



# EDUCATION SECTOR DEVELOPMENT PLAN

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2013-2017

MINISTRY OF EDUCATION

**FEBRUARY 2013**

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## ACRONYMS

ATEI	Asmara Teacher Education Institute
AWPB	Annual Work Plan and Budget
CEE	Complementary Elementary Education
CPD	Continuous Professional Development
DP	Development partner
DGE	Directorate of General Education
DKB	Debabawi-Keih-Bahri (Southern Red Sea)
ECD	Early childhood development
EIT	Eritrean Institute of Technology
ELO	Expected learning outcome
EFA	Education For All
EMIS	Education management information system
EPHS	Eritrea Population and Health Survey
EPLF	Eritrean Peoples' Liberation Front
ENQF	Eritrea National Qualification Framework
ESECE	Eritrean Secondary Education Certification Examination
FRS	Functional Requirement Specification
GAR	Gross admission ratio
GER	Gross enrolment ratio
GPI	Gender parity index
ICT	Information and communications technology
LAPG	Learner Assessment and Progression Guide
LEMIS	Labour Market Information System
LIAE	Library and Information Association of Eritrea
M&E	Monitoring and evaluation
MDG	Millennium Development Goals
MML	Minimum mastery learning
MLA	Monitoring of Learning Achievement
MOE	Ministry of Education
MOLHW	Ministry of Labour and Human Welfare
NAR	Net Admission Ratio
NER	Net Enrolment Ratio
ODLP	Open and Distance Learning Program
PFDJ	Peoples' Front for Democracy and Justice
PGE	Provisional Government of Eritrea
PRC	Pedagogic resource centre
PRSP	Poverty Reduction Strategy Plan
PTSA	Parent-teacher-student association
PRR	Procedures Rules and Regulations
SACMEC	Southern Africa Countries Monitoring & Evaluation consortium
SKB	Semiemawi-Keih-Bahri (Northern Red Sea)
SDC	Skills Development Centre
TRS	Technical Requirement Specification
TVET	Technical-vocational education and training
USD	United States Dollar
Zoba	Region

# EXECUTIVE SUMMARY

## I. Introduction

1. This plan covers all sectors except tertiary education and is based on the principle that education sub-sectors do not exist in isolation from each other, but need to perform in a coherent, holistic and complementary way in order to optimize the achievement of the desired goals. The Plan is a rolling five-year plan to be updated annually.
2. Eritrea is a very poor country economically. It has suffered much hardship as a consequence of its struggle for independence and ongoing regional instability and also because of the harshness of much of its physical environment and climate.
3. Eritrea recognizes the importance of education and training for the future prosperity and wellbeing of the country and its people, in that they have the potential to develop the knowledge and skills required for a vibrant, competitive economy, foster social development and equality and to enable people to generate increased income and lift themselves out of poverty.
4. For these reasons, the Government of the State of Eritrea considers education to be the cornerstone of all national development efforts, particularly in human resources development, economic growth and poverty alleviation. Accordingly, it is making significant investments in the development of human resources by providing education and health services for the entire population, so that they are able to fully participate in the civic, cultural, political, social and economic affairs of their nation. Consequently, Eritrea's development strategy emphasizes people as the most central resource for its reconstruction and development and this is reflected in the national theme 'Our People are our Future.' In this context, the Government has stated its commitment to MDG and EFA goals. However, entrenched problems in the education and training system impede Eritrea's ability to accomplish these goals.
5. Economic growth and poverty reduction have been the twin goals of the government's development programs since independence. Eritrea has considerable potential to generate growth in agriculture and livestock production, fisheries, mining, small and medium enterprises, tourism, telecommunications as well as infrastructure. Education and training are crucial for successful development in all these fields.
6. Eritrea seeks to create a modern, technologically advanced, and internationally competitive economy. A critical mass of qualified, trained and experienced human resources is a major prerequisite for export-led industrial development as well as sustainable industrial development. The existing technological base of the productive sectors of the economy is antiquated and woefully inadequate to achieve international competitiveness. As in agriculture, low educational and skill levels act as a tight constraint on industrial growth. Eritrea has an acute shortage of skilled manpower in virtually all sectors.
7. Education and training also play a key role in poverty reduction and social development.



8. In short, the shortage of appropriate human capital is impacting all aspects of the development effort in both the private and public sectors.

## **II. Situational Analysis**

9. At the time of liberation in 1991 education and training were extraordinarily limited in terms of access, infrastructure and quality. Since then Eritrea has achieved significant progress in rehabilitating, expanding and improving the education system. Total enrolments more than doubled at elementary level between 1991/92 and 2010/11, and tripled at middle and secondary levels over the same period. Enrolments in adult literacy classes reached over 40,000 in 2010/11. Despite the impressive progress, Eritrea faces daunting challenges in its quest to provide equitable access to quality basic education and employable skills for its youth and adults. The challenges are:

### **Low access and High disparities**

10. Gross enrolment ratios have reached 93.2% at elementary level, 70.2% at middle level and 31.5.5% in secondary education. Still, about 121,000 Eritrean 7-11 year old children are not enrolled in school. Disparities in access to schooling exist by location and by gender. At the elementary and middle level gross enrolment ratios range from about 56.6% in the Southern Red Sea Region to 110% in Debub. Several factors explain the disparities, including the marked variation in physical and climatic conditions, shortage of schools, community attitudes to education, and the difficulty of reaching certain segments of the population, especially in sparsely populated areas.
11. Significant differences also exist between boys' and girls' participation in education. Gross enrolment ratios are between 13, 10.5 and 6 percentage points lower for girls than for boys at elementary, middle and secondary school levels.. Negative environmental (demand) side factors include poverty, inability to afford the direct costs of schooling as well as loss of children's labor, and social and cultural obstacles, such as early marriage and undervaluing the benefits of education for girls. Educational (supply) factors include lack of female teachers and of trained teachers in mother tongue, overcrowded classrooms, inadequate supply of learning and instructional materials, perceived lack of relevance of curriculum, lack of sanitation facilities, and long distance to school.

### **Low Quality and Relevance:**

12. **Learning achievements:** The Monitoring of Learning Achievement (MLA) study of 2008 analyzed the proportion of students in elementary education who acquired learning competencies in core subjects. It indicated that despite great efforts to extend access, quality was very low. None of the regions or grade 3 pupils tested achieved the minimum mastery level in any subject. Low performance in mathematics and English is a matter for national concern. Achievements varied widely by region, with Maekel 2.6 times higher than the Anseba region in overall Grade 3 mastery. The performance of all regions was markedly lower in Grade 5 than in grade 3. Girls' combined scores compared favorably with males at grade 3 in Mathematics, but significant differences existed in English, with performance 12 percentage points below boys. Nevertheless, girls have performed at grade 3 in Mother

Tongue 9.6 percentage points higher than boys. At grade 5 both girls and boys performed equally.

13. Both supply and demand factors explain these disappointingly low academic results, for similar reasons to those which inhibit access. Demand-side problems include poverty, child domestic labor, weak parental interest, distance from school and socio-cultural barriers. Multiple supply-side educational factors include: (i) shortage of teacher and school manager competencies, qualifications and accountability for results (in the 2010/11 academic year, only 69% of teachers at middle level were formally qualified, and just 83% in the secondary phase); (ii) problems in curriculum relevance; (iii) overcrowded schools and classrooms, often with dilapidated facilities and broken equipment (at secondary level, on average teachers teach about 65 students per class) ; and (v) inefficient use of the school calendar and school day resulting in much less than intended time on task.
14. **TVET – relevance and quality:** Lack of relevance manifests itself first in lack of demand-responsiveness. The country lacks an effective labor market information system (LMIS) by which to guide the direction of the system. Employers, the ultimate users of the output of the TVET system, do not participate in advising the system. Formal skills training is limited to traditional trades. Technical schools are marginal in the overall education system, accounting for only 5% of enrolments at secondary level. Public non-formal skills training is also negligible.
15. The quality and effectiveness of TVET also present problems. TVET institutions lack the main inputs required for sound and effective training: qualified and experienced instructors, textbooks and teaching materials and operational, reasonably up-to-date equipment. Mechanisms do not exist to coordinate training policies among the key public actors and employers. Insufficient data exists about the performance of the training institutions and their graduates in the labor market.
16. **High wastage and dropout:** The Eritrean education system is characterized by wastage due to high repetition rates at all three levels, generally between around 12% of students at each grade each year. Low internal student flows means that it takes 6.5 student-years of inputs to graduate one student from the five-year elementary phase. Repetition and late entry account for large differences between net and gross enrolment ratios at elementary and middle levels. 14% and 23% more of the age group could be accommodated within existing elementary and middle institutions, respectively, with efficient internal flows. High repetition rates increase the cost of education and deny other children an opportunity for schooling.
17. **Limited Institutional and Financial Capacity:** The Ministry of Education faces two main constraints: limited MOE implementation capacity at central, Zoba and local levels, and scarce financial resources. Modern systems are lacking that would enable more efficient management of planning information, budgeting and expenditures.
18. EFA goals cannot be reached without substantial increases in financial resources to support education and training. The ability of Government to mobilize further resources for education is constrained under present circumstances. Education and training are free at all levels and the government shoulders virtually all the expenses of teacher salaries and building construction. Parents at present finance some of the operating costs of schools through voluntary contributions.

### III. Plans and Strategies for Educational Development

19. The Government's strategies for economic growth and poverty reduction seek to transform Eritrean society and create a modern, vibrant and competitive economy. Eritrea aims to make basic education available to all, regardless of their ethnic origin, sex and religion. The Government is committed to meet the EFA goal of achieving universal primary education, ie a net enrolment of 100%, by 2015. Gross and net enrolment ratios at the middle level will reach 106.4% and 50% respectively by 2016, with corresponding gross and net enrolment ratios of 43.4% and 35% at the secondary level. These targeted increases imply an additional enrolment of 207,408 at elementary level, 35,258 at middle level and 56,492 at secondary.
20. In the planned five year period MOE will target out-of-school youth, reduce class sizes and the number of double shift schools, reduce repetition and increase learning achievement. This will allow significant gains in internal efficiency that will increase the net enrolment ratio to about 100%, 50% and 35% at elementary, middle and secondary levels education respectively, by 2016/17.
21. The MOE places top priority on the expansion of educational opportunities for females. Female gender parity with males will be achieved in elementary and middle education by 2015/16. However, gender parity will not be achieved in secondary education until 2016.
22. The Ministry has introduced several new policies aimed at resolving the key problems. These include new curricula that are vertically and horizontally integrated, specification of expected learning outcomes for each grade and subject, learner-centered and interactive teaching methods, and continuous assessment of student performance to facilitate efficient student passage through the system. Greater relevance will be achieved in middle and secondary education through the introduction of practical courses as enrichment to core academic subjects. Policies have been drafted for TVET and Adult Education aimed at expanding access and improving the quality of education.
23. The Ministry will pursue multiple strategies to achieve its priority objectives. The **strategy to improve access** involves targeting of classroom construction for underserved areas and populations; breaking the bottleneck on the output of trained teachers; implementing community-based campaigns and reducing the direct and indirect costs to parents of enrolment of their children. Efforts will also be made to extend and reinforce adult literacy programmes, in part using media education. Within this context MOE has prepared a separate strategy for female education including: raising gender awareness of the communities and teachers; revising curricula and teaching materials to make them gender sensitive, disability sensitive and age-appropriate; expanding the number of female teachers; opening boarding schools and hostels for girls in remote areas; ensuring grade 1 entry at the proper age; and improving gender-disaggregated data for monitoring. In adult education extensive campaigns and interventions will be made to lower illiteracy rate to 10% during the plan period.
24. **Strategies for quality improvement** include the following interventions: curricula revisions with focus on expected learning outcomes; provision of adequate, up-to-date textbooks; increasing teacher and school leader competencies through staff development; improving teaching methods and time on task; provision of facilities to relieve overcrowding and facilities and equipment for science and ICT; reduction in double shifting, stimulating parental interest and continuing MLA studies to track progress on learning achievements.

Quality of the literacy program will also be improved through the enhancement of facilitators' and coordinators' competencies; curriculum review and textbook production; and by expanding community reading centers.

25. The **strategy to reduce student repetition and dropout** recognizes that virtually all of the interventions designed to increase access and boost quality will also reduce student wastage. Such reductions are essential to reduce costs in the system and free up capacity for new students. Both school and non-school factors will be addressed, including the use of continuous assessment, remedial instruction, information campaigns to counter negative parental attitudes, in part through radio and media, and building of strong, community-based parent-teacher-student-associations (PTSA). In addition, direct incentives will be employed for the poorest students, including financial assistance to offset the direct costs of schooling.
26. The **strategy for vocational and technical skills development** seeks to build demand-orientation into the training system; achieve more effective mastery of skills competencies; broaden coverage and expand the quantitative output of skills to meet economic requirements in various sectors; mobilize adequate financing to augment operating costs; and strengthen the management capacity for skills development.
27. The **strategy for building institutional capacity** seeks to bring better educational services to schools through functional analysis and readjustment of structures, procedures, resources and staff development.
28. The **financing strategy** calls for increased contributions from the Government, communities, the private sector and the assistance of Development Partners to reach the targets set out in this plan, including the MDG and EFA Goals.

#### **IV. Overview of the five year plan**

29. The Ministry's Five Year Education Sector Development Plan (ESDP), 2013-2017, represents a significant milestone in plans for the education sector. It translates the vision of Government and the strategies chosen to deliver it into outputs and outcomes, and identifies the planned inputs and activities necessary to achieve the desired results.
30. The three objectives of the plan are to:
  - Increase *equitable access* to basic (including adult and non-formal education), secondary and technical and vocational education;
  - Improve the *quality* of basic, secondary and technical and vocational education; and
  - Strengthen *institutional capacity* to deliver better quality education services.
31. In accordance with the overall sectoral priorities, the Plan features the following three components:
  - a) Increase Equitable Access to Basic education and literacy, Secondary education and TVET;
  - b) Improve Quality and Relevance of Basic, Secondary education and TVET; and
  - c) Institutional capacity building.
32. The ESDP will achieve the following total increases by level: 44,427 more pre-primary students, 1124 pre-primary teachers and 746 pre-primary classrooms; 207,408 more

elementary students, 3609 elementary teachers and 4220 elementary classrooms; at the middle level 35,258 more students, 1787 teachers and 630 classrooms; and at secondary level 56,492 more students, 2021 teachers and 1203 classrooms.

**Component 1: Increase Equitable Access to Basic education and literacy, Secondary and TVET education.**

33. The ESDP 2013-2017 objective is to have all children complete elementary education and 80% complete middle level, with targeted learning achievements as defined by the curriculum.
34. This overall objective requires three principal accomplishments by 2015/16: equity of access, efficient student flows and quality, i.e. to:
  - a) Enrol 100% of age-eligible children in elementary school, and 80% in middle school;
  - b) Keep them in school, progressing at a reasonable pace, reducing repetition from 12% to 0% from grades 1-3 and 7% for grades 4-5 at elementary level and from 12% to 7% per annum at middle level; decreasing dropout at elementary level to no more than 2% per annum and to 4% p.a. at middle level); and
  - c) Ensure that students have mastered the essentials of the curriculum, i.e. 80% of the students score 50% on a test of their knowledge, skills and competences.
35. The principal means to achieve the objective of expanded access to school are: (a) construction of 807 pre-primary, 2776 elementary, 548 middle and 572 secondary school classrooms plus boarding facilities, carefully locating them where they will serve underprivileged groups and regions; (b) expansion of teacher outputs by enhancing Asmara Teacher Education Institute (ATEI) and College of education and expanding enrolments in these, and by providing brief vacation time courses.
36. The Plan will also concentrate on increasing literacy. The adult literacy and post-literacy program will be expanded to reach more than 300,000 non-literate adults and youth, and a non-formal education program will be organized for about 50,000 out-of-school youth during the five year period. Quality, and supply, of teaching materials and appropriately trained teachers for the adult literacy program will be enhanced. Media education, particularly radio, will feature prominently.
37. The principal inputs to the literacy program are: construction of transportable classrooms, greater use of media (especially radio), revision of curricula and materials, facilitator training and systematic monitoring and quality assurance.
38. Secondary education is important as a means to supply educated and trainable graduates. It also has positive externalities, such as improved health, reduced infant mortality and better family planning. The scope, quality and gender balance of post-secondary education depend on the graduates of secondary education. Pressure for expansion of secondary intake is likely to mount quickly. Thus improved and expanded provision of secondary education occupies a central and pivotal place in the future development of the country.
39. The ESDP projects an increase in the transition rate from middle school (Grade 8 leavers) to secondary level to 66.0%. Secondary enrolment is projected to increase by 56,492, an increase of 59.6%, raising gross enrolment ratio from 31.5% to 43.3%. The total enrolment of

females is expected to increase substantially, over the plan period. The net enrolment ratio at secondary level is expected to increase from 23.2% to 35%, an increase of 74.6%. The gender parity index is expected to improve from 0.74 in 2010/11 to 0.95 in 2015/16.

40. The Plan is for increased access to be achieved through construction of 1203 classrooms, targeting underserved areas, expansion of qualified teachers and reduction in repetition; as well as social mobilization campaigns to increase demand for education services.
41. At secondary level, planned inputs will significantly increase the proportion of students who gain minimum mastery level at graduation. Inputs include; curricula development, provision of more and better textbooks, improvement of the qualifications of school directors and teachers (including through distance education), reduction in double-shifting, enhancing libraries and laboratories for science, expansion of ICT, and introduction of enrichment programmes in practical skills.
42. TVET will be strengthened by the expansion of skills outputs through reinvigoration of Skills Development Centers, building new technical schools and renovating existing ones. The organization and management of skills development will be strengthened. In collaboration with the Ministry of Labor and Human welfare (MOLHW) the sub-sector will be strengthened through collection and analysis of labor market information, building the capacity of the central MOE to take on support functions. Also, multipurpose training providers for out-of-school youth and adults will be encouraged.

### **Component 2: Quality and Relevance of Education**

43. The main means to achieve the objective of quality improvement are curriculum development, expansion of textbook provision, enhancement of school support systems' development and interventions to improve the competence of teachers through in-service staff development, including of school leaders. Distance education features prominently in the strategy to upgrade teacher qualifications.
44. Improvement in the quality of adult education will be achieved through the development of curriculum and textbooks, supply of adequate teaching and learning materials and increasing the supply of qualified facilitators and coordinators.
45. Raising the quality of skills training will be achieved through development of competency-based training, increasing the supply of trained instructors and re-equipping of existing training institutions. The outputs of these investments are expected to be a system of skills formation more responsive to labor market demands, higher standards of quality, and a major expansion in the number of beneficiaries acquiring relevant skills.

### **Component 3: Institutional Capacity Development**

46. The ESDP draws on the findings of an institutional capacity assessment conducted in 2005. The main activities to increase effectiveness and efficiency in the delivery of educational services include a review of roles and responsibilities among the various actors, together with the distribution of functions among the various organizational structures; and identification of the gaps between needed and available inputs. The plan prioritizes support to capacity development in: organizational development; staff professional skills development; systems

development including EMIS, budgeting and human resources; updating of regulations and addressing equipment requirements.

## **V. Implementation**

47. The overall objective of the implementation framework is to ensure that the plan gets implemented fully, on time and within budget. This requires, inter alia, an effective administrative structure, efficient procedures, capable human resources and sufficient financing for implementation.
48. Key implementers of the plan will comprise the Ministry of Education (MOE), the zoba and local education offices. In executing its functions, the MOE will be assisted by other government ministries and regional administrations. These are primarily the Ministries of National Development, Finance, Public Works, Labor and Human Welfare and Justice.
49. The MOE will be responsible for the policy development and implementation of strategic, legal, and institutional aspects of the plan and will retain oversight of these aspects. The MOE will also retain responsibility for the management of the entire implementation process of the plan. A Steering Committee chaired by the Minister of Education with all five MOE Directors-General as members will; foster a common understanding of the plan goals and policies; provide strategic oversight; review and approve annual work plans and budgets; coordinate the various branches of the MOE in plan implementation; assess the performance of the MOE in plan implementation; take corrective actions to avoid or overcome problems; and report on program implementation to higher levels of government.
50. The implementation and execution functions of the MOE will be undertaken by the respective structures of the MOE within which the technical and substantive aspects of the plan will be mainstreamed. These structures include the various Departments at headquarters, Zoba offices, Sub-zoba offices and schools.

## **VI. Monitoring, Evaluation and Reporting**

51. In order to assess whether the development objectives of the ESDP are being met, a monitoring and evaluation system will be established in the MOE. Monitoring and evaluation of plan performance will systematically be carried out during the plan period, integrated into the daily operation of the plan at all levels and used to encourage innovation, team building, and local project ownership. The foundation of the plan monitoring and reporting systems will be the Logical Framework and its key performance indicators.
52. There will be quarterly, annual and final reporting on performance measures against the objectives and indicators of the ESDP. A Joint Annual Review Meeting (JARM) will be convened with representation of key GSE officials from MOE and other Ministries, consistent with the latter's responsibility to contribute to the success of the program. Development Partners who provide financial and other support to the Program will also be able to participate; as well as the members of the reconstituted Education Working Group (EWG).

## **VII. Costs and Financing**

53. The five year ESDP will cost approximately US\$ 545 million for increasing equitable access, US\$ 89 million for improving quality and relevance of education and US\$ 59 million for institutional capacity building. The overall cost for the three components amounts to approximately US\$ 700 million. The recurrent cost implications of the Plan will be substantial. Government welcomes the support of development partners in meeting the overall costs.

## **VIII. Conclusion**

54. The Plan is expected to generate substantial benefits through increased access to basic education (which includes adult and non-formal education), secondary and technical education and improved student achievement at all levels. Major reductions are projected in gender disparity and increased participation among other hard-to-reach disadvantaged groups. The increased relevance of educational content and expansion of outputs from TVET institutions will promote skills needed both for economic growth and increased personal incomes. Employers increasingly will have access to more of the skills and competencies they need, and the economy overall will have more of the workers required for accelerated development. The population will also benefit from more and better education through the resultant greater opportunities to participate fully in the civic, cultural, political, and social affairs of the nation.



# CHAPTER I:

## 1. INTRODUCTION

55. The developments and trends of education throughout the world reveal that education systems of developing countries have made unprecedented progress in recent years. However, the future holds major challenges for countries at all the various stages of educational and economic development. Despite the increasing endeavour of governments, the achievement is expected to remain the same mainly due to the rapid increase in the school age population combined with falling enrolments.
56. Eritrea recognizes the importance of education and training for the development of the country. Education develops the knowledge and skills required for a vibrant, competitive economy. It enables people to generate increased income and lift themselves out of poverty. It fosters social development and equality among the people.
57. For these reasons, the Government of the State of Eritrea considers education to be the cornerstone of all national development efforts, particularly in human resources development, economic growth and poverty alleviation. Accordingly, it is making significant investments in the development of human resources by providing education and health services for the entire population, so that they are able to fully participate in the civic, cultural, political, social and economic affairs of their nation.

### 1.1 National Context and Strategy of Education

58. Eritrea, an independent state in Africa, is bounded on the east by the Red Sea, on the southeast by Djibouti, on the south and west by Ethiopia, and on the north and northwest by Sudan. Eritrea is one of the newest countries in Africa, having attained its independence after a 30-year war with Ethiopia. Eritrea attained de facto independence in May 1991 and de jure independence two years later in 1993. Asmara is its capital city. For administrative purposes, Eritrea is divided into six regions (zobas), 58 sub-regions, 704 administrative areas and about 2580 villages.
59. Eritrea covers an area of 121,144 sq km and the Red Sea coast stretches more than 1,000 kilometers. The Denakil Depression in the southeast, which is inhabited by the Afar community, falls below sea level and has been the site of some of the highest temperatures recorded on earth. The National Geographic of October 2005 described it as the cruellest place on earth, “a place of dry sands and even drier gravel beds, rocky lava flows, active volcanoes, burning salt flats, temperatures that often top 120°F”. To the west, the coastal plain rises sharply to the highland plateau, where altitudes range from 1,830 to 3013 meters above sea level and annual rainfall is significantly higher than it is at the coast. The population on the plateau is mostly inaccessible due to the rugged terrain and remoteness of the area. Agriculture is the norm in the plateau region. Livestock raising and fishing predominate in the north, west and in the drier coastal plains and the arid regions of the north and west.
60. Since the last decade, Eritrea has experienced recurrent droughts and socio-economic challenges resulting from the no war no peace stalemate with neighboring Ethiopia. These

contributed to the slowing down of its normal growth and development. Worse yet, degradation of natural resources, inadequate infrastructures, and shortage of skilled human power pose daunting constraints to its overall development process.

61. Eritrea has not had a population census since independence. The population estimates used come from a variety of sources. In recent years, the Government has been using the total population figure of 5.4 million, which was the estimate that appeared in United Nations publications. However, recent demographic and health surveys indicate that the true figure is considerably lower. The Eritrean Office of National Statistics now estimates that the total population is about 3.6 million.
62. The national education statistics are based on age-specific population estimates provided by the Office of National Statistics, consistent with the revised population total. Thus in the Education Sector Development Plan, estimates such as numbers of out-of-school children and of enrolment ratios are consistent with the revised, 3.6 million, total population figure, not the earlier 5.4 million.
63. Eritrea's economy is mainly based on agriculture, light industry, fisheries and services including tourism. Almost 80 per cent of Eritreans live in rural areas, with the majority relying on rain-fed agriculture and livestock rearing for their livelihoods. Eritrea is presently developing its tourist industry around the Red Sea port of Massawa and the export potential of its mineral reserves, including gold, copper and potash. Gold extraction commenced in 2011, and oil and natural gas reserves are possible. Eritrea ranked 177 of 187 countries on the 2011 Human Development Index, a composite index that combines GDP with adult literacy and life expectancy. There are limited data on developmental and income inequality.
64. High gross domestic product (GDP) growth of 8.7% was estimated for 2011, with per capita GDP of US\$ 549 in 2012 representing a 16% increase on 2011 (IMF data). In spite of many challenges, Eritrea undertook rehabilitation and reconstruction of the country giving priority to food security and the construction of necessary infrastructure, the provision of social services and social protection based on the principle of social justice.

## **1.2 Eritrean Education Strategy**

65. The Government of the State of Eritrea considers education as key to national development. An important milestone during the Eritrean struggle for independence was the development of a new education system. The previous curriculum of the colonial powers deliberately perpetuated marginalization of Eritreans and subjected them to degrading experiences and concepts that undermined the dignity of Eritreans. For example the teaching of Eritrean languages was replaced with instruction in the national language of the occupying forces. During the struggle for Eritrean independence, education was considered critical to the success of the struggle and accordingly the Eritreans involved in the struggle were given quality education even at the battlefield. The new National curriculum was developed and it emphasized the development of literacy in all local languages within a relevant education system. Schools were set up mostly in open spaces in the liberated areas. All citizens were encouraged to learn irrespective of their age, gender, ethnicity, religion, location and occupation through formal and non-formal means. Mobile schools were opened for nomadic populations. That experience formed the basis for innovative strategies of education service delivery that the country still utilizes.

66. After independence in 1991, education for all was pursued with renewed vigor and spread to all parts of the country. The clearest testament to the government resolve to eliminate illiteracy was the foresighted declaration of free and compulsory education for all Eritreans across all levels including secondary and tertiary education.
67. The Ministry of Education has adopted a three band structure (National Education Policy, 2010) consisting of basic education (that comprises pre-primary, elementary and middle school), secondary education, and tertiary education. The structure allows combinations of parallel formal and non-formal channels of basic education with opportunities for transition from one system to the other. The policy further provides for transition between different education channels in the system based on combinations of accredited academic performance and experiential learning. Of significance is the flexibility in the system which allows a second chance to education for the large number of the children, adolescents and young people who are out of school with commitments to reaching EFA goals by 2015.
68. In addition to two years of pre-school, basic education lasts 8 years and is split into grades 1-5 (elementary) and grades 6-8 (middle). Secondary education lasts four years (Grades 9-12) and it provides general secondary education in arts and sciences. There are also technical and vocational training secondary schools where students join from general education after the completion of grade ten. Upon completion of secondary education and based on performance in the secondary education certificate examination students join institutions of higher learning (tertiary), or go into technical and vocational education and training (TVET).
69. The Government affirms that education is the cornerstone for all national development efforts This is articulated in the Interim Poverty Reduction Strategy Paper (I-PRSP, 2004), which states that developing Eritrea's human resources capacity through education, health and human welfare sectors is one of the key strategies for attaining the goals and objectives of economic growth and poverty reduction.
70. The Macro-policy (1994), the National Education Policy and Adult Education policy provide guidelines to uphold the equitable access and delivery of quality education at all levels for all citizens.
71. Since 1993 the education sector has experienced significant progress in terms of rehabilitation of infrastructure and in the general expansion of the education system. The government's macro policy objectives for education are: i) development of a population equipped with necessary skills, knowledge and culture for a self-reliant and modern economy; ii) development of self-consciousness and self-motivation in the population to fight disease, attendant causes of backwardness and ignorance; and iii) provision of basic education to all, regardless of their ethnic origin, sex and religion. These macro objectives have subsequently been reconfirmed by the current National Education Sector Plan 2013 - 2017 of the Ministry of Education.
72. The GSE emphasis on social justice is clearly articulated in the education system's vision as stated in the National Education Policy 2010<sup>1</sup>:

*Our education system aspires to produce all round citizens along with a firm commitment to country, people and social justice. This aspiration includes the*

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<sup>1</sup>MoE, National Education Policy, 2010

*development of creative and productive individuals who are capable of contributing towards the attainment of a modern, competitive, harmonious and self-reliant Eritrea.*

73. The 2010 National Education Policy underlines the Ministry of Education's commitment on reaching the unreached and the goal for creating a literate society that can provide good quality education to all the children and at all levels. It calls for the provision of free and compulsory basic education; the use of the mother tongue teaching at the elementary level; and the expansion of secondary and tertiary education opportunities as the most essential components of the education system. It also provides alternative routes for those who may not benefit from the formal provisions. These include the Complementary Elementary Education (CEE) for children who fail to enrol into elementary school at the right age, nomadic education for pastoral communities, and adult literacy, which targets adults who missed out on their educational opportunities. Upon successful completion of grade 12 and the National Secondary Education Certificate Examination (NSECE) a student can enter one of the seven colleges<sup>2</sup>.

### **1.3 Financing Education**

74. Based on its standing objective of nation building, the Government of Eritrea encourages sectors that invest in programs that contribute to poverty eradication and national food security program. Education is among the top priority sectors.
75. The Government has shouldered the responsibility of providing education to its citizens since independence but the resources have not been sufficient to guarantee social justice in education. Other constraints have equally contributed to the inability to guarantee social justice in education. For example, despite the implementation of the free and compulsory education agenda since independence, over 30% children of school age cannot access basic education. These statistics undermine the resolve of government to promote equity and social justice, they also threaten the government efforts to achieve EFA and MDG goals.
76. Whereas the Government plays the dominant role in the provision of education, there are other non-governmental (private) education providers from pre-school up to the tertiary levels. The MOE is responsible for the training of ECD, elementary, middle and secondary school teachers, curriculum design and development, providing textbooks and the supervision. The central government is responsible for paying and recruiting teachers, setting standards, providing the overall policy framework and monitoring and evaluation for the entire sector.
77. The overall government expenditure on education represents approximately 8-10% of the total national budget. Education expenditure as a percentage of the Gross Domestic Product (GDP) is in the range of 2.6% to 3.7% based on the GDP estimates of the World Bank. The basic education sub-sector share of the total government spending in 2008 was 25.3% and in 2011 it slightly declined to 25.1%. The non-salary percentage of basic education spending in 2008 was 50.7% and declined to 42.3% in 2011<sup>3</sup>.

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<sup>2</sup>The seven new colleges are: Eritrea Institute of Technology at Mai Nefhi; Hamelmalo Agricultural College at Hamelmalo; College of Health Sciences, Asmara; Orotta School of Medicine, Asmara; College of Marine Sciences and Technology, Massawa; College of Business and Economics, Halhale; and, College of Arts and Social Sciences, AdiKeih.

<sup>3</sup>Ministry of Finance, Government spending on Education (2008-2011).

### 1.3.1 Actual Spending on Education

78. In projecting costs of an education sector plan, it is necessary to show them in the context of the amount that is actually being spent on education at present. The Ministry of Finance provided data to the ESDP costing team in December 2012, of which the overall total is summarised in Table A. Together with World Bank estimates of Eritrea's GDP, these data show education spending as proportions of GDP and total government spending. They indicate that, in its spending on education, Eritrea may be in the lower part of the spectrum of countries of similar income levels, perhaps giving space for increased spending.

#### Education Spending (including higher education) in the Context of GDP and Total Public Spending

	Actual	Actual	Actual	Actual
	2008	2009	2010	2011
GDP US\$ Mn (World Bank)	\$1,380.2	\$1,856.7	\$2,117.0	\$2,609.0
GDP Nkf Mn (World Bank)	Nkf20,702.4	Nkf27,850.5	Nkf31,755.0	Nkf39,135.0
Total Education Spending Nkf Mn (MoF)	Nkf 763.8	Nkf908.6	Nkf1,038.2	Nkf1,036.4
Education Spending as % GDP	3.7%	3.3%	3.3%	2.6%
Education Spending as % Total Government Spending (MoF data)	8%	10%	8%	8%
Education Spending excluding Higher Education Nkf Mn (MoF)	Nkf 601.5			Nkf 823.1

- Source: Ministry of Finance, except GDP figures, which come from the World Bank website database, converted to Nakfa at 15 to the US dollar.

79. Further analysis of actual expenditure is not presented here, since data from the MoE show spending grouped in different ways. These presentational differences make it difficult for sector decision-makers and planners to manage the system with a clear understanding of what has actually been happening in the recent past, and the relative priorities of different parts of the sector as shown by the resources committed to them. Given that the EMIS data on enrolment and the school system are comprehensive and produced relatively quickly, a better understanding of where money is spent would allow good analysis of system costs, which would be helpful to all concerned. The two Ministries are working to resolve the problem, and it is hoped in the near future to have available an analysis, presented in an agreed form, that meets the needs of both.
80. The government therefore appreciates the support of development partners in complementing its programmes. Key external support to the sector has been received towards the following specific interventions:
- The 2003-2008 Education Sector Investment Plan (ESIP) supported by the World Bank and later became part of the ESDP;
  - The Education Sector Development Plan (2005-2009) supported by African Development Bank, European Union, Islamic Bank, UNDP, UNESCO, UNFPA, UNICEF, and World Bank. The funding of this programme was composed of loans, grants and government contribution total of USD 90,972,780.20 and Euro 53 million

iii) The ESDP (2013-2017): Currently the active development partners to the sector are the African Development Bank (USD 19.7 million), Islamic Development Bank (USD 200,000) and UNICEF (USD 9 million).

81. The current partners include the African Development Bank support to the Technical and Vocational Education and Training sub sector, UNICEF support to the Basic Education sub sector, and the Islamic Development Bank support to elementary education. Much as education is free across the various levels, community financing constitutes a significant proportion of funding to the sector. Community financing includes in-kind support in the form of labour for the construction of classrooms, the provision of scholastic items to schoolchildren (at subsidized cost), the provision of school uniforms and payment for utilities like water and electricity by PTAs. However, community contributions have not been systematically quantified to determine the percentage of the total contribution to the sector.
82. The government of Eritrea welcomes more external partnerships and has initiated discussions with potential partners including the European Union with the view to mobilising support towards the education sub-sectors that are under-funded.
83. It is estimated that the implementation of the new Education Sector Plan will cost at least USD 700,000,000. Basing on previous Government inputs to the sector, amounting to USD 50 million annually, the projected Government contribution to the ESP is likely to amount to USD 250 for the five years. Other confirmed contributions are from ADB (\$ 19.7 million), UNICEF (\$9 million) and Islamic Bank (\$ 0.2 million). The funding gap at the moment is \$421, 000,000

## 2. VISION

84. The Government's economic growth and poverty reduction strategy seeks to transform Eritrean society and create a modern, vibrant and competitive economy. The education sector strategy, along with other elements of the development strategy in health, agriculture and other sectors, is designed to contribute to the achievement of this vision. The social and economic dimensions of education are reflected in a draft mission statement of the MOE: "To provide all citizens of the State of Eritrea with access to learning opportunities and to ensure a quality of education and training provision relevant and responsive to individual and national development needs. This provision shall take note of the special circumstances of specific social groups, including disadvantaged communities."<sup>4</sup>

## 3. OVERALL OBJECTIVES

85. The Government's *Macro-Policy* (1994) was the first document to establish the objectives of the education sector. They remain valid today. The overall objectives are: (i) the development of a population equipped with necessary skills, knowledge and culture for a self-reliant and modern economy; (ii) development of self-consciousness and self-motivation in the population to fight disease, attendant causes of backwardness and ignorance; and (iii) provision of basic education to all, regardless of their ethnic origin, sex and religion.

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<sup>4</sup> Ministry of Education, *Our People Are Our Future: A Framework for the Development of Human Resources in the Education Sector*, 2001, 27.

86. The Macro-Policy also defined a policy framework for the sector, which envisaged:
- Providing Universal Primary Education (up to seven years)
  - Meeting skilled manpower/labour requirements of both the public and private sectors by steadily increasing enrolments at the secondary, technical and vocational schools.
  - Promoting continuing education through formal and informal channels to achieve higher literacy rates and technical competence.
  - Expanding tertiary education to meet the envisaged manpower/labour requirements of the country.<sup>5</sup>
87. The *Concept Paper for a Rapid Transformation of the Eritrean Educational System* (2002) refers to problems of access to education at all levels including higher education, lack of employment orientation and the wastage of resources. It states,

*“The time is ripe for the Eritrean government to make all the necessary changes and reforms ... to make the Eritrean education system measure up to the needs of the country to produce the people necessary to propel it forward as a viable ... nation of the twenty first century. The reforms must achieve the following:*

- *All wastage of person power, resources, effort and time in the educational system must be abolished inasmuch as it is humanly possible*
- *All doors and opportunities must be open to Eritreans of all ages to develop to their full potential both professionally and personally.*
- *Education must be employment oriented such that at the end of any level of education any person can find gainful employment commensurate with the person’s level of education and training.*
- *The standards and quality of education and training in the education system must be high enough such that products of the educational system would have a high degree of acceptability in ... employment”.*<sup>6</sup>

#### **4. STRATEGIC PRIORITIES**

88. The following priority areas have been adopted by the Ministry as the most important for development over the coming five years:
- Increasing equitable enrolment in basic and secondary education through the construction of classrooms and ancillary facilities and targeted interventions aimed at girls and other disadvantaged children.
  - enhancing and expanding the provision of literacy and continuing education for adults and out of school youth;
  - Improving the quality of basic, secondary and technical and vocational education by expanding teacher training and professional support, replacement of expatriate teachers by Eritreans at secondary level; development of curriculum and pedagogical reforms; improvement of educational support systems;
  - Developing technical skills and technology training, by expanding existing technical schools and establishing new ones with due attention to cost-effectiveness and the

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<sup>5</sup> Eritrea, *Macro- Policy*, 1994, 39-40.

<sup>6</sup> *Concept Paper*, 5-6.

technical skills and training geared to meet labour market demand. Training will be imparted in trades selected in consultation with the local industry to create strong employment linkages;

- Strengthening sector capacity to deliver better quality educational services by developing institutional capacity of the Ministry and regional offices in matters of policy planning, management, and monitoring and evaluation to implement the intended transformation of the education sector.

## **5. OVERALL TARGETS**

89. The Government is committed to meeting the EFA goal of achieving universal primary education by 2015. The Government aims to achieve a net enrolment ratio of 100% in elementary school by 2016/17. At the middle level Gross and Net Enrolment Ratios (GER/NER) will reach 106.4% and 50% respectively over the same period, with corresponding GER and NER of 43.4% and 35% at the secondary level. In the next five years, this increase requires an additional enrolment of 207,408 at the elementary level, 35,258 at middle level and 56,492 at secondary level. The projected enrolments are based on the assumptions that GER at elementary, middle and secondary levels will reach 126.5%, 106.4% and 43.4% respectively by 2016/17. During the same period NER are expected to reach 100%, 50% and 35% at elementary, middle and secondary levels respectively. It is also targeted to reduce class sizes and number of double shift schools, and concentrate on reducing repetition and dropout rates while at the same time increasing learning achievements. These measures will enable significant gains in internal efficiency, which will increase the number of age-appropriate children by about 190,468 at elementary level, over the same five year period.
90. Ministry of Education (MOE) has established pre-primary (formal and non-formal) schools within the education sector and has adopted a policy of support for 2 years of Early Childhood Development for each child prior to enrolling in elementary school. The target of the five year plan is to have 30% of the children within the 5-6 year age range enrolled in these schools.
91. In the adult education program the target is to achieve 90% adult literacy (from the current baseline of 74%).
92. The target for technical and vocational education is to admit about 20% of students who complete grade 10 to Vocational high schools. Students will be provided with integrated knowledge and skills-based education and training to ensure adequate supplies of competent people, with adequate skills for the attainment of the government's overriding national development priorities.
93. Gender targets have been set for general education, adult education and technical and vocational education to ensure that the participation and success of girls and women increase in tandem with that of boys.
94. However, entrenched problems in Eritrea's education and training system impede its ability to accomplish the sector goals. These problems include: inadequate access to education, low quality, low internal efficiency of education and limited delivery and human and financial capacity. These problems are examined in sequence in Chapter 2, followed by the



Government's policies (Chapter 3) and strategies, objectives and activities in Chapter 4 and finally the implementation arrangements and monitoring and evaluation Chapter 5 onward.

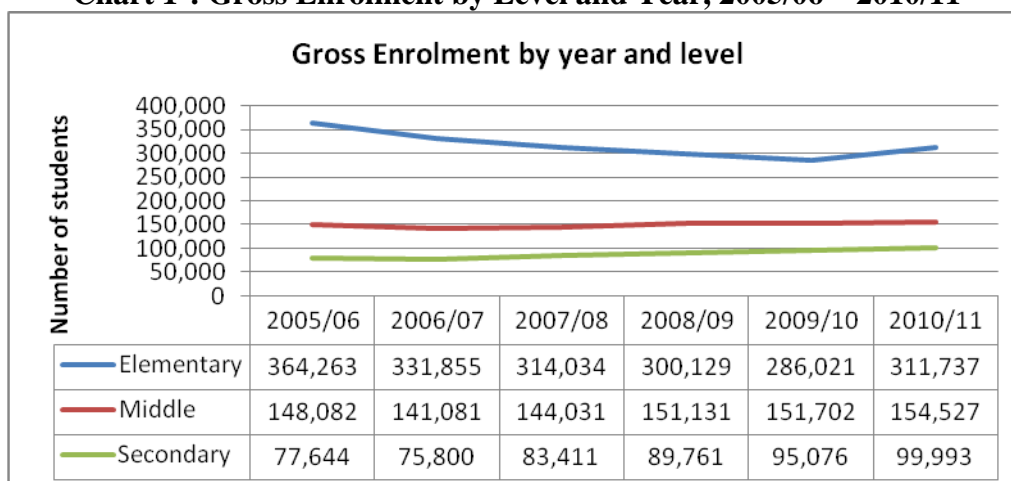
## CHAPTER II: INSTITUTIONAL CONTEXT

### 1. Progress and achievements

#### 1.1 Access and Equity

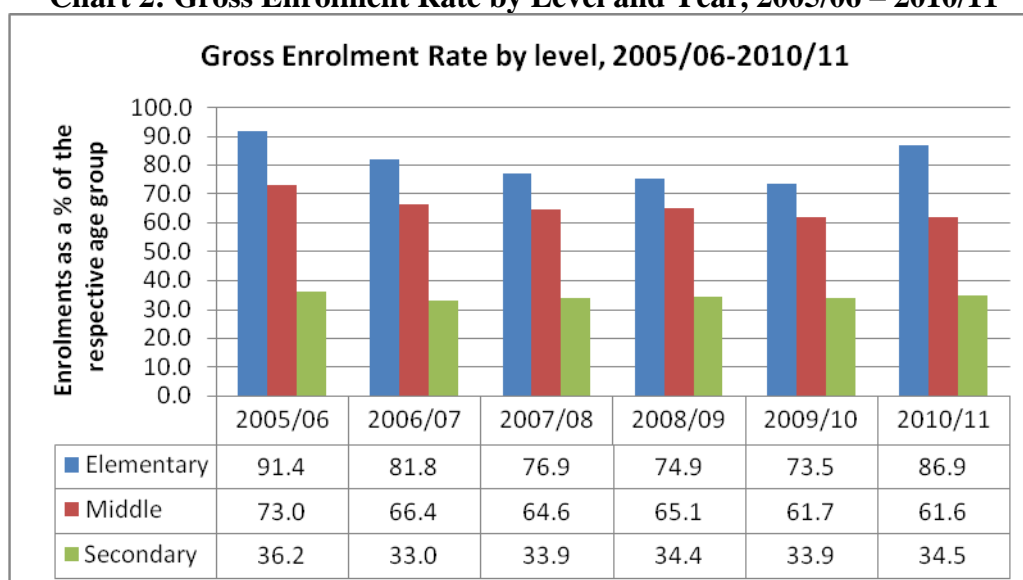
95. When liberation was achieved in 1991, access to education was extraordinarily limited in terms of coverage of the school-age population; infrastructure had deteriorated, the teaching force was inadequate in terms of both quantity and qualifications, teaching and learning materials were inadequate in quantity and quality, the curricula were out of date, and the capacity to plan and manage the education system was markedly deficient at both the national and zoba levels. These challenges confronted all levels/types of education: primary, middle, secondary, vocational and technical, tertiary, and adult education.
96. Eritrea has achieved significant progress in rehabilitating and expanding the education system. In the last five years (2005/06-2011/12):
- The number of kindergartens at pre-school level increased from 462 to 476 out of which 239 are Community Care Giver Centres. The gross enrolment ratio for pre-primary increased from 21.6% to about 31.4% of the 5-6 age group. From 2005/06 to 2009/10 enrolments at elementary level decreased from 364,263 to 286,021 and started to increase in 2010/11 to 334,245;
  - Over the same period enrolments at middle school increased from 148,082 to 167,928 students (Chart 1).
  - Adult Literacy rate has increased from 56% (DHS 2002) to 74% (EPHS 2010);
  - Secondary school enrolments increased from 77,644 in 2005/06 to 94,758 in 2010/11 (Chart 1);  
Enrolments in Technical and Vocational Education increased from 1547 in 2005/06 to 4640 (an increase of 200%) in 2010/11.
  - Elementary education curricula have been developed and implemented in all nine Eritrean languages. Instructional materials have been produced in all these languages;

**Chart 1<sup>7</sup>: Gross Enrolment by Level and Year, 2005/06 – 2010/11**



Source: *Eritrea: Essential Indicators*, 2010/11.

**Chart 2: Gross Enrolment Rate by Level and Year, 2005/06 – 2010/11**



### **Adult Education**

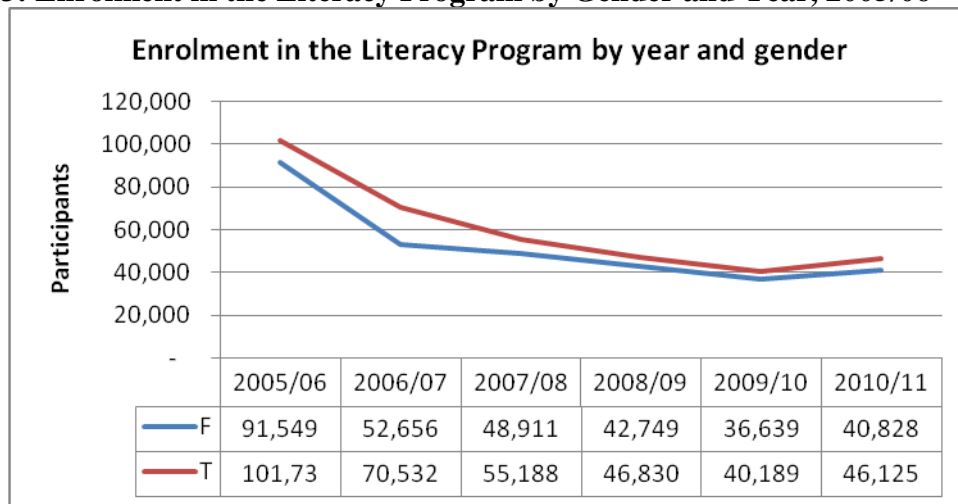
97. Despite the unfavourable socio-economic conditions in the region due to conflict, drought and economic hardship, provision of a sustained adult literacy program in the past and the increase of adult literacy rate can be taken as a remarkable achievement. The initiative taken to introduce alternative education for out of school children in creating access to the basic literacy program is also another important example of progress made where many boys and girls benefited.
98. Among the remarkable achievements recorded in the past 20 years in the area of adult literacy in the country, the major ones are the following:
- It is encouraging to note that around 85.2 per cent of the youth population (15-24 years old) and 74% adults age 15-49 are literate. The latter increasing from about 20% in the post-independence period (1991/1992);

<sup>7</sup> Unless otherwise indicated, all tables and graphs derive from *Eritrea: Essential Indicators*, 2010/11.

- Development of National Policy for Adult and non-formal education;
- Curriculum developed and instructional materials prepared and published in all local languages for the literacy program (literacy and post literacy);
- More than 80 community reading rooms attached to literacy program established contributing to the creation of a literate environment (cultivation of the habit of reading and promotion of self-learning);
- Preparation and use of different monitoring and evaluation forms and instruments;
- Awareness creation among the population and stakeholders in the country on the importance of literacy and continuing education;
- The provision of alternative, complementary elementary education for out of school children in which more than 800 children were mainstreamed to the formal school at the middle level with encouraging progress; and

99. However, enrolments in adult literacy decreased sharply from 101,730 in 2005 to 46,125 participants in 2010, of whom 40,828 were female. (Chart 3)

**Chart 3: Enrolment in the Literacy Program by Gender and Year, 2005/06 – 2010/11**



100. According to survey findings and reports from the regions, the decline in literacy enrolment as seen in Chart 3 is due to two main reasons: firstly, it is due to the decrease in the number of illiterate peoples in areas where the literacy program had been functioning; and secondly, related to rather loose co-operation of partners in motivating potential learners to attend literacy learning centers. Nevertheless, a comprehensive survey will be required to investigate the illiteracy status and establish accurate current figures.
101. Complementary Elementary Education (CEE) for out of school children is a government program managed as part of the adult literacy and post-literacy program in the country. It started as a pilot project in 4 zobas (Semenawi Keih Bahri, Debubawi Keih Bahri, Anseba & Gash Barka). The main target groups are disadvantaged boys and girls 9-14 years old. In the past five years (2007-2010) more than 10,000 children (about 50% girls) have benefited at the first level and more than 800 joined the formal system at middle level.
102. This initiative is in line with the Education for All (EFA) national commitment as a second chance opportunity. In this five year plan this initiative will be scaled up in order to accommodate more children from the disadvantaged areas.

103. It is also intended to mainstream out-of-school children into appropriate levels in the formal school system or into apprenticeship schemes or TVET depending on their age, capacity and interest. It is therefore expected that successful completers of the four year program will be admitted to grade 6 in the middle school phase.

### **Technical Education**

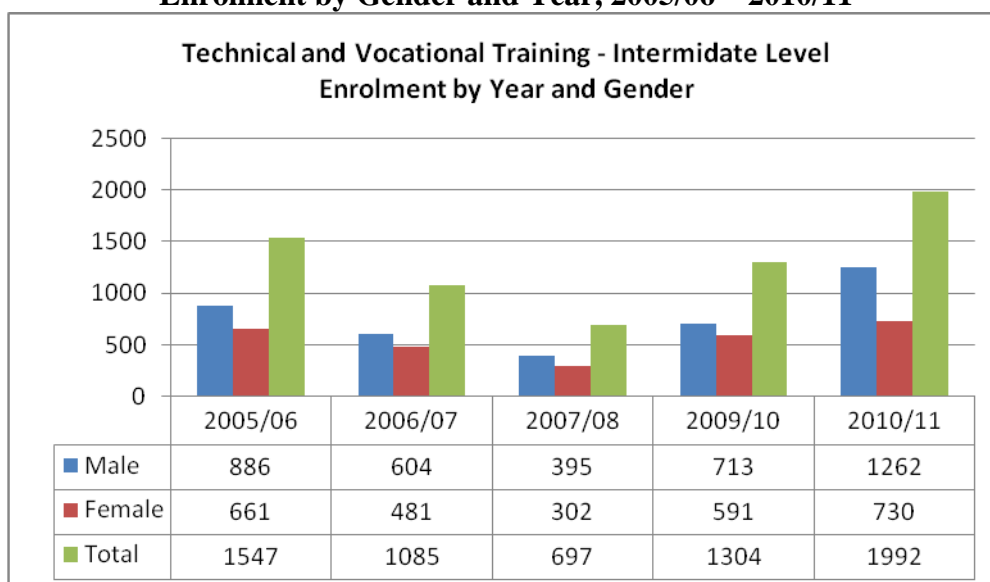
104. The Government has given top priority to the production of high-quality human capital which is highly trained and capable of mastering and exploiting available technology for socio-economic development of the country. In this regard, the Technical and Vocational Education and Training (TVET) sub-sector in Eritrea aims to produce semi-skilled and skilled intermediate level technicians in order to meet the demand for labour and improved productivity.

105. In the past decades considerable progress has been made to promote the provision of technical and vocational education and training in Eritrea. Among these are:

- The establishment of five skill development centers;
- The construction of two technical schools and two agricultural schools at the secondary school level;
- A commercial school and a technical institute at advanced level;
- The construction of a technical and commercial school in Massawa;
- The establishment of the National Vocational Training Center (NAVCOT).

106. Technical and vocational education and training has been provided by various providers on a numerically limited basis.

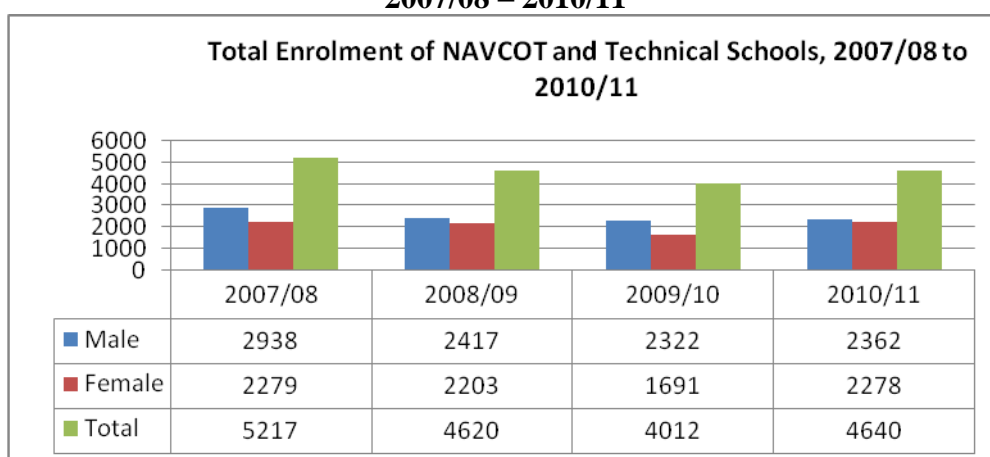
**Chart 4: Technical and Vocational Training – Intermediate Level  
Enrolment by Gender and Year, 2005/06 – 2010/11**



107. As a result of the above mentioned interventions enrolments in Intermediate Technical and Vocational Education has substantially increased from 1547 in 2005/06 to 4640 in 2010/11 (Charts 4 and 5).

108. Recently, the government has prepared a road map for development of education in Eritrea. In line with the road map MOE has expanded the opportunity to technical and vocational education by establishing a new post-secondary technical and vocational training center in 2007/08. As a result, enrolment has substantially increased in the last four years. As seen in chart 5, the total enrolment in both TVET institutions has been decreasing from 5217 in 2007/08 to 4620, 4012 in 2008/09 and 2009/10 respectively. Then it increased to 4640 in 2010/11. The high enrolment recorded during the academic years 2007/08 and 2008/09 was due to the temporary arrangement made to all technical schools to halt accepting students from grade 10 and enrol students who finished grade 12. However, since 2009/10 they have resumed their regular program and have started to enrol students who complete grade 10.
109. Recently, external financial support has been provided by the African Development Bank (ADB). This will assist the equipping of schools and some new construction.

**Chart 5: Total Enrolment in NAVCOT and Technical Schools, 2007/08 – 2010/11**



## 1.2 Quality and Relevance of Education

### *Curriculum Planning and Development*

110. As part of the governments' decision to undertake strategic transformation of education, MOE, since 2003 has undertaken a comprehensive curriculum review and is continuing to implement the resultant program. Since then substantial progress has been achieved in terms of articulating the new curriculum, developing procedural guidelines, designing of syllabus, developing scope and sequence, and writing of textbooks<sup>8</sup>. To date a total of 500 titles of text books have been developed, printed and distributed for general education. Significant efforts have also been made to ensure participation of teachers in curriculum development processes and to familiarize them with the newly produced materials so as to implement them effectively. In addition, a National Curriculum Framework has been developed and disseminated. The adult education curriculum has also been reviewed and will continue the process.

<sup>8</sup> All textbooks for grades 1-5 are made available in all nine mother tongue languages.

111. To improve the quality of the training in Technical and Vocational Education a competency based curriculum has been developed. This will help competencies in various institutions to be closer to the necessary standards.
112. Although some text books for TVET have been developed there are many areas like citizenship education, physical education, Eritrean languages, and ICT where additional work is required.

### ***Monitoring and Quality Assurance***

113. In order to improve the quality of education through the establishment of an effective and efficient monitoring and quality assurance system in the country various interventions were made in the last five years.
114. Policies, guidelines, rules and regulations, standards and manuals related to supervision, school organization and pedagogy have been developed to enhance the implementation of school-based support and supervision. Monitoring the implementation of the curriculum in schools has also been introduced and on-going. In addition, a study on the application of learner-centered and interactive pedagogy has been carried out leading to the provision of hands-on professional support to teachers and school directors. Various in-service training programs, workshops and seminars have also been conducted for teachers, school directors and supervisors.
115. Moreover, the Pedagogic Resource Centers (PRC) have been strengthened through the training of PRC coordinators and equipping them with basic tools and equipment. Efforts have also been made to institutionalize school-based delivery of health and nutrition services<sup>9</sup>. Monitoring of the opening and performance of nomadic schools has also been conducted. Sample schools were targeted to become child-friendly schools by providing materials and improving facilities. Endeavour has been made to consolidate the partnership of schools and communities through the capacity-building of members of Parents Teachers and Students Associations (PTSA).
116. In the last five years almost all secondary schools were equipped with adequate laboratory chemicals, materials and equipment. A national conference on the Effective Usage of Science Laboratories in Secondary Schools was conducted and a manual called Safe and Effective Usage of Secondary School Science Laboratories issued. In addition, school libraries were consolidated with modest number of books both from donation and through purchasing.
117. To enhance learning through the introduction of ICT, computer laboratories were established in secondary schools and are being equipped with computers. Computer labs have also been established in some middle level schools.

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<sup>9</sup> In remote areas it is impractical to send health workers to schools but a scheme to train one focal teacher per school in the basics proved very successful. Health kits were provided and students screened on a regular basis for infection in ears, eyes, skin, etc. for pupils requiring medical attention being referred to nearest health points or hospital. Attitudes and practices improved dramatically and a positive correlation was found between hygiene and performance.

### ***Assessment and National Examination***

118. Assessment and national examinations is another means of ensuring the quality and relevance of education. Monitoring of students' learning achievements have been conducted through regular national examinations at the end of basic education as well as by conducting Monitoring Learning Achievements (MLA) assessments.
119. In order to enhance the practice of continuous assessment a new guideline on Learner Assessment and Progression Guide (LAPG) has been developed and since 2010 piloted in some schools to ensure its effectiveness. In the last three years training and workshops on the new assessment guideline have also been provided to teachers, directors, supervisors and other concerned bodies at national and regional levels.
120. In response to a study on the alignment of curriculum and national examinations, the latter will be redesigned to ensure that their content, style and approach fully complement the objectives of the new curriculum. This will act as a powerful incentive to teachers, schools and students to ensure that teaching and learning are oriented to the new curriculum's emphasis on the development of knowledge, skills and competences.

### ***Teacher Development***

121. To enhance learning and improve quality of education various in-service training programs have been conducted for teachers at various levels and sub-sectors. These include the following:
  - Trainings in educational research methodology were conducted for about 350 secondary school directors, teachers and MOE officials at various levels of the sector.
  - In the area of pre-service training programs, 3,000 elementary school teachers were trained at a certificate level. A variety of study materials such as life skills and fine arts were developed by the trainers in collaboration with international consultants. Asmara Teacher Education Institute (ATEI) curriculum was revised and a new curriculum for diploma program was also designed. Several awareness raising workshops were conducted at ATEI for the trainees. Teaching practice consolidation is carried out annually.
  - About 2,080 under-qualified middle school teachers upgraded to a college diploma level via Open & Distance Learning Program (ODLP) in collaboration with Eritrean Institute of Technology (EIT). Upgrading for Directors, Internal Scholarship for educational administrators, training on library science, laboratory science, for TVET Instructors and adult education facilitators was conducted over the past few years. Induction for newly appointed basic, middle and secondary school teachers has been conducted annually.
  - The Ministry in collaboration with the EIT trained 47 existing instructors at diploma level. However, as the TVET schools are at intermediate level it is required that in the near future the qualification of instructors to be upgraded to degree level.



- Fourteen TVET instructors completed a training course in methodology through in service program graduating at certificate level.

### 1.3 Institutional Capacity

122. The capacity of MOE at all levels to deliver better quality educational services, is comparatively limited. The limitations pertain to organization, policy and planning, staffing, systems and procedures. Inadequate management systems are problematic, including lack of modern financial management, budgeting, expenditure reporting and comprehensive databases. Corresponding equipment and logistical procedures are also inadequate. However, in the last five years MOE has made the following interventions to build the institutional capacity:
123. In the area of research, the MOE has conducted a number of studies on a variety of educational issues. The studies conducted on sector and sub-sector issues are the following:
- Reviewing the National Education for All (EFA) Framework for Action,
  - Study on the ‘Management of Teachers’,
  - Study on The causes of Repetition and Dropout Rates in Secondary Schools’,
  - Study on the impact of financial incentives on girls’ enrolment, retention and performance<sup>10</sup>
  - National Literacy Survey,
  - Preliminary study on the causes of enrolment decline in elementary schools.
  - A curriculum impact study,
  - Effectiveness of mother tongue,
  - Application of learner-centered and interactive pedagogy,
  - Alignment of curriculum and national examination,
  - Alignment of educational level Expected Learning Outcome (ELO) with Eritrea National Qualification Framework (ENQF),
  - Pilot studies on the different textbooks under trial,
  - Follow up studies of 1,800 former ATEI graduates,
  - Sub-sector studies on ‘Eritrea Sub-Sector Review-Technical-Vocational Education and Training’ and Adult Education.
124. To enhance the effective monitoring of the delivery of quality education, planning and informed decision making the MOE has extensively worked to establish a comprehensive and full-fledged Educational Management Information System (EMIS). As a result a situational and stakeholders’ analysis has been made to initiate a comprehensive development of the EMIS. Following the assessment a Functional Requirement Specification (FRS) and Technical Requirement Specification (TRS) have been developed. Currently, the software development is underway.
125. An intensive upgrading program has been made to enhance the management capacity of the Ministry’s staff at all levels. About 400 MOE personnel have been upgraded to diploma, degree and masters level through distance education.

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<sup>10</sup> The study showed that even a modest but well-targeted incentive scheme could be very successful leading to postponement of marriage, regular attendance and marked increase in retention (through grade 8), and reduction on dropout

126. In addition, sector and sub-sector policies have been developed.

- The National Education Sector Policy has been updated.
- A national curriculum framework which contains guiding principles for curriculum development was prepared.
- Early childhood development policy and a strategy guideline for Community Caregivers have been developed.
- A framework for Early Learning Development Standard has been prepared.
- Policy and Strategy on Inclusive and Special Needs Education has been prepared.
- A School Library Policy was prepared in collaboration with the Library and Information Association of Eritrea (LIAE);
- A National Policy Framework for Technical Education and Vocational Training has been developed;
- A National Policy on Adult Education has been prepared;
- A teacher education development master plan has been developed;
- The National strategy for teacher education has been developed;
- A Policy statement on teacher education has been produced;
- Continuing professional development (CPD) frame work was created;
- More than 50 CPD modules have been produced.

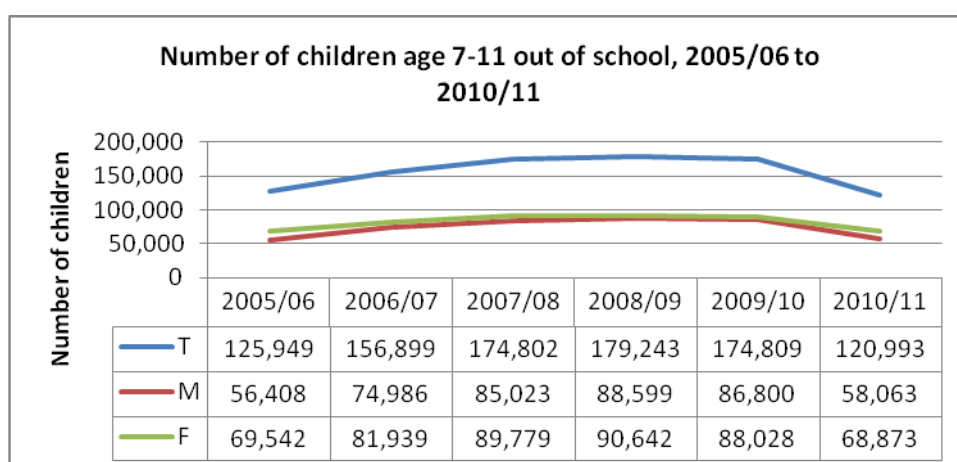
## **2. Challenges**

### **2.1 Low access/low equity**

127. In this report “Access” refers to the opportunity to enter, remain and complete successfully a level of education. “Equity” is defined by equal participation in education by various groups, such as in relation to gender, geographical distribution and ethnicity.

128. Although access has expanded by a wide margin for Eritrean youth since independence, as seen in Chart 2 the GER has recorded a decrease for all levels. This shows that the number of children out of school still remains substantial, as shown in Chart 6. Despite all efforts, the number of children not enrolled has been reduced only slightly, by about 5,000 over the past 5 years. Approximately 121,000 (30%) school age children (7-11) are not enrolled in elementary school at present creating a major challenge for the Government and limiting the potential for economic growth and development.

**Chart 6: Number of Children age 7-11 out of school, 2005/06 – 2010/11**



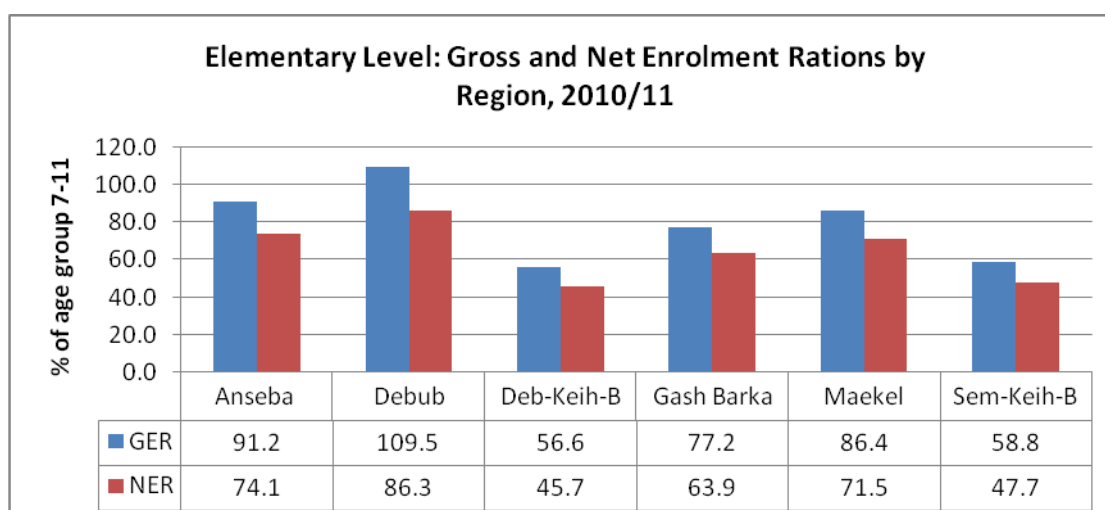
(Population age 7-11 less the net enrolment of children 7-11 in elementary level.)

129. The major challenges of adult and non-formal education are the high illiteracy rate in the country (about 26% in 2010); the risk of relapsing into illiteracy and a very low practice of evening programs limited only to certain cities and towns. Enrolment (access) and academic attainments of continuing education (evening programs) have also been very low.

## 2.2 Equity by location.

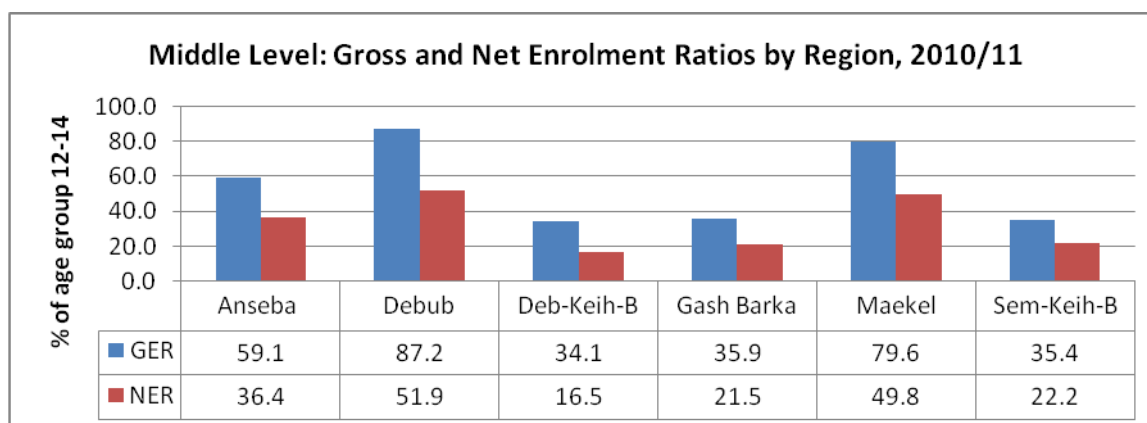
130. Disparities exist in access by region and gender across all levels of the education system. Gross and net enrolment ratios differ widely by region, as shown in Charts 7 and 8. For instance, GER varies from 56.6% in Debubawi Keih Bahri to virtually 109.5% in Debub. NER varies from 45.7% in Debubawi Keih Bahri to 86.3% in Debub.

**Chart 7: Elementary Level Gross and Net Enrolment Ratios by Region, 2010/11**



131. At the middle level, the range of GER performance is equally disparate, from 34.1% in Debubawi Keih Bahri to 87.2% in Debub. The equivalent variance in NER in these two zobas is 16.5% and 51.9%.

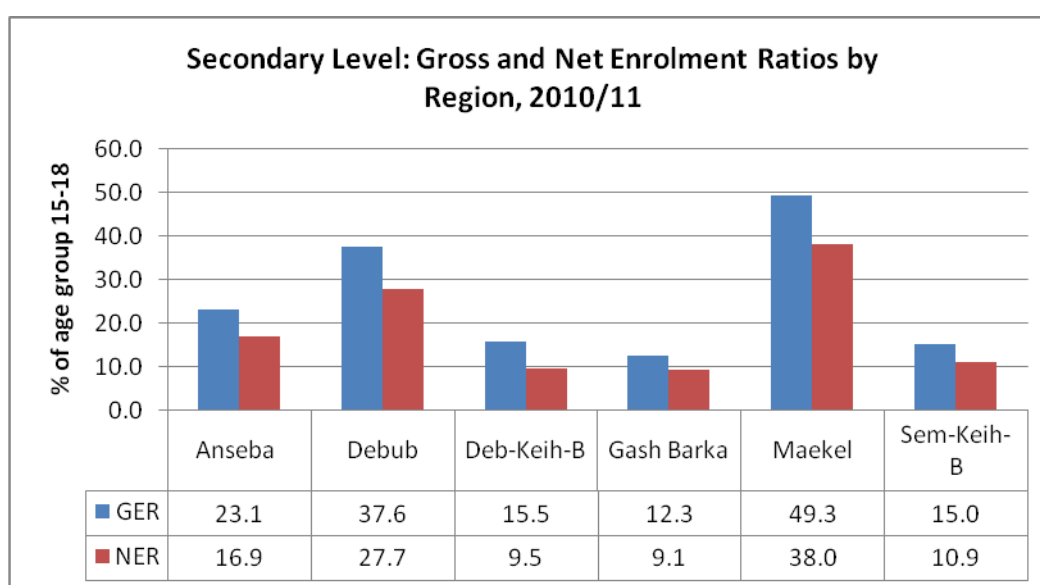
**Chart 8: Middle Level Gross and Net Enrolment Ratios by Region, 2010/11**



132. At the middle level several factors explain the disparities, including shortage of schools, community attitudes to education, population density and difficult to reach populations such as nomads. The latter has been informally estimated to reach some 30% in the region.

Chart 9 shows the GER and NER for secondary education by region.

**Chart 9: Secondary Level Gross and Net Enrolment Ratios by Region, 2010/11**

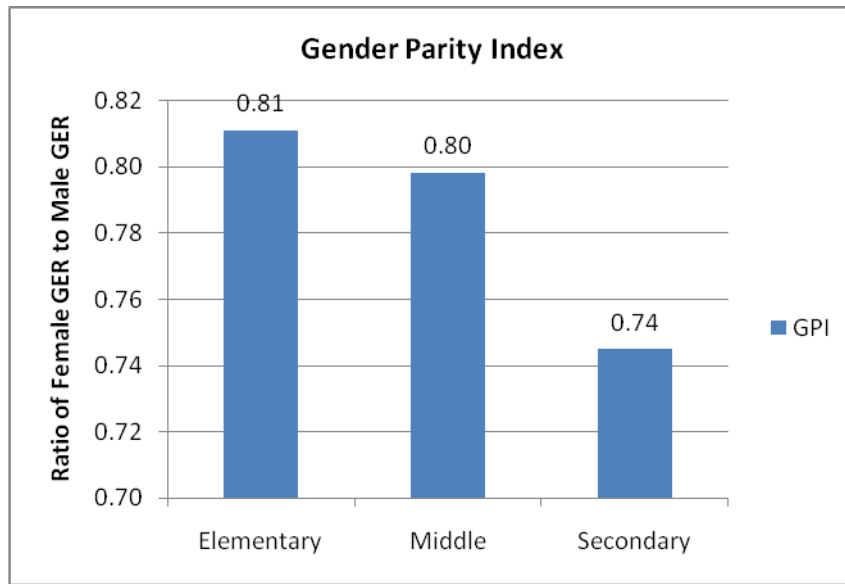


133. At the secondary level the range of disparity in GER among the regions is from 12% in Gash Barka to 49% in Maekel. The equivalent NER range is from 9.1% in Gash Barka to 38% in Maekel.

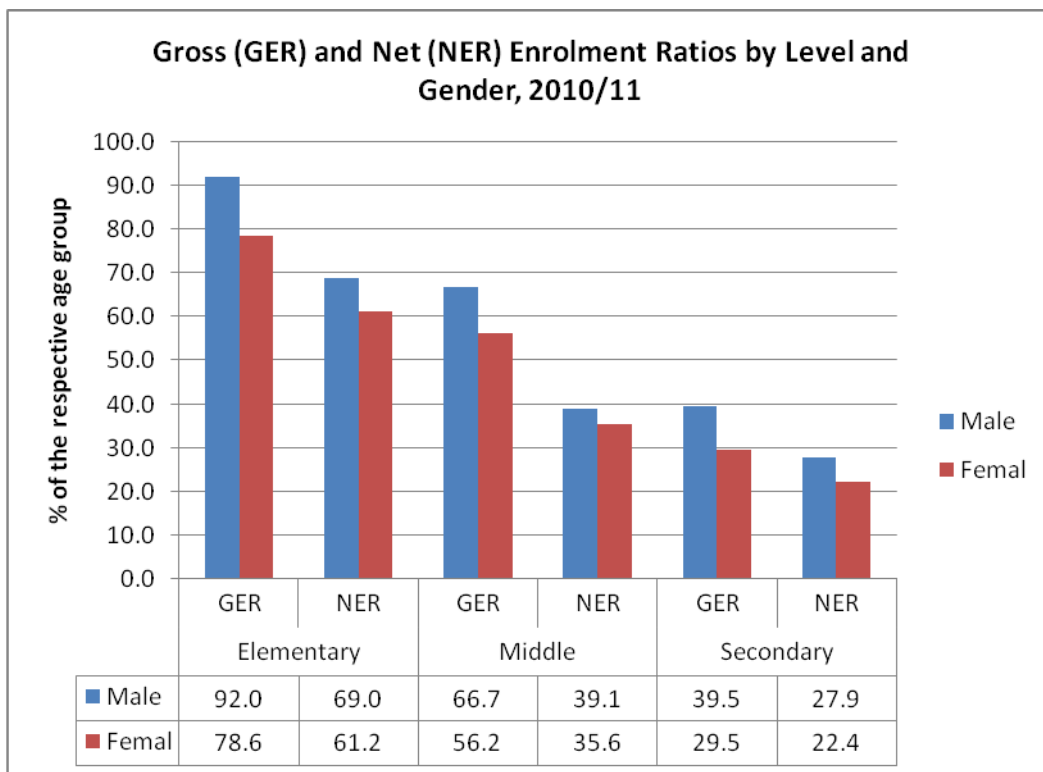
### 2.3 Equity by gender.

134. Significant differences exist between boys and girls in school enrolment. As seen in the gender parity index (Chart 10) the gap widens at successive stages of the education system. The GPI is 0.81, 0.80 and 0.74 at elementary, middle and secondary levels respectively.

**Chart 10: Gender Parity Index (GPI) by Level, 2010/11**

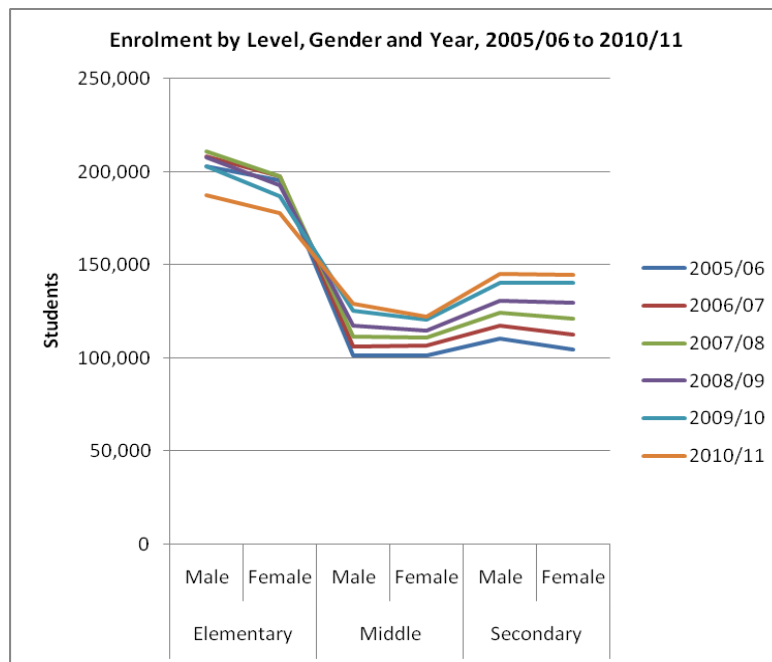


**Chart 11: Gross and Net Enrolment Ratios by Level and Gender, 2010/11**



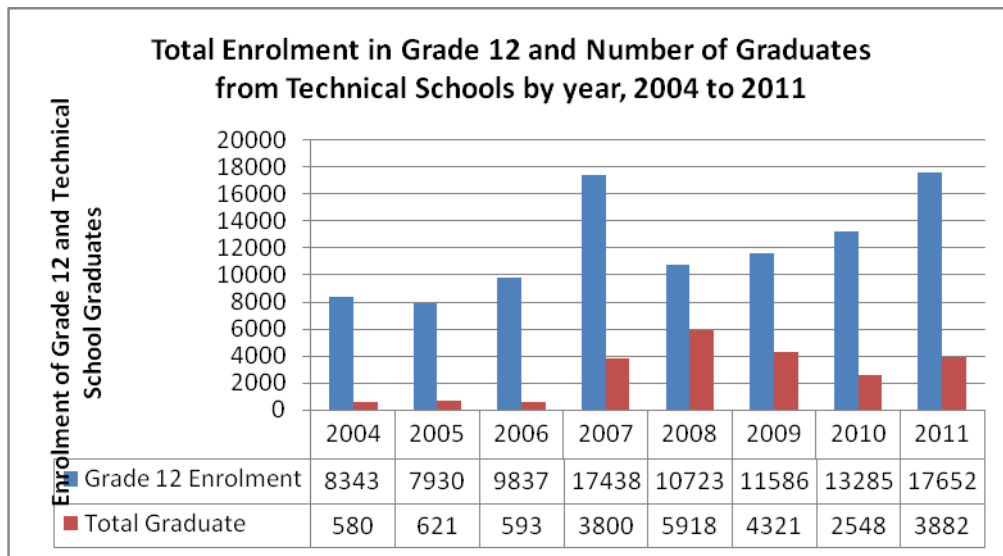
135. Chart 11 demonstrates how the gap for girls of GER and NER increases at successive stages of the education system.

**Chart 12: Enrolment by Level, Gender and Year, 2005/06 -2010/11**



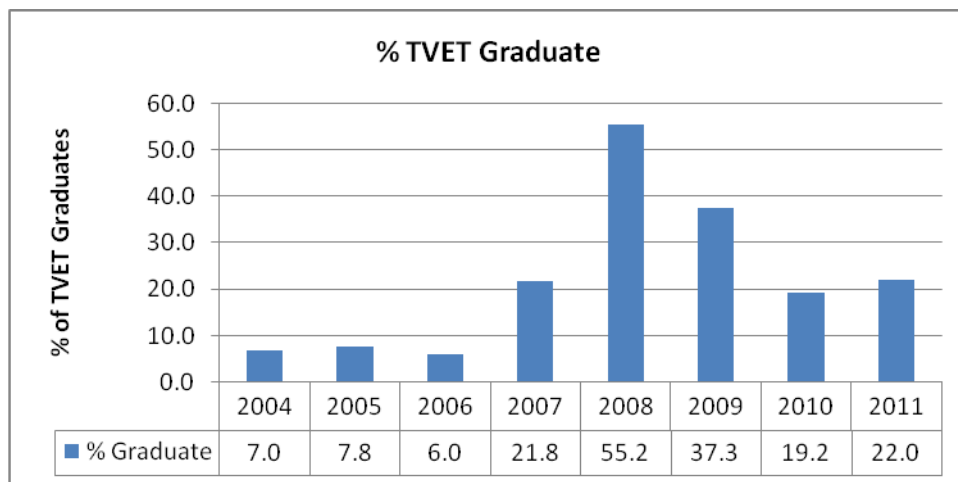
136. As demonstrated in charts 11 and 12, the gender gap widens with successive levels of the education system. Clearly, Eritrea has a long way to go to achieve gender parity, particularly in secondary level.
137. Significant differences also exist in rates of youth literacy aged 15-24 by gender. It has been estimated that 88.3% of Eritrean men are literate, compared with only 61.4% of the women (EPHS 2010). It is considered essential that learning needs of parents and their children are addressed in parallel, accompanied by awareness raising measures to encourage the parents as to the value of education.
138. The participation of girls and women in technical-vocational education and training is also low. Only about 36.6% of the students enrolled in intermediate technical and vocational schools in 2010/11 were female and 38.4% in the post secondary level technical and vocational schools (Charts 4 and 5). These fields are perceived as male domains, yet they are areas where women could acquire important employable skills.
139. There is also considerable scope for ‘on the job’ training, notably in agriculture and construction, but also in small scale enterprises engaged in such sectors as apparel, dressmaking, and hairdressing, considered to be well-paid jobs, yet can be trained for with basic inputs. Small-scale production, e.g. Of eggs, honey and livestock, can be relatively lucrative even on the basis of very small outputs.
140. As seen in chart 4 access in Technical and Vocational Training – Intermediate Level – decreased to 1085 in 2006/07 and 697 in 2007/08 and then increased to 1304 in 2009/10 and 1992 in 2010/11 academic years.

**Chart 13: Total Enrolment in Grade 12 and Number of Graduates from Technical School by Year, 2004 -2011**



141. As the graph in chart 13 indicates, the percentage of graduates from TVET institutions as compared to grade 12 enrolment was insignificant. Graduates from TVET institutions were 7%, 7.8% and 6% in 2004, 2005 and 2006 respectively. However, during the interventions made by the government in 2007 to expand Technical and Vocational Education, a new centre for technical and vocational education was opened. As a result, enrolment as well as the number and percentage of graduates have increased as seen in Charts 13 and 14.

**Chart 14: Percentage of TVET Graduates by year, 2005 – 2011**



142. The factors that hinder access of children to education emanate from both supply and demand sides.

- Educational (supply side) factors include: shortage of schools especially in sparsely populated rural areas, combined with overcrowded classrooms; shortage of female teachers; shortage of trained teachers in mother tongue; lack of sanitation facilities; implementation of the school curriculum to adapt to local realities and inadequate supply of learning and instructional materials.

- Environmental (demand side) factors comprise: poverty including inability to afford the direct costs of schooling as well as the indirect, opportunity costs (demand for children's labour); long distance to schools; limited parental and community involvement in schooling; social and cultural obstacles, such as early marriage and undervaluing the benefits of education.

143. The inadequate supply of female teachers is linked to low female enrolment. Only 40.6%, 14.4% and 14.4% of the teachers at elementary, middle, and secondary are female. Similarly, another important barrier to girls' (and other disadvantaged children's) participation in education is the domestic responsibilities assigned to them. Girls, more than boys, are expected to carry out domestic chores such as fetching water, collecting firewood, caring for siblings and grinding work. The Government raised the legal age of marriage to 18 years, but many communities continue to support under-age marriages. Many parents traditionally have viewed the education of girls as irrelevant for future wives and mothers.

## 2.4 Teacher Supply

144. Inadequate teacher supply exerts constraint on the capacity of the Ministry to expand and improve enrolments, particularly at the middle and secondary levels<sup>11</sup>. At present, only one regular teacher training institute is mandated with responsibility of preparing teachers for the elementary school system. The Asmara Teacher Education Institute (ATEI) has been offering a one year pre-service teacher preparation for secondary school graduates. The College of Teacher Education (attached to the Eritrea Institute of Technology) started a two-year diploma course for middle school teachers and is expected to expand the training for secondary schools. Teachers for secondary school are recruited from among graduates in the various colleges, on average about 500 per year. However, plans were made to enrol more teachers per year for secondary schools and technical schools at the College of Teacher Education and other colleges in order to fill the gap. Continued recruitment of expatriate qualified teachers at secondary level will be necessary over the next five years, but it is the government's intention that this will gradually be reduced to locally qualified and trained Eritreans become available. Apart from graduates from the college of Education, most recruits from various colleges are unlikely to have firm grounding in educational theory and practice. Teachers with shorter initial training programmes will require intensive in-service training and follow-up on the job.

145. The MOE recognizes that recruitment of suitable teachers for schools in sparsely populated rural<sup>12</sup> areas, especially among the nomadic population, will continue to present a challenge, due to the perception that such locations are uncongenial and also because teachers need to be fluent in the appropriate mother tongue in one of the nine languages. It therefore intends to recruit some of the best young grade 10 leavers from such communities for employment in their own areas and will use a mix of incentives and professional training to attract candidates.

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<sup>11</sup> Nine mother tongue languages are used as the medium of instruction through grade 5, succeeded by the use of English from grade 6.

<sup>12</sup> A hardship allowance of between 10% and 25% is paid to teachers in lowland areas.



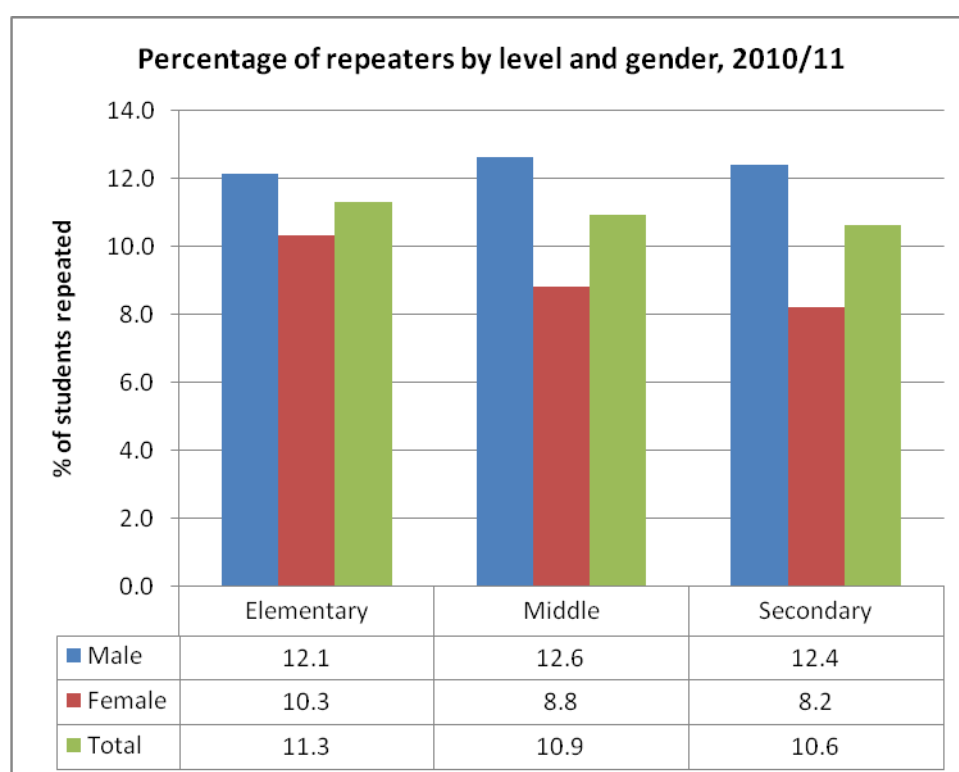
## 2.5 Low Learner Achievement

146. The Monitoring of Learning Achievement (MLA) study of 2008 showed the proportion of students in elementary education who acquired learning competencies in core subjects. Minimum mastery level (MML) was defined that 80% of the learners should attain at least 50% in each subject. The study found reason for deep concern that the massive effort done at extending educational access is not producing the desired quality. None of the regions or grade 3 tested achieved the minimum mastery level in any subject, but 52% of females achieved the MML in mother tongue. Low performance in mathematics and English is a matter for national concern. As with access, learning achievements also varied widely by region, with Maekel 2.6 times higher than the Anseba region in overall Grade 3 mastery. The performance of all regions was markedly lower in Grade 5 than in grade 3. An improvement in girls' education not only requires better access to school, but also better success in school. Girls' combined scores compared favourably with males at grade 3 in Mathematics, but significant differences existed in English performing 12 percentage points below boys. Nevertheless, girls have performed at grade 3 in Mother Tongue 9.6 percentage point higher than boys. At grade 5 both girls and boys performed equally.

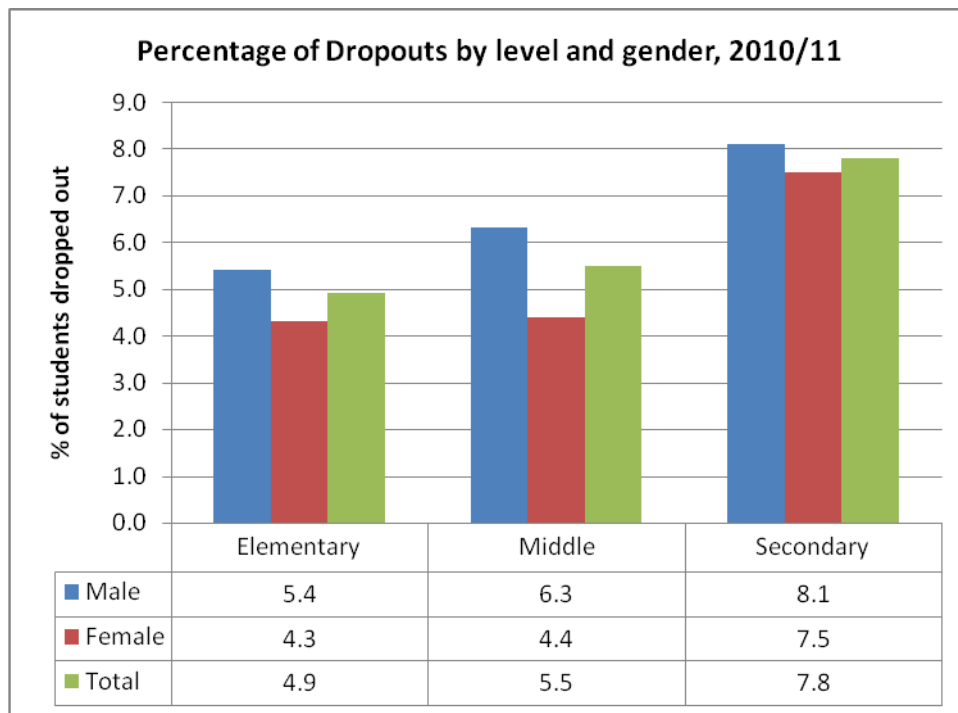
## 2.6 High wastage in general education

147. The general education system in Eritrea tends to be wasteful of resources. Until recently repetition rates have been strikingly high at all three levels, with 11.3%, 10.9% and 10.6% at elementary, middle and secondary levels respectively in 2010/11, as Chart 15 shows.

**Chart 15: Percentage of Repeaters by Level and Gender, 2010/11**

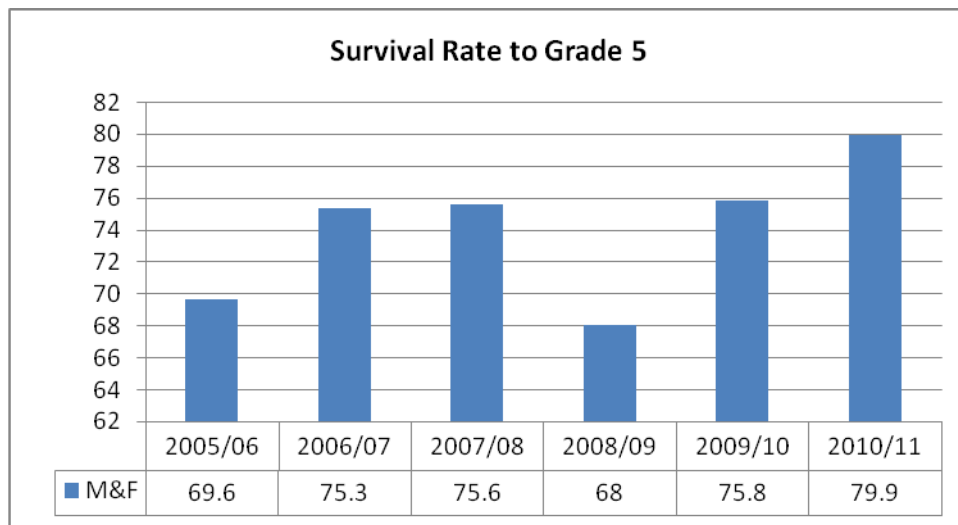


**Chart 16: Percentage of Dropouts by Level and Gender, 2010/11**



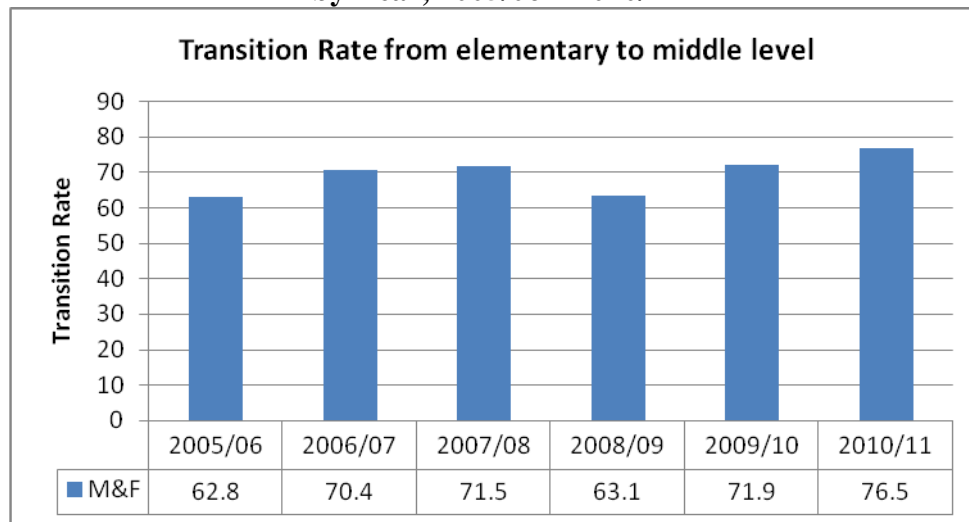
148. Dropout rates are also significant, including an average of 4.9% per year at elementary level, 5.5% at middle level and 7.8% at secondary level in 2010/11. Repetition and late entry account for the extraordinarily large differences between gross and net enrolment ratios. The MOE estimates that it takes 6.5 student-years of inputs to graduate one student from grade 5, or a coefficient of efficiency of 77%. Twenty two percentage points separate the gross and net enrolment ratios at elementary level (92% compare with 70%, respectively) and 30 percentage points at middle level (62% compared with 32%). This means if there were perfect internal flows and efficiency an additional 22% and 30% of the age group could be accommodated within existing institutions. High repetition rates increase the cost of education for government and families (the latter because of incurring opportunity costs over an extended period) and deny other children the prospect of opportunity for schooling. Issues of repetition and dropout must be faced in order to solve the access equation.
149. As with access and quality, the causes of repetition are rooted both in school and non-school factors. Some of these have already been mentioned under access and quality. In addition, repetition is encouraged by selective examinations and the limited places available as learners progress up the education ladder. Learners may sometimes repeat grades several times to improve their chances of qualifying for a place in the upper grades. The annual reports of the regional offices showed that the reasons for child non-enrolment, absenteeism and dropout among others are socio-economic conditions of the family/household, attitude and cultural norms of parents and distance to school.
150. The reports show that bringing schools closer to the children could help encourage enrolment and staying in school. However, it is not enough. Parental attitudes also need to be changed, and in some cases incentives provided to boost enrolments.

**Chart 17: Survival Rate to Grade 5 by Year, 2005/06 -2010/11**



151. The trend of the survival rate to grade five (a cohort of pupils who enrolled in the first grade of elementary education in a given year and who eventually reached grade five) was 70.0% in 2005/2006 and increased to 80.0% in 2010/2011. The lowest survival rate recorded was in 2008/09, where it reached 68%. At national level, the survival rate to grade 5 was 80% in 2010/11. Among the regions, survival rate to grade 5 was the highest in Maekel (92.9%), followed by Anseba (83.7%), Debub (81.1%), Semenawi Keih Bahri (80.5%), Debubawi Keih Bahri (70.9%) and Gash Barka (65%).

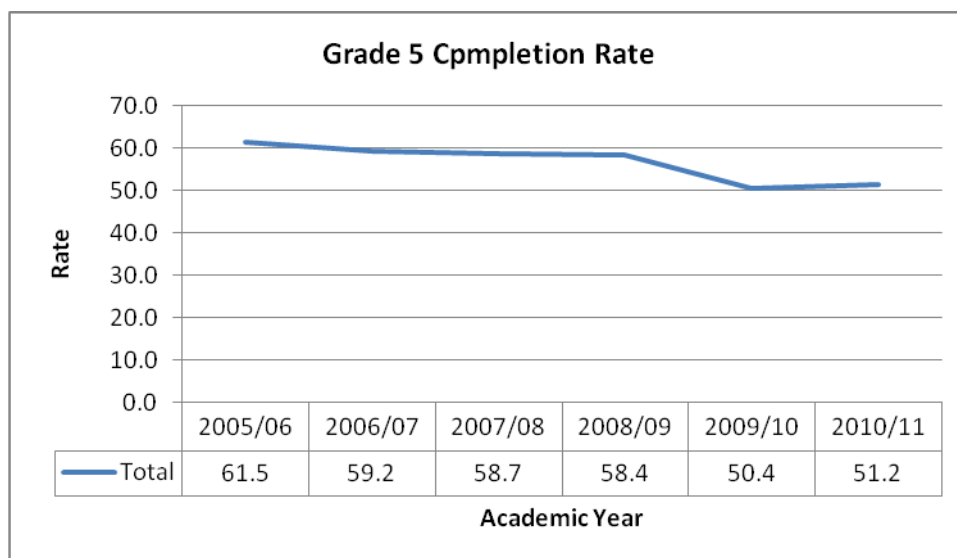
**Chart 18: Transition Rate from Elementary to Middle Level by Year, 2005/06 – 2010/11**



152. The transition rate from elementary to middle education increased from 63% in 2005/2006 to 76.5% in 2010/11. The lowest transition rates were recorded in 2005/06 and 2008/2009 when they reached 62.8 and 63.1% respectively. The rates then started to increase to 72% and 77% in 2009/10 and 2010/11 respectively.

153. Across regions, Maekel has the highest transition rates from elementary to middle level education (91.2%). It is followed by Anseba (81%), Semenawi Keih Bahri (77.5%), Debub (77.4%), Debubawi Keih Bahri (67.9%), and Gash Barka (60.9%) over the same period.

**Chart 19: Completion Rate of Grade 5 by Year, 2005/06 to 2010/11**



154. Moreover, the elementary cohort completion rate (the ratio of total number of students successfully completing the last year of elementary education grade 5 in a given year to the total number of children of official graduation age in the population of age 11) has shown some decrease over the last five years. It was 61.5% in 2005/06 and decreased to 51.2% in 2010/2011. Although completion rates for elementary education are fairly equal by gender, about 49% of the students who enter do not remain and complete the cycle. In the coming five years it is intended that as a result of various interventions the cohort completion rate in elementary education will be increased.

## 2.7 Limited institutional and financial capacity

155. The capacity of MOE at all levels of the education sector to deliver quality educational services is comparatively limited. The limitations pertain to organization, staffing systems and procedures. The MOE has devolved many functions to the zobas, including managing, administering and supporting basic and secondary schools. This has placed additional responsibilities on the zobas without commensurate staffing resources, particularly of managerial and administrative staff. The MOE itself has seriously tackled its functions of planning, policy making, monitoring and regulating the educational system. However, MOE staffing appears to be inadequate in key functions. Skills of staff may also be inadequate. In addition, functions in the MOE could be distributed better to eliminate overlapping between Departments. Inadequate management systems are other issues, including lack of modern financial management, budgeting, expenditure reporting and comprehensive databases. Corresponding equipment and logistical procedures are also inadequate. These problems result in slow and inefficient delivery of services to the schools.

156. **Finance.** It is clear that EFA goals cannot be reached without substantial increases in resources to education and training. One way would be for the Government to increase markedly its spending on education. However, the ability of the Government to further mobilise resources for education are constrained. The ability to mobilise sufficient domestic funds to finance the provision of learning opportunity to all citizens is limited. The participation of various groups to broaden financial resources for education becomes imperative. At present parents share the costs of education by financing through registration fee virtually all school expenditures outside teacher salaries and textbooks. Receipts from the fees are virtually the only disposable funds available to schools for operating expenses. Low income students are exempted, but the direct costs to other parents may be an obstacle to enrol their children. Little cost sharing occurs with the private sector. Eritrea has low levels of non-government provided education at all levels. As a result, the Government has had to shoulder virtually all of the provision of education and training.

Table 1 shows some of the key features of the Ministry's five year projections for pre-primary, elementary, middle and secondary levels.

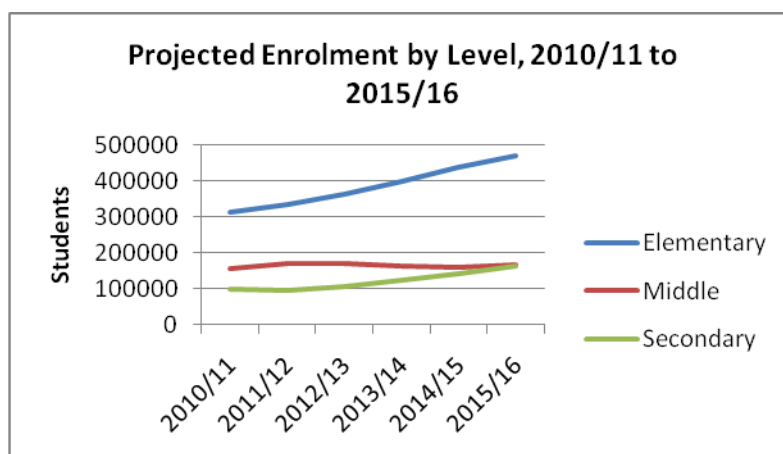
Table 1- Projected Transition Rates, Total Enrolment and Enrolment Ratios<sup>13</sup>,  
2011/12 to 2016/17

	Base Year 2011/12	2016/17
<b>Pre-primary</b>		
Total Enrolment	45,824	90,251
GER	31.4	40.0
NER	19.6	30.0
<b>ELEMENTARY</b>		
GAR (%)	123.2	126.0
Total Enrolment	334,245	541,653
GER	93.2	126.5
NER	73.0	100.0
<b>MIDDLE</b>		
Transition Rate (%)	89.3	90.3
Total Enrolment	167,928	202,931
GER (%)	70.2	106.4
NER (%)	39.9	50.0
<b>SECONDARY</b>		
Transition Rate (%)	37.95	66.0
Total Enrolment	94,758	151,250
GER (%)	31.5	43.4
NER (%)	23.2	35.0

GAR = gross admission ratio; GER= gross enrolment ratio; NER = net enrolment ratio  
Chart 19 shows the total projected enrolments by level.

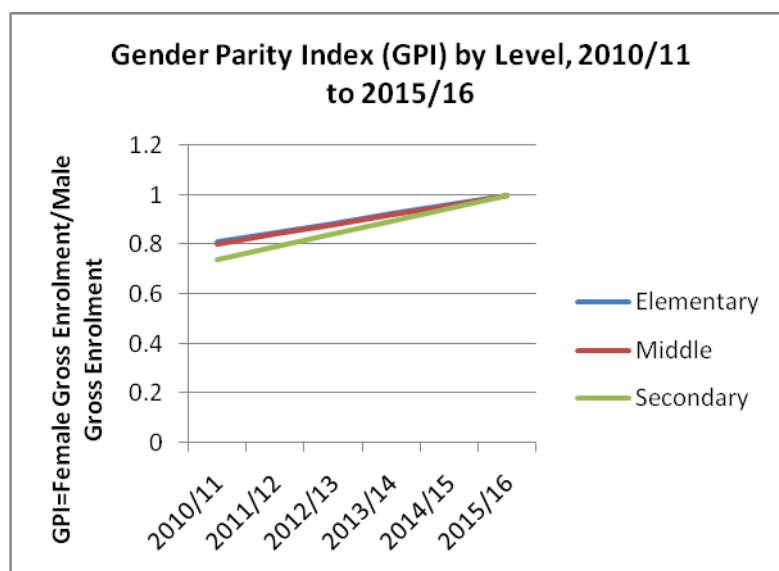
<sup>13</sup> Projections of school age-population are taken from estimates made by the National Statistics Office.

**Chart 20: Projected Enrolment by Level, 2010/11 to 2015/16**



157. The Government places top priority on the expansion of educational opportunities for children across the country with more attention given to the disadvantaged areas and girls. In accordance with this priority, it projects enrolment to increase to 90,251, 541,653, 202,931, and 151,250 at pre-primary, elementary, middle and secondary levels respectively. Gender parity will be achieved at elementary and middle secondary levels by 2015/16.
158. According to the projections, the female GPI reaches parity (1.0) in elementary and middle education in 2015/16. Thus, the gender gap in elementary and middle education will be closed by 2015/16. This compares favourably with the EFA goal of 2005 for gender parity in elementary and middle levels. However, gender parity is not expected to be achieved in secondary education until 2015/16. (Chart 20)

**Chart 21: Gender Parity Index (GPI) by Level, 2010/11 to 2015/16**



## CHAPTER III: POLICY CONTEXT

159. The Government intends to tackle the issues analysed in Chapter Two and has assigned top priority to the acceleration of efforts for educational development. Accordingly, it has introduced several development policies since independence aimed at resolving the key problems in the system, including the following:

### 1. The Declaration of Policy on Education (1991)

160. **Access and Equity:** The declaration of Policy on Education states that education policy will reflect the government's perception of education as a human right and as a means by which equity can be achieved (PGE, 1991:3):

*Every citizen has the full right to be schooled .... As such policy is being rendered practical, special attention will be paid to those quarters of Eritrea which, so far, have not had much schooling opportunities.*

161. **Education for National Integration, Productivity, and Development:** Secondary School level shall be used to prepare productive citizens through the provision of practical learning. Another tenet of the declaration is the need to use education as a tool for national integration and development ("... a united, solid and onward looking Eritrea", PGE, 1991:2). These principles reflect the adaptation of EPLF field experience of the past to the realities and challenges of the present.

### 2. The Macro Policy of the Government of Eritrea (November 1994)

162. **Education for National and Human Resource Development:** "The overriding national development objective is the creation of a modern, technologically advanced and internationally competitive economy within the next two decades" (GSE, 1994:10). The Macro-policy further stipulates that the key input in the attainment of this objective is the provision of "broad based education incorporating widespread dissemination of skills and languages and extensive human capital formation" (GSE, 1994:10).

163. **Education for Citizenship, Democracy and Social Justice:** The government's macro-policy (GSE, 1994:44) also states that

*"Every effort will be made to cultivate in youth love and respect for country; dedication towards work and self-reliance; excellence in the arts, sciences and sports; and awareness of the needs of tolerance, justice and democracy in the context of national political pluralism and cultural diversity".*

164. In the context of education in Eritrea, social justice is the provision of equitable access to relevant education of high quality ensuring that those enrolled are retained and complete a certain level of education or acquire a skill. Those disadvantaged in any way will be supported to complete their education by various means of affirmative action or positive discrimination as a temporary measure until a level playing field is created. Education is a

lifelong learning process, encompassing formal, non-formal, informal, technical and vocational education and training. Social justice requires that there should be equality of results among learners from the educational opportunities open to all. Equity is therefore an enduring commitment of government.

### **3. The Transitional Constitution of the Peoples' Front for Democracy and Justice (PFDJ)**

165. **Education our Future:** The emphasis on the development of patriotic, productive and creative citizens is also clear from the declaration made at the Third Congress of the EPLF held in Nakfa in February 1994 (PFDJ, 1994:22-23):

*In the light of the decisive role played by young men and women during the war of liberation, in view of the necessity to conserve and sustain the experiences and gains of the liberation struggle, and since the question of the youth is the question of our future, there is a need to map out concrete plans for the development of generations of hard working, productive and creative citizens imbued with love of country and people and nurtured by respect for justice and the truth.*

166. In line with its principle of self-reliance and social justice the Eritrean Peoples' Liberation Front (EPLF) developed an education system that was designed to serve as an instrument of nation building, social transformation and economic development. This principle has become the cornerstone for the establishment of the National Education System in Eritrea, thus countering the gross inadequacies and the abuses of the education policies of successive colonial administrations.

### **4. Constitution of the State of Eritrea**

167. **Unity in Diversity:** Article 6 of the Constitution of Eritrea declares that a basic principle underpinning nation building and national development efforts in Eritrea shall be unity in diversity:

*As the people and government struggle to establish a unified and developed Eritrea, they shall be guided by the basic principle "unity in diversity."*

168. This calls for a balance between the demands for uniformity and diversity. Within the framework of this balance, the challenge is how to use education to promote a core of common values running parallel to other and more diverse feelings of identity.
169. **The Development of a Democratic Culture:** Article 7 of the Constitution mandates the state to "create the necessary conditions for establishing a democratic political culture defined by the development of free and critical thinking, tolerance and national consensus". Education is expected to play a vital role in achieving this goal through the development of a curriculum where this is a focal theme.
170. Using the curriculum to promote a democratic political culture characterized "by the development of free and critical thinking..." is not only a matter of content but also a matter



of pedagogical process in the classroom. The implication here is that such a process involves a range of interactive and participatory teaching/learning in all subjects.

## **5. The Concept Paper for a Rapid Transformation of the Eritrean Education System (2002)**

171. **Employment Oriented Education:** In addressing the academic and content orientation of the curriculum, the Concept Paper (MOE, 2002a:6) recommended that Education must be employment oriented such that at the end of any level of education any person can find gainful employment commensurate with the person's level of education and training.

## **6. The National Education Policy on Education (2003)**

172. **Sound Basic Education:** National Policy on Education (MOE, 2003:5) stipulates that “the provision of sound basic education is both a human right and a tool that raises the overall awareness of citizens, which in turn enhances productivity.” This has clear implication for the curriculum to offer a firm grounding in essential areas of learning, including literacy and numeracy.
173. **Knowledge and Skills at Middle and Secondary Level:** Furthermore, The National Policy on Education states that learning provision at middle and secondary schools will “integrate knowledge and skills-based education” in order to facilitate learners' transition from school to further education and work context (MOE, 2003:6)

## **7. National Economic Policy Framework and Programme (NEPF) – 1998-2000 (1998)**

174. **Education and Economic Growth:** The government's economic growth strategy as stated in the National Economic Policy Framework seeks to transform Eritrean society and to create a modern, vibrant and competitive economy through investment in human resource development (GSE, 1998:10):

*Eritrea's medium term objective is to complete the transition phase of rehabilitation and reconstruction and embark the economy on a path of sustainable development... the solution lies in accelerated human resources development.*

175. **Education and Poverty Alleviation:** The government's strategy paper on poverty alleviation (GSE, 2004:32) also states that a key factor in alleviating poverty is “raising the skill and well-being of the people by investing in education, health care and sanitation systems.”

## **8. Poverty Reduction Strategy Paper (PRSP) (2003)**

176. The PRSP clearly states that education is the “hallmark of Eritrea's economic growth and poverty reduction strategy”. In addition, the Government has issued sector policy, strategy

and program documents. Similarly, the Eritrean Government recognizes that education is vital for the development of a broadly based civil society that includes the poor, and considers Basic Education (BE) as a key element of its PRSP.

177. In addition, the following policy and strategies have been developed to tackle the challenges encountered in the education sector:
178. The Government, recognizing that Early Childhood Development (ECD) is an important platform to achieving EFA goals, has adopted a government-wide policy concerning integrated ECD. The policy goal is to promote the satisfaction of basic needs for the healthy growth and holistic development of children. The education aspects of the policy seek to develop and implement a quality formal and non-formal pre-school curriculum; enhance centre-based and non-centre based early stimulation and learning opportunities and ensure the smooth transition into elementary schools for all children, including those with disabilities.<sup>14</sup> The main role of the MOE is to ensure age-appropriate curricula and child friendly learning environments for children below the age of eight. Implementation is assigned to the regional and local levels.
179. Elementary education is free and compulsory for all Eritrean citizens. Middle level education is free and compulsory for the relevant age group.
180. A new curriculum has been developed and introduced based on previous analyses. It features vertical and horizontal integration of subjects as well as coherence and continuity in learning experiences. The curriculum uses integration as a means of providing a holistic approach to learning and as a way for reducing content overload and overlap in the subject areas. At the basic level, the new curriculum focuses on a firm grounding in essential knowledge and skills focused on literacy and numeracy. The new curriculum includes the adoption of expected learning outcomes (ELOs) for each grade and subject as the standards for teaching. The new curriculum facilitates horizontal linkages, so that students who have mastered the required ELOs for a particular level through non-formal education can rejoin the formal school system. Textbooks and teaching materials have been developed closely aligned with the new curriculum. Science and technology (including ICT) has been emphasised throughout the post-elementary system. The teaching of English has also been emphasised throughout the school system.
181. Learner-centred and interactive teaching methods that actively engage students in classroom participation have been introduced. Such methods include discussions, group work and peer learning. The MOE has developed manuals on active teaching methods and held workshops for teachers since 2004. One of the first steps to change pedagogy in schools will be to enhance the pedagogical methods used in the teacher training institutions. Interactive teaching methods, even though far superior to traditional methods, face serious obstacles to widespread adoption in the crowded classrooms that prevail in Eritrean education system.
182. The Ministry also intends to use assessment as a means of improving learning. Continuous assessment will be given a prominent role in monitoring and reinforcing learning at the classroom level. In addition, the Monitoring of Learning Achievement (MLA) program will be resumed in elementary education to gauge progress and will be introduced in other sub-

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<sup>14</sup> Eritrea: *Integrated ECD Policy: Creating a fair start for our children*, draft, November 2004, 4.

sectors as well. To enhance the practice of continuous assessment a new guideline on Learner Assessment and Progression Guide (LAPG) has been developed. A National standard examination has introduced at the end of middle (grade 8) schools. The assessments have supported monitoring of the standard and quality of education obtained at the various levels, while grade 8 examination has helped guide selection into secondary education. In 2009 a study was conducted into the appropriateness of the National examination as an instrument with which to assess achievement in the context of the recently introduced competency-based curriculum. The MOE intends to insure that the national examination is 'fit for purpose' by acting as a powerful encouragement to, and reinforcement of, the new curriculum and its approach to teaching and learning. It will do this by designing and including test items which give candidates the opportunity to demonstrate that they know, understand and can do in the context of the new curriculum. The Eritrean Secondary Education Certificate Examination (ESECE) at the end of grade 12 serves to guide admission to higher education. The ESECE will also be reformed as necessary to become aligned with the new curriculum and related syllabuses.

183. In addition, the MOE has drafted a policy on inclusive education with the objective of institutionalizing special needs education (SNE) at the national level. Apart from the type of education offered to learners with severe disabilities special needs education is more effectively provided within the framework of mainstream curriculum in inclusive schools. To this end, a pilot project for introducing inclusive education is currently being carried out in a sample of schools and arrangements for SNE will be reformed in the light of experience gained thereby. MOE will provide pedagogical skills to partially sighted high school graduates who already have Brail and sign language to enable them to teach pupils with the same disabilities
184. Greater relevance will be introduced in secondary education by diversifying the curriculum, taking full account of curriculum changes at lower levels.
185. Plans for TVET include the establishment of post-school vocational training programmes, which will be offered at three levels -- after completion of elementary school, middle school and high school. The intention is that who pursue this kind of skills development will have the opportunity to return to the educational mainstream or continue with their education while employed.
186. Plans to expand higher education are underway with the impetus for reforms stemming from the *Concept Paper*<sup>15</sup>. The fundamental aim is to break the bottleneck in access of secondary school graduates to higher education<sup>16</sup> by expanding substantially the number and size of institutions. The Eritrean Institute of Technology and Teacher Education (EIT) was established in 2003 and, since then about 2000 students who passed the National Examination have been enrolled in various colleges. Projected total enrolment is 10-12,000 students at EIT. In addition, the Government has established five new specialized degree-level colleges in various parts of the country and they are offering a degree and a diploma program in various areas of specialization.<sup>17</sup> Currently, the situation is favourable and students who pass from high school enrol directly into the institutions of higher education.

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<sup>15</sup> Concept Paper for a Rapid Transformation of the Eritrean Educational System (2002)

<sup>16</sup> Previously, only about 15% of secondary graduates passed the school leaving examination and got access to higher education.

<sup>17</sup> College of Agriculture at Hamelmalo, College of Marine Sciences and Technology at Massawa, College of Business and Economics at Halhale, College of Health Sciences Asmara and a College of Arts and Social

187. This rapid expansion of higher education will supply much-needed teachers for the rapid expansion of lower levels of the system. The College of Education located together with EIT at Mai-Nefhi will enable the output of about 1000 trained teachers per year, 700 at diploma level for basic education and 300 at degree level for secondary education. Moreover, the two institutions working in tandem have allowed for the first time the pre-service training of teachers and instructors for TVET intuitions. After first obtaining a diploma in technology students can take intensive training in pedagogy.
188. In terms of financing, basic education is free and compulsory through grade 8. The policy beyond that point has not been defined. There is some intention, as expressed in the *Concept Paper*, for some cost sharing at the tertiary level, but means to implement this policy have not been formulated. Neither has it been decided whether to introduce some form of cost sharing in secondary education. However, the establishment of private schools that maintain the standards set by the Ministry of Education is encouraged at all levels of education.
189. In accordance with government-wide policy HIV/AIDS education is being integrated into the curriculum of the education system from the end of elementary education through tertiary education. Information, education and communication activities are being undertaken to promote HIV/AIDS prevention, care and support and treatment.

## CHAPTER IV: STRATEGIES FOR EDUCATIONAL DEVELOPMENT

### 1. Expanded and Equitable Access

190. The Ministry's strategy to expand access equitably features the following elements:
- Identifying of inequality of access to education by zoba, and gender. This identification of inequalities will be used to set priorities and locate areas in greatest need and will provide a basis for monitoring progress.
  - Constructing new schools and classrooms so as to bring the schools close to the disadvantaged populations, carefully planning and targeting underserved areas and populations; constructing student hostels where necessary; adoption of multi-grade teaching, single teacher schools, mobile teaching arrangements and combined schools in areas of low population density;
  - Constructing new make shift classrooms to enhance the participation of adults and out-of-school children.
  - Breaking the bottleneck on the output of trained teachers by expanding teacher training institutions and programmes – especially for female teachers and teachers in mother tongue languages;
  - Implementing community-based campaigns to increase appreciation of the value of education;
  - Relieving financial constraints on enrolment of children from poor families by reducing direct and opportunity costs, such as by free school supplies, free uniforms, and bursaries; and
  - For the disabled, adopting a policy and provision of support within the framework of inclusive education.
191. In addition, to expand access for out-of-school youth equivalencies are being established for literacy training and TVET. At present completion of three years of adult literacy programs is the equivalent of grade 5 education. The Skills Development Centres will also be organised so that some of the graduates may re-enter school to continue their formal education.

### 2. Girls' and Women's Education

192. The Government has drafted a gender policy and strategy<sup>18</sup> in recognition of the fact that sustainable development cannot be realized without the full and equal participation of girls at all levels of education. The main strategic elements include raising gender awareness of the communities as the key to successful mainstreaming of gender education. This requires:
- undertaking training and mobilization campaigns for the community;
  - formulation of gender awareness training materials to sensitize communities and teachers about gender issues and the socio-cultural practices that hamper the participation of girls and women in education;

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<sup>18</sup> Ministry of Education, *Eritrea: National Education Gender Policy and Strategic Framework of Action*, draft, May 2004.

- strengthening relations between schools and communities through devolution of responsibilities for school management to the school and community level;
- Reviewing curriculum and teaching materials to make them more gender sensitive –in general, adult, TVET education and teacher training;
- Expanding the number of female teachers in schools by expanding their enrolment in teacher training institutions;
- Opening boarding schools and hostels for girls in remote areas, as well as for nomadic and semi-nomadic communities;
- In particular, ensuring that girls enter grade 1 at the proper time (age 7) and progress normally through the system because past experience shows that they start dropping out at age 14-16;
- Expanding opportunities for non-formal education, including adult education and skills training, for those who have been bypassed by the educational system;
- Improving the collection and production of gender disaggregated data on education, enhancing gender-based research and monitoring of progress towards EFA and MDG goals.
- Providing guidance and counselling services to help girls overcome problems that affect their education;
- Providing girls from low-income families with financial support as an incentive to compensate for the opportunity costs of their attendance<sup>19</sup>; and
- Conducting extra tutorial classes to girls in need of support in core subjects where they lag behind.

### 3. Quality and Relevance of Education

193. The strategy for increasing student achievement focuses on curricula, textbooks, assessment teachers and school support systems. It has the following principal elements:
- Revision of curricula of all levels and sub-sectors to focus on competence-based standards for expected learning outcomes and vertical/horizontal integration of subjects;
  - Provision of adequate textbooks and learning materials consistent with the new curricula;
  - Ensuring that national examination at grade 8 and 12 are redesigned as necessary to reward the demonstration of mastery of knowledge, skills and competencies, as identified in the new curricula, and therefore reinforce appropriate teaching and learning;
  - Increasing school leadership and teacher competencies through systematic and well-targeted in-service staff development programs on the new curricula, new teaching methods, continuous assessment as well as strengthening language competencies;
  - Upgrading teachers and providing them with continuous professional development, including by distance education;
  - Improving teaching methods and student time on task in the classroom;
  - Reduction in class sizes; provision of necessary classrooms, furniture and equipment to relieve overcrowding;

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<sup>19</sup> Some innovative approaches have already had success, e.g. providing kerosene to families to reduce the necessity for girls to spend time gathering firewood

- Provision of facilities and equipment for science, libraries and instructional materials (termed the ‘school support system’);
- Establishment of computer access through ICT, including computer laboratories and e-learning;
- Gradually reducing in the number of schools using the double shift system;
- Stimulation of greater parental and community interest in student performance;
- Continuing MLA studies to track progress on learning achievements and target areas in need of special help; and
- Expanding community reading rooms and providing varied supplementary reading materials to enhance and sustain literacy skills acquired in literacy centers.
- Expanding continuing education to assist adults who complete the first and second phases of literacy and post-literacy programs to further their education through evening programme, as well as to create access to those who are capable and are interested in advancing their academic qualifications.

#### **4. Reduction in wastage**

194. The challenges of educational wastage in the education system have been discussed in Chapter II. The challenge is to improve the flow of students through the system focusing on improving the quality of education. Although all of the interventions designed to increase access and boost quality will also address wastage issue (reduction of repetition and dropout) the following strategies will be adopted:

- Recruit and train more female teachers,
- Enhance the training in interactive pedagogy,
- Review and develop more relevant content and clearer learning objectives,
- Conduct continuous assessment of student progress,
- Create opportunities for remedial instruction for those falling behind and closer supervision through local education offices.
- Conduct information campaigns to counter traditional parental resistance to enrolling girls by communicating the benefits of education and the life-long consequences of non-attendance,
- Conduct meetings and trainings with parent-teacher-students association (PTSA) and other community groups to overcome negative parental attitudes,
- Use radio media more intensively and widely,
- Provide other direct incentives for enrolment and retention, and
- Provide bursaries for children of the poorest parents, to overcome the direct and opportunity costs of non-enrolment.

#### **5. Technical and Vocational Skills Development.**

195. Overall, the objective for TVET is to ensure adequate supplies of young people and adults with competent, adaptable skills for wage and self-employment. This objective will be sought through five principal means.

- Building demand-orientation into the training system, in part by undertaking a study with a view to the establishment of a mechanism of coordination with employer

- involvement; development and systematic use of market information to guide the system offerings; and diversifying the occupational composition of training outputs;
- Broadening coverage and expanding the quantitative output of skills to meet economic requirements, including technology-related training, non-formal skills development and training for the informal sector;
  - Achieving more effective mastery of skills and competencies through development of outcomes-based content, external assessment of achievements and expansion of pre- and in-service training for instructors and managers;
  - Mobilising adequate financing to augment operating costs of training institutions; and
  - Strengthening the management capacity for skills development, including MIS, policy development, evaluation capacity and devolution of authority to training institutions.

## **6. Institutional Capacity Development**

196. The achievement of overall objectives of the Plan, the specific objectives of each of its forgoing two components, the effective implementation of strategies, and the effective execution of means and activities will require effective and efficient delivery capacity of the sector. Yet, it is well recognized that the delivery capacity of the Ministry of Education at all levels of the sector is not adequate.
197. Recognizing this challenge, the MOE has sets out strategies for the development of institutional capacity. Besides, as capacity is strengthened through practice, the implementation of the capacity development strategies outlined below will be mainstreamed and integrated with the implementation of the first two components. The capacity development strategies for the MOE covers the following:
- Develop the human capacity of MOE to acquire relevant skills, competencies and qualifications;
  - Improve the organizational capacity related to the definition of roles, tasks and responsibilities of various departments and through the provision of adequate human and non-human resources required for the effective performance of tasks;
  - Develop the institutional capacity related to policy, legal and institutional frameworks, including information management systems that enable the system function efficiently.

## **7. Financing Strategy**

198. The strategy to finance the education sector in order to achieve the planned reform will be done through various means: increasing expenditure by Government, community contribution, involvement of the private sector and Development Partners' (DP) assistance for Education. With regard to the latter it is anticipated that support will be available from the Global Partnership for Education (GPE). A number of DPs have also signed informally that they may be prepared to support the Plan.
199. A detailed analysis of the costing and financing of the Plan is provided in Chapter V.



## **CHAPTER V: SPECIFIC OBJECTIVES, TARGETS AND ACTIVITIES**

200. In accordance with the overall sectoral priorities, the five year Plan features the following three components:

- Access and Equity of General Education (pre-primary, elementary, middle and secondary education), Adult education and Technical and Vocational education.
- Quality and relevance of education of all levels and sub-sectors of education.
- Institutional Capacity building.

201. Based on the detailed projections the plan anticipates the following increases in number of students, teachers and classrooms (Table 2):

**Table 2: Additional Students, Teachers and Classrooms between 2010/11 and 2015/16.**

<b>Level</b>	<b>Additions, 2011/12 to 2016/17</b>		
	<b>Students</b>	<b>Teachers*</b>	<b>Classrooms</b>
Pre-primary	44,427	1124	746
Elementary	207,408	3609	4220
Middle	35258	1787	630
Secondary	56,492	2021	1203

\*Required teachers to achieve GER in target year (projected stock of teachers) less teaching stock in base year. Attrition of 5% per annum in the stock should be added to arrive at the total teacher requirements over the period.

202. Each of the program strategies, objectives and targets is presented in sequence in the following sections.

### **A. Specific Objective 1: Improve Access and Equity**

#### **1. Basic Education (Formal and Adult Education)**

203. Basic education is the highest priority in the ESDP. This includes formal basic education (pre-primary, elementary and middle level) as well as literacy education for adults. Each is presented separately below.

##### ***1.1 Overall Objective***

204. The overall objective for the Ministry in basic education is to have all children complete elementary education and 80% completion at middle level with targeted achievements as defined by the curriculum.

205. This overall objective requires three principal accomplishments, equity of access, efficient student flows and quality, i.e. to:
1. Enrol all children in elementary and 80% of students complete middle school by 2015/16;
  2. Retain all children in school, progressing at a reasonable pace; and
  3. Ensure that the students have mastered the essentials of the curriculum.
206. Three elements have top priority in the Ministry's strategy to reach these objectives: new school construction; expanded output of qualified teachers; and adequate provision of textbooks supporting the new curriculum.

## **1.2 Targets**

### **1.2.1 Pre-primary Level Education**

207. The main target for pre-primary by 2015 will be to improve enrolment rates and the MOE will attempt to achieve a GER of 40% and a NER of 30% by 2016/17 from 31.4% GER and 19.6% NER in 2011/12.

**Table 3-Projection of Enrolments in Pre-primary Education by year, 2010/11 to 2015/16**

	<b>Base Year</b>					
	<b>2011/12</b>	<b>2012/13</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>	<b>2016/17</b>
<b>Gross Enrolment</b>	45,824	55,112	66,513	78,026	86,440	90,251
<b>Net Enrolment</b>	28,579	36,045	45,333	55,127	63,035	67,688
<b>GER</b>	<b>31.4</b>	<b>33.1</b>	<b>34.9</b>	<b>36.6</b>	<b>38.3</b>	<b>40.0</b>
<b>NER</b>	<b>19.6</b>	<b>21.7</b>	<b>23.8</b>	<b>25.8</b>	<b>27.9</b>	<b>30.0</b>

### **1.2.2 Elementary and Middle Level Education**

208. The main target by 2016/17 will be to improve enrolment rates, progression and completion rates matched by improved learning achievement and moving towards Education for All and Millennium Development Goals. Specifically, the Ministry of Education will attempt to achieve GER of 126.5% and 106.4%, for elementary and middle schools respectively. The Ministry also aims at achieving the gross and net admission rate of 126% and 100% in grade one by the year 2016/17 (Table 4). Further the Ministry is putting various interventions in place to ensure that pupils who enrol in school remain in school until the end of the cycle.
209. Table 4 shows Program projections for enrolment by level and year for elementary education.

**Table 4 - Projection of Enrolments in Elementary Education by level and year,  
2010/11 to 2016/17**

	<b>Base Year</b>					
	<b>2011/12</b>	<b>2012/13</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>	<b>2016/17</b>
Gross Admission	80138	87,923	100,595	115,537	129,396	123,292
Net Admission	31,011	46,262	66,806	92,522	103,156	97,851
GAR	123.2	123.7	124.3	124.9	125.4	126.0
NAR	47.7	65.1	82.6	100.0	100.0	100.0
Gross Enrolment	334,245	362,974	403,009	454,625	505,547	541,653
Net Enrolment	246,582	264,487	297,491	352,188	428,269	399,435
Pop 7-11	337,784	331,645	343,920	377,681	428,269	399,435
GER	93.2	107.5	121.5	132.2	133.9	126.5
NER	73.0	79.8	86.5	93.3	100.0	100.0

210. The projections assume a major reduction in repetition rates, from about 11% per year to 8%. The Ministry will ensure a transition rate of 90.3% between elementary and middle schools in 2016/17, and the projections assume a major reduction in repetition rates from about 11% in 2010/11 to 0% in grades 1-3 and to 7% in grades 4-5 in elementary schools in 2016/17.
211. This greater efficiency will mean a substantial increase in the net enrolment by 152,781 elementary students in grades 1-5 over the five year period of the ESDP, an increase of 80%. (Table 4)

**Table 5- Projected Increases in Student Flows (%) in Elementary Education**

Grade	Repetition		Dropout	
	2011/12	2016/17	2011/12	2016/17
1	11	0	7	2
2	13	0	4	2
3	11	0	4	2
4	10	7	4	2
5	7	7	4	2

212. This greater efficiency, plus projected construction of new schools, means the NER will also increase substantially at the elementary level, from 73.5% to 100%.

Table 6 shows program projections for student enrolment in middle schools:

**Table 6- Program projections: Enrolments in middle schools**

	<b>Base year</b>					
	<b>2011/12</b>	<b>2012/13</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>	<b>2016/17</b>
Transition Rate	89.3%	89.0%	89.3%	89.7%	90.0%	90.3%
Gross Enrolment	167,928	163,184	159,747	160,563	177,440	202,931
Net Enrolment	95,439	93,723	90,417	94,567	91,481	95,327
Pop 12-14	249,422	239,110	223,516	205,734	190,654	190,654
GER	70.2	73.0	77.6	78.0	93.1	106.4
NER	39.9	41.9	43.9	46.0	48.0	50.0

213. Under the ESDP 35, 258 additional students are projected to be accommodated in Grades 6-8 over the five year period, an increase of 21%. This will increase the GER from 70.2% to 106.4% while the NER will increase from 39.9% to 50% over the same period.
214. The average repetition rates at the middle level are projected to decline from about 18% per annum per level to 2% by 2016/17. (Table 7) This will raise the NER by 11.7 percentage points from 39.9% 2011/12 to 50% in 2016/17.

**Table 7- Projected Increases in Student Flows (%) in Middle Level**

<b>Grade</b>	<b>Repetition</b>		<b>Dropout</b>	
	<b>2011/12</b>	<b>2016/17</b>	<b>2011/12</b>	<b>2016/17</b>
6	13	7	6	3
7	8	5	5	3
8	35	25	7	5

215. Considerable improvement is expected in gender equity under the five year plan. The enrolment of females is expected to increase substantially at the elementary level, over the five year plan period. The female GER will be increased in parallel with that of boys to achieve gender parity by 2016/17. Greater progress is expected in enrolment of age-appropriate females (age 7-11). The NER at elementary level is expected to reach 100% by 2015/16 to achieve the EFA goal. The gender parity index is expected to improve from 0.84 in 2010/11 to 1.00 in 2015/16.
216. Major gender improvements are also foreseen at middle level. Total female enrolment will increase in parallel to that of boys. This will raise the GER in the same way as the boys' improvement. Progress will be even greater in terms of net enrolments, lifting the NER for the 12-14 female population by 2015/16. The GPI will improve from 0.81 to 1.00 between 2011/12 and 2016/17.

### **1.3 Strategies/Activities for Basic Education**

- Provision of schools, classrooms for basic education to expand access with equity and to relieve over-crowding, targeting underserved areas;

- Earmarking a share of the value of the physical assets for rehabilitation of schools. In general, responsibilities for preventive maintenance will be assigned to the schools and communities;
- Provision of new teachers (expansion of teacher training outputs);
- Expanding special needs education through the program of inclusive education and construction of new schools for the deaf and the blind.
- Conducting awareness campaign in order to ensure girls' participation.

217. The required construction and rehabilitation of classrooms and the projected enrolments are described in the following tables by levels:

218. **Pre-primary Education:** The five year plan makes a provision for early childhood care and education (ECD) in the form of kindergarten construction and teacher training. New classroom requirements for pre-primary schools are shown in Table 8. This is based on a reduction in the number of students per section from 41 to 40.

**Table 8: Projected classroom requirements in pre-primary schools**

	2012/13	2013/14	2014/15	2015/16	2016/17
a) Required classrooms expansion	125	149	146	104	48
b) Classroom to be replaced	34	35	35	35	35
c) Required classrooms construction - (a+b)	<b>159</b>	<b>184</b>	<b>181</b>	<b>139</b>	<b>83</b>
d) Classroom rehabilitation	26	30	33	37	40

219. **Elementary Education:** New classroom requirements for elementary schools are shown in Table 9. This is based on a reduction in the number of students per section and in classrooms used in double shifts from 2100 to 1890 (10%).

**Table 9: Projected classroom requirements in elementary schools**

	2012/13	2013/14	2014/15	2015/16	2016/17
a) Required classrooms expansion	431	596	768	758	539
b) Required double shift classroom reduction	45	45	45	45	45
c) Classroom to be replaced	140	145	155	169	170
d) Required classrooms construction - (a+b+c)	616	786	968	972	754
e) Classroom rehabilitation	90	103	118	138	157

220. Most of the classrooms are required for reduction in the average number of students per section and classrooms using double shift (by 45 per annum, or 225 classrooms). As part of improved access, special needs education schools for disabled persons will be constructed to provide relevant education and skills that will enable learners to support their lives after completion of their education.

221. In summary, the Ministry will provide 207, 408 new elementary school places over the five year period in 4220 new classrooms.

222. **Middle Level Education:** New classroom requirements for middle schools are shown in Table 10. Some of the classrooms are required for reduction in students/section and classrooms using double shift (from 850 to 765). The above classroom provision translates into the construction of 548 new middle school classrooms and replacement of 194 existing non standard classrooms (Table 10).

**Table 10- Projected classroom requirements in middle schools**

	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	2017
a) Required classrooms expansion	0	0	29	145	212
b) Actual/Required D/S classroom reduction	17	17	17	17	17
c) Classroom to be replaced	25	25	30	40	40
<b>d) Required classrooms construction -(a+b+c)</b>	<b>42</b>	<b>42</b>	<b>76</b>	<b>202</b>	<b>269</b>
e) Classroom rehabilitation	32	33	34	35	39

223. In summary, the Ministry will provide 35,258 middle school physical places over the five year period in 630 new classrooms. For basic education as a whole, the Ministry will also provide 250 teachers' residential houses mainly in rural areas. In addition, the Ministry will carry out major rehabilitation works in 1,088 classrooms and some teachers' quarters.

## **2. Adult Literacy education**

224. The rate of adult literacy in the country remains very low at about 74% (men 88.3%, women 61.4%) in 2010. Various literacy programmes have been undertaken since liberation. Findings from evaluation of these programmes reveal that the duration of a literacy programme affects participation rates in terms of the demands it imposes on the learners' time and energy. In addition, a recurring theme was lack of adequate preparation of the MOE literacy campaigns. This covered a range of issues including analysis of the needs and priorities of the adults and working out a concomitant programme of information and mobilization on the practical benefits of literacy. To illustrate such benefits the MOE intends to relate literacy to skill training and income generation schemes. Lack of adequate preparation is also reflected in the deployment of inappropriately trained adult education facilitators and in the dearth of suitable learning materials. The supply of follow up reading materials is especially important in order to avoid relapses into illiteracy. It is intended that the content in the materials will also be synchronized with relevant and suitably matched adult education radio broadcasts.

### **2.1 Overall Objectives**

225. Generally, the Ministry intends to strengthen the full range of adult education activities. The adult literacy and post-literacy program will be expanded to reach more than 350,000 non-literate adults over the five year period, post-literacy program for about 50,000 adults and youth, and a non-formal education program will be organized for about 50,000 out of school youth. This program also aims to reinforce the quality of, and supply of teaching materials and appropriately trained teachers for the adult literacy program. The specific target is to reduce the illiteracy rate to 10% by 2015. Another important objective is to reinforce the

concept of ‘equivalencies’ so that people who complete a certain level will be able to re-enter the formal school system.

## 2.2 Targets

Table 11 sets out the projection for literacy programme over the five year period. The proposed scale of intervention is substantial, necessitating close scrutiny of resource requirements.

**Table 11 – Adult literacy projection of age 15-49, 2010-2015**

	2010	2011	2012	2013	2014	2015
Population age 15-49	1,304,061	1,351,767	1,409,521	1,472,855	1,535,772	1,592,645
No. of Literate Population age 15-49	969,625	1,047,395	1,136,251	1,233,394	1,334,138	1,433,380
Adult Literacy Rate	74.35	77.48	80.61	83.74	86.87	90.00

226. To achieve the target – 90% rate – by 2015, precise planning needs to be made of resources’ requirements (teachers, textbooks, teaching/learning materials and classrooms). In particular, the sources of teachers will be carefully identified.
227. By targeting 20% of the illiterate population, about 45,000 students on average should be enrolled annually to achieve the target.

## 2.3 Strategies/Activities

228. Construction of makeshift classrooms and reading rooms (i.e. that can be disassembled and reassembled at other locations) will be undertaken to provide literacy education for adults. In addition, the MOE’s programme of media and distance education will be reinforced and expanded. Also, the following interventions will be made:
- Intensification of the awareness raising campaign;
  - Expansion of reading room in literacy centers supported with books and other materials;
  - Development curriculum and printing of textbooks;
  - Provision of teaching and learning materials;
  - Expansion of the continuing education program (evening classes)

## 3. Secondary Education

229. Several factors demonstrate the importance of increased attention to secondary education in Eritrea and why it is an important objective of the five year plan. Secondary education plays a central and pivotal role in the education and employment system. It has the potential for huge vertical and horizontal multiplier effects on the education system and the economy as a whole.

- First, the growth of the modern sector of the economy depends to a large extent on the supply of educated and trainable secondary graduates. At present only a small fraction of the labour force has attended secondary education. Most of those in formal employment and the public sector will continue to be secondary school leavers, including teachers for basic education. Even people in the informal sector have a better chance to prosper when they have a secondary education that makes them more self-reliant and productive.
- Second, secondary education is an essential foundation for the human resources required to build a competitive economy. In an information age with globalisation of markets and rapidly changing demands, secondary education develops and reinforces the capacity for continuous learning and flexible skill training. National competitiveness, especially in high value added economic activity, depends on knowledge, skills and competencies associated with abstract reasoning, analysis, language and communication skills, and the applications of science and technology. There is much evidence to suggest that export led growth is associated more with investments at post-primary than at primary levels.
- Thirdly, pressure for an expansion of the secondary intake is likely to mount quickly. The number of middle school graduates seeking admission to secondary is projected to increase substantially as a result of earlier, current and planned efforts to expand basic education. The chance for access to secondary education provides a motive for many students to remain in middle school. If transition rates to secondary fall dramatically, retention in middle school would probably decrease as it becomes clear that for many there would be no progression possible to higher educational levels;
- Fourthly, secondary education has many positive externalities, such as improved health, reduced infant mortality and better family planning, HIV/AIDs prevention and enhanced social participation. More and better secondary education for girls contributes directly to the empowerment of women, allowing the economy to absorb both sexes.
- Finally, the scope, quality and gender balance of tertiary education, an MDG and Dakar commitment, depends on the graduates of secondary education.
- Thus, secondary education occupies a strategic place for future growth and development of our country.

### **3.1 Overall Objectives**

230. The secondary education component of the five year plan aims at two objectives: (1) increased access and equity; and (2) improved quality and relevance of learning outcomes.

### *3.2 Targets*

231. Increase the proportion of the age group enrolled (enrolment of girls and underserved areas) from 23.2% at present to 35% by 2016/17; and increase the proportion of girls in total secondary enrolment by raising the female gender parity index (GPI) in total secondary enrolments from 0.74 at present to 0.96 by 2015/16.

Table 12 shows projected enrolments for secondary education by grade and year.



**Table 12- Programme projections: Enrolment in secondary schools**  
Base Year

	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Transition Rate	37.95%	58.00%	60.00%	62.00%	64.00%	66.00%
Gross Enrolment	94,758	110,772	125,941	135,309	147,277	151,250
Net Enrolment	69,812	80,011	90,501	99,683	106,029	121,858
GER	31.5	35.4	38.9	41.1	45.3	43.4
NER	23.2	25.6	27.9	30.3	32.6	35.0

232. Over the next five years the transition rate from middle school (Grade 8 leavers) to secondary education is projected to be 66% (an increase from 38% in 2011/12). The number of students enrolled in secondary education is projected to increase by 56,492 students (an increase of 59.6%) raising the GER from 31.5% to 43.4%. Whereas, the net enrolment will increase by 52,046, an increase of 74.5%. This will increase the NER from 23.2% to 35%, increasing the number of age-appropriate (15-18) students increased substantially during the five year period.
233. Repetition rates are projected to decrease from an average of 8.6% per level per year to about 6% per year. (Table 13)

**Table 13- Projected Increases in Student Flows (%) in Secondary Education**

Grade	Repetition		Dropout	
	2011/12	2016/17	2011/12	2016/17
9	13	8	7	5
10	13	8	7	5
11	2	2	7	5

234. This improvement in internal efficiency will raise the net enrolment ratio from 23.2% to 35%.
235. The enrolment of females is expected to increase substantially, alongside male students, over the five year plan period. This will lift the female GER and reduce gender gap. Even greater progress is expected in enrolment of age-appropriate females (age 15-18). The NER of girls at secondary level is expected to increase in parallel with that of the boys. The female GPI is expected to improve substantially in the coming five years.

### **3.3 Strategies/Activities**

236. New classroom requirements for secondary schools are shown in Table 14. This is based on projected enrolment increases and a reduction in double shift classrooms from 495 to about 446 (10%).

**Table 14: Projected classroom requirements in Secondary schools**

	2013	2014	2015	2016	2017
a) Required classrooms expansion	219	247	208	276	185
b) Required double shift classroom reduction	10	10	10	0	18
c) Classroom to be replaced	4	4	4	4	4
d) Required classrooms construction - (a+b+c)	232	261	221	280	207
e) Classroom rehabilitation	19	23	29	33	39

237. Class sizes (students/section) are expected to reduce over the five year period from 63 to 50. In total, about 56,492 additional students are expected to be accommodated in the 1203 new classrooms. In line with EFA and MD goals, special emphasis will be placed on expanding female enrolment and that of other disadvantaged groups through, *inter alia*, judicious construction of boarding<sup>20</sup> facilities – and expanding the number of female teachers.
238. In addition, textbooks will be produced and distributed in order to enhance student learning; provision of school support systems including ICT will be expanded and consolidated and in-service training for teachers and school directors will be conducted.

#### **4. Technical and Vocational Education**

239. In view of the importance of skills development for Eritrean economic growth the overall objective of technical-vocational education and training (TVET) is the following:

##### **4.1 Overall Objectives**

240. The overall objective for TVET is to broadening coverage and expanding the quantitative output of skills to meet economic requirements.

##### **4.2 Targets**

241. The target for TVET is to provide access to Vocational High Schools for about 20% of the students who complete grade 10. To ensure adequate supplies of competent, adaptable skills for the attainment of the government’s overriding national development objective integrated knowledge and skills based education and training will be provided.

##### **4.3 Strategies/activities**

242. In view of shortages of skilled workers and the lack of skills provision in important parts of the country, over the next five years three new Technical Schools will be established. The schools will have a capacity of 500 trainees each and will offer fourteen trades, in accordance with market requirements. This will bring total enrolment capacity in Technical Schools to about 10,000 trainees annually, still only 10% of the enrolment at secondary level. In addition the Center for Vocational Training will be upgraded to accommodate 5000 trainees who graduate from grade 12 each year. In

<sup>20</sup> Some of these arrangements are termed ‘para-boarding’ as they involve provision of some accommodation and some meals; there is provision of one meal per day, and pupils tend to return to their homes at weekends.

addition, four of the existing technical schools will be rehabilitated in order to accommodate additional students.

243. Development of TVET curriculum and production of textbooks, upgrading of TVET instructors, improving the management capacity are among the strategies to be implemented.
244. In addition, provision of equipment, materials and supplies are part of the plan.

## 5. Expansion of Teacher Training Outputs

245. Analysis of the education sector clearly indicates that there is a big challenge in meeting teacher requirements at all levels during the next few years. It is certain that the provision of good quality education and training cannot be realized without an adequate supply of highly motivated and well-trained teachers.

### 5.1 Overall objective

246. The main objective is to ensure that there is an adequate supply of qualified teachers for all areas and levels of the education system.

### 5.2 Targets:

247. The targets of teacher requirements to meet the projected enrolments for each level are shown in the following tables.

Tables 15-18 show teacher requirements for pre-primary, elementary, middle and secondary school levels. This requirement of teachers is based on enrolment projections identified above, an assumed reduction in teacher-pupil ratios, and an attrition rate of 5% per annum in the stock of teachers.

**Table 15 – Pre-primary Schools - Teacher Demand and Supply**

	2012/13	2013/14	2014/15	2015/16	2016/17
<b>Demand</b>					
<b>Teachers required (with year start GER)</b>	<b>1364</b>	<b>1650</b>	<b>1941</b>	<b>2156</b>	<b>2256</b>
Increment Demand	232	286	291	215	101
Supply:					
<b>Stock (5% attrition)</b>	<b>1226</b>	<b>1308</b>	<b>1337</b>	<b>1365</b>	<b>1392</b>
ATEI	150	100	100	100	100
<b>Total teacher workforce</b>	<b>1376</b>	<b>1408</b>	<b>1437</b>	<b>1465</b>	<b>1492</b>
Gap	12	-243	-504	-690	-764
<b>New required teachers</b>	<b>138</b>	<b>343</b>	<b>604</b>	<b>790</b>	<b>864</b>

**Table 16 – Elementary Schools - Teacher Demand and Supply**

	2012/13	2013/14	2014/15	2015/16	2016/17
<b>Demand:</b>					
<b>Teachers required with year start GER</b>	8,535	9,237	10,149	10,985	11,775
Increment Demand	483	702	913	836	790
Attrition @ 5% from previous year	403	427	462	507	549
Total demand for new teachers	886	1,129	1,375	1,343	1,339
<b>Supply:</b>					
<b>Stock (5% attrition)</b>	7,594	8,278	8,935	9,880	10,721
ATEI certificate teachers	500	250	50	0	0
ATEI diploma teachers	0	0	345	345	395
Higher Education Institutes	550	807	950	940	820
Upgrading to Diploma	-50	-50	-50	-50	-50
Teachers returning from upgrading program			50	50	50
Teachers recruited from communities (nomad schools)	120	120	120	120	120
<b>Total teacher workforce</b>	8,714	9,405	10,400	11,285	12,056
Gap	179	169	251	300	281
<b>New required teachers compared with previous year</b>	941	958	1214	1105	1054

**Table 17 – Middle Schools - Teacher Demand and Supply**

	2012/13	2013/14	2014/15	2015/16	2016/17
<b>Demand:</b>					
Teachers required with year start GER	<b>3726</b>	<b>3616</b>	<b>3602</b>	<b>3943</b>	<b>4464</b>
Increment Demand	-140	-110	-14	341	521
<b>Supply:</b>					
Stock (5% attrition)	<b>3346</b>	<b>3539</b>	<b>3434</b>	<b>3423</b>	<b>3746</b>
ATEI Output Diploma Teachers		<b>55</b>	<b>100</b>	<b>100</b>	<b>100</b>
Higher Education Institutes	430	70	70	420	610
Middle school upgrading program	-50	-50	-50	-50	-50
Teachers returning from upgrading programs			50	50	50
Total teacher workforce	<b>3726</b>	<b>3614</b>	<b>3604</b>	<b>3943</b>	<b>4456</b>
Gap	-1	-2	1	0	-8
<b>New required teachers</b>	381	77	169	520	718

**Table 18 - Secondary Schools - Teacher Demand and Supply**

	2012/13	2013/14	2014/15	2015/16	2016/17
<b>Demand:</b>					
Teachers required with year start GER	2723	2988	3084	3077	3327
Expatriate teachers	155	155	155	155	155
Domestically recruited teachers	2568	2833	2929	2922	3172
Increment Demand - domestic teachers	320	265	96	-7	251
<b>Supply domestic:</b>					
<b>Stock (5% attrition)</b>	2183	2582	2843	2928	2925
Higher Education Institutes	585	460	240	150	400
Teachers attending upgrading programs	-50	-50	-50	-50	-50
Teachers returning from upgrading programs			50	50	50
Total domestic teacher workforce	2718	2992	3083	3078	3325
Gap	-4	4	-1	2	-3
<b>Supply foreign:</b>	155	155	155	155	155
<b>Total domestic/foreign teacher workforce</b>	2873	3147	3238	3233	3480
<b>New required teachers</b>	539	406	241	148	403

### 5.3 Strategies/Activities

248. The strategy to recruit teachers qualified at diploma and degree levels include recruitment from the College of Education and other colleges. To the extent that new recruits from other colleges lack a solid foundation in educational theory or practice they will be provided with short orientation courses during the summer prior to their deployment as teachers.
249. **Increasing female teachers:** The recruitment of female teachers has always been encouraged by the Ministry. In spite of this, at present, female teachers at elementary level comprise 40.6% of the total elementary teacher population, whereas at the middle and secondary levels they merely comprise about 14.4% and 14.4% respectively. In order to raise female participation in the teaching service and to fill the gap in teacher output, the Ministry shall endeavour to recruit more female teachers through affirmative actions.
250. The specific interventions are outlined below:
- Consolidation and upgrading of ATEI to college level
  - Expansion of College of Education with the capacity to produce about 1000 teachers a year for the needs of schools, including TVET and vocational education schools.
  - Implementation of a Master Plan for Teacher Education and Development.
  - In line with the newly reviewed and developed curriculum and the projected increases in enrolments in the next five years, there is a need for far-reaching changes in the system of teacher training, development and support. Therefore, implementation of the Master Plan, need to address the issues of recruitment, training, deployment, support and continuing professional development of the teaching force and provide a roadmap for the next five to ten years.

- Fast –Track Training Program for Elementary School and Adult Literacy Teachers - the target group for this program consists of an intake of 500–550 directly recruited elementary school teachers. The program is expected to last between six and eight weeks. The trainees will be acquainted with the curriculum for the elementary level and adult literacy facilitators with the basics of teaching methodology, classroom management, documentation of student activities, etc.
- The Ministry intends to empower the community to play a leading role in expanding Kindergarten and Community Care Giving Education throughout the country. However, the Ministry will bear the main responsibility of producing adequate and qualified teachers. Thus, this sub-component, on top of providing access is aimed at equipping Kindergarten and Community Care Givers’ Centres with trained teachers and directors.
- The current shortage of trained Eritrean teachers for general secondary schools compels the Government to recruit and employ expatriate teachers pending the availability of a sufficient supply of national teachers. Therefore, the Plan makes provision for financing the temporary expatriate teachers’ salaries and for an internal scholarship program for Eritrean teachers to gradually replace the expatriate teachers.
- In addition, to boost the local supply of teachers for secondary schools, the five year plan includes the following measures:
  - Recruit about 700 graduates each year from the College of Education at Mai Nefhi Institute of Technology;
  - Recruit and orient about 100 graduates during the coming five years from other Colleges and deploy them as teachers. Apart from the graduates from the College of Education, most of the other new recruits are unlikely to have any solid foundation either in educational theory or practice. This constraint will be addressed by providing them with short orientation courses in educational theory and pedagogy during the summer, prior to their deployment as teachers.
  - Deliver a training program for IT instructors to provide secondary schools with qualified IT instructors.
  - Draw on the pool of 50 returning graduates who have been studying in College of Education to upgrade their qualification.

251. There is a need to review and revise teachers’ conditions of service to ensure that there are sufficient incentives to enter and remain in the teaching profession. Upgrading the professional status of teachers is necessary, but not sufficient, to retain them in schools. To be sufficiently motivated, teachers must be accorded recognition in the form of a comprehensive incentive scheme. The MOE will review the salary structure with the aim of developing a promotional ladder with a view to offering teachers career advancement opportunities without them having to move from active classroom practice.

252. Teacher’s salaries were increased substantially a few years ago. In addition, efforts were made to provide leaving quarter and solar panels for teachers serving in remote areas. However, recent increases in the costs of living have adversely affected the purchasing power of these salaries. The government is now in the process of undertaking a series of studies with a view of improving the conditions of service of teachers and other civil service staff.

## **B. Specific objective 2: Improve the Quality of Learning and Relevance of Education**

### **1. Basic (Formal and Adult Education) and Secondary Education**

253. The strategy for increasing student achievement focuses on curricula, teachers, school management, textbooks and teaching/learning materials. It has the following principal elements:

- Revision of curricula to focus on standards for expected learning outcomes and vertical/horizontal integration of subjects;
- Provision of adequate textbooks and learning materials consistent with the new curricula;
- Increasing school leadership and teacher competencies through systematic and well-targeted in-service staff development programs on the new curricula, new teaching methods, continuous assessment as well as strengthening language competencies;
- Upgrading teachers and providing them with continuous professional development, including by distance education;
- Improving teaching methods and student time on task in the classroom;
- Reducing class sizes; provision of necessary classrooms, furniture and equipment to relieve overcrowding;
- Provision of facilities and equipment for science, libraries and instructional materials (termed the ‘school support system’.)
- Establishment of computer access through ICT, including computer laboratories and e-learning;
- Gradual reduction in the number of schools using the double shift system;
- Stimulation of greater parental and community interest in student performance;
- Continuing MLA studies to track progress on learning achievements and target areas in need of special help; and
- Ensuring that national examinations at grade 8 and 12 are redesigned as necessary to reward demonstration of mastery of knowledge, skills and competences, as identified in the new curriculum, and therefore reinforce appropriate teaching and learning.

### **2. Technical and Vocational Skills Development**

254. In view of the importance of skills development for Eritrean economic growth technical-vocational education and training (TVET) has been given greater importance in the five year plan.

255. A sub-sector analysis of the TVET system was carried out in 2005 and the proposals presented here are based on the findings of that review.

#### ***2.1 Overall Objectives***

256. The overall objective for TVET is to ensure adequate supplies of competent, adaptable skills for wage and self-employment and to the economic growth of the country.

## **2.2 Strategies/activities**

257. This objective will be sought through the following three principal means:

a. Organisational and management development of TVET, through:

- Development of a policy for TVET;
- Establishment of a system for coordinating skills development with relevant ministries (Labour and Welfare, Trade and Industry, Agriculture, etc.), employers and labour unions.
- Development and systematic use of labour market information to guide the development of TVET.
- Strengthening the central capacity of the MOE to conduct policy formulation, monitoring and evaluation and quality assurance.
- Strengthening the organization and management of training institutions through capacity development of the management staff of training institutions;

b. Raising the standards of quality and achievement in skills development, through:

- Development and implementation of output-based curricula: The aim is to achieve more effective mastery of skills competencies through introduction of outcomes-based content and adoption of external assessment of learning results.
- Strengthening instructor training: The competencies of instructors essentially dictate the eventual skills acquired by trainees. The shortage of instructors for TVET, both in number and competence, remains the main constraint for the transfer of technological know-how in the country. The Ministry will expand the output of qualified national instructors through expansion of college of teacher education.
- Conducting staff development programmes in order to improve the professional competencies of instructors, school directors, supervisors and other professionals in the TVET Department.
- Re-equipping of Technical Schools: Technical Schools suffer from outmoded and inoperable equipment. Therefore, the Plan includes funds mainly for re-equipping eight Technical Schools:
- Supplying textbooks and teaching materials to all existing technical-vocational institutions.

c. Expanding the output of skills in critical areas for national development, through:

258. Establishment of Skills Development Centres (SDCs): Under the plan five Skills Development Centres will be established as flexible, multipurpose training institutions. These institutions are intended to serve out-of-school youth and adults with short-term modular training that can be adapted to varying market demands. SDCs will be the main avenue for introducing post-schooling skills development, as called for in the Concept Paper.

259. Building of new Technical Schools: In view of shortages of skilled workers and the lack of skills provision in important parts of the country, the Plan will establish six new Technical Schools. The schools will have a capacity of 540 trainees each and will offer nine trades, to be selected in accordance with market requirements.



### **3. Reduction in wastage.**

260. The challenge is to improve the flow of students through the system in tandem with improving the quality of education. Virtually all of the interventions designed to increase access and boost quality will also reduce repetition and dropout. Such reductions are essential to reduce costs in the system (i.e. avoid taking up a student place by teaching a student in the same year twice) and free up capacity for new students. The Ministry is studying its promotion policy and examinations and will develop and implement a strategy to assist slow learners. The MOE is looking investigating measures to combat student wastage. Through consultations and studies it plans to arrive at an integrated set of policy measures to tackle the problem. Meanwhile, a tentative set of measures would include educational interventions, community interventions and measures to provide financial incentives. Each is briefly outlined below.
261. Educational measures include more female teachers, better training in interactive pedagogy, more relevant content, clearer learning objectives, continuous assessment of student progress, opportunities for remedial instruction for those falling behind and closer supervision through local education offices. Non-school factors must also be addressed. Information campaigns can be effective means to counter traditional parental resistance to enrolling girls by communicating the benefits of education and the life-long consequences of non-attendance. In addition, parent-teacher organisations and other community groups can help overcome negative parental attitudes. This will be done through meetings at the community level, particularly in parent-teacher-student-Associations, and more widely through radio media. Finally, it may be necessary to provide other direct incentives for enrolment and retention. In addition, to overcome the direct and opportunity costs of non-enrolment the Ministry will provide bursaries for children of the poorest parents, as well as assistance in transportation (e.g. bicycles) and in purchasing school uniforms.

## **C. Specific Objective 3: Institutional Capacity Development**

### **3.1 Overall Objective**

262. The central thrust of the strategy for institutional development is to strengthen capacity of MOE staff at all levels. Consistent with the decentralization process, the strategy seeks to ensure that management and operational activities will be progressively handed to Zobas, local communities and schools. The strategy aims to achieve enhanced capacity at the local, zoba and central levels. The capacities required to be developed are for sector policy, strategy planning, programming and budgeting; program implementation, monitoring and evaluation; quality education monitoring, developing systems and tools. It also aims, to develop the capacity of schools to deliver quality education services and the empowerment of local communities for school management, school planning and budgeting.

### **3.2 Strategies/activities**

263. The strategies of the five year plan for capacity building will focus on *human, organizational, and institutional* capacities.

264. At each level of the education sector the following strategies will be implemented to address the capacity gaps:
- Strengthening professional capacity of MOE staff at all levels to address the required capacity and adequacy of competencies;
  - Enhancing organizational capacity for efficient education services through adopting clear definition of tasks and responsibilities and provision of adequate working space, furniture and equipment;
  - Developing institutional capacity covering policy, legal, and institutional frameworks and systems that define how the system works.
265. The following implementation modalities will be used to achieve the objective of the capacity building program.
266. **Strengthening Human Capacity:** Human capacity in various professions and competencies at the managerial level will be strengthened through long-term training both at the undergraduate and post-graduate levels, through distance learning and face-to-face instruction, or a combination of the two. Short-term training will also be undertaken in the areas of leadership, including through specific modules and exchange of experiences with other countries in comparable situations.
267. A substantial number of study tours will be appropriately sequenced through the five year plan in line with the demands for associated experiences. The study tours will explore, reflect upon and apply as appropriate experience in other countries of the following areas:
- a. Educational Management Information System (EMIS);
  - b. Teacher Education and Development;
  - c. Early Childhood Development;
  - d. Curriculum planning and development;
  - e. Special Needs Education (inclusive education);
  - f. Development, management and quality assurance for TVET;
  - g. Guidance and Counselling;
  - h. Adult education (including continuing and lifelong education);
  - i. Supervision and monitoring;
  - j. Participation in SACMEC;
  - k. Assessment and National Examinations; and
  - l. Parent-Teacher-Student-Associations (PTSA)
268. The achievement of overall objectives of the ESDP, the specific objectives of each of its forgoing two components, the effective implementation of strategies, and the effective execution of means and activities will require effective and efficient delivery capacity of the sector. Yet, it is well recognized that the delivery capacity of the MOE is inadequate for overseeing and managing sector development activities. The ESDP will place even higher demands on this already stressed delivery capacity and will be essential to ensure that this part of the system is adequately resourced..
269. **Improvement of Staff Motivation and Consequent Performance:** Even where there are appropriately equipped staffs, and in the right numbers, the level of motivation to perform has been identified as a real threat to the effective implementation of the sector plan. To mitigate this threat, the current incentive system for all MOE staff will be reviewed to develop a

restructuring of this system. This exercise is strongly proposed against the well-considered constraints in the broader national environment, but with due consideration to the reality that ignoring incentives and their impact on effective service delivery is untenable.

270. **Strengthening Organizational Capacity:** Effectively strengthening all the above human capacities will not guarantee an effective delivery of the sector plan, if those human resources find themselves operating in organizational environments that are unresponsive to the demands and requirements of the Plan. If this issue is not addressed there is a risk that the expertise, commitment, and motivation of staff will remain an unrealized potential. To turn the MOE and its structures into enabling organizational environments, the following actions will be taken in the coming years.
- Some restructuring of the MOE will be required in view of the GOSE's decision to transform the whole educational system. This restructuring will be based on a comprehensive review of the MOE's organizational structure, the main functions and tasks of its various Departments, as well as all the positions and job descriptions.
271. **Defining and reinforcing organizational linkages for effective delivery:** The effective implementation of the five year plan will require that each Department and other stakeholders effectively contributes to program implementation, especially around shared and/or interrelated tasks. To ensure the effective implementation of the plan, the following institutional linkages need to be reviewed and strengthened:
- a. The MOE's Research Division with other research centres and institutions of higher learning;
  - b. MOE's Teacher Training, Development and Support System on the one hand, and Teacher Education Institutions and the National Association of Teachers on the other hand;
  - c. The Department of TVET and other major stakeholders, such as the Ministry of Trade and Industry, Ministry of Labour and Human Welfare, the National Confederation of Eritrean Workers, the National Association of Employers, etc.;
  - d. MOE's efforts to develop Media Education with the activities of the Ministry of Information.
272. **Strengthening Institutional Capacity:** Steps to strengthen institutional capacity will include the development of the following:
- Strengthening the policy and legal frameworks
  - Establishing and/or consolidating a variety of institutional frameworks
273. The above-listed institutions may require policy revisions and legal frameworks. Their capacities will be carefully analyzed and appropriately developed.
274. In terms of procedures, rules and regulations, priority will be given to the updating of the existing Procedures, Rules and Regulations (PRR) and developing new ones.
275. Studies on sector and sub-sector issues will be carried out. Technical assistance will be required to conduct some studies to develop various aspects of the management system.

276. **Management Delivery Systems:** To ensure that the education sector delivers as expected, a whole set of management systems and tools must be put in place over the long term. However, some of these are more urgently needed and will affect the success of the plan to a greater extent than others. The most urgently required management delivery systems that will be reviewed and reformed as required are the following:

- a. Educational Management Information System (EMIS);
- b. Financial Management and Budgeting System;
- c. Teacher Training, Professional Development and Support System;
- d. Staff performance appraisal system;
- e. Incentive Schemes and career Ladders for all categories of staff;
- f. Quality Assurance System;
- g. Monitoring and Evaluation System; and
- h. Internal and external communications systems, including the systems for managing the flow of information.

### **3.3 Financing Strategy.**

277. The strategy of the Government for financing needed reforms, improvements and expansion is the following:

- The Government will increase its expenditures on education in line with its commitment to EFA and MDG goals and its ability to raise domestic revenues;
- The community and direct beneficiaries will be mobilised to contribute towards financing educational costs, exempting those from low-income households;
- The private sector will be encouraged to invest in the establishment, operation and expansion of schools; and
- Development partners (DP) will be encouraged to assist in closing the financial gaps. The government is in the process of requesting financial and other assistance from the Global Partnership for Education (GPE).
- GSE intends to adhere to the principles of the 2005 Accra Declaration on Aid Effectiveness (and other subsequent international accords), which seek to enhance harmonization of efforts among DPs and alignment with government systems to the fullest possible extent. To this end it welcomes the financial and other support of DPs, with scope to provide funding utilizing a range of modalities. In line with the guidance of the Global Partnership for Education (GPE), funding modalities acceptable to GSE are: budget support, both i) general and ii) sectoral; iii) pooled funding among DPs; iv) stand-alone projects, with a preference for the order i) to iii), as stated here.

#### ***3.3.1 Costs of the Plan***

##### **Actual Spending on Education**

278. In projecting costs of an education sector plan, it is necessary to show them in the context of the amount that is actually being spent on education at present. The Ministry of Finance provided data to the ESDP costing team, of which the overall total is summarised in Table A. Together with World Bank estimates of Eritrea's GDP, these data show education spending as proportions of GDP and total government spending. They indicate that, in its spending on

education, Eritrea may be in the lower part of the spectrum of countries of similar income levels, perhaps giving space for increased spending.

**Table A – Education Spending (including higher education) in the Context of GDP and Total Public Spending**

	<b>Actual</b>	<b>Actual</b>	<b>Actual</b>	<b>Actual</b>
Nkf	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
<b>GDP US\$ Mn (World Bank)</b>	\$1,380.2	\$1,856.7	\$2,117.0	\$2,609.0
<b>GDP Nkf Mn (World Bank)</b>	Nkf20,702.4	Nkf27,850.5	Nkf31,755.0	Nkf39,135.0
<b>Total Education Spending Nkf Mn (MoF)</b>	Nkf 763.8	Nkf908.6	Nkf1,038.2	Nkf1,036.4
<b>Education Spending as % GDP</b>	3.7%	3.3%	3.3%	2.6%
<b>Education Spending as % Total Government Spending (MoF data)</b>	8%	10%	8%	8%
<b>Education Spending excluding Higher Education Nkf Mn (MoF)</b>	Nkf 601.5			Nkf 823.1

- Source: Ministry of Finance, except GDP figures, which come from the World Bank website database, converted to Nakfa at 15 to the US dollar.

279. Further analysis of actual expenditure is not presented here, since data from the MoE show spending grouped in different ways. These presentational differences make it difficult for sector decision-makers and planners to manage the system with a clear understanding of what has actually been happening in the recent past, and the relative priorities of different parts of the sector as shown by the resources committed to the sector. Given that the EMIS data on enrolment and the school system are comprehensive and produced relatively quickly, a better understanding of where money is spent would allow good analysis of system costs, which would be helpful to all concerned. The two Ministries are working to resolve the problem, and it is hoped in the near future to have available an analysis, presented in an agreed form, that meets the needs of both.

### **3.3.2 Overall Costs of the ESDP**

280. The ESDP's objectives are ambitious and highly desirable. Achieving them, however, will be costly. The Plan will need considerable extra resources to fund its development activities and other investments. In addition, the expanding education system will cost more to run, due to increased enrolment:

- the total salary bill will increase as more teachers are needed,
- as more students are enrolled they will need more textbooks and materials,
- and the other operating costs of the system will grow.

281. The expenditure data and projections in the following section refer to the total Eritrean education sector excluding Higher Education. In other words, they include the development costs, running costs, and salaries of:

- general education;

- teacher training;
- adult literacy, complementary education, and continuing education;
- technical and vocational education and training (TVET); and
- the administration of the education system.

282. **Projected Incremental Cost of the ESDP:** Table B shows projections of incremental and annual development spending needed to achieve the ESDP objectives, compared with Ministry of Finance estimates of development spending for 2011.<sup>21</sup> The average additional annual cost of the programme, over the period of the ESDP (2013-17), is \$143.2 million, composed of \$138.5 million development costs (that is, physical investment in buildings and equipment, together with the costs of training, capacity expansion, books and materials, and other development programmes intended to achieve the ESDP objectives), and \$4.7 million incremental operational costs.

- The scale of the planned investment and development activities – capital spending – is shown by comparing the Plan’s projected \$138.5 million average annual capital expenditure with the \$4.7 million capital spending in 2011 (Ministry of Finance data).
- The \$4.7 million projected average annual increment in operating costs represents the additional amount needed each year to pay for the extra teachers and running costs required as enrolment expands. It represents an annual increase of about 9% compared with the Ministry of Finance estimate of \$50.2 million for recurrent education spending in 2011.

**Table B: Projected Summary Incremental Cost of the Eritrea ESDP, presented as the total of (a) the Programme’s development costs, and (b) the projected increase in the cost of operating the education sector caused by the ESDP.**

<b>SUMMARY COSTS, TOTAL ESDP \$'000</b>	<b>2011</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>Average Annual Costs 2013- 17</b>
Total Incremental Education Program Cost		127,838	139,008	161,348	142,657	121,595	138,489
Of which:							
Development Costs		127,838	139,008	161,348	142,657	121,595	138,489
Ministry of Finance estimate of capital spending on education	4,7						
Incremental Salary and Operational Costs		2,771	4,558	2,682	8,376	4,924	4,662

Source: MoE and MoF estimates, EMIS data, MoE projections, NSO population projections

283. **Projected Operating Costs:** Another way of looking at the cost impact of the ESDP is shown by Table C. This Table presents projections of *total* annual spending on education:

<sup>21</sup> The Ministry of Finance estimates include other items and are not strictly comparable with the projections. Further analysis to obtain data for actual spending on a basis comparable with the projections is now under way.

the annual cost of running the expanding education sector, added to annual development costs. The total costs of the sector as it expands are an essential consideration, since they represent the total amount that Eritrea will have to fund.

**Table C: Projected Summary Cost of the Eritrea ESDP, presented as the total of (a) the Programme’s development costs and (b) the total projected operational costs of the education sector following implementation of the ESDP.**

<b>SUMMARY COSTS, TOTAL EDUCATION SECTOR \$'000</b>	<b>2011</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Total Education Program Cost		173,080	189,282	214,838	204,996	189,184
Of which:						
Development Costs		127,838	139,008	161,348	142,657	121,595
Ministry of Finance estimate of capital spending on education	4.7					
Total Salary and Operational Costs		45,242	50,274	53,490	62,340	67,588
Ministry of Finance estimate of spending on education salaries and running costs	50.2					

Source: MoE and MoF estimates, EMIS data, MoE projections, NSO population projections

Note 1: Total education program cost includes ongoing recurrent costs of the expanded system – that is, salary and operational costs, and ESDP development costs.

284. As Table C shows, annual operational costs (salary and running costs) would increase from their current level of between \$45 and \$50 million (MoF and MoE) to reach \$67.6 million by 2017. This represents an increase of about 35%. Since Eritrea appears to spend relatively less on teacher salaries compared with other countries, nearly half of the amount consists of other operating costs, including for example the costs of boarding schools. About one third of recurrent costs reflects salaries of elementary teachers: the large part that the expansion of elementary education plays in the costs of the ESDP is discussed below (see the section on Costs by Objective).

### **3.3.3 Cost by Objective**

285. Table D gives projected spending grouped by the three main objectives of the ESDP. It shows that the overwhelming proportion of the ESDP development costs, over 80%, is for Objective

## 1. Improving Access and Equity.

286. Indeed, nearly two-thirds of total development costs consist of Objective 1's physical investment costs: construction, rehabilitation of buildings, equipment and furniture. The largest parts of the whole ESDP programme are:

- Construction of elementary classrooms (19% of total ESDP development costs); and
- Construction of teachers' residential quarters, representing 7% of the total.

287. Expenditure on elementary classrooms (and on teachers, see above) reflects the expected rapid expansion in enrolment. Enrolment at this level is growing for two main reasons.

- Elementary education will expand rapidly in the period of the ESDP, to meet Eritrea's target of having all children attend primary school.
- Elementary expansion is also particularly rapid because the primary school age group is expanding fast, reflecting high birth rates after about 2003 (information from National Statistics Office). By contrast, the age group which is now going through middle and secondary school is part of the cohort born between 1995 and 2002, when Eritrea's birth rate was low. Thus there will be relatively few children to enrol in middle and secondary school during the Plan period. After about 2015, middle school will need to expand rapidly as the cohort born after 2003 reaches that level, followed three years later by secondary education.
- On the other hand, as described in the ESDP, efforts to reduce repetition could reduce gross enrolment, while not affecting the objective of universal primary education. This could have an important effect on costs.

288. Construction spending also has to take into account the \$30,000 average cost per classroom.

**Table D: Costs by ESDP Objective, as % of total ESDP Development Cost**

<b>Development Cost by Objective</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>Annual average</b>
<b>Objective 1 - total development cost</b>	75%	78%	81%	81%	77%	79%
<b>Physical investment</b>	57%	60%	65%	64%	57%	61%
<b>Other development</b>	18%	18%	16%	17%	20%	18%
<b>Objective 2 - total development cost</b>	13%	14%	12%	11%	14%	13%
<b>Physical investment</b>	2%	2%	2%	2%	3%	2%
<b>Other development</b>	11%	12%	10%	9%	11%	11%
<b>Objective 3 - total development cost</b>	12%	8%	7%	8%	8%	8%
<b>Physical investment</b>	7%	4%	3%	4%	3%	4%
<b>Other development</b>	5%	4%	4%	4%	5%	4%
<b>Total ESDP Development</b>	100%	100%	100%	100%	100%	100%

Source: MoE and MoF estimates, EMIS data, MoE projections, NSO population projections



289. The planned cost of housing for teachers (averaging \$10 million a year) is intended to respond to the difficulties of employing experienced, qualified teachers in hard-to-reach places. The housing is intended to provide for teachers at all levels of education.
290. The total cost of all other development activities for Objective 1, summarised in Annex Table 3.1, is also about 18% of total development costs, averaging \$24.8 million annually. A large part of “other development” covers provision of books and materials (with TVET by its nature requiring a large proportion); other development activities include campaigns to sensitize parents and communities about education, the proposed mass literacy campaign, and the consolidation of Arabic teaching in schools.

### **3.3.4 Financing the Plan**

291. The costs of implementing the ESDP will be substantially greater than amounts so far spent on education in Eritrea. Table E compares projected ESDP costs with Ministry of Finance estimates of recent total education spending, and other sources of finance. It projects an average annual financing gap of over \$130 million during the ESDP. On the one hand, the ESDP indicates areas (such as reducing repetition rates) where increased efficiency could reduce costs. On the other hand, there is significant potential for increased funding from external partners. The GPE has already indicated a readiness to consider contributing to the ESDP; the African Development Bank and UNICEF are already contributing, while the World Bank has provided funds to Eritrean education in the past. It is hoped that further discussions with other potential partners will allow funds to be found.

**Table E: Financing the ESDP**

	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Projected Costs of the ESDP - Development & Incremental Operational Costs		130,609	143,566	164,030	151,032	126,520
Total Education Program Cost, including ongoing recurrent costs of the expanded system, and ESDP development costs		173,080	189,282	214,838	204,996	189,184
Total Education Program Cost, 2011: Ministry of Finance data for education spending	54,873					
Education Spending as Proportion of Total Government Spending, MoF data 2011	8%					
Projected		57,617	60,497	63,522	66,698	70,033

Government Spending on Education,						
Projected Funding Gap		115,464	128,785	151,316	138,298	119,150
Potential & Secured External Funding:						
African Development Bank		6,600,000	6,600,000	6,600,000		
GPE		5,000	10,000	10,000		
UNICEF		2,200,000	2,200,000	2,200,000	2,200,000	2,200,000
Islamic Development Bank		200,000				
GPE		10,000,000	8,000,000	7,300,000		
Others Development Partners						
Community contributions						

Source: MoE and MoF estimates, EMIS data, MoE projections, NSO population projections  
Note 1: These figures refer to the education sector including general education; technical and vocational education; adult literacy and complementary education; and teacher training. They do not include higher education.

Note 2: Government spending on education is projected by assuming total government spending increases at 5% a year, and that the proportion spent on education remains constant at 8%.

### 3.4 Tertiary Education and Training Institutions

292. Tertiary level institutions are not included in the five year plan. However, the government intends to conduct a comprehensive analysis of higher education in order to define, elaborate and articulate the various requirements of tertiary education and training. This process will lead to the strengthening of the policy and legal framework for tertiary education and training. Findings of this analysis will be used to provide the technical and analytical base for the government's vision for the future of this sub-sector, leading among other aspects to the strengthening of the policy and legal framework. The analysis will equally be used to interrogate, sharpen and provide technical soundness of this vision. All the above will be undertaken with the express purpose to ensure that this sub-sector can play its expected role in providing the high-level human resources required for the economy and the general development of the country.

## CHAPTER VI: IMPLEMENTATION ARRANGEMENTS

293. The overall objective of the implementation framework of the ESDP is to ensure that the plan gets implemented fully, on time and within budget. This requires, *inter alia*, an effective administrative structure, efficient procedures, capable human resources and sufficient financing for implementation.
294. The implementation framework for the plan is built on the following basic principles:
- Functions that are best or most effectively concentrated in one place, such as expertise for procurement, will be centralized;
  - Clear division of labour among the various actors to minimize duplication;
  - Clear reporting responsibilities;
  - Clear accountabilities;
  - Units authorized to act with sufficient resources to do so;
  - Maximum use of existing structures, suitably strengthened, so as to avoid overlap;
  - Rationalization and simplification of procedures where possible.
295. Key implementers of the plan will comprise the MOE, the zoba and local education offices. In recognition of the fact that the Plan calls for a comprehensive, cross government approach. MOE will be assisted by other government ministries, chiefly the Ministries of National Development, Finance, Public Works, and Justice together with regional administrations.

### **Ministry of Education (MOE)**

296. The MOE will be responsible for the policy development and implementation of strategic, legal, and institutional aspects of the plan and will retain oversight of these aspects. The MOE will also retain responsibility for the management of the entire implementation process of the plan.

### **The Steering Committee**

297. The implementation management function will be executed by a steering committee. The Steering Committee is chaired by the Minister of Education and is composed of five MOE Directors-General. Thus, all divisions and units of the MOE involved in plan implementation will be represented. This committee will meet monthly or more frequently as dictated by the pace of work.
298. The Steering Committee's functions are the following:
- Foster a common understanding of the plan goals and policies;
  - Provide strategic oversight;
  - Review and approve annual work plans and budgets;
  - Coordinate the various branches of the MOE in plan implementation;
  - Assess the performance of the MOE in plan implementation;

- Take corrective actions to avoid or overcome problems;
- Report on program implementation to higher levels of government

## **MOE Departments, Divisions and Units**

299. The implementation/execution functions of the MOE will be undertaken by the respective structures of the MOE within which the substantive, technical aspects of the plan will be mainstreamed. These structures include the various divisions and units at headquarters, Zoba offices, Sub-zoba offices and schools. The roles and functions of these MOE structures are elaborated below.
300. The responsibilities generally are focused on the substantive (i.e., the educational) aspects of the plan. The MOE Departments will define requirements, and will then be passed to the Department of Administration and Finance for actual procurement. The MOE Divisions and Units at all levels of the education sector will be responsible for operating their specific activities of the plan. These Divisions and Units will also be responsible for supervising their activities. They will be responsible generally for developing curricula and teaching programs, selecting or developing instructional materials, designing, organizing and carrying out training programs, etc. In addition, they will monitor and evaluate their respective activities, help prepare annual work plans, and report to the higher level authority on their activities, as needed.
301. An Annual Work Plan and Budget (AWPB) will be prepared each year in November, consistent with overall plan and component objectives and design. As the activities of the plan were defined during the preparation stage, the implementation plan for the activities may need to be modified during the course of the ESDP, both in terms of content and timescale, in line with the experience and capacity gained in Plan implementation. Thus, an AWPB will need to be developed every year. The planning process will embody consideration of past performance, including results, and planned activities for the coming year. The Departments of MOE in close collaboration with Zoba education offices will assume overall responsibility for preparing the AWPB, which once drafted will be approved by the Steering Committee.

## CHAPTER VII: MONITORING AND EVALUATION (M&E)

302. In order to assess whether the development objectives of the ESDP are being met, a monitoring and evaluation system will be established in the MOE. Monitoring and evaluation of project performance will be systematically carried out during the life of the plan and integrated into the ongoing operation of the plan at all levels and used to provide feedback, encourage innovation, team building, and project ownership. As the plan aims to contribute to sectoral goals by carrying out specific activities, MOE will ensure the timely implementation of the planned activities, which are critical to meeting the plan's development objectives, and assess the overall performance of the education sector as a whole and improvements in the sectoral indicators.
303. The foundation of the programme monitoring and reporting systems will be the Logical Framework (Annex 5) and its key performance indicators.
304. The implementing Departments of MOE will collect evidence required to develop baseline data on each component. With the support of the Research Division of the Department of Research and Human Resources Development, all Departments will contribute component baseline into a comprehensive baseline against which the monitoring performance indicators will be applied.
305. Monitoring and evaluation of project performance will be carried out by the MOE at all levels of the sector, in close collaboration with the Steering Committee which will have overall responsibility for the management and coordination of this important activity.

### **Review and reporting issues**

306. *Quarterly progress report:* which will summarize the progresses of activities carried out within the reporting period against the performance indicators, including a report integrating the results of the monitoring and evaluation activities performed, on progress achieved in the carrying out of the plan;
307. *Annual report:* On or about November 30 in each calendar year, a report on the progress achieved in carrying out the plan, as measured against the indicators set for the year, together with the results of the relevant monitoring and evaluation exercise conducted during the year will be prepared and setting out the measures recommended to ensure the efficient carrying out of the Plan and the achievement of the objectives thereof during the period following year;
308. *Joint Annual Review Meeting:* In December of each year, or at another appropriate time consistent with the wider GSE financial and physical planning cycles, a Joint Annual Reviews meeting will be held, during which the findings of the Annual Report will be considered, in order to reach a conclusion as to the level of success achieved in carrying out the Plan; to identify problematic aspects which have hampered progress, and to make recommendations on steps to be taken to address deficiencies. The latter may include suggestions for studies to examine more closely how matters can be improved and may lead to pilot schemes to test innovative approaches. Given that performance of the sector is

dependent on a number of GSE Ministries and agencies in addition to the MOE, participants in the JARM should include representatives of these key government stakeholders; also representatives of civil society and Development Partners. The participation of the latter is essential given that they are in partnership with the GSE and commit themselves to support the achievement of the government's objectives for the sector as encapsulated in the ESDP. This process will satisfy the joint education sector monitoring arrangements by the Local Education Group (LEG), necessary under the requirement of the Global Partnership for Education (GPE), which specify the conduct of annual joint sector review, led by the government. For GPE purposes the key product of the JARM is a brief aide-memoire, which summarizes the implementation of the education sector plan;<sup>22</sup>

309. *Mid Term Review* of the plan will be undertaken halfway through the plan to assess the implementation of the activities and to discuss if some adaptations are needed. It will cover among other things: (i) progress made in meeting the Plan's objective; and (ii) overall performance as measured against the performance indicators.
310. At the end of the programme, a final evaluation of the ESDP will be carried out.

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<sup>22</sup> It is important that JARM is organized so as to minimize transaction costs by removing the requirement for other additional reviews, e.g. for the GPE, or to satisfy the requirements of multi-lateral or bi-lateral DPs which are providing funds in support of the ESDP.

## **REFERENCES**

## ANNEXES

### Annex 1: Eritrea - Projected Costs of the ESDP, 2013-17

Note: These figures refer to the education sector including general education, technical and vocational education, adult literacy and complementary education, and teacher training. They do not include higher education.

The sources for all tables include MoE and MoF estimates, EMIS data, MoE projections and NSO population projections.

Table 1(a): Projected Summary Cost of the Eritrea ESDP, presented as the total of (A) the Programme's development costs, and (B) the projected increase in the cost of operating the education sector caused by the ESDP.

<b>SUMMARY COSTS, TOTAL ESDP, \$'000</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>Average Annual Costs 2013-17</b>
Total Incremental Education Program Cost		130,609	143,566	164,030	151,032	126,520	143,151
Of which:							
Development Costs		127,838	139,008	161,348	142,657	121,595	138,489
Incremental Salary and Operational Costs		2,771	4,558	2,682	8,376	4,924	4,662

Note 1: Cost figures in this table are preliminary and may change as data in the projection model are updated.

Note 2: Incremental education program cost in each year includes (a) the incremental recurrent costs of the expanded system, compared with the previous year – that is, incremental salary and operational costs, and (b) ESDP development costs



Table 1 (b): Projected Summary Cost of the Eritrea ESDP, presented as the total of (A) the Programme’s development costs and (B) the total projected operational costs of the education sector caused by implementing the ESDP.

SUMMARY COSTS, TOTAL EDUCATION SECTOR, FROM IMPLEMENTING THE ESDP, \$'000	2012	2013	2014	2015	2016	2017
Total Education Program Cost		173,080	189,282	214,838	204,996	189,184
Of which:						
Development Costs		127,838	139,008	161,348	142,657	121,595
Total Salary and Operational Costs		45,242	50,274	53,490	62,340	67,588

Note 1: Cost figures in this table are preliminary and may change as data in the projection model are updated

Note 2: Total education program cost includes (a) ongoing recurrent costs of the expanded system – that is, salary and operational costs, and (b) ESDP development costs

**Table 2: Financing the ESDP**

Note1: These figures refer to the education sector including general education; technical and vocational education; adult literacy and complementary education; and teacher training. They do not include higher education.

Note 2: Government spending on education is projected by assuming total government spending increases at 5% a year, and that the proportion spent on education remains constant at 8%.

	2012	2013	2014	2015	2016	2017
<b>Projected Costs of the ESDP - Development &amp; Incremental Operational Costs</b>		130,609,000	143,566,000	164,030,000	151,032,000	126,520,000
<b>Total Education Program Cost, including ongoing recurrent costs of the expanded system, and ESDP development costs</b>		173,080,000	189,282,000	214,838,000	204,996,000	189,184,000
<b>Total Education Program Cost, 2011: Ministry of Finance data for education spending</b>	54,873,000					
<b>Education Spending as Proportion of Total Government Spending, MoF data 2011</b>	8%	8%	8%	8%	8%	8%
<b>Projected Government Spending on Education,</b>		57,617,000	60,497,000	63,522,000	66,698,000	70,033,000
<b>Projected Funding Gap</b>		115,464,000	128,785,000	151,316,000	138,298,000	119,150,000
<b>Potential &amp; Secured External Funding:</b>						
<b>African Development Bank</b>		19,800,000				
<b>Islamic Development Bank</b>		200,000				
<b>GPE</b>		10,000,000	8,000,000	7,300,000		
<b>UNICEF</b>		2,200,000	2,200,000	2,200,000	2,200,000	2,200,000
<b>Other Development Partners</b>						
<b>Community Contribution</b>						

Note: Cost figures in this table are preliminary and may change as data in the projection model are updated

**Projected Cost of the Eritrea ESDP, Presented by Objective**  
**Table 3-1: Projected Cost of Objective 1, Improve Access and Equity**

<b>COSTS OF THE ESDP, BY MAIN OBJECTIVE, \$'000</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>Average 2013-17</b>
<b>Objective 1: Improve Access &amp; Equity.</b>							
<b>1A: Development Activities</b>							
<b>1A1: Investment costs</b>							
Construct Pre-primary classrooms & schools		3,574.0	4,135.0	4,064.7	3,138.2	1,871.6	3,357
Construct Elementary classrooms & schools		21,596.7	26,032.4	30,824.1	30,049.6	22,396.1	26,180
Construct Middle School classrooms & schools		1,347.8	1,347.8	2,429.1	6,454.0	8,611.0	4,038
Construct Secondary classrooms & schools		9,287.1	10,431.8	8,852.3	11,205.6	8,281.9	9,612
Construct Boarding School for disadvantaged communities			350.0	1,000.0			270
Rehabilitate classrooms, schools, boarding schools		1,607.6	1,830.2	2,091.9	2,383.9	2,701.6	2,123
Expand ATEI		-	600.0	6,000.0	-	-	1,320
Construct CEE Centres		1,200.0	1,500.0	2,100.0	1,500.0	-	1,260
Construct Adult Literacy Centres, Reading Rooms		2,256.0	2,257.8	2,257.8	2,257.8	2,257.8	2,257
Mobile Libraries		500.0	-	600.0	-	1,150.0	450
Construct two Special Needs schools, & SNE classrooms in existing elementary schools; expand School for the Deaf; hostels for SNE schools		120.0	2,000.0	820.0	1,920.0	720.0	1,116
Furniture for new & rehabilitated classrooms - all levels; SNE facilities for new SNE buildings, science kits middle schools		9,270.7	10,868.4	12,150.8	13,991.5	11,327.7	11,522
Construct & equip girls hostels		1,200.0	-	1,200.0	-	-	480
Construct teacher residential quarters		10,000.0	10,000.0	10,000.0	10,000.0	10,000.0	10,000
ADB Finance (NACVOT)		19,800.0					
Upgrading Existing TVET schools		3,500.0	5,500.0	3,500.0	1,500.0	-	2,800
Construct new Skills Development centres & 3 new technical schools		500.0	6,500.0	6,000.0	5,000.0	-	3,600
Equip new & upgraded TVET		7,078.0	-	10,400.0	1,700.0	-	3,836
<b>1A1 Total Investment</b>		<b>73,037.9</b>	<b>83,353.4</b>	<b>104,290.6</b>	<b>91,100.6</b>	<b>69,317.6</b>	<b>84,220</b>

**Table 3-1, Objective 1 (continued)**

<b>1A2: Other Development</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>Average</b>
Books & Materials - PPE		510.3	607.2	703.0	776.1	817.2	683
Books & Materials - Elem		2,978.8	3,395.4	3,938.0	4,478.9	4,892.5	3,937
Books & Materials - Mid		1,512.1	1,526.0	1,574.1	1,749.5	1,993.2	1,671
Books & Materials - Sec		1,682.7	2,013.4	2,277.4	2,611.4	2,837.9	2,285
Books & Materials - CEE & Literacy		602.9	685.8	779.9	862.8	917.6	770
Materials & supplies for new & existing TVET centres; develop, supply TVET books		8,705.0	10,150.0	11,800.0	11,430.0	11,750.0	10,767
Awareness-raising & Sensitization - general educ, gender, literacy		3,520.0	3,650.0	3,140.0	1,930.0	1,290.0	2,706
Mass Literacy Campaign		3,280.0	1,500.0	1,425.0	475.0	180.0	1,372
Zoba study "illiteracy-free" villages; Natl Literacy Survey		60.0	2,060.0	560.0	60.0	60.0	560
<b>Total 1A2: Other Development Costs</b>		<b>22,851.7</b>	<b>25,587.7</b>	<b>26,197.4</b>	<b>24,373.7</b>	<b>24,738.4</b>	<b>24,750</b>
<b>Total 1A: Development Cost</b>		<b>95,889.6</b>	<b>108,941.1</b>	<b>130,488.0</b>	<b>115,474.3</b>	<b>94,056.0</b>	<b>108,970</b>

<b>1b1: Annual Recurrent Costs - Total</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>Average</b>
Total domestic teacher salaries general education	14,051.1	15,044.9	16,231.4	17,509.3	18,845.9	20,417.4	
Expatriate Teacher Costs - Sec	2,889.0	2,890.0	2,300.0	2,350.0	3,262.0	2,890.0	
Total salaries CEE/Literacy	2,955.5	3,595.6	4,121.1	4,726.7	5,252.2	5,577.8	
Total domestic salaries - TVET (inc TVET admin staff)	1,282.5	1,323.9	1,410.8	1,570.5	1,772.0	1,983.9	
Expat Teacher Costs - TVET	188.0	188.0	188.0	188.0	188.0	188.0	
Operating costs - All levels, inc TVET, boarding schools	16,660.2	18,065.7	21,664.1	22,468.3	27,981.8	31,427.5	
<b>TOTAL 1B1: ANNUAL RECURRENT COSTS</b>	<b>38,026.3</b>	<b>41,108.1</b>	<b>45,915.4</b>	<b>48,812.9</b>	<b>57,301.9</b>	<b>62,484.6</b>	

Note: Figures for 2012 are calculated on the same basis as the projections for 2013-17. They are not actual spending figures.

<b>1b1: Annual Recurrent Costs - Incremental</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>Average</b>
Incremental teacher salaries - PPE		216.1	266.5	270.5	199.8	93.7	209
Incremental teacher salaries - Elem		604.2	769.6	928.5	811.1	726.7	768
Incremental teacher salaries - Mid		(136.3)	(106.9)	(13.9)	332.3	508.2	117
Incremental domestic teacher salaries - Sec		309.8	257.3	92.9	(6.7)	242.9	179
Incremental Expatriate salaries & costs - Sec		1.0	(590.0)	50.0	912.0	(372.0)	0
Incremental teacher salaries - CEE & Literacy		164.5	51.5	71.5	51.5	1.5	68
Incremental domestic teacher salaries - TVET		41.4	86.9	159.8	201.4	212.0	140
Incremental Expatriate Teacher Costs - TVET		-	-	-	-	-	-
Incremental operating costs - All levels, inc TVET, literacy, boarding schools		1,405.5	3,598.3	804.2	5,513.5	3,445.7	2,953
<b>Total 1b2: Incremental Recurrent Costs</b>		<b>2,606.2</b>	<b>4,333.3</b>	<b>2,363.4</b>	<b>8,015.0</b>	<b>4,858.7</b>	<b>4,435</b>
<b>Total Objective 1: Development &amp; Incremental Recurrent Costs</b>		<b>98,495.7</b>	<b>113,274.4</b>	<b>132,851.4</b>	<b>123,489.3</b>	<b>98,914.7</b>	<b>98,495.7</b>

**Table 3-2: Projected Cost of Objective 2, Improve Quality of Education**

<b>COSTS OF THE ESDP, OBJECTIVE 2 \$'000</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>Average</b>
<b>Objective 2: Improve Quality of Education</b>							
<b>2A: Development Activities</b>							
<b>2A1: Investment costs</b>							
Information and Communications Technology (includes equipment supply & ICT-related training) - all levels general education.		2,552.8	2,462.2	2,774.2	2,762.2	3,660.9	2,842
Produce and supply educational audio & video materials		60.0	120.0	200.0	250.0	300.0	186
<b>Total 2A1: Investment costs</b>		<b>2,612.8</b>	<b>2,582.2</b>	<b>2,974.2</b>	<b>3,012.2</b>	<b>3,960.9</b>	<b>3,028</b>
<b>2A2: Other Development Costs</b>							
Pre-service training basic education teachers, with teaching practice (Total costs ATEI); also Pre-service training middle & secondary teachers		1,765.0	2,205.0	2,640.0	3,095.0	3,615.0	2,664
Teacher Upgrading & CPD Programs & Activities (In-Service training) - all levels, including TVET, SNE teachers		7,049.5	7,340.0	7,222.5	4,990.0	4,185.5	6,158
Consolidation of Arabic language teaching - all levels		533.3	534.3	552.3	529.3	516.3	533
Curriculum Planning, Development for General Education, Literacy, TVET		2,222.6	2,465.6	2,024.9	1,285.6	725.3	1,745
School support: including development &/or supply of reference books, equipment, teaching-learning materials; school health program; school guidance, counselling & support. Includes training.		1,502.5	1,640.5	1,464.0	655.2	1,515.6	1,356
Workshops, seminars, in-service training sessions for teachers, school directors		809.0	808.5	851.5	748.0	805.5	805
Enhance & expand continuing education programs		225.0	430.0	485.0	620.0	820.0	516
Workshops and general orientation - literacy, complementary, adult ed; Support other adult education providers		515.0	825.0	985.0	1,175.0	1,480.0	996
<b>Total 2A2: Other Development Costs</b>		<b>14,621.9</b>	<b>16,248.9</b>	<b>16,225.2</b>	<b>13,098.1</b>	<b>13,663.2</b>	<b>14,771</b>
<b>Total 2A: Development Costs</b>		<b>17,234.6</b>	<b>18,831.1</b>	<b>19,199.4</b>	<b>16,110.3</b>	<b>17,624.1</b>	<b>17,800</b>
<b>Total Cost Objective 2</b>		<b>17,234.6</b>	<b>18,831.1</b>	<b>19,199.4</b>	<b>16,110.3</b>	<b>17,624.1</b>	<b>17,800</b>

**Table 3-3: Projected Cost of Objective 3, Enhance Institutional Capacity  
(Includes costs of Ministry of Education “Administration and Finance”)**

<b>COSTS OF THE ESDP, OBJECTIVE 3, \$'000</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>Average</b>
<b>3A: Development Activities</b>							
<b>3A1: Investment costs</b>							
Construction, equipment & furniture for MoE; including building, rehabilitation, re-equipping of printing workshops, stores, & other facilities of MoE agencies		6,684.4	3,940.2	3,450.6	4,190.1	2,182.1	4,089
Establish fully functional Educational Management Information System		1,752.0	1,252.3	1,396.6	1,251.7	1,248.4	1,380
Procure motorbikes, bikes, monitoring and supervision		212.0	256.7	268.4	165.0	180.0	216
<b>Total 3A1 Investment Activities</b>		<b>8,648.4</b>	<b>5,449.2</b>	<b>5,115.6</b>	<b>5,606.8</b>	<b>3,610.5</b>	5,686
<b>3A2: Other Development Activities</b>							
Professional upgrading of MoE staff		3,464.0	3,996.0	4,171.0	4,280.0	4,940.0	4,170
Promote effective educational management & quality education through research; enhance school-based research		672.3	594.7	1,047.6	329.8	934.6	716
Enhance and develop MoE documentation capacity		574.4	18.9	17.5	18.9	17.5	129
Enhance MoE institutional & management capacity: surveys, guidelines, training & workshops, printing & distributing documents		1,052.0	783.8	1,006.2	593.3	199.8	727
Study tours to acquire best practices		120.0	210.0	120.0	60.0	30.0	108
Monitoring & Evaluation - costs of recurrent activities		183.0	183.0	183.0	183.0	183.0	183
<b>3A2: Other Development Activities</b>		<b>6,065.7</b>	<b>5,786.4</b>	<b>6,545.2</b>	<b>5,465.0</b>	<b>6,304.8</b>	6,033
<b>Total 3A: Development Activities</b>		<b>14,714.1</b>	<b>11,235.5</b>	<b>11,660.9</b>	<b>11,071.8</b>	<b>9,915.3</b>	11,720
<b>3B1: Recurrent Costs</b>							
MoE Administration & Finance - salaries	1,455.2	1,519.7	1,598.6	1,687.3	1,790.7	1,869.7	
MoE Administration & Finance - operating cost	2,514.4	2,614.3	2,760.3	2,989.9	3,247.3	3,234.0	
<b>Total 3B1: Recurrent Costs</b>	<b>3,969.6</b>	<b>4,134.0</b>	<b>4,358.8</b>	<b>4,677.1</b>	<b>5,038.0</b>	<b>5,103.7</b>	
<b>3B2: Incremental Recurrent Costs</b>							
MoE Admin & Finance - incremental salaries		64.6	78.8	88.7	103.4	79.0	<b>83</b>
MoE Administration & Finance - incremental operating cost		99.9	146.0	229.6	257.4		

						(13.3)	144
<b>Total 3B2: Incremental Recurrent Costs</b>		<b>164.4</b>	<b>224.8</b>	<b>318.3</b>	<b>360.8</b>	<b>65.7</b>	<b>227</b>
<b>Total Objective 3: Development &amp; Incremental Recurrent</b>		<b>14,878.5</b>	<b>11,460.3</b>	<b>11,979.2</b>	<b>11,432.7</b>	<b>9,981.1</b>	<b>11,946</b>
<b>TOTAL ESDP COSTS: DEVELOPMENT &amp; INCREMENTAL RECURRENT</b>		<b>130,609</b>	<b>143,566</b>	<b>164,030</b>	<b>151,032</b>	<b>126,520</b>	<b>143,151</b>

Note: Figures for 2012 are calculated on the same basis as the projections for 2013-17. They are not actual spending figures.

**Table 4A: Costs by ESDP Objective, total in thousand US dollars**

<b>Development Costs of ESDP \$'000</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>Annual average</b>
Objective 1 - total development cost	95,889.6	108,941.1	130,488.0	115,474.3	94,056.0	108,969.8
Physical investment	73,037.9	83,353.4	104,290.6	91,100.6	69,317.6	84,220.0
Other development	22,851.7	25,587.7	26,197.4	24,373.7	24,738.4	24,749.8
Objective 2 - total development cost	17,234.6	18,831.1	19,199.4	16,110.3	17,624.1	17,799.9
Physical investment	2,612.8	2,582.2	2,974.2	3,012.2	3,960.9	3,028.4
Other development	14,621.9	16,248.9	16,225.2	13,098.1	13,663.2	14,771.5
Objective 3 - total development cost	14,714.1	11,235.5	11,660.9	11,071.8	9,915.3	11,719.5
Physical investment	8,648.4	5,449.2	5,115.6	5,606.8	3,610.5	5,686.1
Other development	6,065.7	5,786.4	6,545.2	5,465.0	6,304.8	6,033.4
<b>Total ESDP Development Cost</b>	<b>127,838.3</b>	<b>139,007.8</b>	<b>161,348.3</b>	<b>142,656.5</b>	<b>121,595.4</b>	<b>138,489.3</b>

**Table 4B: Costs by ESDP Objective, as % of total ESDP Development Cost**

<b>Development Costs of ESDP, % of total Development Costs</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>Annual average</b>
Objective 1 - total development	75%	78%	81%	81%	77%	79%
Physical investment	57%	60%	65%	64%	57%	61%
Other development	18%	18%	16%	17%	20%	18%
Objective 2 - total development	13%	14%	12%	11%	14%	13%
Physical investment	2%	2%	2%	2%	3%	2%
Other development	11%	12%	10%	9%	11%	11%
Objective 3 - total development	12%	8%	7%	8%	8%	8%
Physical investment	7%	4%	3%	4%	3%	4%
Other development	5%	4%	4%	4%	5%	4%
Total ESDP Development	100%	100%	100%	100%	100%	100%

**Table 4c: Recurrent Costs of the ESDP**

Operational Costs of the ESDP	2012	2013	2014	2015	2016	2017	Annual average	Average % of total op. costs
Total Operational Costs of the ESDP	41,995.9	45,242.1	50,274.2	53,490.0	62,339.9	67,588.3	55,787	100%
Objective 1	38,026.3	41,108.1	45,915.4	48,812.9	57,301.9	62,484.6	51,125	92%
Salaries	21,366.1	23,042.3	24,251.3	26,344.6	29,320.1	31,057.1	26,803	48%
Other operational costs	16,660.2	18,065.7	21,664.1	22,468.3	27,981.8	31,427.5	24,321	44%
Objective 2	<i>None</i>	None	None	None	None	None		
Objective 3	3,969.6	4,134.0	4,358.8	4,677.1	5,038.0	5,103.7	4,662	8%
Salaries	1,455.2	1,519.7	1,598.6	1,687.3	1,790.7	1,869.7	1,693	3%
Other operational costs	2,514.4	2,614.3	2,760.3	2,989.9	3,247.3	3,234.0	2,969	5%

**Note: Figures for 2012 are calculated on the same basis as the projections for 2013-17. They are not actual spending figures.**



**Table 4d: Incremental Recurrent Costs of the ESDP**

Incremental Operational Costs of the ESDP	2013	2014	2015	2016	2017	Annual average	Average % of total incrmtl op. costs
Total Incremental Operational costs	2,770.6	4,558.1	2,681.7	8,375.8	4,924.4	4,662.1	100%
Objective 1	2,606.2	4,333.3	2,363.4	8,015.0	4,858.7	4,435.3	95%
Salaries	1,200.7	735.0	1,559.2	2,501.5	1,413.0	1,481.8	32%
Other operational costs	1,405.5	3,598.3	804.2	5,513.5	3,445.7	2,953.4	63%
Objective 2							
Objective 3	164.4	224.8	318.3	360.8	65.7	226.8	5%
Salaries	64.6	78.8	88.7	103.4	79.0	82.9	2%
Other operational costs	99.9	146.0	229.6	257.4	(13.3)	143.9	3%

## Annex 2: Detailed Cost Projections

### General Education

Section 1: Pre-Primary Education	Unit	Unit cost (average)	Projected 2012	2013	2014	2015	2016	2017
<b>Costs are in US\$ '000</b>								
<b>1A: Development Activities</b>								
<b>1A1: Investment costs</b>								
Construct classrooms	classroom	30.0	627.4	3,574.0	4,135.0	4,064.7	3,138.2	1,871.6
Classroom rehabilitation	classroom	10.0	191.1	197.6	221.4	248.9	276.0	297.0
Furniture for new & rehab classrooms	classroom	7.2	288.6	1,001.4	1,153.4	1,156.4	953.2	663.9
<b>1A2: Other Development Costs</b>								
Train ECD teachers recruited from communities, summer programs	teacher	0.15		45.0	45.0	52.5	63.8	78.8
Textbooks, on 4-yr cycle, 4 per child	Enrolment	0.0020		110.2	133.0	156.1	172.9	180.5
Teacher guides, 2 per teacher, 4-yr cycle	Teachers	0.0020		1.7	2.3	2.9	3.3	3.5
Materials	Classroom	0.4		398.3	471.8	544.1	599.9	633.2
<b>1B: Recurrent Costs</b>								
Teacher salary costs	teacher	0.9	588.4	804.5	1,071.0	1,341.5	1,541.3	1,635.0
Pre-primary operating costs	classroom	0.4	334.8	398.3	471.8	544.1	599.9	633.2
<b>Section 2: Elementary Education</b>								
<b>2A: Development Activities</b>								
<b>2A1: Investment costs</b>								
Construct classrooms	Classroom	30	15,075.2	21,596.7	26,032.4	30,824.1	30,049.6	22,396.1
Expand ATEI to 1,200 capacity		lump sum			600.0	6,000.0		
Classroom rehabilitation	Classroom	10	830.0	903.6	1,047.6	1,221.1	1,426.6	1,627.0
Furniture for new & rehab classrooms	Classroom	7.21	4,221.5	5,841.9	7,011.7	8,288.5	8,250.5	6,555.6
Construct 2 special needs schools	School	1,200			600.0	600.0	600.0	600.0
Construct Special Needs classrooms in existing elementary schools.	Classroom	30		120	120.0	120.0	120.0	120.0
Furniture & SNE facilities for new SNE classrooms	Classroom	8.7		34.608	34.6	34.6	34.6	34.6
<b>2A2: Other Development Costs</b>								
Textbooks Gr 1-3, on 4-year cycle, 4 per child	Enrolment	0.0020	462.8	523.2	571.6	632.0	688.9	724.0
Textbooks Gr 4-5, on 4-year cycle, , 5 per child	Enrolment	0.003	318.7	321.4	338.7	405.4	484.8	561.2
Teacher guides, 4.5 per teacher, 4 year cycle	Teachers	0.005	36.2	39.1	42.9	47.3	51.2	54.7
Materials	Classroom	0.4	1,807.2	2,095.2	2,442.3	2,853.2	3,253.9	3,552.5

Train Nomad School teachers recruited from communities	Teacher	0.3		60.0	150.0	210.0	186.0	132.0
<b>2B: Recurrent Costs</b>								
Teacher salary costs	teacher per year	0.9	7,514.7	8,118.8	8,888.5	9,816.9	10,628.0	11,354.7
Elementary education operating costs	classroom	0.6	2,829.5	3,280.3	3,823.8	4,467.2	5,094.5	5,562.1
Pre-service teacher training (ATEI recurrent costs)	student years	1.5	1,056.0	1,057.5	1,207.5	1,425.0	1,500.0	1,725.0
Consolidate teaching practice in ATEI teacher training				25.0	15.0	15.0	20.0	15.0
<b>Section 3: Middle School</b>								
3A: Development Activities								
3A1: Investment costs								
Construct classrooms	classroom	32.0	5,824.0	1,347.8	1,347.8	2,429.1	6,454.0	8,611.0
Classroom rehabilitation	classroom	10.0	283.0	319.4	327.8	336.2	351.4	391.8
Furniture for new & rehab classrooms	Classroom	7.2	1,516.3	534.0	540.0	789.7	1,707.6	2,222.6
Science kits	school	1.0		50.0	80.0	80.0	80.0	80.0
<b>Other Development</b>								
Textbooks on 4-yr cycle, 5 per child	Enrolment	0.0031	524.8	509.9	499.2	501.8	554.5	634.2
Teacher guides, 5 per teacher, 4 yr cycle	Teachers	0.0050	19.3	18.6	18.1	18.0	19.7	22.3
Materials	Classroom	0.6	958.2	983.5	1,008.7	1,054.3	1,175.3	1,336.8
<b>3b: Recurrent Costs</b>								
Teacher salary costs	teacher	1.0	3,768.7	3,632.4	3,525.4	3,511.5	3,843.9	4,352.1
Middle education operating costs	classroom	0.6	920.7	945.0	969.3	1,013.1	1,129.3	1,284.5
Pre-service teacher training	student per year	1.5	81.0	82.5	232.5	300.0	525.0	825.0
<b>Section 4: Secondary</b>								
Costs are in US\$ '000	Unit	Unit cost (average)		2013	2014	2015	2016	2017
<b>4 A: Investment costs</b>								
Construct classrooms	classroom	40	800.0	9,287.1	10,431.8	8,852.3	11,205.6	8,281.9
Classroom rehabilitation	classroom	10	187.0	187.0	233.4	285.6	329.9	385.9
Furniture for new & rehab classrooms	classroom	7.21	279.0	1,808.8	2,048.6	1,801.5	2,965.6	1,771.0
<b>Other Development</b>								
Textbooks on 4-yr cycle, 6 per child, \$3 per book	Enrolment	0.0045	426.4	498.5	566.7	608.9	662.7	680.6
Teacher guides, 5 per teacher, 4 yr cycle, \$5 per book	Teachers	0.0063	15.0	17.0	18.7	19.3	19.2	20.8
Materials	Classroom	1.00	935.0	1,167.2	1,428.0	1,649.3	1,929.4	2,136.5
<b>4B: Recurrent Costs</b>								
Teacher salary costs (domestic)	teacher	0.97	2,179.4	2,489.2	2,746.5	2,839.4	2,832.7	3,075.6
Expatriate teacher salary etc.	teacher	18.8	2,889.0	2,890.0	2,300.0	2,350.0	3,262.0	2,890.0
Secondary education operating costs	classroom	2.1	2,004.5	2,502.2	3,061.3	3,535.7	4,136.3	4,580.2
Operating costs of Grade 12 College	Gr 12 student	0.3	5,930.8	6,067.9	7,978.7	6,653.0	9,637.0	10,794.5
Pre-service teacher training	student years	1.5		600.0	750.0	900.0	1,050.0	1,050.0

	Unit	Unit cost (average)	Projected 2012	2013	2014	2015	2016	2017
<b>Section 5: All Levels - Activities relating to more than one level</b>								
<b>5 A: Investment costs</b>								
Construct & equip boarding schools for the Bidawiyet communities	School	Lump Sum			350.0	1,000.0		
Rehabilitation boarding schools		Lump Sum		600.0		600.0		
Construct 2 girls hostels		Lump Sum		1,200.0		1,200.0		
Expand Keren School for the Deaf - classrooms & dormitories		Lump Sum			80.0	100.0		
Construct 2 special needs hostels		Lump Sum			1,200.0		1,200.0	
Construction of teachers' residential quarters		Summary total		10,000	10,000	10,000	10,000	10,000
Information and Communications Technology (includes supply of systems & ICT-related training)		Summary total		2,552.8	2,462.2	2,774.2	2,762.2	3,660.9
Awareness-raising & Sensitization		Summary total		1,385.0	1,650.0	1,520.0	965.0	645.0
Consolidation of Arabic language teaching		Summary total		533.3	534.3	552.3	529.3	516.3
Curriculum Planning and Development for General Education. Note - printing & supply of books is also included in sub-sector costs		Summary total		2,070.6	1,719.6	1,174.9	692.6	370.3
Workshops, seminars, in-service training sessions for teachers, school directors		Summary total		809.0	808.5	851.5	748.0	805.5
Teacher Training Programs & Activities - teacher up-grading & other in-Service CPD Programs.		Summary total		6,977.0	7,093.5	6,916.0	4,733.5	4,041.0
Train Special Needs teachers (qualified teachers receiving SNE training)	trainee	0.50		12.5	12.5	12.5	12.5	12.5
School support: including development &/or supply of reference books, equipment, teaching-learning materials; school health program; school guidance & support. With training		Summary total		1,502.5	1,640.5	1,464.0	655.2	1,515.6
Produce and supply educational audio & video materials		Summary total		60.0	120.0	200.0	250.0	300.0
<b>5B: Recurrent Costs</b>								
Boarding School - salaries		MoE data		167.5	172.6	177.7	183.1	188.6
Boarding School - running costs		MoE data		3,867.5	3,983.5	4,103.0	4,226.1	4,352.9

SUMMARY COSTS GENERAL EDUCATION

	2013	2014	2015	2016	2017
1. Pre-primary					
Investment Costs	5,328.3	6,161.9	6,225.6	5,207.3	3,728.5
Recurrent Costs, of which:	1,202.8	1,542.9	1,885.6	2,141.2	2,268.2
<i>Salaries</i>	804.5	1,071.0	1,341.5	1,541.3	1,635.0
<i>Other recurrent</i>	398.3	471.8	544.1	599.9	633.2
Total Pre-primary	6,531.1	7,704.8	8,111.2	7,348.6	5,996.7
2. Elementary					
Investment Costs	31,535.6	38,991.7	51,236.3	45,146.2	36,357.6
Recurrent Costs, of which:	12,481.7	13,934.7	15,724.1	17,242.5	18,656.7
<i>Salaries</i>	8,118.8	8,888.5	9,816.9	10,628.0	11,354.7
<i>Other recurrent</i>	4,362.8	5,046.3	5,907.2	6,614.5	7,302.1
Total Elementary	44,017.2	52,926.4	66,960.4	62,388.7	55,014.4
3. Middle School					
Investment Costs	3,763.3	3,821.7	5,209.1	10,342.5	13,298.6
Recurrent Costs, of which:	4,659.9	4,727.2	4,824.6	5,498.2	6,461.6
<i>Salaries</i>	3,632.4	3,525.4	3,511.5	3,843.9	4,352.1
<i>Other recurrent</i>	1,027.5	1,201.8	1,313.1	1,654.3	2,109.5
Total Middle School	8,423.1	8,549.0	10,033.7	15,840.7	19,760.2
4. Secondary					
Investment Costs	12,965.6	14,727.3	13,216.9	17,112.5	13,276.7
Recurrent Costs, of which:	14,549.2	16,836.5	16,278.1	20,918.1	22,390.3
<i>Salaries (domestic)</i>	2,489.2	2,746.5	2,839.4	2,832.7	3,075.6
<i>Salaries (expatriate)</i>	2,890.0	2,300.0	2,350.0	3,262.0	2,890.0
<i>Other recurrent</i>	9,170.1	11,790.0	11,088.8	14,823.4	16,424.7
Total Secondary	27,514.8	31,563.7	29,495.0	38,030.6	35,667.0
5. Activities Relating to All Levels General Education					
Investment Costs	27,702.6	27,671.1	28,365.4	22,548.3	21,867.1
Recurrent Costs, of which:	4,035.0	4,156.1	4,280.7	4,409.2	4,541.4

<i>Salaries</i>	167.5	172.6	177.7	183.1	188.6
<i>Other recurrent</i>	3,867.5	3,983.5	4,103.0	4,226.1	4,352.9
Total Activities Relating to All Levels General Education	31,737.6	31,827.2	32,646.2	26,957.5	26,408.5
All General Education					
Investment Costs	81,295.3	91,373.7	104,253.3	100,356.8	88,528.5
Recurrent Costs, of which:	36,928.6	41,197.4	42,993.2	50,209.1	54,318.2
<i>Salaries (total)</i>	18,102.4	18,704.0	20,037.1	22,290.9	23,495.9
<i>(Salaries domestic)</i>	15,212.4	16,404.0	17,687.1	19,028.9	20,605.9
<i>(Salaries expatriate)</i>	2,890.0	2,300.0	2,350.0	3,262.0	2,890.0
<i>Other recurrent</i>	18,826.2	22,493.4	22,956.1	27,918.2	30,822.2
Total General Education	118,223.9	132,571.1	147,246.5	150,566.0	142,846.6

## TVET

Section 1: Number of Teachers, Students			2012	2013	2014	2015	2016	2017
<b>Enrolment</b>								
Technical Schools (certificate)			1,992	2,092	2,301	2,531	2,784	3,062
NACVOT			2,648	2,780	3,058	3,364	3,701	4,071
New technical schools							540	1080
Skills Development Centres						360	360	360
Total enrolment			4,640	4,872	5,359	6,255	7,385	8,573
<b>Teachers</b>								
All teachers			424	436	460	505	561	621
Expat teachers			10	10	10	10	10	10
Domestic teachers			414	426	450	495	551	611
Administrative & other staff			165	173	191	222	263	305
<b>Section 2: Costs</b>								
	<b>Unit</b>	<b>Unit cost (average)</b>	<b>Projected 2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>Investment costs</b>								
NACVOT development (ADB finance)	to be entered							
Upgrading Existing TVET schools		Summary total		3,500.0	5,500.0	3,500.0	1,500.0	
Construct new Skills Development centers		Summary total		500.0	1,500.0	1,000.0		
Construct 3 new technical schools		Summary total			5,000.0	5,000.0	5,000.0	0
Equipping existing TVET schools		Summary total		7,000.0				
Equipping New TVET Schools		Summary total		78.0		7,400.0	1,700.0	
Equipping New SDCs		Summary total				3,000.0		
Materials, supplies existing TVET schools		Summary total		3,500.0	4,000.0	4,000.0	4,000.0	4,500.0
Books for TVET Schools & Centres								
Materials, supplies new TVET schools		Summary total		3,000.0	3,500.0	4,500.0	4,500.0	4,500.0
Materials, supplies new SDCs		Summary total		2,200.0	2,150.0	2,650.0	2,620.0	2,700.0
Curriculum & textbook development for TVET		Summary total		5.0	500.0	650.0	310.0	50.0
<b>Recurrent Costs</b>								
Expat teachers		18.8	188.0	188.0	188.0	188.0	188.0	188.0
Domestic teachers		2.50	1,035.0	1,064.0	1,124.9	1,236.9	1,378.1	1,526.6
Administrative personnel		1.50	247.5	259.9	285.9	333.7	393.9	457.3
Train teachers 2 year course (none in 2013)	student	2.3		-	446.5	386.9	379.5	358.8
Training directors, teacher CPD				-	84.0	84.0	58.0	-
Running cost	enrolment	0.8	3,500	3,675.0	4,042.5	4,718.3	5,570.3	6,466.8

## ADULT LITERACY & COMPLEMENTARY EDUCATION FOR OUT OF SCHOOL CHILDREN

Adult Literacy & Complementary Education	Unit	Unit cost (average)	2012	2013	2014	2015	2016	2017
<b>Section 1: Numbers of Centres, Students</b>								
Adult Literacy centres, number			1,111	1,111	1,222	1,333	1,444	1,556
Participants enrolled			49,999	50,000	55,000	60,000	65,000	70,000
Rural Reading Rooms - total number			90	120	150	180	210	240
Current enrolment in CEE			11,000	13,000	18,000	25,000	30,000	30,000
Sections (30 students)			367	433	600	833	1,000	1,000
Centres needed			90	130	180	250	300	300
<b>Section 2: Costs \$'000</b>								
<b>Investment Costs</b>								
Annual increase in Adult Literacy centres	Centres	16.0		1,776.0	1,777.8	1,777.8	1,777.8	1,777.8
Annual increase in reading rooms - including furniture, equipment	Reading rooms	16.0		480.0	480.0	480.0	480.0	480.0
Annual increase in CEE centres	Centres	30.0		1,200.0	1,500.0	2,100.0	1,500.0	-
Mobile libraries	Vehicle	200.0		500.0		600.0		1,150.0
Materials (note: average cost covers books, stationery, etc.)	Materials per participant	0.01		500.0	550.0	600.0	650.0	700.0
Teachers' guides 2 per facilitator per year		0.003		17.7	19.5	21.3	23.1	24.8
Training facilitators	Trainee	0.05		147.8	162.6	177.3	192.1	206.9
Mass Literacy Campaign	Summary total			3,280.0	1,500.0	1,425.0	475.0	180.0
Reading Room Materials & books	Per room	0.1		12.0	15.0	18.0	21.0	24.0
Train library attendants	Staff	0.15		5.2	5.4	5.6	5.9	6.1
CEE Books, 4-yr cycle, 5 per child	Students	0.0025		32.5	45.0	62.5	75.0	75.0
CEE Teacher guides, 4-yr cycle, 5 per teacher	Teacher	0.0038		1.6	2.3	3.1	3.8	3.8
CEE Materials	Centre	0.3		39.0	54.0	75.0	90.0	90.0
Train CEE teachers, 3 summer sessions, 5% attrition	Teacher	0.15		39.0	54.0	75.0	90.0	90.0
Enhance & expand continuing education programs	Summary total			225.0	430.0	485.0	620.0	820.0
Support other adult education providers	Summary total			290.0	395.0	500.0	555.0	660.0
Zoba study of villages - "illiteracy-free"	Summary total							



				60.0	60.0	60.0	60.0	60.0
National literacy survey	Summary total				2,000.0	500.0		
Workshops and general orientation	Summary total			30.0	30.0	30.0	30.0	30.0
Develop Curriculum preparation of books, guides supplementary readers for literacy, CEE	Summary total			147.0	246.0	200.0	283.0	305.0
Literacy sensitization programs	Summary total			2,135.0	2,000.0	1,620.0	965.0	645.0
<b>Recurrent Costs</b>								
Adult Literacy:								
Facilitators, salary cost		1.1		3,251.1	3,576.2	3,901.3	4,226.4	4,551.6
Reading Room Staff salary cost	Attendant	1.1		132.0	165.0	198.0	231.0	264.0
CEE Teachers, salaries, 1.2 teachers per section	Teacher	0.9		468.0	648.0	900.0	1,080.0	1,080.0

## ADMINISTRATION & CAPACITY DEVELOPMENT

	Unit	Unit cost (average)	2012	2013	2014	2015	2016	2017
<b>A: Investment costs</b>								
Building, rehabilitation, re-equipping of printing workshops, stores, offices & other facilities of MoE		Summary Total		4,672.4	3,940.2	3,450.6	2,178.1	2,182.1
Equipment & furniture for MoE		Summary Total		2,012.0			2,012.0	
EMIS: Establish a fully functional Educational Management Information System		Summary total		1,752.0	1,252.3	1,396.6	1,251.7	1,248.4
Procure motorbikes and bicycles for monitoring and supervision		Summary Total		212.0	256.7	268.4	165.0	180.0
<b>B: Recurrent Costs</b>								
Administration and Finance - Salary			1,455.2	1,519.7	1,598.6	1,687.3	1,790.7	1,869.7
Administration and Finance - Running Costs			2,514.4	2,614.3	2,760.3	2,989.9	3,247.3	3,234.0
Professional upgrading of MOE staff		Summary total		3,464.0	3,996.0	4,171.0	4,280.0	4,940.0
Promote effective educational management & quality education through research; enhance school-based research		Summary total		672.3	594.7	1,047.6	329.8	934.6
Enhance and develop the documentation capacity of MOE		Summary total		574.4	18.9	17.5	18.9	17.5
Enhance MoE institutional & management capacity: surveys, guidelines, training & workshops, printing & distributing documents		Summary total		1,052.0	783.8	1,006.2	593.3	199.8
Study tours to acquire best practices		Summary total		120.0	210.0	120.0	60.0	30.0
Monitoring & Evaluation - costs of recurrent activities		Summary total		183.0	183.0	183.0	183.0	183.0

**Note: Administration and Finance salary & system running costs are taken from Ministry of Education 2012 expenditure data, increased at a rate equivalent to half the increase in total general education enrolment**

### Annex 3: Enrolment Projections (2013-2017)

#### PROGRAMME PROJECTION FOR PRE-PRIMARY EDUCATION (2011-2017)

Note - Data includes non-government, about 50% of teachers

Assume expansion will mostly occur in Government schools

	2009/10	2010/11	2011/12 Base Yr	2012/13	2013/14	2014/15	2015/16	2016/17
Population 5-6	133,259	133,756	145,775	166,261	190,796	213,339	225,770	225,627
<b>Gross Enrolment</b>	40,506	46,108	45,824	55,112	66,513	78,026	86,440	90,251
<b>Net Enrolment</b>	27,163	31,084	28,579	36,045	45,333	55,127	63,035	67,688
<b>GER</b>	<b>30.4</b>	<b>34.5</b>	<b>31.4</b>	<b>33.1</b>	<b>34.9</b>	<b>36.6</b>	<b>38.3</b>	<b>40.0</b>
<b>NER</b>	<b>20.4</b>	<b>23.2</b>	<b>19.6</b>	<b>21.7</b>	<b>23.8</b>	<b>25.8</b>	<b>27.9</b>	<b>30.0</b>
<b>Classroom Parameters:</b>								
Pupil/Section	45.0	40.6	40.5	40.4	40.3	40.2	40.1	40.0
Sections Required	986	1136	1132	1364	1650	1941	2156	2256
Number of classrooms		1274	1317	1476	1660	1840	1980	2063
Classrooms with double shift		350	315	309	302	296	290	284
Required classrooms expansion			-2	125	149	146	104	48
Required double shift classroom reduction								
Classroom to be replaced (239)			30	34	35	35	35	35
<b>Required classrooms construction</b>			<b>28</b>	<b>159</b>	<b>184</b>	<b>181</b>	<b>139</b>	<b>83</b>
Classroom rehabilitation (2%)			25	26	30	33	37	40
<b>Teacher Parameters:</b>								
Teachers/Section		0.95	1.00	1.00	1.00	1.00	1.00	1.00
P/T		38	40	40	40	40	40	40
<b>Teachers required (with year start GER)</b>		<b>1201</b>	<b>1132</b>	<b>1364</b>	<b>1650</b>	<b>1941</b>	<b>2156</b>	<b>2256</b>
Increment Demand			0	232	286	291	215	101
<b>Stock (5% attrition)</b>		<b>1201</b>	<b>1141</b>	<b>1226</b>	<b>1308</b>	<b>1337</b>	<b>1365</b>	<b>1392</b>
ATEI			150	150	100	100	100	100
Higher Education Institutes								
Direct recruitment								
<b>Total teacher workforce</b>		<b>1201</b>	<b>1291</b>	<b>1376</b>	<b>1408</b>	<b>1437</b>	<b>1465</b>	<b>1492</b>
Gap			159	12	-243	-504	-690	-764
<b>New required teachers</b>			<b>0</b>	<b>138</b>	<b>343</b>	<b>604</b>	<b>790</b>	<b>864</b>

## PROGRAMME PROJECTION FOR ELEMENTARY EDUCATION (2011-2017)

Includes nomad education and special needs

	2009/10	2010/11	2011/12 Base year	2012/13	2013/14	2014/15	2015/16	2016/17
Population aged 7	69,641	65,141	65,054	71,049	80,921	92,522	103,156	97,851
Gross Admission	59,097	87,235	88,126	94,902	106,556	120,081	131,929	123,292
Net Admission	23,627	33,135	32,787	44,619	60,853	81,049	103,156	97,851
<b>GAR</b>	<b>84.9</b>	<b>133.9</b>	<b>135.5</b>	<b>133.6</b>	<b>131.7</b>	<b>129.8</b>	<b>127.9</b>	<b>126.0</b>
<b>NAR</b>	<b>40.0</b>	<b>38.0</b>	<b>50.4</b>	<b>62.8</b>	<b>75.2</b>	<b>87.6</b>	<b>100.0</b>	<b>100.0</b>
Grade 1	69,624	87,235	89,836	104,784	106,556	120,081	131,929	123,292
Grade 2	58,787	66,971	79,482	83,998	98,322	100,873	114,677	127,092
Grade 3	51,955	55,552	62,092	72,800	80,918	95,045	97,847	111,619
Grade 4	52,813	52,177	54,376	58,216	75,661	85,030	99,421	103,192
Grade 5	52,842	49,802	48,459	50,155	54,062	70,114	80,160	94,427
<b>Gross Enrolment</b>	<b>286,021</b>	<b>311,737</b>	<b>334,245</b>	<b>369,954</b>	<b>415,520</b>	<b>471,144</b>	<b>524,035</b>	<b>559,623</b>
<b>Net Enrolment</b>	<b>214,592</b>	<b>237,801</b>	<b>246,582</b>	<b>264,487</b>	<b>297,491</b>	<b>352,188</b>	<b>428,269</b>	<b>399,435</b>
Pop 7-11	389,401	358,801	337,784	331,645	343,920	377,681	428,269	399,435
<b>GER</b>	<b>73.5</b>	<b>80.1</b>	<b>93.2</b>	<b>109.5</b>	<b>125.3</b>	<b>137.0</b>	<b>138.8</b>	<b>130.7</b>
<b>NER</b>	<b>55.1</b>	<b>66.3</b>	<b>73.0</b>	<b>79.8</b>	<b>86.5</b>	<b>93.3</b>	<b>100.0</b>	<b>100.0</b>
<b>Classroom Parameters:</b>								
Pupil/Section	44.0	46.1	46.1	46.1	46.1	46.0	46.0	46.0
Sections Required	6,504	6,763	7,245	8,029	9,021	10,233	11,387	12,166
Number of classrooms		4,150	4,518	5,238	6,106	7,133	8,135	8,881
Classrooms with double shift		2,150	2,100	<b>2,304</b>	2,574	2,913	3,234	3,436
<i>% clerk DS</i>		52%	46%	44%	42%	41%	40%	39%
Required classroom expansion			318	535	678	827	788	532
Required double shift classroom reduction			50	45	45	45	45	45
Classroom to be replaced (744)			135	140	145	155	169	170
<b>Required classrooms construction</b>			<b>503</b>	<b>720</b>	<b>868</b>	<b>1027</b>	<b>1002</b>	<b>747</b>
Classroom rehabilitation (2%)	2%		83	90	105	122	143	163
<b>Teacher Parameters:</b>								
Teachers/Section	1.16	1.14	1.11	1.08	1.06	1.03	1.00	1.00
P/T	38	40	42	43	44	45	46	46
<b>Teachers required with year start GER</b>	<b>7,535</b>	<b>7,704</b>	<b>8,051</b>	<b>8,699</b>	<b>9,523</b>	<b>10,518</b>	<b>11,387</b>	<b>12,166</b>
Increment Demand			347	647	825	995	869	779
Attrition @ 5% from previous year			385	403	435	476	526	569
Total demand for new teachers			733	1,050	1,260	1,471	1,395	1,348
<b>Stock (5% attrition)</b>	<b>7,536</b>	<b>7,704</b>	<b>7,319</b>	<b>7,594</b>	<b>8,278</b>	<b>8,935</b>	<b>9,880</b>	<b>10,721</b>
ATEI certificate teachers			500	500	250	50	0	0
ATEI diploma teachers			0	0	0	345	345	395
Higher Education Institutes			175	550	807	950	940	820
Upgrading to Diploma				-50	-50	-50	-50	-50

Teachers returning from upgrading						50	50	50
Teachers recruited from communities (nomad schools)				120	120	120	120	120
<b>Total teacher workforce</b>		<b>7,704</b>	<b>7,994</b>	<b>8,714</b>	<b>9,405</b>	<b>10,400</b>	<b>11,285</b>	<b>12,056</b>
Gap			<b>733</b>	<b>1105</b>	<b>1245</b>	<b>1583</b>	<b>1507</b>	
<b>New required teachers compared previous year</b>				15	-118	-118	-102	-110

**Asmara Teacher Education Institute Enrolment and Output: Projection by Ministry of Education Human Resources Department**

	<b>2011/12</b>	<b>2012/13</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>	<b>2016/17</b>
Enrolled Certificate students	650	650	350	150	100	100
Enrolled Diploma first year		55	400	400	500	550
Enrolled Diploma second year			55	400	400	500
Output Certificate students	650	650	350	150	100	100
Output Diploma students			55	400	400	450
Certificate students to Elementary	500	500	250	50	0	0
Certificate students to PPE	150	150	100	100	100	100
Diploma students to Middle			55	55	55	55
Diploma students to Elementary			0	345	345	395

## PROGRAMME PROJECTION FOR MIDDLE SCHOOL EDUCATION (2011-2017)

	2009/10	2010/11	2011/12 Base year	2012/13	2013/14	2014/15	2015/16	2016/17
Transition Rate	85.7%	86.9%	89.3%	89.0%	89.3%	89.7%	90.0%	90.3%
Previous year Grade 5 Enrolment	60,705	52,842	49,802	48,459	50,155	54,062	70,114	80,160
New Admission both sexes	52,024	45,920	44,473	43,129	44,806	48,475	63,103	72,411
Grade 6	57,013	55,483	53,284	50,055	50,812	54,065	68,509	78,577
Grade 7	49,084	49,410	48,850	47,601	45,283	46,191	49,498	62,801
Grade 8	45,605	49,634	65,794	65,527	63,652	60,307	59,433	61,552
<b>Gross Enrolment</b>	<b>151,702</b>	<b>154,527</b>	<b>167,928</b>	<b>163,184</b>	<b>159,747</b>	<b>160,563</b>	<b>177,440</b>	<b>202,931</b>
<b>Net Enrolment</b>	<b>91,194</b>	<b>96,262</b>	<b>95,439</b>	<b>93,723</b>	<b>90,417</b>	<b>94,567</b>	<b>91,481</b>	<b>95,327</b>
Pop 12-14	245,960	250,784	249,422	239,110	223,516	205,734	190,654	190,654
<b>GER</b>	<b>60.5</b>	<b>62.0</b>	<b>70.2</b>	<b>73.0</b>	<b>77.6</b>	<b>78.0</b>	<b>93.1</b>	<b>106.4</b>
<b>NER</b>	<b>36.4</b>	<b>38.6</b>	<b>39.9</b>	<b>41.9</b>	<b>43.9</b>	<b>46.0</b>	<b>48.0</b>	<b>50.0</b>
<b>Classroom Parameters:</b>								
Pupil/Section		57	56	54	53	52	51	50
Sections Required	2,715	2,718	3,019	2,994	2,993	3,073	3,471	4,059
Number of classrooms		1,415	1,597	1,639	1,681	1,757	1,959	2,228
Classrooms with double shift		850	856	839	822	805	788	770
Required classrooms expansion			182	0	0	29	145	212
Actual/Required D/S classroom reduction			-6	17	17	17	17	17
Classroom to be replaced				25	25	30	40	40
<b>Required classrooms construction</b>			<b>182</b>	<b>42</b>	<b>42</b>	<b>76</b>	<b>202</b>	<b>269</b>
Classroom rehabilitation (2%)			28	32	33	34	35	39
<b>Teacher Parameters:</b>								
Teachers/Section		1.36	1.28	1.24	1.21	1.17	1.14	1.10
Pupil/Teacher		41.7	43.4	43.8	44.2	44.6	45.0	45.5
Teachers required	<b>3680</b>	<b>3707</b>	<b>3866</b>	<b>3726</b>	<b>3616</b>	<b>3602</b>	<b>3943</b>	<b>4464</b>
Increment Demand				-140	-110	-14	341	521
Stock (5% attrition)	<b>3680</b>	<b>3707</b>	<b>3522</b>	<b>3346</b>	<b>3539</b>	<b>3434</b>	<b>3423</b>	<b>3746</b>
ATEI Output Diploma Teachers					<b>55</b>	<b>100</b>	<b>100</b>	<b>100</b>
Higher Education Institutes				430	70	70	420	610
Middle school upgrading program				-50	-50	-50	-50	-50
Teachers returning from upgrading programs						50	50	50
Total teacher workforce	<b>3680</b>	<b>3707</b>	<b>3522</b>	<b>3726</b>	<b>3614</b>	<b>3604</b>	<b>3943</b>	<b>4456</b>
Gap				-1	-2	1	0	-8
<b>New required teachers</b>			344	381	77	169	520	718

## PROGRAMME PROJECTION FOR SECONDARY EDUCATION (2011-2017)

	2009/10	2010/11	2011/12 Base Yr	2012/13	2013/14	2014/15	2015/16	2016/17
<b>Transition Rate</b>	<b>76.2%</b>	<b>83.6%</b>	<b>38.0%</b>	<b>58.0%</b>	<b>60.0%</b>	<b>62.0%</b>	<b>64.0%</b>	<b>66.0%</b>
Previous year Grade 8 Enrolment	45,640	45,605	49,634	65,794	65,527	63,652	60,307	59,433
Total New Admission	34,764	38,126	18,836	38,161	39,316	39,464	38,597	39,226
Grade 9	33,996	36,235	26,907	41,389	44,007	44,158	43,012	43,240
Grade 10	25,357	26,870	31,434	25,567	36,837	40,455	41,138	40,400
Grade 11	20,955	19,504	19,736	25,856	21,482	31,004	34,603	35,660
Grade 12	14,768	17,384	17,554	17,960	23,615	19,692	28,524	31,950
<b>Gross Enrolment</b>	<b>95,076</b>	<b>99,993</b>	<b>94,758</b>	<b>110,772</b>	<b>125,941</b>	<b>135,309</b>	<b>147,277</b>	<b>151,250</b>
<b>Net Enrolment</b>	<b>63,772</b>	<b>72,963</b>	<b>69,812</b>	<b>80,011</b>	<b>90,501</b>	<b>99,683</b>	<b>106,029</b>	<b>121,858</b>
Population aged 15-18	280,048	289,700	300,482	313,034	324,145	329,204	324,845	348,165
<b>GER</b>	<b>33.9</b>	<b>34.5</b>	<b>31.5</b>	<b>35.4</b>	<b>38.9</b>	<b>41.1</b>	<b>45.3</b>	<b>43.4</b>
<b>NER target</b>	<b>22.8</b>	<b>25.2</b>	<b>23.2</b>	<b>25.6</b>	<b>27.9</b>	<b>30.3</b>	<b>32.6</b>	<b>35.0</b>
<b>Classroom Parameters:</b>								
Pupil/Section	64.0	64.5	63.3	60.6	58.0	55.3	52.7	50.0
Sections Required	<b>1485</b>	<b>1550</b>	<b>1498</b>	<b>1828</b>	<b>2173</b>	<b>2447</b>	<b>2797</b>	<b>3025</b>
Number of classrooms		935	935	1167	1428	1649	1929	2136
Classrooms with double shift		495	475	466	456	446	446	428
Required classrooms expansion				219	247	207	276	185
Double shift classroom reduction			20	10	10	10	0	18
Classroom to be replaced (20)				4	4	4	4	4
<b>Required classrooms construction</b>			20	232	261	221	280	207
Classroom rehabilitation (2%)			19	19	23	29	33	39
<b>Teacher Parameters</b>								
Teachers/Section	1.7	1.7	1.6	1.5	1.4	1.3	1.1	1.1
P/T	38	39	39	41	42	44	34	37
Teachers required with year start GER	<b>2472</b>	<b>2593</b>	<b>2403</b>	<b>2723</b>	<b>2988</b>	<b>3084</b>	<b>3077</b>	<b>3327</b>
Expatriate teachers	300	300	155	155	155	155	155	155
Domestically recruited teachers	<b>2172</b>	<b>2293</b>	<b>2248</b>	<b>2568</b>	<b>2833</b>	<b>2929</b>	<b>2922</b>	<b>3172</b>
Increment Demand - domestic teachers				320	265	96	-7	251
<b>Supply domestic:</b>								
<b>Stock (5% attrition)</b>	<b>2172</b>	<b>2293</b>	<b>2248</b>	<b>2183</b>	<b>2582</b>	<b>2843</b>	<b>2928</b>	<b>2925</b>
Higher Education Institutes			50	585	460	240	150	400
Teachers attending upgrading programs				-50	-50	-50	-50	-50

Teachers returning from upgrading programs						50	50	50
Total domestic teacher workforce	2172	2293	2298	2718	2992	3083	3078	3325
Gap				-4	4	-1	2	-3
Supply foreign:			155	155	155	155	155	155
<b>Total domestic/foreign teacher workforce</b>	<b>2172</b>	<b>2293</b>	<b>2453</b>	<b>2873</b>	<b>3147</b>	<b>3238</b>	<b>3233</b>	<b>3480</b>
<b>New required teachers</b>	<b>300</b>	<b>300</b>	<b>155</b>	<b>539</b>	<b>406</b>	<b>241</b>	<b>148</b>	<b>403</b>

## Repetition and Drop-out Targets

### *REPETITION TARGETS, 2011-17*

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
<b>ELEMENTARY SCHOOL</b>									
Grade 1	0.13	0.12	0.11	0.00	0.00	0.00	0.00	0.00	0.00
Grade 2	0.17	0.14	0.13	0.00	0.00	0.00	0.00	0.00	0.00
Grade 3	0.13	0.11	0.11	0.00	0.00	0.00	0.00	0.00	0.00
Grade 4	0.13	0.11	0.10	0.10	0.09	0.09	0.08	0.08	0.07
Grade 5	0.09	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
<b>MIDDLE SCHOOL</b>									
Grade 6	0.16	0.14	0.13	0.12	0.11	0.10	0.09	0.08	0.07
Grade 7	0.11	0.09	0.08	0.08	0.07	0.07	0.06	0.06	0.05
Grade 8	0.11	0.54	0.35	0.33	0.32	0.30	0.28	0.27	0.25
<b>SECONDARY SCHOOL</b>									
Grade 9	0.22	0.13	0.12	0.11	0.11	0.10	0.09	0.09	0.08
Grade 10	0.12	0.13	0.12	0.11	0.11	0.10	0.09	0.09	0.08
Grade 11	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Grade 12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### *DROP-OUT TARGETS, 2011-17*

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
<b>ELEMENTARY SCHOOL</b>									
Grade 1	0.08	0.08	0.07	0.06	0.05	0.05	0.04	0.03	0.02
Grade 2	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.02	0.02
Grade 3	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.02	0.02
Grade 4	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.02	0.02
Grade 5	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.02	0.02
<b>MIDDLE SCHOOL</b>									
Grade 6	0.06	0.06	0.05	0.05	0.04	0.04	0.04	0.03	0.03
Grade 7	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.03	0.03



Grade 8		0.06	0.08	0.07	0.07	0.06	0.06	0.06	0.05	0.05
<b>SECONDARY SCHOOL</b>										
Grade 9		0.08	0.08	0.07	0.07	0.06	0.06	0.06	0.05	0.05
Grade 10		0.08	0.07	0.07	0.07	0.06	0.06	0.06	0.05	0.05
Grade 11		0.11	0.08	0.07	0.07	0.06	0.06	0.06	0.05	0.05
Grade 12		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## Annex 4: Logical Framework

Intervention Logic	Objectively verifiable indicators	Means of verification	Assumptions
<b>OVERALL OBJECTIVE: I. IMPROVE ACCESS/EQUITY OF EDUCATION</b>			
<b>SPECIFIC OBJECTIVES</b>			
<b>1. Construction and rehabilitation of classrooms, TVET schools, Girls' hostels, boarding schools, teachers' residential quarters and ATEI expansion.</b>	<ul style="list-style-type: none"> <li>- 44,200 new students in 807 new classrooms and 158 rehabilitated and furnished schools enrolled at pre-primary level by targeting the disadvantage areas.</li> <li>- Achieve pre-primary gross and net enrolment ratios of 40% and 30% respectively by 2015/16.</li> <li>- 153,690 new students in 2776 new classrooms and 520 rehabilitated and furnished schools enrolled by targeting the disadvantage areas.</li> <li>- Achieve gross and net enrolment ratios of 124% and 100% respectively at elementary level by 2015/16.</li> <li>- 215 classrooms converted from double to single shift and reduced double shifts will increase student time on task</li> <li>- 34,332 new students in 548 new classrooms and 165 rehabilitated and furnished schools enrolled at middle level by targeting the disadvantage areas.</li> <li>- Achieve gross and net enrolment ratios of 99% and 50% respectively by 2015/16.</li> <li>- 85 classrooms converted from double to single shift and reduced double shifts will increase student time on task.</li> <li>- 46,893 new students in 572 new classrooms and 105 rehabilitated and furnished schools enrolled at secondary level by targeting the disadvantage areas.</li> <li>- Achieve gross and net enrolment ratios of 45% and 35% respectively by 2015/16.</li> <li>- 50 classrooms converted from double to single shift and reduced double shifts will increase student time on task</li> <li>- At least 20% of teachers' benefited from the houses by the end of year 5.</li> <li>- 3 new TVET schools constructed &amp; 6980 students got access to skills training annually.</li> <li>- 4 TVET schools upgraded &amp; 3060 students get access to skills training annually.</li> <li>- Changes in number and occupational distribution of training outputs</li> <li>- 1800 students got access to skills training annually.</li> </ul>	<ul style="list-style-type: none"> <li>- Engineers' reports</li> <li>- Schools actually located (physical structures) in areas of maximum need according to the plan</li> <li>- Supervision and school records</li> <li>- Employer satisfaction with training outputs.</li> <li>- SDC records and supervision reports</li> <li>- Procurement officer reports on both equipment and materials</li> <li>- Zoba and School reports (confirming houses have been occupied)</li> <li>- EMIS report</li> </ul>	<p>Governments' commitment to expand education and willing to provide financing for the construction fund</p>

<b>2. Enhance &amp; expand the existing adult literacy and post-literacy program</b>	<ul style="list-style-type: none"> <li>- About 450,000 adults and youth got access to basic literacy and as the result adult illiteracy rate decreased to about 10 % by 2015.</li> <li>- Adult literacy access ensured to more than 600 new disadvantaged villages until 2015.</li> <li>- Female participation in adult and out of school literacy program sustained and gender literacy gap reduced to less than 10 %.</li> <li>- Dropout rate in adult literacy and out of school children declined to at least about 15% (from the current about 30%).</li> <li>- At least 60% of basic literacy participants complete post literacy level (3rd level).</li> <li>- Access to about 50,000 out of school children (of which about 50% girls) ensured and more than 30% mainstreamed to formal schools at middle level.</li> <li>- Quality of adult literacy education enhanced.</li> <li>- Illiteracy free areas identified and declared.</li> <li>- Drop outs and absenteeism decreased/controlled</li> </ul>	<ul style="list-style-type: none"> <li>- Supervision report</li> <li>- Survey reports</li> <li>- Literacy center documents and records</li>   <li>- Procurement officer report</li> </ul>	<ul style="list-style-type: none"> <li>- Sustained Government commitment.</li> <li>- Strong co-operation of partners.</li> <li>- organized and continuous sensitization. Sustained.</li> <li>- Government commitment.</li> </ul>
<b>3. Launch mass literacy campaign in selected disadvantaged areas</b>	<ul style="list-style-type: none"> <li>- Access increased in rural and urban areas.</li> <li>- At least 30% of literacy graduates got access to evening classes.</li> <li>- Gender literacy gap narrowed to less than 10% and urban- rural gap reduced to less than 15%.</li> <li>- More than 600 villages benefited from the literacy campaign.</li> <li>- Relapsing into illiteracy minimized/checked.</li> </ul>	<p>Supervision, survey , reports from the zobas etc</p>	<p>Strengthened motivation and readiness of implementers and beneficiaries</p>
<b>4. Enhance &amp; expand continuing education programs</b>	<ul style="list-style-type: none"> <li>- Access to evening program enhanced and increased in urban and rural localities.</li> <li>- 30% of post literacy graduates participated in continuing education.</li> <li>- Partners awareness and collaboration strengthened.</li> <li>- Enhanced teachers and learners satisfaction</li> </ul>	<ul style="list-style-type: none"> <li>- Supervision, survey, reports from the zobas etc.</li> <li>- Status of enrolment and retention of learners (from center documents and records)</li> </ul>	<ul style="list-style-type: none"> <li>- Government and relevant agencies committed in supporting learners and implementers.</li> </ul>
<b>5. Awareness raising and sensitizations</b>	<ul style="list-style-type: none"> <li>- Awareness and understanding about the importance of adult and non-formal education improved and sustained.</li> <li>- Partners and beneficiaries participation and contribution increased.</li> <li>- Stakeholders collaboration and partnership strengthened.</li> <li>- Communication materials produced and disseminated</li> <li>- Motivation of learners and teachers increased</li> <li>- Number of communities sensitized</li> </ul>	<ul style="list-style-type: none"> <li>- Meetings and workshops reports</li> <li>- Symposium report</li> <li>- Produced materials for exhibition and cultural show.</li> <li>- Prepared promotional materials</li> <li>- Reports on the competition</li> <li>Reports of the award provided</li> </ul>	<ul style="list-style-type: none"> <li>- Government commitment and strong collaboration of stakeholders.</li> </ul>

<b>6. Consolidation of Arabic language teaching</b>	<ul style="list-style-type: none"> <li>- Number of Produced and distributed textbooks</li> <li>- Improved Arabic language achievement by learners</li> <li>- Learning enhanced</li> <li>- Capacity to develop Arabic language curriculum enhanced</li> <li>- Number of schools with number of students upgraded to middle and secondary education</li> <li>- Students learning achievement developed</li> </ul>	<ul style="list-style-type: none"> <li>- Textbook distribution list</li> <li>- Training report</li> <li>-Schools actually upgraded</li> </ul>	Government's decision to introduce and expand Arabic education
<b>II. Teacher Training &amp; recruitment (Pre-service)</b>			
<b>7. Pre-Service Training Programs</b>	<ul style="list-style-type: none"> <li>- 4,000 basic education Teachers trained at diploma + certificate levels</li> <li>- Popular language committees strengthened.</li> <li>- Effective Implementation of Mother Tongue Education enhanced.</li> <li>- Awareness of 4,000 basic education teacher trainees' on</li> <li>- Gender-Fair Teaching, Life Skills and HIV/AIDS improved.</li> <li>- Teaching practice of teacher trainees consolidated</li> <li>- Diploma level curriculum of ATEI developed, printed and in use.</li> <li>- Adequate Staff (coordinators &amp; supervisors at zoba and sub-zoba levels) recruited and trained.</li> </ul>	<ul style="list-style-type: none"> <li>- Certificates and Diplomas.</li> <li>- ATEI records</li> <li>- Report of the meetings</li> <li>- Workshop reports</li> <li>- Teaching practice reports</li> <li>- Printed study materials</li> <li>- Recruitment records.</li> <li>- Report of the orientation</li> </ul>	<ul style="list-style-type: none"> <li>- Government commitment to achieve EFA Goals.</li> </ul>
<b>8. Recruitment and Deployment of Expatriate Teachers</b>	750 expatriate teachers recruited and deployed 750 expatriate teachers inducted/introduced with the Eritrean Education System.	Recruitment and deployment reports Induction reports	Government commitment to expand secondary education

<b>OVERALL OBJECTIVE: II. IMPROVE QUALITY OF EDUCATION</b>			
<b>SPECIFIC OBJECTIVES:</b>			
<p><b>1. In-service teacher training</b></p> <p><b>1.1 Upgrading Training Programs &amp; Activities (In-Service CPD Programs)</b></p>	<ul style="list-style-type: none"> <li>- 2000 basic education teachers trained to diploma level through ODLP (Batch I)</li> <li>- 2000 basic education teachers trained to diploma level through ODLP (Batch II)</li> <li>- 1050 uncertified basic education teachers trained at certificate level</li> <li>- 500 uncertified basic education teachers trained at certificate level</li> <li>- Teaching and management capacity of 2,500 teachers, 1,350 directors &amp; supervisors and 250 adult education facilitators developed through continuing profession development (CPD)</li> <li>- 600 nomadic education teachers trained through summer programs.</li> <li>- Number of children from nomadic areas got the opportunity to education.</li> <li>- 360 TVET Instructors upgraded by occupational specialization to diploma level at EIT</li> <li>- 1500 Adult Education Facilitators completed secondary school level and their teaching capacity improved.</li> <li>- MOE policies and strategy on Teacher Education Development finalized and disseminated</li> <li>- 11,000 newly appointed basic &amp; secondary School Teachers inducted/introduced to the school system and activities.</li> <li>- 150 newly appointed Directors &amp; Supervisors inducted with the school system and their role and responsibilities.</li> <li>- Best practices among teachers of all levels shared to enhance teaching and learning process.</li> <li>- Best practices among high school students shared to enhance learning.</li> <li>- Effective School Development Plan in 3 selected schools initiated, implemented and shared.</li> </ul>	<ul style="list-style-type: none"> <li>- Records of the trainees'</li> <li>- College diplomas</li> <li>- Certificates</li> <li>- Training report</li> <li>- ATEI Certificates and records</li> <li>- College records</li> <li>- Secondary school completion certificates and trainees records</li> <li>- Finalized policies and strategy documents</li> <li>- Induction reports</li> <li>- Workshop &amp; Seminar papers</li> <li>- Evaluation reports</li> <li>- School Development Plan Interim &amp; final reports</li> </ul>	<ul style="list-style-type: none"> <li>- Strong collaboration of higher education institutes and colleges</li> <li>-Availability of evening schools</li> <li>-Commitment of MOE's high officials</li> <li>-Commitment of regional officers</li> <li>-Collaboration of Zobas and Schools</li> </ul>
<p><b>2. Incentive Schemes for Teachers and Supervisors</b></p>	<p>90 exemplary teachers awarded at a national level</p>	<ul style="list-style-type: none"> <li>- Selection Criteria Format</li> <li>- Awards Report</li> </ul>	<p>Commitment of regional officers</p>

<b>3. Curriculum Planning and Development</b>			
<b>3.1 Preparation , Printing and Familiarization of Materials for General Education</b>	<ul style="list-style-type: none"> <li>- Enhance the capacity of teachers by familiarizing them with the content and pedagogy of the newly produced materials; Equip learners and teachers with appropriate teaching learning materials</li> <li>- Pertinent Policies, Guidelines, Rules, Standards ,Manuals developed and disseminated.; Schools professionally supported</li> <li>- Pertinent materials translated into Eritrean languages</li> <li>- Number of textbooks printed and distributed</li> </ul>	<ul style="list-style-type: none"> <li>- Procurement officer report</li> <li>- Training reports</li> <li>- Printed guidelines, policies, standards, rules, regulations and manuals</li> <li>- Printed teaching learning materials</li> </ul>	Government commitment to transform the education sector.
<b>3.2 Curriculum development and materials preparation for literacy &amp; continuing education programs</b>	<ul style="list-style-type: none"> <li>- Reliable data on curriculum implementation obtained for action</li> <li>- Curriculum adapted to enhance learning achievement of students.</li> <li>- Learning needs identified and training provided</li> <li>- Capacity of teachers to implement the new curriculum developed</li> <li>- Teachers and learners supported with teaching learning materials</li> <li>- Facilitated the records of student assessment</li> <li>- Curriculum Developed and enhanced student learning</li> <li>- Textbook developed and enhanced learning</li> <li>- Syllabus prepared</li> <li>- Number of textbooks printed</li> </ul>	<ul style="list-style-type: none"> <li>- Reviewed curriculum</li> <li>- Adapted curriculum</li> <li>- Assessment report</li> <li>- Training report</li> <li>- Printed forms and certificates</li> </ul>	Government commitment to transform the education sector.
<b>4. Teacher Training and staff development</b>	<ul style="list-style-type: none"> <li>- Teaching competence of 180 VET teachers improved</li> <li>- Management capacity of 20 VET directors improved</li> </ul>	Training report	Ministry's commitment to develop quality teaching
<b>5. Consolidation of school support system</b>	<ul style="list-style-type: none"> <li>- School science laboratories equipped with necessary equipment and chemicals to undergo hands on experimental works.</li> <li>- Enhanced teaching learning using multi media audio visual materials.</li> <li>- Schools equipped with teaching aid materials, reference books and e-learning materials and enhanced student learning</li> <li>- Facilitated children's learning</li> <li>- School Health Services consolidated</li> <li>- Guidance and Counseling Services introduced and consolidated at middle and secondary schools</li> <li>- Pedagogic Resource Centers (PRC) Strengthened</li> <li>- Enrolment of girls and other disadvantaged groups enhanced</li> </ul>	<ul style="list-style-type: none"> <li>- Procurement officer report</li> <li>- Zoba and schools reports on the usage of the labs</li> </ul>	Ministry's commitment to develop quality of learning and teaching process.
<b>6. Information and Communications Technology (ICT)</b>	<ul style="list-style-type: none"> <li>- ICT Labs established in 204 schools</li> <li>- Solar power installed in 68 rural schools</li> <li>- 204 directors trained on ICT</li> </ul>	<ul style="list-style-type: none"> <li>Procurement officer report</li> <li>Training report</li> </ul>	Government

	<ul style="list-style-type: none"> <li>- 408 Master trainers trained on ICT</li> <li>- 4080 teachers trained on computer application</li> <li>- E-Learning tools developed to enhance learning</li> <li>- Warsay Yikealo &amp; NaCVoT ICT Services consolidated</li> <li>- Obsolete IT equipment disposed</li> </ul>	<p>Implementation report</p> <p>Monitoring report</p>	<p>commitment to introduce and expand ICT in education.</p>
<p><b>7. Create literate environment as part of the provision of literacy and continuing education programs</b></p>	<ul style="list-style-type: none"> <li>- More reading rooms opened to reach at least to a ratio of 1 reading room to 5-10 villages.</li> <li>- Varied supplementary reading materials produced in mother tongue and English distributed and used.</li> <li>- Number of readers/ customers increased annually.</li> <li>- Mobile libraries introduced and assessed</li> <li>- Library services expanded and learners participation and achievement enhanced.</li> <li>- Varied reading materials (in mother tongue &amp; English through community reading rooms.</li> <li>- Mobile libraries introduced</li> <li>- Supplementary reading materials prepared and enhanced student achievement</li> <li>- Reading rooms equipped as local resources centers</li> </ul>	<ul style="list-style-type: none"> <li>- Reading rooms and mobile libraries actually opened in regions.</li> <li>- Procurement officer report.</li> </ul>	<p>Government commitment to consolidate literacy and continuing education programs.</p>
<p><b>8. Provide professional and material support to other adult education providers</b></p>	<ul style="list-style-type: none"> <li>- Quality of adult education service improved</li> <li>- Partners' collaboration strengthened</li> <li>- Learning enhanced</li> <li>- Capacity of adult education implementers enhanced</li> </ul>	<p>Supervision and activity report.</p>	<p>Ministry's willingness to expand and cooperate with other adult education providers.</p>
<p><b>9. Production of educational audio &amp; video materials to promote learning</b></p>	<p>Different educational materials prepared and used as inputs for improving qualities of adult education programs in place.</p>	<p>Activity report</p>	<p>- Ministry's initiative to introduce audio visual learning</p>
<p><b>10. Equipping and materials and supplies for TVET Schools</b></p>	<ul style="list-style-type: none"> <li>- Teaching and learning of skills improved through equipping of existing TVET schools including Sawa</li> <li>- Quality of training improved through the provision of practical training</li> <li>- The quality of on-the-job training centers in the 6 Zobas enhanced</li> <li>- Quality of training improved through the provision of practical training</li> </ul>	<ul style="list-style-type: none"> <li>- Procurement officer report</li> <li>- Supervision report.</li> </ul>	<p>Government's commitment to improve the quality of training</p>

<b>OVERALL OBJECTIVE: III. ENHANCE INSTITUTIONAL CAPACITY</b>			
<b>SPECIFIC OBJECTIVES:</b>			
<p><b>1. Establish a full-fledged and functional Educational Management Information System (EMIS)</b></p> <p><b>1.1 Develop a comprehensive Educational Management Information System (EMIS) at all levels.</b></p>	<ul style="list-style-type: none"> <li>- EMIS software developed and installed</li> <li>- Trial test conducted and the review report prepared</li> <li>- Capacity of 85 staff to use the new software developed</li> <li>- Knowledge of 60 EMIS users enhanced</li> <li>- Operational software</li> <li>- EMIS assessment report produced and disseminated</li> <li>- Adult education data base and network established(in line with EMIS) Information shared with stakeholders and ready for use and action</li> <li>- Improved human management and personal data systems.</li> </ul>	<ul style="list-style-type: none"> <li>- Actual software installed and in use.</li> <li>- Training report</li> <li>- Assessment report</li> </ul>	<p>Ministry's commitment to improve data collection process and analysis.</p>
<p><b>1.2 Develop the capacity of EMIS personnel</b></p>	<ul style="list-style-type: none"> <li>- The capacity of 1750 school directors, supervisors, sub-zoba education heads and zoba EMIS staff on data collection and analysis improved.</li> <li>- Data base management capacity of 40 MOE and zoba staff developed.</li> <li>- The analysis capacity of 40 MOE and zoba staff enhanced through the training of SPSS.</li> <li>- The capacity of school resources location of 40 MOE and zoba staff developed through the training in GIS</li> <li>- Capacity of 40 MOE and zoba staff in data collection process improved through the training in CS-Pro software.</li> </ul>	<p>Training report</p>	<p>Ministry's commitment to improve data collection process and analysis.</p>
<p><b>1.3 Enhance data collection and dissemination capacity</b></p>	<ul style="list-style-type: none"> <li>- 150000 Pages of data collection instruments printed and disseminated to schools annually.</li> <li>-1500 Basic Education Statistics and 1500 Essential Indicators printed and disseminated annually and planning and decision making enhanced through information.</li> <li>-3000 Education Brief printed and disseminated</li> <li>- 6 zobas and 40 sub-zobas networked/connected with MOE and timely and reliable data collection improved.</li> <li>-14 servers and network materials, 71 printers, 74 photocopiers and 40 modems procured and installed</li> <li>- 40 solar panels procured and installed in 40 sub-zoba offices</li> <li>- 1500 schools provided with computers and accessories</li> <li>- Technical support provided for zoba and sub-zoba EMIS personnel.</li> </ul>	<ul style="list-style-type: none"> <li>- Printed questionnaires</li> <li>- Educational Abstracts and Education Brief</li> <li>- Functional network</li> <li>- Logistics report</li> <li>- M&amp;E report</li> </ul>	<p>Ministry's commitment to improve data collection process and analysis.</p>

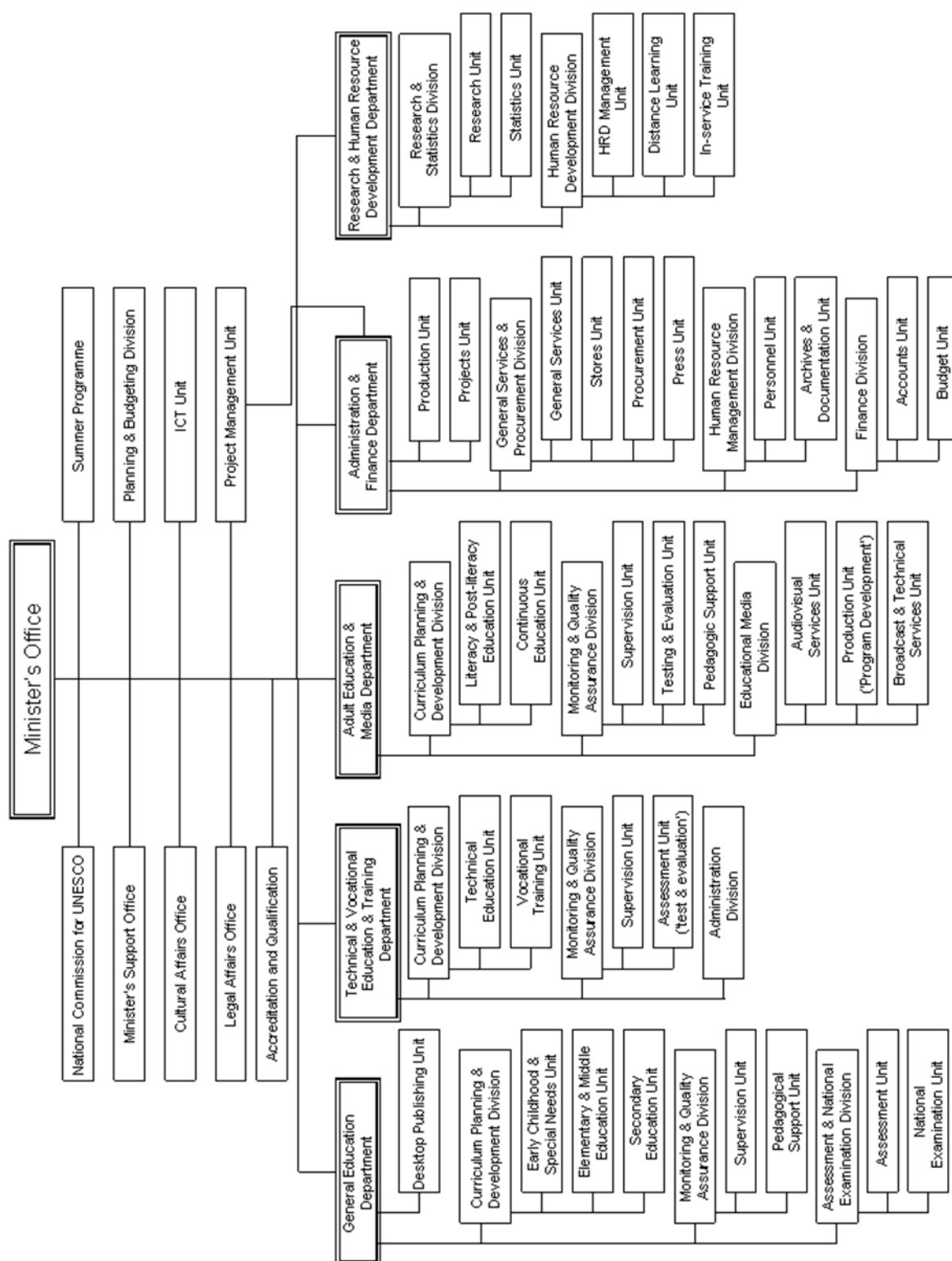


<p><b>II. Enhance research-based planning and decision making</b></p> <p><b>2. Create an environment whereby MOE staff and teachers engage in research activities</b></p>	<ul style="list-style-type: none"> <li>- Quality of education through research improved by training 775 MOE staff at central and zoba level on advanced educational research methodology.</li> <li>- Quality of education through research improved by training 775 MOE staff at central and zoba level and teachers by training in basic educational research methodology.</li> <li>Skills of 775 MOE central and zoba staff on educational survey developed.</li> </ul>	<p>Training report</p>	<p>Ministry's commitment to develop the research capacity of its staff.</p>
<p><b>3. Promote effective educational management through research</b></p> <p><b>3.1 Conduct various research studies at national level</b></p>	<ul style="list-style-type: none"> <li>- Labour market information system (LMIS) established and working, as evidenced by number and value of reports produced</li> <li>- Equipments for TVET schools identified for bidding</li> <li>- Study on Financing of Education conducted and disseminated</li> <li>- Study on the Role of Private Sector Conducted and disseminated</li> <li>- Household survey conducted and the findings disseminated</li> <li>- Study on school management (effective school) in Zoba Maekel conducted, reported and disseminated.</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- National Report on the Development of Education in Eritrea prepared and disseminated</li> <li>- Five research studies conducted and disseminated.</li> <li>- Findings disseminated and reports finalized</li> <li>- Data system for special needs established in schools;</li> <li>- Weaknesses and strengths of the curriculum/ system are identified and remedial measures are taken.</li> <li>- Effective strategies and challenges of LCIP and Co-curricular activities identified.</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- Weakness of classroom practice by schools identified</li> <li>the situation of schools/students learning abilities assessed.</li> <li>- Students learning achievement assessed through MLA</li> <li>- Compiled information on children with special educational needs</li> <li>- Literacy and continuing education practices analyzed and disseminated</li> <li>- National literacy rate by age, sex, ethnicity, zoba etc. established and reported, - Adult education data base developed</li> <li>- Policy and strategy documents improved and updated</li> </ul>	<ul style="list-style-type: none"> <li>- Study report</li> <li>- National Report on education progress 1991-2012</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- Survey report</li> <li>- Database</li> <li>- Documents of the policy and strategy papers</li> </ul>	<p>Ministry's initiative to enhance research practices.</p>

<b>4. Enhance school-based action research</b>	<ul style="list-style-type: none"> <li>-900 secondary school teachers trained on school-based action research</li> <li>-18 school-based action research papers produced by teachers and disseminated</li> <li>- 180 teachers got technical support on action research</li> <li>- Workshops conducted and the results of teachers research disseminated</li> <li>- 18 teacher researchers received incentives annually</li> </ul>	<ul style="list-style-type: none"> <li>- Reports of school-based research</li> <li>- Monitoring report</li> <li>- Workshops report</li> <li>- Report of the incentive awarded</li> </ul>	Ministry's desire to improve quality education through school-based action research
<b>5. Professional upgrading of MOE staff</b>	<ul style="list-style-type: none"> <li>-Improved administration and management at schools and MOE office</li> <li>- 130 directors, supervisors and education administrators trained at diploma level</li> <li>- 260 directors, supervisors and education administrators professionally upgraded</li> <li>- 500 directors, supervisors and education administrators professionally upgraded through in-service programs</li> <li>- 420 teachers, supervisors and education administrators trained through distance learning at certificate, diploma, Bachelors &amp; Masters Degrees</li> <li>- 90 uncertified librarians trained at diploma level through summer training</li> <li>- 90 uncertified laboratory technicians trained at diploma level through summer training</li> <li>- Capacity of teachers and supervisors enhanced in inclusive teaching practices;</li> <li>- Capacity of management staff developed</li> </ul>	<ul style="list-style-type: none"> <li>- College reports</li> <li>- Training report</li> <li>- Certificates, Diplomas and Bachelors &amp; Masters Degrees</li> </ul>	Collaboration of higher education institutes and colleges
<b>6. Enhance and develop the documentation capacity of MOE</b> <b>6.1 Consolidate and expand documentation capacity of MOE</b>	<ul style="list-style-type: none"> <li>- The documentation unit equipped with 10 computers and accessories</li> <li>- Various types of furniture procured</li> <li>- 1000 books and journals procured</li> <li>- 30 staff from MOE and zoba trained on documentation</li> <li>- 6 zoba documentation centers established and equipped with computers and accessories</li> </ul>	<ul style="list-style-type: none"> <li>- Procurement office reports</li> <li>- Training report</li> <li>- Zoba report</li> </ul>	The importance of documentation for the Ministry's overall activities.
<b>7. Enhance institutional capacity</b> <b>7.1 Enhance the management Capacity of MOE</b>	<ul style="list-style-type: none"> <li>- 30 PRR printed and disseminated</li> <li>- Local and International consultants provide technical assistance to expedite the Ministry's needs.</li> <li>- The management capacity of MOE enhanced through the provision of 300 computers, 200 laptops and accessories, 200 photocopiers, 200 printers, ... etc.</li> <li>- The management capacity of MOE enhanced through the provision 150 office tables, 100 cupboards, 100 shelves, 150 chairs and other relevant furniture</li> <li>- Special schools constructed and furnished with necessary supportive special teaching</li> <li>- Performance of local Supervisors improved</li> <li>- Capacity of the national examination system strengthened</li> <li>- Teachers capacity on LAPG enhanced.</li> <li>- Enhanced teacher education performance</li> <li>- Printed CPD documents</li> </ul>	<ul style="list-style-type: none"> <li>- Dissemination report</li> <li>- Produced guidelines</li> <li>- Produced courses</li> <li>- Printed guidelines</li> <li>- Survey report</li> <li>- Procurement officer report</li> <li>- Trainings and workshops report</li> <li>- Engineers' report</li> </ul>	Acknowledgment of the need to equip the Ministry with various legal procedures and equipment.

<b>8. Study tour to acquire best practices</b>	<ul style="list-style-type: none"> <li>- Experience on EMIS gained</li> <li>- MOE officials conducted educational study tour in selected countries with best teacher education development, on Open &amp; Distance Learning practices, on curriculum development, on special needs education, on early childhood education, on multi-grade teaching, on PTSA, on national examination and assessment systems, on mass literacy and on TVET experiences shared /gained.</li> <li>- Institutional linkages developed</li> </ul>	<ul style="list-style-type: none"> <li>- Study tour report;</li> <li>- Institutional linkage agreement</li> </ul>	Selection of appropriate countries
<b>9. Building and Rehabilitation of offices and other facilities</b>  <b>9.1 New Buildings and Renovation of offices and work shops</b>	<ul style="list-style-type: none"> <li>- Sufficient store built</li> <li>- Good working environment created</li> <li>- Improved and consolidated MOE Office</li> <li>- New design ready for implementation</li> </ul>	<ul style="list-style-type: none"> <li>- Engineers' report</li> <li>- Spot checks to construction sites</li> <li>- Architects' reports</li> </ul>	Governments' commitment to improve working conditions.
<b>9.2 Rehabilitate Printing Press and school materials production work shop</b>	<ul style="list-style-type: none"> <li>- Installed new printing offset and metal and wood work machines</li> <li>- Acquired sufficient raw materials.</li> </ul>	<ul style="list-style-type: none"> <li>- Procurement officer reports</li> </ul>	Ministry's willingness to enhance the printing press
<b>9.3. Procurement of trucks, vehicles and related supplies</b>	<ul style="list-style-type: none"> <li>- Acquired smooth transportation facilities for materials and workers.</li> <li>- Facilitated transportation activities of goods and services. Furnished schools.</li> </ul>	<ul style="list-style-type: none"> <li>- Procurement and logistics officers report.</li> <li>- Vehicle delivery notes</li> </ul>	<ul style="list-style-type: none"> <li>- High demand of the Ministry for effective delivery of education services.</li> </ul>
<b>10. Monitoring and Evaluation</b>	<ul style="list-style-type: none"> <li>- ECCE services and inclusive learning activities monitored and supported</li> <li>- Supervisory challenges identified and Performance of supervision evaluated and strengthened</li> <li>- Adult education activities regularly monitored and assessed</li> <li>- Relevant instrument for monitoring and evaluation updated and used</li> <li>- Timely and accurate data on competencies and learning outcomes collected and reported</li> <li>- Progress of adult education programs reported</li> <li>- Efficiency of assets management enhanced</li> <li>- Progress and challenges of the education sector Assessed</li> </ul>	<ul style="list-style-type: none"> <li>- Monitoring report</li> <li>- Supervision report</li> <li>- M&amp;E report</li> <li>- Reports on the produced rules, regulation, directives, guidelines and manuals</li> <li>- Data collection instruments</li> <li>- Evaluation and workshops report</li> <li>- The developed test and examination system</li> <li>- Assessment report</li> </ul>	Monitoring and evaluation system in place

## Annex 5: Current Organizational Structure of the Ministry of Education



The current organizational structure of the MOE is illustrated above. In view of the GOSE's decision to transform the whole educational system the MOE has been making a comprehensive review of the MOE's organizational structure, the main functions and tasks of its various Departments, as well as all the positions and job descriptions and will soon be finalized.

Moreover, the capacities required to be developed for sector policy, strategy planning, programming and budgeting; programme implementation, monitoring and evaluation; quality education monitoring, developing systems and tools have also been identified. In addition, to develop the capacity of the schools to deliver quality education services and empowering of local communities for school management, school planning and budgeting has also been envisaged.

Therefore, the human capacities on various professions and competencies at the managerial level will be strengthened through long-term training both at the under- graduate and post-graduate levels, through distance learning and face-to-face instruction, or a combination of the two. Effectively strengthening of the human capacities will be guaranteed to effectively deliver the sector plan.

Besides, to ensure that the education sector delivers as expected, a whole set of management systems and tools must be put in place over the long term. However, some of these are more urgently needed and will affect the success of the plan to a greater extent than others. The most urgently required management delivery systems that will be consolidated are the establishment of a comprehensive Educational Management Information System (EMIS).

With regard to financing of education, the Government will increase its expenditures on education in line with its commitment to EFA and MDG goals and its ability to raise domestic revenues; mobilizing the community to contribute towards financing educational costs and encouraging the private sector to invest in the establishment, operation and expansion of school.