose Science laboratory block have been abandoned while teaching and learning equipment meant for the laboratory had been locked up in the store room of the college for several years (Daily Graphic, Wednesday, September 2009). Infrastructure goals and targets are important cost drivers and the sector needs to take strategic decisions on infrastructure goals and targets.

In 1999 GES introduced Financial Information Systems (FIS) and initially supported 18 districts to be replicated in all the districts to provide comprehensive information on income, funding and expenditure (Karikari-Ababio, 1999, p. 102). In 2000 this innovative practice was abandoned. Today in 2010 the second cycle institutions are still using an outmoded 1999 Accounting Instructional Manual. The internal audit and monitoring and evaluation reports (MOE, 2009a) point out the control weaknesses in the management of resources and recording of Assets in the CoE / Senior High Schools which have remained unchanged (MOE, 2009a).

It appears the uncaring attitude towards GES personnel who qualified as Chartered Accountants or Financial Analysts compel them to leave the GES. The accounting staffing knowledge on ICT is also limited. On the Payroll Unit of the GES (IPPD), teachers who are

supposed to be in the classroom clamour around the offices of the unit during contact hours of schools. This problem makes the teachers incapable of finishing the syllabus leading to poor academic performance in schools. Perhaps, there may be the need for a total decentralisation of the payroll system.

With value for money as one of the key thematic areas in the ESP (2010-2020) it suggests also to ask how the Education sector decentralisation is going to be implemented to ensure value for money.

5.3 Education Decentralisation

The process of decentralisation has a great potential to achieve the objectives of better access to high quality services and community participation, delivering quality teaching and learning which is transparent, accountable and equitable. The process of transition is expected to address the legislative issues of the Constitution, the Education Act and the legislation which are in conflict. The legislative issues of the Constitution, the Education Act and other legislations are in conflict. There is a weak capacity of structure, systems and staff at the districts (both the District Assembly and the education offices), and schools to effectively undertake educational planning and management. There is also a weak political and management will to decentralise. There is undue political interference in educational management and delivery of policies. There is, therefore, the need to-restructure and re-design education to reflect the new vision of Act 778. In this direction a Memorandum of Understanding should be signed by the Ministries of Finance, Education and Local Government to put the necessary structures that will ensure value for money in the whole decentralisation process. There is also the need for an integrated and coordinated approach to involve all key stakeholders including the SMCs and DEOCs to achieve an effective quality teaching and learning and strong management (GES, 2010b)

Consequently by 2020 it is anticipated that all delivery systems of the education sector will be located at the District level. Also 100% sponsorship for Teacher Training and will move from a 'supply driven' system to a 'demand driven' system. This will ensure that Districts become responsible for the recruitment and retention of teachers, leading to cost-saving, greater fund availability and efficiency in teacher supply ensuring that appropriate staff is recruited by each District and school (Government of Ghana, 2009, p. 33).

E.T. Nartey Model: The inequitable deployment of teachers is also a thorny issue that needs priority attention. While a report prepared by C. Perry for the PBME and GES points to inefficiencies in the use of teachers, the PBME at the policy level applied E.T. Nartey model and scientifically found that the model could be used to ensure efficiency, cost-effectiveness and optimum utilisation of Trained Teachers in GES Public Basic Schools (Government of Ghana, 2007 & 2008). The PBME Division, in collaboration with JICA Ghana in April 2007 again contracted Nartey to apply the model to test its efficacy (Government of Ghana, 2008, p.22). The efficacy of the model was proved beyond doubt as a well-defined formula and a tool to help in the equitable deployment of teachers in GES Public Basic Schools. The model was also found to be an effective tool to enhance monitoring and evaluation in areas of teacher deployment and utilisation. It is now up to GES to apply the E.T. Nartey model nation-wide to resolve the inequitable deployment of teachers. As pointed out in the second draft report on the appraisal of the Government of Ghana sector Plan (2010-2020) in August 2010 by the Education for All-Fast Track Initiative, Ghana, Local Education Donor Group:

'--- the inequitable deployment of teachers has the tendency to undermine the credibility of the ESP (2010-2020).

5.4 Monitoring and Evaluation

The Ministry of Education operates a Monitoring and Evaluation (M&E) model that considers two levels of M&E (Synoptic Bird Eye) where information is aggregated and analysed at a system-wide level to provide inputs into sector level reports, and operational monitoring

and evaluation: for agencies, regions, districts and school managements on the ground to make well-informed decisions and take strategic actions in the districts (MOE, 2009a, p.5).

Most of the monitoring and evaluation (M&E) activities earmarked for the implementation of the 2007 Education Reform to enhance efficiency and cost-effectiveness did not take place because of lack of funds (Government of Ghana, 2009a). For instance, for the activities that did not happen according to plan, about 20 percent was monitoring and evaluation activities. For activities that happened well, only 6 percent was monitoring and evaluation activities. Taking the capitation grant as a case study, circuit supervisors and regional monitoring Teams have not got the logistics support to monitor the disbursement of the grant (Government of Ghana, 2009a).

The activities of the SMCs and local community's involvement in the use of the capitation grant need to be monitored and evaluated to achieve the desired results (p.7). Similarly because the School Feeding Programme is a relatively costly investment it is especially critical to conduct a focused, follow-up impact evaluation in order to obtain a thorough and accurate understanding of the complex and multifarious impact of the School Feeding Programme in Ghana (Government of Ghana, 2007).

The general observation is that, in the Education sector in Ghana monitoring is not informing budget framework. Delivery in the Education sector is also not sufficiently connected to an effective monitoring (CREATE workshop, 19th -21st April, 2009, Forest View Hotel, Dodowa, Ghana). The meagre budgetary appropriation for research, development and training is also evidence that sector ministries are not paying much attention to research and development as the tools for resource utilisation and management (Djangmah, S.J, Anyimadu, A. & Konadu, O. (n,a) cited in MOE, 2009a). Consequently Levine (2008, p. 19 cited in MOE, 2009, p. 47) notes that:

'The Monitoring and Evaluation Unit of PBME of the Ministry of Education clearly have the capacity to conduct high quality research, monitoring and evaluation: 'An example of this capacity is the excellent analysis of the impact of various school interventions on enrolment'. The unit must be "protected" from activities that divert this expertise from its core responsibilities and a program should be put in place to further strengthen capacity'

The Monitoring and Evaluation Unit, within the budgetary constraints, have adopted innovative practices and cost-effective approaches such as performance audit, policy evaluation, tracking and infrastructure audit to try to achieve the objectives of the sector. By this approach, the officers assigned for the field trip not only go to monitor but also evaluate the process on the ground to produce good analytical reports that could inform policy direction. There is also the use of optimal design for longitudinal and multilevel research to identify the power and confidence interval to make the whole monitoring and evaluation process representative of the whole country. Much focus is also given to prospective evaluation to fine-tune the problems, challenges and gaps in the initial year of implementation of policies to foster effective implementation of the policies (MOE, 2009a, p. 5). The differences in difference analysis using regression analysis are also some of the methods used to assess differing impacts of policies implemented within a period (MOE, 2007, p.27). A practical approach to this difference in difference approach is the Unit devised means and method to help the district office personnel to use simple percentage increases to evaluate multiple interventions of policies, how each policy on its own merit contribute to enhance education delivery in the country (p. 29).

EMIS: The ESP, in 2010 is to be reviewed and strengthened in order to establish by 2015 an orderly, timely, localised electronic data collection and publication in all districts. This is expected to aid improvement in data collection and collation to reflect the increasing role of private sector.

Challenges encountered in the collection of the 2010 Census data include heavy infestation of computer viruses; non standardization of computer software; lack of computers; lack of ICT infrastructure; lack of capacity at the district level; lack of interest in EMIS activities among some district staff; and lack of proper maintenance culture.

Also the database application that had been deployed by EMIS runs effectively on Window XP operating system while most of the districts prefer to work with more recent operating systems such as Vista which has more beautiful features compared to Windows XP. It is also not uncommon to find persons with no mathematics/statistics background nor any knowledge in computer literacy entrusted with EMIS activities in some of the districts. For some strange reasons personnel who were just about to go on retirement were put in charge of the 2009/10 annual census whilst the experienced persons on the job were either reassigned or transferred. Such practices have the tendency to affect data quality.

EMIS should be assisted and encouraged to submit data early enough to enable the monitoring and evaluation unit of the PBME to conduct quality audit on the indicators through studies and inquiry to provide correct interpretation of the indicators. This will help to further improve the quality of indicators in the performance report for the ESAR. The submission of the data early enough will also help in the production of the preliminary report with current figures.

School Report Cards (SRCs)/District Report Cards (DRCS): While the Education Management Information System (EMIS) is the established structure to monitor and evaluate the implementation of the Education Strategic Plan (ESP) in Ghana, the School Report Card recently introduced focuses more specifically on internal school processes (e.g. teacher attendance, instructional methods, pedagogical monitoring and community involvement) as well as outcomes, measured by the SEA and BECE. The District Report Cards (DRCs) provide an analysis of school performance district-wide. District Education Offices will use this information to support the EMIS process to present Performance Reports annually as part of the Regional Education Sector Annual Review (RESAR). The SRCs implementation Manual has been developed, printed and distributed to all schools across the country. All Regional Directors have been trained on the SRCs system. Trainer of trainers' workshop was organised for district personnel who in turn had trained all basic school head teachers across the country.

The Secretariat Staff of NCTE and supervisory bodies are being strengthened in education management and planning through TALIF/NUFFIC support.

NCTE has started to develop a Tertiary Institutions Management Information System (TIMIS) to facilitate performance monitoring and evaluation while Tertiary Education Policy has been developed for stakeholders' discussion. The supervisory bodies (NCTE, NAB, NABPTEx and COTVET) play very important roles in ensuring quality of tertiary education. These bodies need to be adequately resourced to enable them play their respective roles effectively.

All these improvements in resource allocation, development of relevant manuals and capacity building initiatives will contribute to enhance effective monitoring and evaluation of the education sector

6.0 EDUCATION FINANCE

Institutional Governance and Management: The current Funding Envelope for the tertiary sector consists of funds from GOG, IGF, GETFund and Development partners. The Government of Ghana contributes 58%; IGF constitutes 23%; GETFund, 10% and development partners contribute 9% to the funding envelope. A tertiary education funding strategy has been developed. The income generation activities of the institutions have increased over the years-from GH¢ 73, 948, 934. to GH¢ 106, 092, 777 in 2009 representing an increase of 43.5%. NCTE has developed a draft budget manual and guideline for the

disbursement of the GETfund allocations for the tertiary education sector to be finalised this year. NCTE has institutionalised training workshops for Heads of Tertiary Education Institutions on leadership and newly appointed councils on governance of tertiary education.

6.1 Introduction

The following table lists the key targets for indicators relating to Education Finance:

Table 45: Education Finance Targets

Sub-sectors	Target (2015)	Actual 2009-10
Kindergarten	5.7	3.1%
Primary	33.4%	30.5%
Junior High School	21.9%	15.3%
Non-Formal	1.2%	0.2%
Inclusive and Special Education	0.8%	0.4%
Senior High School	17.2%	17.3%
Tech Voc & Skills Development	2.8%	1.8%
Teacher Training	2.5%	2.6%
Tertiary	14.1%	20.6%
Management & Subvented Agencies	0.4%	8.2%
HIV & AIDS	<0.1%	0.0%
Total	100%	100

Source: ESP (2010-2020, p. 9)

The GDP growth rate has increased from 3.7% in 2000 to 6.2 % in 2006 (Government of Ghana, 2007) and further increased to 7.3 % in 2007 (NDPC, 2009). As a result the average income of Ghanaians increased from US\$654 in 2007 to US\$ 712.25 in 2008 (p.6). The trend of national expenditure on education has also increased from 6.2% in 2003 to 9.1% in 2007 (Government of Ghana, 2008) and further increased to 10.1 percent in 2008. However, it decreased to 9.0% in 2009 as noted in Table 41 and other tables below. Ghana is also one of the highest recipients of education aid in sub-Saharan Africa (World Bank, 2004 cited in RECOUP, 2008, p. 6).

The sources of education financing since 1999 have been GoG, Donor, IGF, GETFund, HIPC, DACF, EFA Catalytic and SIF (MOE, 2008; RECOUP, 2008, p. 19).

This section focuses on education financing and outcomes, paying particular attention to key issues such as policy formulation and implementation; and implementation of the medium term expenditure framework (MTEF).

It is also based on the trend of education expenditure by sources of funding: achievements, challenges and problems emerging from the 2010 EMIS report, this section also critically looks at issues such as the poorest household, urban poverty, equity and graduate unemployment that may also militate against the achievement of the country's goals such as:

- Universal Primary Completion and gender equality in enrolments at all levels of education by 2015 (MDG Goals and targets for Education);
- Universal Basic Completion (UBC) by 2015 (2007 Education Reform);
- Universal Second Cycle Education by 2020 (2007 Education Reform: all JHS graduates are to be exposed to Second Cycle Education by 2020).

6.2 Trend of Education Expenditure

While an appropriate range for the overall level of investment in education as a share of gross domestic product (GDP) is between 4 and 6 percent, UNESCO and the African Union's suggestion is that actual education expenditure should be approximately 6% of GDP. In Ghana, the tables below indicate that actual education expenditure increased from 6.2% in 2003 to 10.1 % in 2008 and reduced to 9.0% in 2009 as noted in Table 41 and other tables

below. The reduction of the actual expenditure from 10.1% in 2008 to 9.0% in 2009 amongst other factors is due to the inability of the cost centres to assess their administrative expenses; inability of the Controller and Accountant-General's department to release funds under the BPEMS to the various Cost Centres; and inadequate Commercial Certificates released for most of the PIP projects for 2009. The tables below present the trend of education expenditure by levels and source:

Table 46: Actual Expenditure as percentage of GDP

Year	2003	2004	2005	2006	2007	2008	2009
	(000)	(000)	(000)	(000)	(000)	(000)	(000)
GDP	6,526,200	7,762,000	9,701,800	11,490,320	13,974,584	17,211,700	21,630,000
Actual Education Expenditure (Total)	407,424.3	568,920	727,533.7	939,024.2	1,273,539.5	1,743,571.7	1,949,768.4
Actual Education Expenditure as a % of GDP	6.2%	7.3%	7.50%	8.20%	9.10%	10.1%	9.0%

Table 47: Trend in Education Expenditure by Level

Sources	2004		2005		2006		2007		2008		2009	
	Expenditure GH¢	%	Expenditure GH¢	%	Expenditure GH¢	%	Expenditure GH¢	%	Expenditure GH¢	%	Expenditure GH¢	%
Pre-school	23,176,164	4.00%	25,029,905	3.40%	37,144,800	3.90%	42,797,283	3.40%	65,901,027	3.8%	60,272,779	3.1%
Primary	183,091,696	31.60%	220,115,936	29.90%	262,627,200	27.60%	445,933,605	35.00%	613,661,054	35.2%	594,950,694	30.5%
JHS	92,704,656	16.00%	131,038,919	17.80%	159,921,600	16.80%	206,990,933	16.30%	292,419,320	16.8%	297,665,072	15.3%
SHS	115,301,416	19.90%	153,124,131	20.80%	150,382,800	15.80%	160,788,917	12.60%	171,058,251	9.8%	337,369,027	17.3%
TVET	6,373,445	1.10%	8,834,084	1.20%	8,599,900	0.90%	8,236,942	0.60%	18,311,207	1.1%	35,038,819	1.8%
SPED	2,317,616	0.40%	2,944,695	0.40%	3,835,600	0.40%	3,894,322	0.30%	10,662,566	0.6%	7,493,238	0.4%
NFED	9,270,466	1.60%	13,987,300	1.90%	6,736,900	0.70%	5,709,015	0.40%	6,327,284	0.4%	3,715,031	0.2%
Teacher Education	21,437,952	3.70%	28,710,774	3.90%	33,119,000	3.50%	33,132,980	2.60%	55,274,368	3.2%	50,377,753	2.6%
Tertiary	121,674,900	21.00%	144,290,045	19.60%	214,564,500	22.50%	292,931,474	23.00%	378,615,134	21.7%	401,191,936	20.6%
Management & Subvented	2,897,021	0.50%	7,361,737	1.00%	73,438,400	7.70%	70,339,643	5.50%	130,011,299	7.5%	160,837,566	8.2%
HIV-AIDS	1,158,808	0.20%	736,174	0.10%	2,474,300	0.30%	2,784,370	0.20%	1330209	0.1%	856,499	0.0%
Total	579,404,140	100%	736,173,700	100%	952,845,000	100%	1,273,539,485	100%	1,743,571,719	100%	1,949,768,414	100.0%

Trend in Education Expenditure by Source

	2005				2006				2007			
Sources	Allocation		Actual		Allocation		Actual		Allocation		Actual	
	GH¢	%	GH¢	%	GH¢	%	GH¢	%	GH¢	%	GH¢	%
Government	501,961,500	93%	561,860,500	77.2%	662,920,200	77%	766,953,900	82%	929,157,700	84.3%	1,031,466,577	81.0%
GoG	389,541,500	72%	485,553,900	66.7%	532,320,200	62%	648,325,700	69%	759,157,700	68.9%	867,133,297	68.1%
GETFund	112,420,000	20.8%	71,556,600	9.8%	130,600,000	15%	115,188,400	12%	170,000,000	15.4%	164,333,280	12.9%
SIF	-	-	4,750,000	0.7%	-	-	3,439,800	0.4%	-	-	-	-
Donor	37,513,900	7%	65,360,100	9.0%	87,392,700	10%	25,271,400	2.7%	56,244,100	5.1%	86,948,363	6.8%
Donor Agency	37,513,900	7%	61,875,100	8.5%	73,714,200	8%	22,485,400	2.4%	46,124,100	4.2%	77,000,096	6.0%
EFA Catalytic	-	-	3,485,000	0.5%	13,678,500	2%	2,786,000	0.3%	10,120,000	0.9%	9,948,267	0.8%
IGF	-	-	69,017,500	9.5%	81,284,000	9%	102,238,400	11%	111,839,800	10.2%	110,689,258	8.7%
Debt Relief	-	-	31,295,600	4.3%	30,000,000	3%	44,560,500	5%	4,500,000	0.4%	44,435,287	3.5%
HIPC	-	-	31,295,600	4.3%	30,000,000	3%	44,560,500	5%	4,500,000	0.4%	40,207,305	3.2%
MDRI	-	-	-	-	-	-	-	-	-	-	4,227,982	0.3%
TOTAL	539,475,400	100%	727,533,700	100%	861,596,900	100%	939,024,200	100%	1,101,741,600	100%	1,273,539,485	100%

Trend in Education Expenditure by Source(b)

	2008				2009				2010	
Sources	Allocation		Actual		Allocation		Actual		Allocation	
	GH¢	%	GH¢	%	GH¢	%	GH¢	%	GH¢	%
Government	952,925,648	81.2%	1,431,570,060	82.1%	1,382,210,117	81.6%	1,612,357,244	82.7%	1,592,698,100	77.5%
GoG	841,352,648	71.70%	1,219,028,427	69.9%	1,107,132,234	65%	1,461,721,144	75.0%	1,266,004,850	61.60%
GETFund	111,573,000	9.50%	212,541,633	12.2%	275,077,883	16%	150,636,100	7.7%	326,693,250	15.90%
SIF	0	0	0	0.0%	0	0%	0	0.0%	0	0.00%
Donor	66,527,668	5.70%	100,652,087	5.80%	69,418,281	4.1%	95,067,892.56	4.9%	89,238,185	4.30%
Donor Agency	52,299,268	4.50%	96,182,154	5.50%	58,033,681	3.4%	83,148,118.54	4.3%	89,238,185	4.30%
EFA Catalytic	14,228,400	1.20%	4,469,933	0.30%	11,384,600	0.7%	11,919,774	0.6%	-	0.00%
IGF	105,856,632	9.00%	164,097,989	9.40%	180,477,433	10.0%	210,524,566.77	10.8%	270,933,740	13.20%
Debt Relief	47,385,000	4.00%	47,251,582	2.70%	61,627,000	3.6%	31,818,711.12	1.6%	103,222,000	5.00%
HIPC	16,485,000	1.40%	22,790,460	1.30%	37,927,000	2.2%	31,818,711.12	1.6%	81,422,000	4.00%
MDRI	30,900,000	2.60%	24,461,122	1.40%	23,700,000	1.4%		0.0%	21,800,000	1.00%
TOTAL	1,172,694,948	100%	1,743,571,718	100.00%	1,693,732,831	100%	1,949,768,414.22	100%	2,056,092,025	100.00%

Table 48: GOG Budget Execution

	2004			2005			2006		
	Total	Salary	Non-Salary	Total	Salary	Non-Salary	Total	Salary	Non-Salary
Budget Provision	328,918,800	301,539,000	27,379,800	389,541,700	361,956,000	27,585,700	537,047,000	490,000,100	47,046,900
Actual Expenditure	369,998,500	369,998,500	21,846,600	485,553,800	452,365,900	33,187,900	653,576,800	607,631,800	45,945,000
Execution Rate	112%	123%	80%	125%	125%	120%	122%	124%	98%

	2007			2008			2009		
	Total	Salary	Non-Salary	Total	Salary	Non-Salary	Total	Salary	Non-Salary
Budget Provision	758,807,500	705,794,500	53,013,000	841,352,650	781,754,209	59,598,441	1,107,132,296	1,042,374,256	64,758,040
Actual Expenditure	867,124,673	817,805,020	49,319,653	1,219,028,428	1,169,814,224	49,214,204	1,506,503,882	1,461,721,143	44,782,739
Execution Rate	114%	116%	93%	145%	150%	83%	136%	140%	69%

Table 48 and figure 16 below also present the proportion of salary expenditure out of the total resource envelope. The initial implementation of the ESP (2003-2015) targeted the proportion of salary budget to be 75% and 25% for non-salary by 2015.

At the initial implementation of the ESP (2003-2015) the proportion of salary expenditure achieved was 96% while non-salary expenditure was only 4% as noted from Table 46 and figure 16 below.

The Ministry of Education sector-wide approach and strategy due to the implementation of the ESP increased this proportion to be 64% for salary expenditure and 36% for non-salary expenditure by 2006 to effectively enhance education delivery in the country.

Consequently from Table 44 and figure 16 below, from 2006 to 2009, this proportion of non-salary expenditure out of the total resource envelope keeps on reducing. However, it changed from 32% in 2008 to 27% in 2009. This perhaps, may suggest problems with mobilisation of resource envelopes and this changing trend has the potential to affect the effective implementation of the ESP (2010-2020).

Figure 16: Trend of Education Sector Resource Envelope
(Salary and Non-Salary Expenditure)

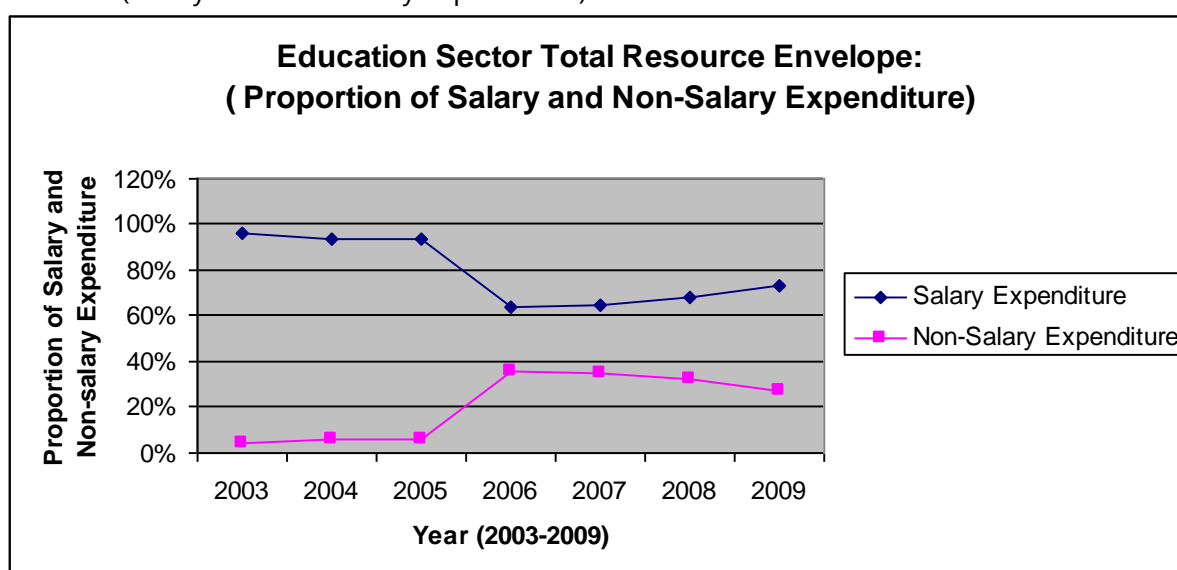
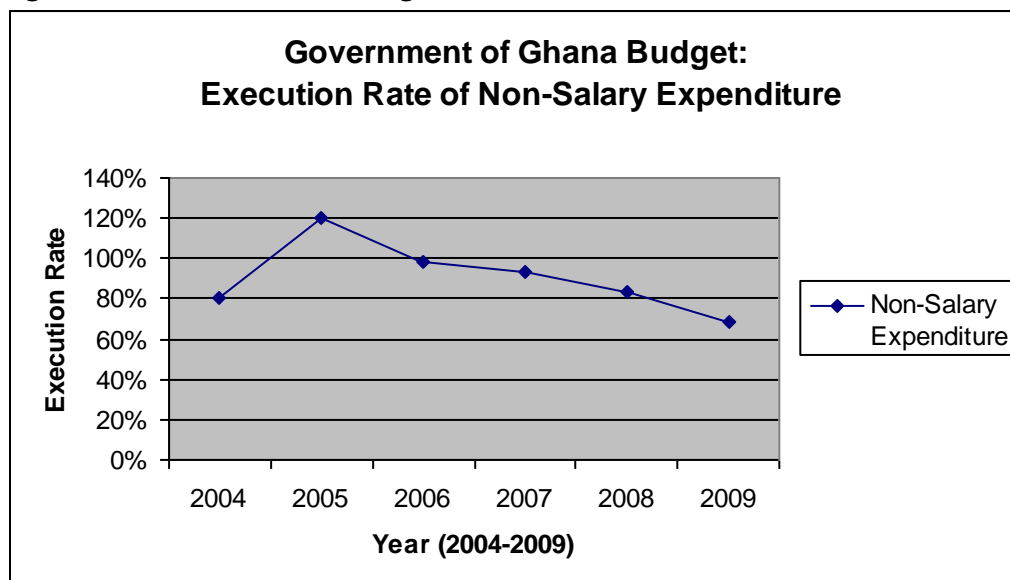


TABLE 44: TREND IN RESOURCE ENVELOPE							
Year	2003	2004	2005	2006	2007	2008	2009
ACTUAL EXPENDITURE	337,700,300	391,845,100	483,553,700	952,845,006	1,273,539,503	1,743,571,718	1,949,768,414
	100%	100%	100%	100%	100%	100%	100%
SALARY EXPENDITURE	322,862,200	369,998,500	452,365,900	610,063,093	822,384,427	1,177,397,048	1,423,303,971
	96%	94%	94%	64%	65%	68%	73%
NON-SALARY EXPENDITURE	14,838,100	21,846,600	31,187,800	342,781,914	451,155,076	566,174,671	526,464,443.07
	4%	6%	6%	36%	35%	32%	27%

From the tables below, the execution rate of the Government of Ghana (GOG) Budget at the initial implementation of the ESP (2003-2015) was not encouraging as shown in figure 17 below but picked up in 2005. Following that, the execution rate has been decreasing and further decreased in 2009. This trend, apart from affecting the consistency in policy formulation and implementation, confidence in the system also have the tendency to affect the effective implementation of the revised ESP. The trend of budget execution suggests problems with the implementation of the medium term expenditure framework especially in areas such as the predictability of the resource envelope. As a result, this trend if not checked and corrected will undermine the effective implementation of the revised ESP (2010-2020).

Figure 18: Trend of GOG Budget Execution Rate



From the figure above, the delay/non-release of budget allocations for service and investment activities of the institutions limit the institutions ability to provide academic related services which promote quality. The tables below provide further detail budget allocation and execution rates for 2009. Before going through the tables (45-47), it is, however, important to note the following:

Personal Emolument

The over expenditure or excess figures recorded under P.E. was due to the MOFEP's inability to meet the salary requirement presented during the budget hearing. The P.E. allocation given was far lower than what was requested for the year 2009.

Administration Expenses

Also due to the delay by the MOFEP in releasing the Warrants to Controller and Accountant-General's Department the cost centres were not able to access their Administrative expenses votes regularly at the District Finance Offices across the country. Most often the Bank Transfer Advice (BTA) was delayed.

Service Activity Fund

The GES Headquarters and the Institutions for the Handicapped, for instance, were the only Cost Centres which were able to access the Service Activity Fund.

The Regional and Schools Services which comprise the various decentralised Districts, were not able to spend due to the inability of the Controller and Accountant-General's Department to release funds under the BPEMS to the various Cost Centres.

Investment Activity Fund

The MOFEP did not release enough commencement certificates for most of the PIP Projects for 2009. It must be noted that without commencement certificate no contractor can go to Site.

Table 50: Total Budget Allocation and Execution Rate 2009

Sources	Budget	Expenditure	% Execution
GoG	1,107,132,234	1,461,721,144	132%
Donor	58,033,681	83,148,118.54	143%
EFA-FTI Catalytic Fund	11,384,600	11,919,774	105%
IGF	180,477,433	210,524,567	117%
GETfund	275,077,883	150,636,100	55%
HIPC	37,927,000	31,818,711.12	84%
MDRI	23,700,000	0.00	0%
Total	1,693,732,831	1,949,768,414	115%

Table 51: GoG Budget Allocation and Execution Rate 2009

	PE			Administration		
Budget Head	Allocation	Expenditure	% Execution	Allocation	Expenditure	% Execution
Main Ministry	84,019,369	50,998,438	61%	4,897,111	4,367,352	89%
GES Headquarters	3,178,945	4,199,909	132%	4,061,836	3,479,196	86%
GES Regional	820,246,219	1,147,012,689	140%	5,779,232	5,319,354	92%
Institutions of the Handicapped	4,929,723	5,028,798	102%	365,638	247,195	68%
Tertiary	130,000,000	209,698,570	161%	8,800,000	17,659,734	201%
Total	1,042,374,256	1,416,938,404	136%	23,903,817	31,072,831	130%

Table 52: Budget Head Execution rates

	Service			Investment		
Budget Head	Allocation	Expenditure	% Execution	Allocation	Expenditure	% Execution
Main Ministry	4,980,790	1,045,946	21%	550,000	2,309,492	420%
GES Headquarters	10,715,310	10,092,252	94%	900,000	0	0%
GES Regional	13,125,131	0	0%	2,226,000	87,494	4%
Institutions of the Handicapped	159,560	74,287	0%	150,000	0	0%
Tertiary	7,300,000	10,380	0%	747,432	164,345	22%
Total	36,280,791	11,148,578	31%	4,573,432	2,561,330	56%

6. 3 Consistency in policy formulation and implementation

From table 48 and figure 18 below, it could be observed that expenditure at the tertiary level is very high, followed by TVET, SHS, JHS and Primary. The first challenge is how the education sector will achieve a balanced budget to enhance holistic and integrated approach to education delivery in the country. The second challenge is consistency in policy formulation and implementation. From figure 18 it appears that in terms of policy

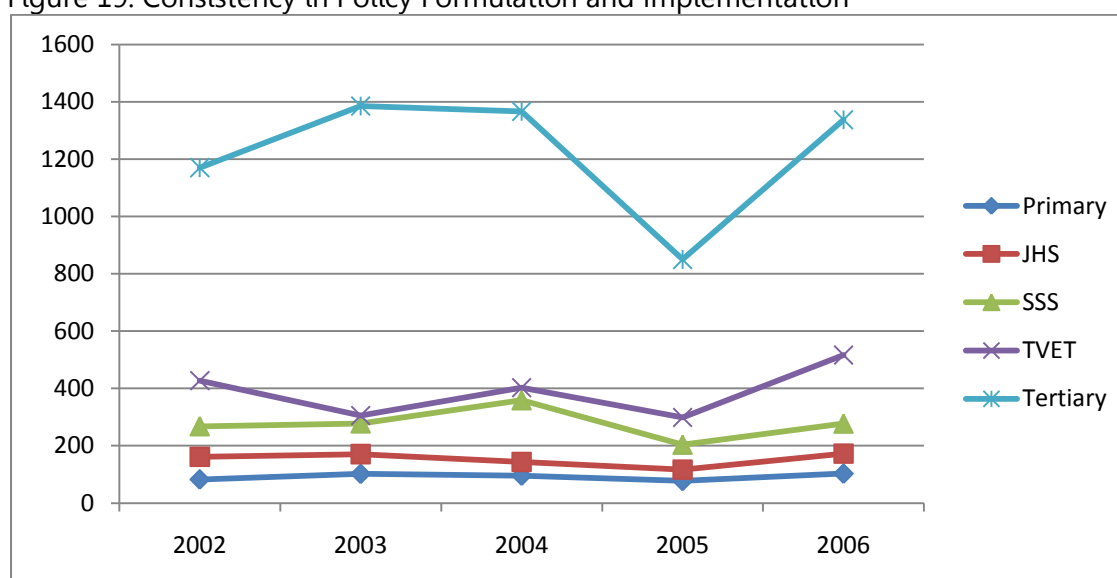
formulation and implementation, the country seems to be much more consistent at the Primary education level than at the Tertiary level. Link to consistency in policy formulation and implementation may be challenges such as the predictability of organisational funding under the Medium Term Expenditure Framework (MTEF) in the country.

Table 48: Real per capita education expenditures, in US\$, 2006 prices

	Real per capita education expenditures, in US\$, 2006 prices				
	2002	2003	2004	2005	2006
Primary	82.68	101.96	95.79	77.28	102.86
JHS	161.55	170.8	143.19	116.72	172.58
SHS	267.88	277.69	358.51	203.49	277.05
TVET	427.47	305.72	402.78	298.89	516.25
Tertiary	1,170.10	1,384.84	1,366.45	849.76	1,337.32

Source: RECOUP (2008, p. 21)

Figure 19: Consistency in Policy Formulation and Implementation



Source: RECOUP (2008, p. 21)

6.4 The Medium Term Expenditure Framework

The Medium Term Expenditure Framework (MTEF) embraces macroeconomic planning, resource allocation and budgeting to produce outputs and outcomes. The introduction of this medium term framework is intended to bring improvement in the predictability of organisational funding. However, improved predictability relies on reducing the gap between forecast and actual revenues, thereby reducing the need to cut expenditures during the budget year (Karikari-Ababio, 2000).

Technical improvements to revenue and debt forecasting are also keys to giving public sector managers the budget predictability they need to manage effectively. It appears this has not been achieved as a country. The release of budget funds that are not predictable makes it difficult to plan in the education sector and difficult to instil confidence in medium term projection (p. 14) to ensure consistency in policy formulation and implementation and effective delivery.

Consequently the delay/non-release of approved budget for service and investment affect the activities of the regional/ district directorates and institutions to enhance quality of education in Ghana.

Linked predictability of budget releases are also the financial models and financial management practices to ensure effective delivery of education. In 1999 GES/MOE introduced the performance agreement models in the education sector. This innovative practice was abandoned in 2000. Today, it is difficult to tell which model GES/MOE is implementing to enhance education delivery in the country.

Financial reforms going on in many countries to improve public sector performance are mainly market models, managerial models and performance agreement models (Karikari-Ababio, 2000, p. 7). Market-type models are stimulation of market behaviour in government agencies. Managerial models are about empowerment and motivation of agencies to improve performances. It puts confidence in 'letting managers manage'. It relies on empowering managers to take initiative and responsibility. Performance agreement models seek to influence performance information on organisational behaviour with framework documents and performance targets that concentrate managerial attention on key objectives and results (p.8).

Poorest households

Linked to the problem of inconsistency in policy formulation and implementation and predictability in resource allocation, is also how the country can significantly increase and sustain attendance from the poorest households to achieve universal basic education by 2015. The compelling evidence in the literature is that reducing considerably the costs to parents of sending children to school, greatly increases access to primary schooling (Appleton et al. 1996; Mehrotra 1998; Watkins 2000; Deininger 2003; UNESCO 2007; de Kemp 2008 cited in Akyeampong (n, a) and cited again in Comparative Education Volume 45 Number 2, 2009).

In spite of the absence of fees in public schools, research based on the GLSS 4 reveals that one of the main reasons for non attendance in primary and JHS is the high direct and indirect costs of schooling (GSS, 2000). The major expenses for parents in sending their children to school are feeding and lodging costs, transportation to and from school and other associated expenses (RECOUP, 2008, p.37). Research in Ghana over the last two rounds of the Ghana Living Standards Survey suggests that households spend a significant portion of their daily and yearly income on education (RECOUP, 2008).

There is evidence from the Ghana Living Standards Survey (GLSS) that the poorest failed to benefit from FCUBE. Progress towards completion of the basic phase of education was found to be the preserve of the relatively privileged, raising questions of equity in relation to both the supply and demand for schooling.

Against this background, the actual spending on poverty reduction in the country from all sectors was GH¢1, 584.28 million, representing 22.3 % of total government spending in 2008. Spending on basic education received the highest amount of 47.2% of total spending on poverty, followed by other poverty spending (19.8%) and primary health care (18%). Expenditure on the School Feeding Programme and the Capitation Grant constitute a huge part of the Basic Education share (NDPC, 2009, p. 90).

However, since 2005/06 progress in Kindergarten has been slower with GER increasing only from 89 % to 89.9%, an average of 3 percent point increase against 84% increase in the last five years and 10 percent increase in the last two years. The Primary GER was 95.2% in 2007/08 and 94.90 % in 2008/09 and stagnated at 94.90 in 2009/10 with the rate of increase decreasing. Critically looking at the trend of GER at the JHS also suggests implementation challenges while enrolment at the Senior High School has increased overall but inconsistently (MOE, 2008). This may suggest that while the poverty alleviation grants such as capitation grant has reduced direct costs to households by replacing the various levies

that schools imposed on parents for extra-curricula activities (RECOUP, 2008, p. 1), it appears the grant has not been used as expected to change the running of the schools. In the 2010 EMIS data, at the Primary level, the Gross Enrolment ratios have stagnated at 94.9 while the Net Enrolment rate (NER) has reduced by 5.6% (i.e. from 88.5 in 2009/10 to 83.6 in 2009/10) (EMIS, 2010). The NER at JHS has also declined from 70.3% in 2004/05 to 53.0% in 2007/08; 47.8% in 2008/09 and stagnated at 47.8% in 2009/2010 while the net admission rate also reduced by negative 1.4% from 72.1% in 2008/09 to 71.1% in 2009/10.

It is, however, possible that the type of questionnaire used in the EMIS process; lack of deeper understanding of the questionnaire by the personnel at the operational level; how the questionnaire was administered and poor coverage could contribute to some of these declining trends in performance. Further inquiry in the questionnaire and how it is administered could improve quality analysis to make realistic assessments.

While the wider tertiary sectors have continued to have the highest per capita expenditures of any category of education (MOE, 2008; RECOUP, 2008, p. 21), graduate unemployment is about 51 percent (MOE, 2008) with about one-third of Polytechnic graduates that come out also unemployed. This trend continues to rise steeply in spite of appreciable progress made towards accelerated growth and poverty reduction (Aryeetey and Baah-Boateng, 2007; NCTE, 2010). Imoro (2010) notes that the country's economic growth rate of between 4-5% per annum is not enough to provide the socio-economic needs including decent jobs for the ever-increasing population. Aryeetey and Baah-Boateng (2007) also note that the fairly decent growth performance that made Ghana the model of economic reform in sub-Saharan Africa has been somewhat dented by the increasing rate of unemployment and underemployment in Ghana.

Linked to the problem of graduate unemployment and underemployment is the population of Ghana that is steadily becoming urbanised, possibly through the drift of the rural population into urban areas and also as a factor of natural population increase (Statistical Service of Ghana, 2005a cited in Karikari-Ababio & Mawuli, 2010).

The Urban Poverty

Urbanisation, therefore poses further threat to the declining rate of some of the key education indicators to achieve the MDG/EFA goals and universal basic education. It also poses threat to graduate unemployment and underemployment.

In 1999 Ministry of Education introduced Disadvantaged Criteria/Financial alleviation formula in districts and schools to increase access, equity and quality of education in deprived districts. The formula uses indicators of deprivation to determine allocations (Karikari-Ababio, 2000, p. 112). By allocating proportionally more funds to deprived districts, the government hopes to address some of the education challenges in areas termed as "hard to reach and post terrain". Such communities lack potable water, electricity, health facilities, good infrastructure or classroom infrastructure, post office, communication system (e.g. internet), accommodation for teachers, police station, accessible or good roads, qualified teachers, other recreational facilities, and good transportation systems. In these areas one girl in three and one boy in four do not attend school (Canagarajah et al., 1997 cited in Karikari-Ababio & Mawuli, 2010).

In the application of the Ministry of Education / GES alleviation formula, the urban district directorates like Accra Metro have to shed about 10 percent of their budget allocations to relatively disadvantaged districts while these disadvantaged districts like Builsa District in Upper East; Wassa-Amenfi District in Western Region and Amansie West in Ashanti region gained by an increase of about 20 percent to their budgetary allocations each year for the eleven consecutive years this formula was introduced and have been implemented to enhance pre-tertiary education delivery in the country (Karikari-Ababio, 2000, p. 112).

A study conducted by GES in collaboration with UNICEF Ghana, in 2004 identified urban poverty in GES Public Basic Schools (GES, 2004). A critical look at the 2010 EMIS data at the district and school level and some studies conducted, suggest that urban poverty could also be a key contributory factor to the current declining performance in education delivery in the country (GES, 2004; Appletton et al. 1996; Mehrotra 1998; Watkins 2000; Deininger 2003; UNESCO 2007; de Kemp 2008 cited in Akyeampong (n, a) and cited again in Comparative Education Volume 45 Number 2, 2009; RECOUP, 2008, p.37)

6.7 Equity

The GES alleviation formula equity revealed discouraging trends. The current status of each district and school that benefits from the formula or other supplementary funds are not calculated and analysed to see the transformations that have taken place so that other districts do not suffer in the long run (Ministry of Education, 2007b, p. 48 cited in Karikari-Ababio & Mawuli, 2010).

It appears the database is not regularly updated to reflect current information, and district allocations recalculated on an annual basis to ensure that the allocations are appropriate for the current status of each district and school for the database to serve as the backbone of a true knowledge bank that could support operations and decision-making throughout the sector. As deprived districts continue to receive supplementary funds, those districts should be able to transform from deprived districts to non-deprived districts. As the transformations take place, it is important to recalculate the allocations, so that other districts do not suffer in the long run (MOE, 2007, p. 48).

The low enrolment levels and ratios at the primary and JHS levels are an indication that large numbers of children who should be in school remain outside of the system, despite some recent improvements in the wake of the capitation grant.

However, until the advent of the capitation grant, the out-of-school population of children aged 6-11 averaged about 1.4 million annually between 1997 and 2004, peaking at just over 1.5 million in 2003. In 2004, these achievements, notwithstanding, Capitation grant may not be enough to increase and sustain high enrolments through into higher grades because of its low pro-poor credentials (Akyeampong (n,a) cited in Comparative Education Volume 45 Number 2, 2009).

In the MOE policy statement for 2011, as at June 2010, 175 schools under trees have been completed and handed over with 230 as outstanding projects to be completed. However, EMIS data suggests that in the Kindergarten, Primary and Junior High Schools more than half the schools have below average enrolment.

As the population of the country becomes increasingly urbanized and Junior High School and Senior High School enrolment levels continue to rise, there is the urgent need for MOE to also make further inquiry through a cost-effectiveness analysis to formulate realistic infrastructure and school establishment policies in low-population density areas in the country (Balwanz, 2010) to quote efficiency savings to solve some of the problems and challenges in the urban areas.

6.8 Graduate Unemployment and underemployment

There is evidence in Ghana that education reduces long-term poverty and improves health status (Belfield, 2008, p.28). Ghana has already achieved the Millennium Development Goal (MDG) target of reducing by half the proportion of the people who are extremely poor (due to the fact that they cannot meet their basic food consumption needs), eight years ahead of 2015 (NDPC, 2009).

There is, however, evidence in Ghana that the country is losing significant opportunities for improvements in economic well-being by failing to ensure that citizens have sufficient education and Skills (Belfield, 2008).

However, there is the understanding that total expenditure on education would need to be about 8.6 percent of GDP on average: equivalent to about US\$13.9 billion in 2001 and US\$18.5 billion in 2015 to achieve the desired impact on education delivery in the country (Lewin, 2008, p. 10). Movement toward 9 percent of GDP would approach levels necessary to universalize primary and greatly enhance secondary enrolment if accompanied by cost-saving reforms (Lewin, 2008, p. 128).

On graduate unemployment and underemployment, Imoro (2010) see urbanisation as one of the biggest challenges to unemployment and underemployment. A theoretical insight into Karikari-Ababio & Mawuli (2010) suggests that Ghana being urbanised is not the problem. The problem is the limited relevance of the skills and training to the economy. The lack of relevant vocational content of the curriculum with the institutions not fully integrated into the national, regional, districts and communities development strategies and plans; make it difficult for the youth to enter employment and engage in productive ventures. The paper also tracks the problem of unemployment and underemployment in the country to lack of a long term manpower and development policy linked to a clear-cut economic policy to create and expand employment in the country. What kind of skills are produced, what numbers are produced and how they are utilised are good policy questions to be answered.

Quality and Relevance: NCTE has consequently reviewed the standards and norms of tertiary education to reflect current challenges. The norm provides benchmark for measuring quality education and funding of tertiary education. NCTE has also developed guidelines for the introduction of new programmes in tertiary education institutions. These Guidelines seek to align new programmes to national needs.

Competency- Based Training (CBT) curriculum is also piloted in 5 programmes in the polytechnics. Research team set up to undertake pilot study in rationalisation of polytechnic programmes will complete work in 2010.

Also, support has been given to the Council for Technical and Vocational Education and Training (COTVET) for the development of a Competency Based Training (CBT) approach.

A tracer study of selected polytechnic graduates is being undertaken by NABPTEx in collaboration with NCTE. The University of Cape Coast has started a review of the curriculum for the Colleges of Education. GETFund has allocated funds to the institutions for faculty development and Research. This has helped the polytechnics in particularly, to improve their faculty profiles.

However, inadequate incentives to promote private sector participation in industrial attachment of students will impact positively on quality of programmes. Science and technology based programmes are capital intensive and limit participation of private institutions in these areas which are relevant to national development. The private sector support for practical attachment and implementation of CBT will also be limited if no attractive incentives are put in place. The CBT pilot projects in the polytechnics will end in 2010 and needs to be mainstreamed and supported as it is capital intensive.

A Post-graduate education which builds up young faculty to replace ageing faculty is limited by inadequate funding for postgraduate studies and research. Research in post

graduate education is an important avenue for faculty development which has a bearing on quality of tertiary education. Post- graduate enrolment increased from 4.59% in 2006/07 to 6% in 2008/09 as against the norm of 6%.

7.0 Conclusion

In spite of the emerging challenges and problems, Ghana has accumulated a wealth of knowledge and experience from 50 years of educational development. The achievements, challenges and lessons learnt so far offer a lot of insights for the next 50 years after independence. Revisiting some of the best and innovative practices, like the establishment of efficient financial information systems in the districts, performance agreement concept and a clear education path will enhance education delivery in the country.

Consequently the revised ESP (2010-2020) is expected to move in tandem with a clear-cut economic policy that provides sufficient labour statistics of the economy to link education delivery to the needs of the economy.

Against this background management activities and actions towards the implementation of the revised ESP (2010-2020) should be limited to areas that have clear implications for the sector performance: a system developed to clearly measure the impact of these activities. The implementation of the revised ESP should be informed by efficient management information in the country. The current data gaps in the sector will not enhance efficient and effective planning and management of resources in the Education sector. A clear strategy should be put in place to address the data gaps in the education sector.

However, it needs to be noted that addressing the data gaps is a necessary but not sufficient condition to improve quality education in Ghana. The wealth of knowledge in the EMIS database needs to be analysed and studies conducted to inform policy direction. There have also been various and numerous policy interventions in the country meant to enhance education delivery. To what extent these policy interventions have enhanced education delivery in the country need to be investigated with thorough studies. Consequently there is the need for a very comprehensive study to evaluate these policy interventions to assess their relative impact on education delivery in the country. Those interventions should be re-defined to make the necessary impact.

There is also the urgent need to enhance the predictability in resource allocation to the operational level of the sector to further instil confidence in education delivery in the country. Teacher motivation and welfare also need to be given priority attention to enhance education delivery in the country.

All these may suggest a paradigm shift in the management of education resources through effective monitoring and evaluation of all programmes and activities:

'A pesewa worth spending is also worth monitoring and evaluating its activity and impact to ensure that it achieves the desired goals and objective in the education sector. Therefore no pesewa should be allowed to go 'scot free' without being monitored in the education sector'.

Equally important as a country are clear-cut, well-defined and measurable strategies to:

- Explore strategic opportunities and technologies that are relevant to the country so that education, job openings and industries can be built around them;
- Ensure effective coordination between the world of learning and the world of work ;
- Put in place an efficient and effective funding strategy or financing mechanism; and
- Ensure an effective teacher management, deployment and utilisation to improve quality and relevance of education in Ghana.

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