

Arab Maghreb Union

# **AU Outlook on Education Report**

**Arab Maghreb Union (AMU)** 

## **Acknowledgements**

This Outlook on Education report for the AMU region was produced on behalf of the African Union (AU) - Department of Human Resources, Science and Technology (HRST) for the 2014 Conference of Ministers of Education of the African Union (COMEDAF) meeting by a team from the ADEA Working Group on Education Management and Policy Support (WGEMPS) together with the AMU Secretariat. Under the direction of Angela Arnott, the report has been developed with contributions from the following:

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#### **Preface**

As the African Union's lead technical agency in monitoring the implementation of the Plan of Action for Education in the Second Decade, the Association for the Development of Education in Africa, ADEA, is pleased to provide this report which assesses national, regional and continental progress in the key priority areas of the Plan.

ADEA advocates a vision of Africa as a continent with high quality education and training geared towards promoting its much-needed critical skills for accelerated and sustainable development. Its mission is to serve as an open and flexible pan-African organization that informs and facilitates the transformation of such a system in the continent. We have working groups, task forces and inter-country quality nodes (hosted by member countries) focusing on key areas in education and training, all of whom work with the AU's Plan of Action in various ways. Governed by the a group of Ministers, which includes the Bureau of the Conference of Ministers of Education of the African Union (COMEDAF) and key development partners, we are proud of our achievements in ensuring that the African Union's Priority Areas in its Plan of Action are increasingly realized.

We believe that the frank and open exchanges among African ministers of education, senior education officials, stakeholders from civil society and the private sector are essential in promoting common understandings of the challenges and solutions for progress towards achieving our continental goals. The availability of relevant information is a *sine qua non* for informed decision-making and public discourse, and the development of information systems is an essential part of the transformation of our Ministries of Education into responsive learning organizations capable of solving the critical developmental issues in Africa. Building national, regional and continental capacity in this area has been a major contribution on our part to Africa's development.

This report is produced in partnership with the AU's Restricted Technical Committee on EMIS under the leadership of the continental body's Human Resource, Science and Technology Division. Key contributors to this assessment include the UNESCO Institute for Statistics which provided the essential performance indicator data on the member states to facilitate in monitoring the member states' progress in implementing the Plan of Action for the Second Decade of Education for Africa. This report will assist African ministries of education and training, development partners and other key stakeholders in charting the way forward post-2015 as the Second Decade comes to a close. Lack of quality up-to-date data for effective monitoring, evaluation and evidence based policy development remains a very big challenge for Africa. Where data is available, there is a need to be aware that statistics may hide significant national/regional variations in resources, performance and achievement.

We commend this report to you as essential reading in preparation for the Conference of Ministers of Education of the African Union meeting in April 2014 in Yaoundé, Cameroon.

**Hamidou Boukary** 

**Acting Executive Secretary - ADEA** 

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### Acronyms

ADEA - Association for the Development of Education in Africa

AfDB - African Development Bank

AMU - Arab Maghreb Union

COMEDAF - The Conference of Ministers of Education of the African Union

COMESA - Common Market for Eastern and Southern Africa

ECD - Early Childhood Development

ECOWAS - Economic Community of West African States

EFA - Education for All

EMIS - Education management information systems

GDP - Gross domestic product
GER - Gross enrolment ratio
GPI - Gender parity index

MDGs - Millennium Development Goals

NER - Net enrolment ratio

ODL - Open and distance learning

PASEC - Program on the Analysis of Education Systems

PTR - Pupil-teacher ratio

REC - Regional economic community

SACMEQ - Southern and Eastern African Consortium for Monitoring Education Quality

SADC - Southern African Development Community

TVET - Technical and vocational education and training

TVSD - Technical and vocational skills development

UIS - UNESCO Institute for Statistics

UNESCO - United Nations Educational, Scientific and Cultural Organization

#### Key highlights

#### Gender and culture

- Access to primary schooling is universal in three out of the five Arab Maghreb Union countries but unfortunately, as the level of education increases, the gross enrolment rate decreases.
- More females are enrolled in tertiary education than males, contrary to continental trends. This is a good indication the region is making progress on the further education of women.
- Algeria, Morocco and Tunisia have progressed in leaps and bounds in the area of primaryaged children out of school. These countries have reported a large decrease in these numbers, proving that they are committed to ensuring that all children receive basic education.

#### **Education management information systems (EMIS)**

EMIS systems in all five AMU countries were insufficient. This is of serious concern, considering the central role of EMIS in national and regional development in terms of data and information provision as well as monitoring and evaluation. The declining rate of reporting on critical areas needs to be addressed in order to lead to effective analysis of the region's education system.

#### **Teacher development**

- Despite the declining primary school age population in Morocco and Tunisia, their teacher numbers increased. The class size still remains high in Morocco. Algeria reported a decline in teacher numbers but the numbers are still sufficient given the decline in the primary school age population.
- With the exception of Libya and Mauritania, the gender balance in the number of primary school teachers in the region is almost equal.
- Teacher training is given a lot of attention in the AMU region. Mauritania, Morocco and Tunisia reported that all their teachers, male and female, are trained.

#### Higher and tertiary education

- The AMU region has made significant progress in improving access to tertiary education with total enrolment increasing in Algeria, Mauritania and Tunisia. Mauritania reported the highest increase in total tertiary enrolment, a staggering 76 per cent.
- The total number of tertiary students per 100,000 in Mauritania has almost doubled since 2006, making it clear the country is serious about enrolling more people into tertiary education.
- Surprisingly, Algeria and Tunisia have reported that more women are enrolled in tertiary education than men.

#### Technical and vocational education and training

- TVET enrolment at secondary level remains male-dominated, with 60 per cent of enrolments being male.
- The percentage of illiterate population that is adult females has increased in Libya, Morocco and Tunisia. Morocco and Tunisia have also reported a similar increase in female youths. This issue needs to be addressed and the figures should decrease.

### **Quality management**

- The lack of data reported under this priority area hinders us from making any satisfactory analysis.
- On positive note, countries in the region have allocated a substantial amount of their GDP and government expenditures to education.

### Early childhood development

- All AMU countries reported on all the ECD indicators. This is an excellent step towards accurately measuring the importance of this priority area.
- Libya, Mauritania and Tunisia registered a negative annual growth rate for the total population. This indicates a future decrease in education enrolment.
- Infant mortality has decreased across the AMU region a good sign that this issue is being addressed.
- The total fertility rate has decreased in Libya, Mauritania and Tunisia, with Libya reporting
  the largest decrease. A decrease in total fertility indicates that the expected number of
  children who are supposed to attend early childhood development classes will also
  decrease.
- The region should be applauded on its reporting regarding ECD health indicators. All five countries reported on all these indicators.



Source: http://hcime.org/wordpress1/2011/05/23/engaging-environmentalism-earth-day-in-egypt/

### Methodological and historic considerations

The methodology for producing the AU Outlook on Education reports for the Conference of Ministers of Education of the African Union (COMEDAF) has evolved over recent years with the assistance of the AU's Restricted EMIS Technical Committee, led by the AU Observatory with assistance from ADEA and other partners, in particular the UIS, UNICEF, the regional economic communities namely SADC, ECOWAS and COMESA, as well as representatives of Member States. Since 2008, this AU-led initiative has created a framework for monitoring the implementation of the Plan of Action, identified, piloted and elaborated the properties of key performance indicators for the priority areas, designed reporting templates, and developed the AU Outlook on Education database on time series education indicator data.

Over 40 Member States, through a series of workshops, were introduced to and encouraged to domesticate the Second Decade goals in their national strategies. They were involved in reviewing the key indicators of the AU framework and trained on their reporting requirements for COMEDAF, which included the capacity to extract information from the AU Outlook on Education database. Despite this effort and allocation of resources, the country responses in producing national reports were generally weak. SADC and ECOWAS regions were the most responsive but fewer than half of all African countries supplied the required information. Nevertheless, these national reports feed into the regional economic community reports, which were structured upon the AU monitoring and evaluation framework.

A key challenge facing the production of the regional and continental reports is the comparability of achievements of countries and regions. The issue manifests itself where quantitative indicators measuring performance are not equivalent. It is essential that there is harmonisation of definitions of indicators, programmes, and education cycles so that like is compared with like. Subsequently, despite the desire to use nationally reported statistics, it has been unavoidable not to use international comparable data, sourced largely from UIS, as the basis for this comparison. Apart from UIS, other sources including UNICEF, the United Nations Population Division, the Southern and Eastern African Consortium for Monitoring Education Quality (SACMEQ), the Program on the Analysis of Education Systems (PASEC), MDGs Database from the UN Statistics Division and the United Nations Inter-agency Group for Child Mortality Estimation were also used. Countries filled the remaining gaps with national data, where appropriate.

#### **Assessing EMIS Performance Indicators**

This priority area is measured by a number of proxy measures which approximate whether a Member State has comprehensive education management information systems (EMIS) for all its formal levels of education, pre-primary, primary, secondary and tertiary. One of these measures is the availability of international data (sourced by the UNESCO Institute for Statistics) for the eight African Union priority areas in education.

In order to establish a country's comprehensive coverage of performance indicators, a comparison is made of the expected number of indicators required against the actual number of indicators reported for each priority area of the Plan of Action.

#### Methodology for the calculation of weighted regional and continental averages

In calculating regional averages for the AU education indicators, an assumption is made that there are generally missing data. In these cases, the regional average is an approximation of the unknown real value.

At UIS, regional averages are derived from both "publishable" and "imputed" national data. Publishable data are the data submitted to the UIS by Member States or the result of an explicit estimation made by the Institute based on pre-determined standards. In both cases, these data are sent to Member States for review before they are considered publishable by UIS. When data are not available for all countries in the region, UIS "imputes" national data for the sole purpose of calculating regional averages.

In sum, the data informing the report relies considerably on the inputs from various partners, and in particular UIS, ADEA, as well as regional economic communities and countries. The evaluation of performance nevertheless, is informed by the framework of indicators developed by AU for monitoring the implementation of the Plan of Action.

#### Key trends in implementation

The following chapters review progress achieved regionally and nationally on implementing the goals of the Plan of Action. The analysis is shaped by the matrix of agreed actions and interventions for each priority area found in the Plan of Action. Adherence to these strategies has not been consistent, except in perhaps some priority areas, hence the degree to which progress can be measured against agreed benchmarks and outputs is tenuous. Implementation of the Plan of Action encountered a slow start-up in mobilizing Member States, partners and regional economic communities, partly as Human Resource Science and Technology Commission was in the throes of establishing itself in 2006.

In addition, the AU Observatory, the body responsible for monitoring implementation, was only officially launched in 2009 and although it has since played a significant role in coordinating and legitimating the process of creating a monitoring and evaluation system of the Plan of Action, it remains severely under-capacitated. Despite these challenges, the impact of the Second Decade on Education is progressively changing education and training developments on the continent. The subsequent chapters illustrate the sizeable achievements of countries and regions in reaching these goals as well as offering possible policy lessons on how to overcome the challenges in the last year of the Decade.

#### Priority area 1: Gender and culture

The goal of this priority area is to ensure girls' and women's empowerment throughout the education and training sector while enriching the system with positive aspects of African cultural values.

#### Mainstreaming human rights

The main action under this objective is the development of a system to monitor how human rights instruments are used in promoting education. This necessitates the creation and enforcement of relevant national legislations that ensure the promotion of equal opportunities in accessing educational and other social services.<sup>1</sup>

The importance of human rights is enshrined in the AU Plan of Action for the Second Decade of Education for Africa. The Plan of Action mandates Regional Economic Communities with the responsibility of establishing review committees for monitoring the translation, application and enforcement of legal instruments.<sup>2</sup>

In 1994, the League of Arab States adopted the first version of the Arab Charter on Human Rights. In May 2004, a new version of this Charter was adopted. Article 41 of the Charter provides that the eradication of illiteracy is a binding obligation and every citizen has a right to education.<sup>3</sup> As of November 2013, the only AMU countries recorded to have ratified the Charter were Algeria and Libya.<sup>4</sup> The African Charter on Human and Peoples' Rights is an international human rights instrument that is intended to promote and protect human rights and basic freedoms in the African continent.<sup>5</sup> Algeria, Libya, Mauritania and Tunisia have all signed and ratified the Charter; Morocco is not a member of the African Union.<sup>6</sup>

#### Ensuring universal access to education

Universal primary education is vital – but is often not enough. To unlock the wider benefits of education, especially its power to save lives, universal access needs to be extended at least to lower secondary school. And access alone is not enough either: the education that children receive needs to be of good quality so that they actually learn the basic literacy and numeracy skills that are necessary to acquire further skills.

Education For All Global Monitoring Report 2013/4 *Teaching and Learning: Achieving Quality For All* UNESCO (2014).

The AU Plan of Action provides that one of the objectives under this theme is to develop advocacy tools for resource mobilization in order to significantly reduce gender, geographical and social disparities in access retention and performance in basic and secondary levels. The second objective is to reduce sociocultural and economic barriers that impede access as well as participation of girls and children with disabilities in school.

<sup>&</sup>lt;sup>1</sup> AU Continental Report 2012.

<sup>&</sup>lt;sup>2</sup> <u>African Union: The Second Decade of Education for Africa (2006-2015) Plan of Action.</u>

http://www.acihl.org/res/Arab Charter on Human Rights 2004.pdf Accessed 3 March 2014.

<sup>&</sup>lt;sup>4</sup> http://en.wikipedia.org/wiki/Arab Charter on Human Rights Accessed 3 March 2014.

http://www.achpr.org/instruments/achpr/ Accessed 3 March 2014.

<sup>&</sup>lt;sup>6</sup> http://www.thebrenthurstfoundation.org/a\_sndmsg/news\_view.asp?I=131444&PG=288\_Accessed 9 April 2014.

Table 1: Gross enrolment ratio

	Grosse	nrolment	ratio, primary	Grossen	rolmentra	tio, secondary	Gross enrolment ratio, tertiary			
Country	Tot	al	Difference	Total		Difference	Total		Difference	
	2006	2012	Difference	2006	2012	Difference	2006	2012	Dillerence	
Algeria	106.6	117.4	10.8	78.1			20.2	31.5	11.2	
Libya	114.4			104.3						
Mauritania	93.8	96.7	2.9	23.2	26.8	3.6	3.3	5.1	1.8	
Morocco	104.5	116.1	11.5	52.4	68.9	16.5	12.2			
Tunisia	109.7	109.7	0.0	87.2			31.0	35.2	4.2	
Continental weighted average	97.7			40.3			9.5			
Regional weighted average	108.4			71.6			21.2			

Source: AU Outlook Database (2014)

... No data available

Access to primary schooling is universal in Algeria, Morocco and Tunisia with these countries reporting enrolment rates above 100 per cent for the six-year period under review. It is noteworthy that three countries have school enrolments between 9 per cent and 18 per cent greater than is expected in the primary-aged population. This indicates an enrolment of under- and over-aged children in these countries' primary schools.

It is disheartening that as the level of education increases, the gross enrolment rate (GER) decreases. Mauritania and Morocco reported secondary level GER much lower than primary level. No 2012 data was available for the other three countries.

Transition rates are higher for male pupils than for female pupils, indicating that more males continue to secondary education than females. This issue needs to be addressed as there should be equality amongst males and females throughout all levels of education. GER at tertiary level has increased in Algeria, Mauritania and Tunisia.

#### Gender parity in enrolments

Gender parity – equal enrolment ratios for girls and boys – is just the first step towards the fifth EFA goal of full gender equality in education: a schooling environment that is free of discrimination and provides equal opportunities for boys and girls to realize their potential.<sup>7</sup>

At primary level, there is near parity in Algeria, Mauritania and Morocco and full parity in Tunisia. Mauritania is the only country to have slight disparity towards girls. The parity levels decrease slightly at secondary level moving towards disparity in favour of boys (in Mauritania and Morocco). At tertiary level, there is gender disparity in favour of female students in Algeria and Tunisia.

<sup>&</sup>lt;sup>7</sup> Education For All Global Monitoring Report 2013/4 Teaching and Learning: Achieving Quality For All UNESCO (2014).

#### Children out of school

Measuring the proportion of female out-of-school children of primary age provides a proxy of the degree to which vulnerable children – which the rural girl child epitomizes – are gaining access to basic education. It must be noted, however, that boys are increasingly becoming more vulnerable than girls in some cases so there is a need to be aware of this.

Table 2: Number of primary out of school children

	Number of primary out of school children									
Country	Tot	al	0,4	Male		۵,	Female		.,	
	2006	2012	% Change	2006	2012	% Change	2006	2012	% Change	
Algeria	226,401	25,337	-88.8	93,928			132,473			
Libya										
Mauritania	130,814	169,318	29.4	68,411	92,785	35.6	62,403	76,533	22.6	
Morocco	481,342	87,247	-81.9	210,594	40,211	-80.9	270,748	47,036	-82.6	
Tunisia	14,516	510	-96.5	8,547			5,969			
Regional weighted average	696,510			269,405			427,105			
Continental weighted average	35,061,43 0			15,769,21 2			19,292,2 18			

Source: AU Outlook Database (2014)

... No data available

Mauritania had the highest number of out-of-school children of primary school age, the majority of whom were male. The total numbers increased by nearly 30 per cent between 2006 and 2012. Tunisia, on the other hand, had the lowest numbers out of school. The gender profile of these children is not reported. Algeria, Morocco and Tunisia have all reported huge decreases in the number of primary out of school children. This is a positive sign that the countries are addressing the issue of increasing access to primary education.

UNICEF and the UNESCO Institute for Statistics (UIS) launched the joint Global Initiative on Out-of-School Children in 2010 to accelerate efforts towards the goal of universal primary education by 2015. Morocco is engaged in this initiative. 8

#### Survival rate to the last grade of primary education

Survival rates to the last grade of primary education have increased in Algeria and Morocco from 2006 to 2011. In 2011, more girls than boys survived to the last grade in Algeria and the opposite was true for Morocco. Even so, the survival rate of males and females is fairly equal in these countries.

### Enhancing literacy competencies and developing cultural industries

The objectives under this theme are to increase the economic and social empowerment of men and women through functional literacy and to link literacy, vocational and technical training and nonformal education to national development needs.

Adult literacy is a major challenge in the African region. Despite the progress made in primary school enrolment and adult literacy rate, the number of illiterate adults (aged 15 and over) in Africa has

<sup>&</sup>lt;sup>8</sup> http://www.unicef.org/education/files/OOSCI\_flyer\_FINAL.pdf\_Accessed 18 March 2014.

been on the increase since the Dakar EFA Forum in 2000. <sup>9</sup> Across the region, literacy rates are on the rise, with Morocco reporting the largest increase. Literacy rates amongst females have increased more than amongst males, a positive sign that women are receiving opportunities to improve their literacy.

#### Increased synergy between culture and education

Integrating culture into education systems as a means of promoting and reinforcing cultural identities and values and for preserving the African cultural heritage is the main objective under this theme.

In the context of reinforced cooperation with the Arab Maghreb Union, UNESCO wished to establish official cooperation relations in the fields of education, science, culture and communication. The Secretary-General of AMU commended this initiative. UNESCO and the AMU have designed a policy to implement various objectives. At the cultural level, these objectives include the establishment of cooperation with a view to developing the various levels of education, preserving spiritual and moral values inspired by the teachings of Islam and preserving the national Arab identity by acquiring the necessary resources for achieving these objectives, in particular, for exchanges of teachers and students and for the establishment of academic and cultural institutions. <sup>10</sup>

#### Conclusion

While equality issues persist throughout Africa, the AMU region has done very well in terms of girls' participation in education and other gender and culture indicators. When taking 2006 data into consideration it is evident that access to, and participation in, education in this region was higher than in the continent as a whole. However, due to the lack of 2012 data, it is not possible to draw the same conclusion for 2012.

http://uil.unesco.org/home/programme-areas/priority-africa/adult-literacy/news-target/overview/466e2f38b80f6e3c638f89abe6f13fe7/Accessed 3 March 2014.

<sup>&</sup>lt;sup>10</sup> http://unesdoc.unesco.org/images/0018/001816/181661e.pdf Accessed 19 March 2014.

### Priority area 2: Education management information systems (EMIS)

Information is the basis of management, planning and evaluation of an education system. During the education management process, the education management information system (EMIS) should inform the different actors and partners on the state of the sector, its internal and external efficiency, its pedagogical and institutional operation, its performance, shortcomings and needs. <sup>11</sup> The objective of this priority area is the assessment of the current status of data and information management in education.

#### EMIS coordination mechanisms and partnerships

The continental strategies for this priority area have been achieved to a greater depth than most other Second Decade goals. This is largely due to the successful partnership of the AU Human Resources, Science and Technology division with its lead agency in this priority area, the ADEA's Working Group of Education Management and the Policy Support, and the collaboration of other development partners such as UIS, UNICEF, UNESCO, the regional economic communities of AMU, SADC, ECCAS, ECOWAS and EAC, among others. Another contributor to the effective implementation of the activities of this priority area was the milestone establishment in 2008 of the AU Observatory, hosted by the Pan-African Institute for Education and Development (IPED), and CIEFFA, the UNESCO-supported observatory promoting girls and women's education, as statutory AU structures for reporting and monitoring dimensions of the implementation of the Second Decade goals. The AU Commission and its observatories provided clear leadership in coordinating the activities of partners which, with the technical expertise of ADEA and UIS in particular, saw the fruition of the majority of the proposed continental activities. <sup>12</sup>

#### Monitoring the plan of action

Some of the activities proposed in the plan of action that apply at regional level include developing and implementing a shared and validated assessment framework to estimate the status of EMIS on the region and introducing harmonized regional EMIS standards.

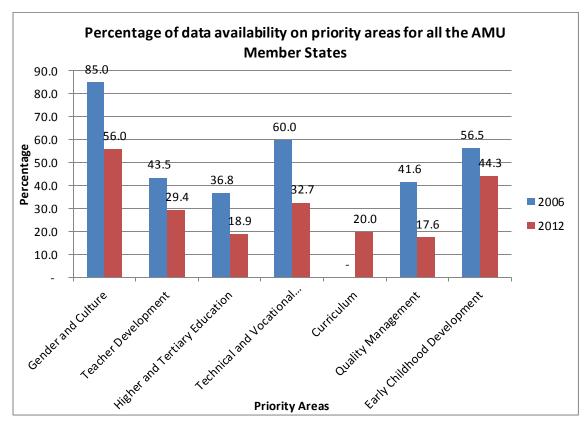
<sup>&</sup>lt;sup>11</sup> http://www.unesco.org/new/en/education/themes/planning-and-managing-education/policy-and-planning/emis/ Accessed 19 March 2014.

<sup>&</sup>lt;sup>12</sup> AU Continental Report 2012.

#### Availability of international data

The reporting rate of international data coverage was calculated by ADEA-WGEMPS.

Figure 1: Percentage of data availability on priority areas for all AMU Member States



Source: AU Outlook Database (2014)

While the availability of data in the AMU region was high in the areas of Gender and Culture and TVET in 2006, it has declined considerably in 2012. Data coverage has also declined in Teacher Development, Higher and Tertiary Education, Quality Management and ECD. As there was no data provided for curriculum in 2006, it is positive to note that this priority area was reported on in 2012.

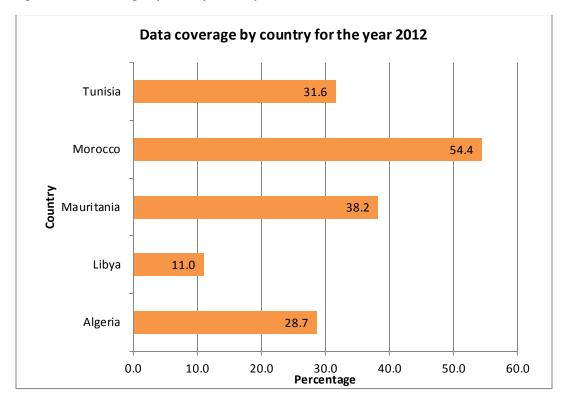


Figure 2: Data coverage by country for the year 2012

Source: AU Outlook Database (2014)

Morocco, the highest reporting country, reported on more than half of the indicators. Second to that was Mauritania, followed by Tunisia and then Algeria. Libya, on the other end of the spectrum, reported on only 11 per cent of the indicators.

#### Conclusion

EMIS systems in all five AMU countries appear to be insufficient and this is of concern. The declining rate or reporting on critical areas needs to be addressed in order to lead to effective analysis of the region's education system.

### **Priority area 3: Teacher development**

The goal of the teacher development focus area is "to ensure the provision of sufficient teachers to meet the demands of education systems and to ensure that all teachers are properly qualified and possess the relevant knowledge, skills and attitudes to teach effectively. Teachers should also be properly supported and adequately remunerated, to ensure high levels of motivation." <sup>13</sup>

The most serious issue facing the teaching profession is the perennial shortage of qualified teachers. The ever growing demand for teachers caused by an increasing learner population and the need to fully implement national as well as Education for All (EFA) strategies aimed at meeting the needs of these learners, combined with the need for education reform and the associated costs in the light of limited budgetary resources, remain issues of concern for all African countries. The African Union seeks to highlight progress and achievements in teacher development by tracking a number of indicators. Pupil-teacher ratios provide a measure of the demand for teachers. Reporting on the percentage of qualified teachers indicates the availability of competent teachers in schools. From tracking teacher numbers year on year, it is possible to obtain a sense of the growth of teachers and the assumption is that, given that most African countries have rising birth rates, the demand for teachers will steadily increase. <sup>14</sup>

#### **Teacher supply**

Table 3: Number of teachers in primary level

0	Number of teachers in primary									
Country	Fema	ale	Percentage	Mal	е	Percentage	Tot	al	Percentage Change	
	2006	2012	Change	2006	2012	Change	2006	2012		
Algeria	88,295	85,137	-3.6	83,107	63,899	-23.1	171,402	149,036	-13.0	
Libya										
Mauritania	3,625	5,063	39.7	7,627	8,732	14.5	11,252	13,795	22.6	
Morocco	68,802	80,898	17.6	77,496	74,583	-3.8	146,298	155,481	6.3	
Tunisia	31,062	34,972	12.6	28,203	26,059	-7.6	59,265	61,031	3.0	
Continental weighted average	1,646,010			1,875,906			3,521,916			
Regional weighted average	215,465			217,437			432,902		•••	

Source: AU Outlook Database (2014)

... No data available

At the primary level, Algeria and Morocco recorded the highest number of teachers in 2012, which is in line with their high population levels. There was a substantial increase in the total number of teachers in Mauritania, Morocco and Tunisia. Algeria was the only country to report a decrease in total teacher numbers between 2006 and 2012. Of the reporting countries, Algeria registered a decline in both male and female teachers; this should be a worrying trend and the government may have to institute urgent interventions to address the situation, which could be caused by several

<sup>&</sup>lt;sup>13</sup> African Union (2006) Second Decade of Education For Africa (2006-2015) Plan of Action page 7.

<sup>&</sup>lt;sup>14</sup> http://www.prcdc.org/globalpopulation/Population\_Projections/

factors. Such interventions could also be appropriate for Morocco and Tunisia which registered declines in male teachers.

#### **Gender balance**

Table 4: Percentage of female teachers at primary level

Country		Percentage of female teachers, primary					
	Тс	tal	Percentage				
	2006	2012	Change				
Algeria	51.5	57.1	5.6				
Libya			•••				
Mauritania	32.2	36.7	4.5				
Morocco	47.0	52.0	5.0				
Tunisia	52.4	57.3	4.9				
Continental weighted average	46.7						
Regional weighted average	49.8						

Source: AU Outlook Database (2014)

... No data available

The gender balance in the number of primary level teachers in the region is almost equal in Algeria, Morocco, and Tunisia. Mauritania is the only country which reported having more male teachers (over 60 per cent) compared to their female counterparts. A positive sign is that all reporting countries had an increase in the percentage of female teachers at this level.

#### Measuring the demand for teachers

The pupil-teacher ratio (PTR) is used to measure the demand for teachers. A lower ratio generally implies that the pupils get more attention from the teacher. At the primary level, the AMU region as a whole has a very low PTR as compared to the continent. Mauritania reported the highest PTR in the region and Tunisia the lowest. All reporting countries showed a decrease in PTR from 2006 to 2012 and this can be attributed to the increase in number of teachers.

Table 5: Pupil-teacher ratio at primary level

Country	Pupil Teacher Ratio, Primary					
	То	tal	Percentage Change			
	2006	2012	o o			
Algeria	24.5	23.2	-1.3			
Libya						
Mauritania	41.4	40.1	-1.3			
Morocco	27.0	25.8	-1.1			
Tunisia	19.1	17.1	-2.0			
Continental weighted average	40.0		•••			
Regional weighted average	24.2		•••			

Source: AU Outlook Database (2014)

... No data available

### **Teacher qualifications**

A qualified teacher is one who has received the minimum organized teacher training (pre-service or in-service) normally required for teaching at the relevant level. Fully trained teachers make a significant difference to children's educational outcomes. A higher percentage of qualified teachers can be associated with better learning outcomes.

Table 6: Percentage of trained teachers at primary level

Country		Percentage of trained teachers, Primary									
	Fen	nale	Percentag	Ma	ale	Percentag	To	tal	Percentag		
	2006	2012	e Change	2006	2012	e Change	2006	2012	e Change		
Algeria	99.6			98.9			99.3				
Libya											
Mauritania	100. 0	100. 0	0.0	100. 0	100. 0	0.0	100. 0	100. 0	0.0		
Morocco		100. 0			100. 0			100. 0			
Tunisia		100. 0			100. 0			100. 0			
Continental weighted average	83.3			79.3			81.2				
Regional weighted average	95.9			96.6			96.2				

Source: AU Outlook Database (2014)

... No data available

The AMU region performs well, based on data from reporting countries, in terms of having trained teachers. Mauritania, Morocco and Tunisia reported that all their teachers, male and female, are trained. Mauritania and Morocco reported that all their newly recruited teachers are trained. <sup>15</sup>

#### **Teacher working conditions**

As a way of determining how good or bad working conditions are for teachers, one can look at the teacher attrition rate. The teacher attrition rate is the proportion of teachers in the public sector who leave the profession annually for reasons that include retirement, new job opportunities, marriage, death or illness. In Mauritania and Morocco, more males left the profession than females during 2012 and even so, the total attrition rate was very low (less than 5 per cent in Mauritania and less than 1 per cent in Morocco). These low attrition figures may be a sign that working conditions for teachers in the AMU are good.

#### Conclusion

The Arab Maghreb Union has generally shown excellent commitment in ensuring the availability and competence of teachers in the region. Some countries, however, still need to address the issue of declining numbers of qualified teachers. Pupils are getting better individual attention and the equality of male and female teacher numbers is evident in most reporting countries.



 $Source: http://magharebia.com/en\_GB/articles/awi/features/2008/09/19/feature-02$ 

<sup>&</sup>lt;sup>15</sup> AU Outlook Database (2014).

### Priority area 4: Higher and tertiary education

The goal of this priority area is the complete revitalization of higher education in Africa with the emergence of vibrant development-oriented research and teaching institutions playing a critical role in providing African knowledge and innovation to support the continent's position in the world economy.

#### Growing recognition and revitalization of higher education

With the growing recognition that countries need to participate in the knowledge economy, higher education is being resuscitated as a key contributor in enhancing and producing critical human capital, so essential for national growth and global competitiveness. In addition, new emphasis is placed on the contribution of higher education in determining the quality of all the other levels of education, in particular teacher training across Africa. <sup>16</sup>

#### Research and knowledge production

Five of the seven North African countries, Algeria, Egypt, Libya, Morocco and Tunisia, have much higher rates of participation in higher education than is the norm in Africa south of the Sahara. Within the region, Libya has the highest percentage participation in higher education, estimated at over 50 per cent. The lowest participation is in Algeria, Mauritania and Morocco, with rates of 18, 3 and 12 per cent respectively. Egypt recorded a participation rate of 28 per cent and Tunisia 34 per cent. It must be stressed that these figures, taken from UNESCO data, are based on different years and are thus not strictly comparable, neither are they up to date. Moreover, the pace of growth in student numbers suggests that the participation rate in the five highest countries will be greater than those quoted above. <sup>17</sup>

#### Promotion and development of African quality assurance in higher education

A significant continental initiative is the establishment of the Pan-African University, sponsored by Libya, which aims to build higher education infrastructure, encourage research collaboration and enhance science and technology capacity across the continent. 18

<sup>&</sup>lt;sup>16</sup> AU Outlook on Education Continental Report, 2012

<sup>&</sup>lt;sup>17</sup> Teferra, D (2011) Higher Education in Africa: Status, Challenges, and Opportunities (Final Draft). WGHE-ADEA

<sup>&</sup>lt;sup>18</sup> African Union Department of Human Resources, Science and Technology (2011) Report of the Midterm Evaluation of the Second Decade of Education for Africa, 2006-2015 Incorporating comments arising out of the AU stakeholder Validation Meeting. Mauritius, 23<sup>rd</sup> – 25<sup>th</sup> November 2011.

#### Improving access to higher education

Table 7: Total enrolment in tertiary level

Country	Total enrolment in tertiary						
	То	tal	Percentage				
	2006	2012	Change				
Algeria	817,968	1,210,272	48.0				
Libya		•••					
Mauritania	10,157	17,878	76.0				
Morocco	384,595						
Tunisia	325,325	357,392	9.9				
Continental weighted average	8,644,080						
Regional weighted average	1,898,583						

Source: AU Outlook Database (2014)

... No data available

The AMU region has made significant progress in improving access to tertiary education with total enrolment increasing in Algeria, Mauritania and Tunisia. Mauritania registered a massive 76 per cent increase in tertiary enrolment between 2006 and 2012. Males have still shown a higher percentage change in gross enrolment than females. Tunisia recorded the highest increase in male gross enrolment in the region with Algeria coming in a close second.

The total number of tertiary students per 100,000 inhabitants has been on the rise in Algeria, Mauritania and Tunisia. Female enrolment has increased by almost 14 per cent in Morocco and nearly 12 per cent in Algeria, a positive move towards gender equity at the tertiary level.

### **Equity dimension**

Table 8: GER Gender parity index at tertiary level

_	GER Gender Parity Index, Tertiary						
Country	Total 2006	Total 2012	Percentage Change				
Algeria	1.26	1.48	0.23				
Libya		::					
Mauritania	0.36	0.43	0.07				
Morocco	0.81						
Tunisia	1.38	1.59	0.21				
AMU/UMA	1.12						
Africa	0.79						

Source: AU Outlook Database (2014)

... No data available

Surprisingly, Algeria and Tunisia have shown a gender disparity in favour of female students at the tertiary level while Mauritania still has a huge disparity in favour of males, with little signs of improvement. The fields of study are still mostly male-dominated in Science, Engineering and Technology and in Manufacturing and Construction. More women graduate in the fields of Education and Agriculture than men.

#### **Continental and regional integration**

Several initiatives are underway to address the issue of relevance and compatibility of programme studies to national priorities and needs. In many countries, universities are engaging numerous stakeholders in designing, implementing and evaluating curricula. Others are consolidating university-industry linkages to foster innovation and technology transfer. Some are also strengthening their entrepreneurship and internship dimensions. Others are talking about "job-creating graduates" as opposed to "job-seeking graduates", in many cases without the requisite frameworks and support mechanisms. <sup>19</sup>

Under the umbrella of capacity building and regional integration, many other organizations such as the African Union Commission, the African Development Bank and the World Bank are now active in the development of higher education on the continent. The African Union Commission (AUC) has spearheaded some key continental initiatives, in particular the African Higher Education Harmonization Strategy, the Revised Arusha Convention on the Recognition of Degrees, Diplomas and other Qualifications in Africa, the African Quality Rating Mechanism in higher education, the Mwalimu Nyerere African Union Scholarship Scheme and the African Union flagship programme of the Pan African University. <sup>20</sup>

#### Higher education harmonization strategy

AUC embarked on a harmonization strategy to bridge the gap between disparate educational systems, promote the mobility of students and academics across the continent, facilitate the comparability of qualifications awarded across the continent, and contribute to the vision of the African Union in building an integrated Africa. The strategy was endorsed in 2007 by COMEDAF III. The higher education harmonization strategy could also be an important starting point for the establishment of a higher education and research area in Africa. For instance, reforms related to establishing common degree programmes and studies, harmonizing strategies and promoting academic mobility and comparability of degrees undertaken by higher education regional organizations such as the African and Malagasy Council on Higher Education (CAMES) initiative on bachelor's, master's and doctoral degrees, is a step in the right direction.<sup>21</sup>

#### Conclusion

AMU countries have done well in providing access to tertiary education and it is encouraging to note that most of the reporting countries have provided women with the same access as men. Urgent interventions on this is, however, required in Mauritania which has some distance to go in achieving parity in accessing higher education.

<sup>&</sup>lt;sup>19</sup> AU Outlook on Education Continental Report, 2012

<sup>&</sup>lt;sup>20</sup> Ibid

<sup>&</sup>lt;sup>21</sup> Ibid

### Priority area 5: Technical and vocational education and training

Technical and vocational education and training (TVET) is an essential part of general education. Despite its focus on preparation for the world of work through specialized technical training, TVET has been under-served in African countries. Where TVET programmes do exist, advantage is often not taken of modern technologies to upgrade facilities and programmes. <sup>22</sup> Since 2006, there has been a definite paradigm shift towards a holistic, integrated and inclusive approach to education and training. Technical and vocational skills development (TVSD) is the preference of this new approach and is gaining round in the agenda of most ministries of education, spearheaded by key players such as ADEA.

### Challenges faced in understanding the meaning of TVET

TVET is defined by UNESCO as "those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupation in various sectors of economic life". A major challenge is a common understanding of the term 'TVET' across countries and agencies. It is often replaced by terms such as 'human resources development', 'workforce development' or 'skills development'. Moreover, definitions are also unclear or contested in terms of whether there is a clear boundary between the terms 'professional' and 'technical', as used in Francophone and Lusophone countries. The shift from TVET to TVSD has caused further challenges in understanding this concept. <sup>24</sup>

#### Policy response to TVET

The AMU region has recognized the importance of TVET as a vital part of education but challenges remain in implementing its policies and strategies. In Algeria, for example, it is reported that since the '90s, the policy has been to develop a TVET system oriented to labour market entry with a model where a baccalauréat professionnel could lead to higher professional education. However, this policy has encountered a number of difficulties and the baccalauréat professionnel is not yet in place and other issues are under consideration. These considerations include how to meet additional demand for higher education, how to establish credible pathways into professional employment and how to break with existing organizational structures and processes. <sup>25</sup> Another response is the creation of specific bodies to coordinate the sub-sector due to its complexity and multiplicity of players. Increasing involvement of the private sector, through public-private-partnership, in the development of TVET curricula, is also a positive response. <sup>26</sup>

<sup>&</sup>lt;sup>22</sup> African Union (2006) Second Decade of Education For Africa (2006-2015) Plan of Action.

<sup>&</sup>lt;sup>23</sup> http://www.unesco.org/new/en/newdelhi/areas-of-action/education/technical-vocational-education-and-training-tvet/ Accessed 13 March 2014.

<sup>&</sup>lt;sup>24</sup> AU Outlook on Education Continental Report, 2012.

<sup>&</sup>lt;sup>25</sup> UNESCO (2013) Global validation workshop on policies and practices on TVET teachers and instructors in the Arab region A regional study (3-4 October 2013).

<sup>&</sup>lt;sup>26</sup> ADEA (2011)The Partnership Based Management of Vocational Training Centers in Tunisia Sub-Theme no 2.1.08 Lifelong technical and vocational skills development for sustainable socioeconomic growth in Africa.

#### Member States' participation in TVET

A positive aspect is that Algeria is looking to become a viable market for the UK VET sector, and TVET UK has been working with the British Embassy and a number of ministries within the country to identify new partners and new projects. <sup>27</sup>

Morocco has identified the link between a national quality assurance approach at the TVET system level and a quality approach in training organizations as one of the most crucial points for further development. This issue will be tackled within a national reference framework for quality, which is part of a longer-term development strategy for TVET. It is proposed to create a national body for evaluating TVET, and this could serve as a cornerstone for developing the system as a whole. Morocco also has an Office of Vocational Training and Employment Promotion which has a large network of training centers across the country.

In Libya, the National Board of Technical and Vocational Education is responsible for, amongst other things, developing the approved training curriculum for training institutions and the level of skills required and directing vocational training centers so they produce the training needed by the local labour market, use modern training methods, and make the most of employment opportunities, and economic and social development programmes. 30 Another encouraging feat is that the association TVET UK has signed a Memorandum of Understanding with the Libyan National Board for Technical and Vocational Education (NBTVE) to boost vocational training opportunities in Libya. 31

One of the most innovative skills training partnerships in Africa in recent years is constituted by the strong participation of professional bodies and associations in the governance and management of public vocational training centres in Tunisia (Halleb, 2011). Under this partnership arrangement, the collaborating professional body determines the training package, which consists of the training needs, the type and level of training required, the annual cohort of trainees and the investments necessary to deliver the prescribed training. The central government, through the Ministry of Vocational Training, retains ownership of the centre as a public institution and validates the training package. The Ministry also undertakes capital investment projects and assures the coherence of the different training projects managed by different professional bodies and coordinates their activities where necessary. The professional bodies, however, are fully in charge of the design, management and certification of the training programmes, ensuring in this way a close pedagogical cooperation between the centres and enterprises, including better organized internships and apprenticeships. <sup>32</sup>

The World Bank has funded a Skills Development Support Project in Mauritania. The objectives of this project are to improve the quality, efficiency of training institutions and create an enabling environment for a more market-driven Technical and Vocational Education Training System (TVET). One component is to enhance the capacity of the Ministry of Employment Vocational Training and New Technologies (MDEFPNT) to create a more demand-driven TVET system, and strengthen the

 $<sup>^{\</sup>rm 27}$  http://www.tvetuk.org/case-study/changing-algeria/ Accessed 14 March 2014.

<sup>&</sup>lt;sup>28</sup> http://www.tvet.org/PolicyStratygy/Nine%20Key%20Areas%20for%20Reform-Jan%202013diehl2%20-%20Copy.pdf Accessed 13 March 2014.

<sup>&</sup>lt;sup>29</sup> http://www.bibalex.org/he\_funding/donors/Details.aspx?ID=103 Accessed 13 March 2014.

<sup>&</sup>lt;sup>30</sup> http://www.britishcouncil.org/learning-skills-for-employability-libyan-country-overview-vet-system.htm Accessed 14 March 2014

<sup>&</sup>lt;sup>31</sup> http://thepienews.com/news/tvet-uk-signs-major-mou-libya/

<sup>&</sup>lt;sup>32</sup> Afeti, G and Adubra, AL (2012) *Synthesis Paper – Sub-Theme 2*. Working document for ADEA Triennale 2012; Halleb, A. (2011) La gestion partenariale. Working Document for ADEA Triennale 2012

capacity of the National Institute for the Promotion of Vocational and Technical Training (INAP-FTP) to support the TVET system. <sup>33</sup>

### Gender equality and women's empowerment in TVET

TVET enrolment in total secondary Morocco 2012

Female 38%

Male 62%

Figure 3: TVET enrolment in total secondary Morocco 2012

Source: AU Outlook Database (2014)

Regarding TVET enrolment in secondary level, only Morocco provided 2012 data and, as can be seen from the figure above, TVET enrolment at secondary level in the country is male-dominated.

Table 9: Percentage of illiterate population that are female

		% of illiterate population that are female							
COUNTRY	Adul	ts (aged 15	and over)	Youths (aged 15 to 24)					
	FEM	IALE		FEM	ALE				
	1995- 2004	2005- 2014	Percentage Change	1995- 2004	2005- 2014	Percentage Change			
Algeria	66.0	65.7	-0.4	69.2	65.0	-4.2			
Libya	76.9	79.9	3.0	78.5	70.6	-7.9			
Mauritania	59.0	58.2	-0.8	57.2	53.6	-3.6			
Morocco	65.1	65.6	0.5	67.7	69.9	2.2			
Tunisia	67.8	69.9	2.1	67.8	67.9	0.1			
Regional Weighted Average	65.8	66.0	0.3	67.3	66.6	-0.7			
Continental Weighted Average	62.6	61.9	-0.6	60.8	60.1	-0.8			

Source: AU Outlook Database (2014) ... No data available

<sup>&</sup>lt;sup>33</sup> http://documents.worldbank.org/curated/en/2011/03/14020077/mauritania-skills-development-support-project Accessed 13 March 2014.

AMU as a whole reported that the majority of its illiterate population is female. This has increased in female adults in Libya, Morocco and Tunisia. The percentage of illiterate female youths has reduced in Algeria, Libya and Mauritania, with Libya recording the largest decrease so far over the ten year period. Overall, female illiteracy for adults is projected to remain high in AMU, a situation that is similar for the continent.

#### Youth and TVET

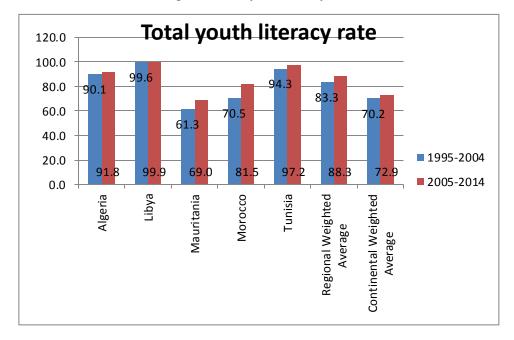


Figure 4: Total youth literacy rate

Source: AU Outlook Database (2014)

Youth literacy rate as a region is higher than that of the continent as a whole. Literacy rates amongst youth have increased in all AMU countries.

#### Conclusion

Although literacy rates are increasing in the region, it is still a concern that the majority of illiterate people are female. The region should embark on measures to increase the literacy of women.

### Priority Area 6: Curriculum development, teaching and learning materials

The goal of this priority area is to ensure the development and provision of balanced, relevant, responsive and culturally sensitive curricula adequately supported by appropriate teaching and learning materials, in all forms and levels of Education in Member States. According to the African Union's Plan of Action, curriculum development is a continuous process of translating educational goals into practical guidelines for content, materials, and methods for school and classroomengineered activities to bring about desired learning outcomes. A curriculum reflects the values, attitudes and aspirations of the wider society and should therefore be grounded in culture, while being open to positive global influences.

### **Curriculum reform**

Curriculum reform is an integral part of any country's advancement. Curriculum should be up-to-date and in line with the new needs faced in society. Countries in [the Middle East and] North Africa need to overhaul their education systems to meet the demands of an increasingly competitive world and realize the potential of their large and growing youth population. <sup>34</sup>

#### Learning materials and teachers

Only Algeria reported on the primary pupil-textbook ratio for both reading and mathematics in 2012, indicating that every pupil has their own textbook.

#### **African languages**

Years of research have shown that children who begin their education in their mother tongue make a better start, and continue to perform better, than those for whom school starts with a new language. The same applies to adults seeking to become literate. This conclusion is now widely implemented, although we still hear of governments that insist on imposing a foreign language of instruction on young children, either in a mistaken attempt at modernity or to express the preeminence of a social dominant group. <sup>35</sup>

An example of the use of mother tongue in teaching is the Tifinagh alphabet of the Berber people, which has been in use for the past 2000 years. It is still used by the Tuareg people in Libya, Algeria, Morocco, Niger, Mali and Burkina Faso, and in Moroccan primary schools to teach Tamazigh. <sup>36</sup>

#### Conclusion

The lack of data makes it difficult to do any analysis on this priority area, save to say that AMU countries should continue to ensure that their curriculum meets the demands of society to prepare pupils for the world of work.

<sup>&</sup>lt;sup>34</sup> http://www.worldbank.org/en/news/feature/2008/02/04/globalization-requires-education-reforms-in-middle-east-and-north-africa-report-says Accessed 14 March 2014.

<sup>&</sup>lt;sup>35</sup> http://www.unesco.org/education/education\_today/ed\_today6.pdf Accessed 24 March 2014.

<sup>&</sup>lt;sup>36</sup> UNESCO and ADEA (2010) Why and how Africa should invest in African languages and multilingual education. An evidence- and practice-based policy advocacy brief.

### Priority area 7: Quality management

The goal of this priority area is to support improved access, relevance, equity, and efficiency of Education in Africa through the development and sustenance of sound quality management systems at national, regional and continental levels.

#### Formal and non-formal education initiatives on quality assurance mechanisms

The African Union initiated a plan to establish a continental quality assurance and accreditation agency that will measure, compare and harmonize the performance of higher education institutions and facilitate professional mobility across the continent. The development of the African Higher Education Quality Rating Mechanism has been in the pipeline since 2007. However, seven years later, it is still in the planning stages. So far, Tunisia is the only AMU country to have established a higher education accreditation body. The African Union is encouraging the establishment of regional accreditation bodies to enhance the mobility of students and make it easier to transfer academic credit across national borders. There are currently few such regional agencies and they have limited capacity. They include the Association of Arab Universities and the Arab Network for Quality Assurance in Higher Education. Assurance in Higher Education.

The Association of Arab Universities is an organization working within the framework of the Arab League. The objective of the organization is to support and connect universities in the Arab world, and to enhance cooperation among them. All AMU countries have universities which are members of this organization. The Center for Quality Assurance and Accreditation for Higher Education Institutions in Libya is a member organization of the Arab Network for Quality Assurance in Higher Education. The Arab Network for Quality Assurance in Higher Education.

#### Effective resource management for quality and financing educational development

Very little information is available regarding resource management and financing of education in AMU. A paper written by Manar Sabry in 2009 reports that Arab countries spend a comparatively high percentage of the gross domestic product (GDP) on education. Over the years, countries in the region have allocated an average of 5 per cent of GDP and 20 per cent of government expenditures to education. <sup>41</sup>

#### Conclusion

The biggest challenge facing the implementation of proper quality assurance mechanisms is the time it takes for such bodies to be created and to start functioning. The AMU countries have done well by becoming members of accreditation bodies and it is hoped that this will lead to harmonization in the performance of education and training institutions.

 $<sup>\</sup>frac{37}{\text{http://www.universityworldnews.com/article.php?story=20130614161617828}} Accessed 14 \, March \, 2014.$ 

http://www.universityworldnews.com/article.php?story=20130614161617828 Accessed 14 March 2014.

http://en.wikipedia.org/wiki/Association of Arab Universities Accessed 14 March 2014.

<sup>40</sup> http://en.wikipedia.org/wiki/Arab Network for Quality Assurance in Higher Education Accessed 14 March 2014.

<sup>&</sup>lt;sup>41</sup> Sabry, M (2009) Funding Policy and Higher Education in Arab Countries. Sourced at <a href="http://www.ties-project.eu/sites/uni4inno.eu/files/Funding%20Arab%20HE.pdf">http://www.ties-project.eu/sites/uni4inno.eu/files/Funding%20Arab%20HE.pdf</a> 14 March 2014

### Priority area 8: Early childhood development

Early childhood is the most rapid period of development in a human's life and is therefore the critical stage for intervention in order to improve a young child's capacity for growth and learning. Although individual children develop at their own pace, all children progress through an identifiable sequence of physical, cognitive, and emotional growth and change. <sup>42</sup> Investing in the survival, physical health, mental alertness, emotional security, social competence and learning of 0-8 year-old children is now widely recognized as critical to achieving the UN Millennium Development Goals (MDGs) and universal school enrolment.

Early child development (ECD) remains one of the most powerful levers for accelerating Education for All (EFA) and meeting the MDGs for reducing poverty. It is essential for all education and the elimination of poverty. 43

#### National level ECD programmes and activities

In the Arab States, the private sector is the main provider of pre-primary education. <sup>44</sup> Algeria stands out as the country with the highest share of government provision in the region, at 86 per cent. In addition, it achieved the largest expansion in pre-primary education, from just 2 per cent in 1999 to 75 per cent in 2011. This was the result of a reform that introduced a pre-primary curriculum in 2004 and aimed to increase the gross enrolment ratio to 80 per cent by 2010. At the same time Algeria undertook this rapid expansion of the public system, it encouraged private provision in urban areas. An inspection system monitors implementation of the curriculum in both types of institutions. <sup>45</sup>

UNICEF is supporting the Libyan Government to enhance the availability and quality of ECD services to children across the country. The Libyan Department of Early Childhood Development within the Ministry of Education has held numerous discussions on the importance of ECD in the development of young children. 46

#### For development, education and health are inseparable

Education and health have a symbiotic relationship. Improved child health services invariably impact positively on early childhood education. Good nutrition and good health are very closely linked throughout the lifespan, but the connection is even more striking during infancy. <sup>47</sup> Underweight, stunting and wasting are all factors which can negatively impact on a child's education.

<sup>42</sup> http://go.worldbank.org/IMO39CF8X1.

 $<sup>^{43}</sup> http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTEDUCATION/0,, contentMDK: 20264764~menuPK: 617557~page PK: 148956~piPK: 216618~the Site PK: 282386, 00.html$ 

<sup>&</sup>lt;sup>44</sup> Education For All Global Monitoring Report 2013/4 Teaching and Learning: Achieving Quality For All UNESCO (2014).

<sup>45</sup> Ibid

<sup>&</sup>lt;sup>46</sup> http://www.libyaherald.com/2012/07/21/unicef-supports-enhanced-early-childhood-development-in-libya/#axzz2wJ8lfshN Accessed 18 March 2014.

<sup>&</sup>lt;sup>47</sup> AU Outlook on Education Continental Report, 2012.

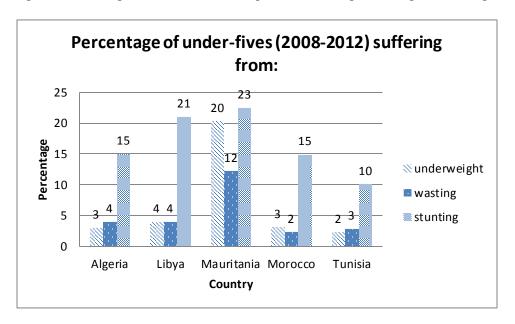


Figure 5: Percentage of under-fives suffering from underweight, wasting and stunting

Source: AU Outlook Database (2014)

In comparison to the continent, the AMU region had lower percentages of underweight, wasting and stunting in children under five years old. Mauritania reported the highest percentage of children suffering from underweight, wasting and stunting and Tunisia reported the lowest. Stunting appears to be the factor which is most prevalent amongst these young children.

Libya, Mauritania and Tunisia registered a negative annual growth rate for the total population. This indicates a future decrease in education enrolment. Infant mortality has decreased across the AMU region – a good sign that this issue is being addressed. Mauritania reported the highest number of infant deaths, as was the case in the previous report, indicating that this country still has considerable work to do in this area. All the AMU countries reported a decrease in the number of deaths of children who are under five years of age, a positive sign that the region is addressing the issue of under-five mortality.

The total fertility rate has decreased in Libya, Mauritania and Tunisia but increased in Algeria and Morocco. Libya had the largest drop in fertility and Morocco the biggest rise. A decrease in fertility rate indicates that the expected number of children who are supposed to attend early childhood development classes will also decrease.

Only Morocco reported on the percentage of female enrolment in pre-primary, and is less than 43 per cent. Most teachers at pre-primary level in Morocco are female, with the number increasing from 2006 by almost 12 per cent. The pupil to teacher ratio in Morocco in 2012 was 18 pupils to a teacher. Both Morocco and Tunisia reported a slightly higher Grade 1 repetition rate for boys than girls. This repetition rate has decreased in Morocco but increased in Tunisia.

### Improving the focus on ECD

The region has realized the need to put a strong focus on ECD. Good ECD education will lead to better education at subsequent levels. The fact that national governments are taking action and engaging other organizations is positive.

### Conclusion

The lack in data makes it difficult to draw meaningful conclusions. There are positives and negatives in this priority area, such as the decreases and increases in repetition and the fluctuating fertility rates. The countries should endeavour to report on enrolment figures as these are very important.



Source: http://www.brookings.edu/blogs/education-plus-development/posts/2014/04/02-early-childhood-development-social-impact-bonds-gustafsson-wright-atinc

### **Cross-cutting agendas**

#### **HIV and AIDS**

Compared to sub-Saharan Africa, North Africa has far fewer cases of HIV infections. Despite the weak prevalence of the pandemic in the Arab world, statistics indicate that the number of people living with HIV/AIDS went up by 47 per cent between 2001 and 2011.<sup>48</sup> Strong taboos attached to HIV/AIDS in the Middle East and North Africa makes it very difficult to measure the scope of the problem in these areas. Extreme stigma not only marginalizes those who are HIV-positive but also inhibits people from going for testing in the first place.<sup>49</sup>

#### Open and distance learning

The AMU region has come to realize the importance of open and distance learning (ODL). The Arab Network for Open and Distance Education is a non-profit, non-governmental educational Arab organization. Its main objective is to support the development and growth of open education and distance learning, through paving the way for cooperation and coordination among institutions, networks and organizations in the field of open and distance education in the Arab world. <sup>50</sup>

In January 2011, in an attempt to strengthen higher education science and technology programmes in the AMU countries, Algeria's higher education and scientific research ministry, in cooperation with a US research and development foundation, launched the Maghreb Virtual Science Library in Algiers. <sup>51</sup> Morocco has also made a move towards ODL and, despite some initial difficulties, distance learning (involving some e-learning) is gaining momentum. Short-term forecasts show that 15 per cent of private companies' training budgets will soon be dedicated to distance learning programmes. <sup>52</sup>

#### Quality assurance and qualifications frameworks

There are few quality assurance initiatives and quality enhancement frameworks and activities in the Arab states. In 2008, Algeria, Libya and Morocco were in the process of establishing a body to cater for evaluation and accreditation at the national level. Many of the ideas and projects concerning quality assurance in higher education in the Arab States have, however, not come to realization because of the lack of qualified human resources to implement them. <sup>53</sup>

<sup>48</sup> http://www.afriquejet.com/news/3833-unaids-to-fight-alarming-spread-of-hiv-aids-in-arab-world.html Accessed 26 March 2014.

<sup>&</sup>lt;sup>49</sup>/http://www.merip.org/mer/mer233/hivaids-middle-east-north-africa Accessed 24 March 2014.

http://v030u17umh.maximumasp.com/anoded.org/default.aspx Accessed 24 March 2014.

http://www.universityworldnews.com/article.php?story=20110211212028647 Accessed 24 March 2014.

http://www.virtualcampuses.eu/index.php/Morocco#ICT in education initiatives Accessed 24 March 2014.

<sup>&</sup>lt;sup>53</sup> African Union (2008) *Harmonization of Higher Education Programmes in Africa: Opportunities and Challenges.*Accessed at

 $<sup>\</sup>frac{\text{http://heglobal.international.gbtesting.net/media/4078/harmonization\%20of\%20higher\%20education\%20programmes\%20in\%20africa.pdf on 26 March 2014.}$ 

#### **Conclusions**

#### Reporting on progress

The AMU region has generally achieved good results in meeting the African Union's goals in terms of the continental body's Plan of Action. The region is making good progress in the areas of gender and culture and teacher development and is likely to meet the AU's goals for these two priority areas by 2015. Great strides can be seen in attaining the African Union's goals for higher and tertiary education as well as TVET. Of biggest concern is the lack of data provided by the region. EMIS systems are inadequate and it is unlikely that the region will meet the goals of the EMIS priority area by 2015.

#### Challenges to implementation

A number of challenges face the implementation of the Second Decade's plan of action. At a very critical level is the creation of a coordinated network of regional players, both secretariats and commissions as well as development partners, who will ensure that there is uptake of the full spectrum of activities of the plan of action. An effective communication strategy that keeps information flows on progress at various levels will improve regional and continental synergy and accountability. A further critical area of development is promoting the integration of the priority goals into regional and national education strategic plans. Finally, resource mobilization is essential to develop the momentum and commitment to the plan of action. Resources will need to come from both internal regional and national sources as well as external partners.

The provision of quality data, with all its dimensions, remains a challenge for the region. In order for AMU countries to be able to plan for educational needs, and determine whether progress in meeting the African Union's Plan of Action and Education for All goals is being made, such data must be made available.

#### Coordination

A major stumbling block in the coordination of activities associated with the Plan of Action is the minimal support from the individual countries which, in many cases, do not have enough manpower to run the education department. It is imperative for countries to nominate focal persons at national level who will help the secretariat at regional level to implement the plan.

#### Communication

The AMU countries need to make a conscious decision to resuscitate communication, firstly amongst themselves and then between the region as a whole and then the African Union. Responsibility for effective communication and a deepening sense of ownership across the continent resides not only at AUC and REC levels, but also at the member state level. Member states need to accept responsibility for ensuring effective communication around the plan of action, and make a greater effort to ensure its uptake.

#### **Resource mobilization**

Due to the global economic crisis, it has not been easy for AU, AMU and its countries to fully fund for the execution of the Plan of Action. More resources need to be pooled for the education sector and it may be necessary for the region to re-evaluate their roles and success rate in implementing the

Second Decade, as a method of charting the way forward for post 2015 in terms of funding for educational development.

### **Information and Communication Technology**

The AMU region recognizes the importance of information and communication technology (ICT) in the globalizing economy. The region is holding an e-Governance conference in Dubai later in 2014, which will focus on the latest technologies in the e-Government systems, as well as the short and long term goals that facilitate ICT transmission to meet the growing challenges in governance. <sup>54</sup>



 $Source: http://gulfbusiness.com/2014/02/nearly-8-5m-arab-children-remain-excluded-education/\#. UOJvB\_mSxrw$ 

<sup>&</sup>lt;sup>54</sup> http://www.datamatixgroup.com/conference/EventProfile.aspx?id=191 Accessed 26 March 2014.

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	A. GENDER AND CULTURE
A.1	Gross enrolment ratio.
A.2	Gender parity index.
A.3	Percentage of primary aged children out of school.
A.4	Percentage of female teachers.
A.5	Existence of African language policy.
A.6	Percentage of pupils being taught using an African language as a medium of instruction.
A.7	Percentage of learners learning an African language as a subject.
	B. EMIS
B.1	School Census Return Rate
B.2	Existence of Functional EMIS Systems by Sub Sectors
B.3	Reporting Rate of International Data Coverage
	C. TEACHER DEVELOPMENT
C.1	Pupil Teacher Ratio
C.2	Percentage of Teachers Qualified to Teach According to National Standards
C.3	Number of Foreign Teachers Teaching in the Country (Inbound Mobility)
C.4	Percentage of Female Head Teachers
C.5	Percentage of Teachers by Age Range
C.6	Teacher Mobility
	D. HIGHER AND TERTIARY EDUCATION
D.1	Enrolment of Students in Higher and Tertiary Education per 100,000 Inhabitants
D.2	Percentage of Female Students in Scientific Fields of Study at Tertiary Level of Education
D.3	Percentage of Female Students in Engineering, Manufacturing and Construction fields of Study at Tertiary Level of Education
D.4	Inbound Mobility Ratio
D.5	Outbound Mobility Ratio
D.6	Net Entry Rate into Higher and Tertiary Education
D.7	Percentage of Secondary Education Graduates who Qualify for Tertiary Education
D.8	Amount of Research Expenditure in Higher and Tertiary Education for Science Fields
D.9	Amount of Research Expenditure in Higher and Tertiary Education in Engineering, Manufacturing and Construction Fields
D.10	Percentage Distribution of Tertiary Graduates in Science
D.11	Percentage Distribution of Tertiary Graduates in Agriculture , Engineering, Manufacturing and Construction
D.12	Distribution of Tertiary Education Enrolment by Key Fields of Study



### E. TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING

- E.1 Percentage of Total Enrolment in Technical and Vocational Education and Training
- E.2 Existence of Life Skills Programmes
- E.3 Percentage of TVET Graduates
- E.4. Adult Literacy Rate
- E.5. Youth Literacy Rate

#### F. CURRICULUM AND TEACHING AND LEARNING MATERIALS

- F.1 Primary Pupil-Textbook Ratio in Mathematics
- F.2 Primary Pupil-Textbook Ratio in Reading

#### **G.QUALITY MANAGEMENT**

- G.1 Primary Survival Rate
- G.2 Primary Gross Graduation Ratio (replaced with Gross Intake Ratio to the Last Grade of Primary Education)
- G.3 Tertiary Gross Completion Rate, First Degree (replaced by Gross graduation ratio, ISCED 5A, first degree)
- G.4 Net Enrolment Ratio
- G.7 Public Expenditure on Education as a Percentage of Total Government Expenditure
- G.8 Public Current Expenditure on Education as a percentage of Total Education Expenditure
- G.9 Public Expenditure on Education per Learner

#### H. EARLY CHILDHOOD DEVELOPMENT

- H.1 Annual Population Growth Rate of 0-4 Years
- H.13 Fertility Rate
- H.4 Infant Mortality Rate
- H.11 Under 5 Mortality Rate
- H.9 Percentage of Under Five suffering from Stunting
- H.3 Gross Enrolment Ratio in Pre Primary Education by Gender
- H.5 Net Enrolment Ratio in Pre Primary
- H.12 Grade One Repetition Rate
- H.2 Gender Parity Index for Gross Enrolment Ratio
- H.6 Percentage of Female Pupils in Pre-Primary Education
- H.7 Percentage of Female Teachers in Pre -Primary Education
- H.8 Percentage of Teachers Qualified to teach in Pre -Primary Education
- H.10 Pupil Teacher Ratio in Pre Primary Education

# **Appendix 2: Continental Perspective for Primary Education**

			Ed	ucatio	ın Syst	lent		Prim	ary Gross	Enrolment F	Ratio	4		6		
Country	Academic Year	Primary aged population	Entrance Age of Pre-Primary	Duration in the Frimary	Entrance Age of Primary	Duration of Primary	Enrolment in Primary Education	Total	FEMALE	MALE	GPI	Gross intake Ratio to the last grade of primary	Percentage of trained teachers	Number of primary out school children	Rate of out of school	Pupil teacher ratios - Primary
Algeria	2006	3,937,480	5	1	6	6	4,196,580	106.6	102.4	110.6	0.93	83.3	99.3	226,401	5.7	24.5
	2012	2,939,830	5	1	6	5	3,451,588	117.4	114.0	120.7	0.94	100.2	air.	25,337	0.9	23.2
Angola	2006	2,069,878	3	3	6	4	-844	111	349	-844	441	Sau-	.111	***	92	-344
	2012	1 272 290	4	2	6	···	1 255 010	98.8	87.8	109.8	0.80	44	300	210.515	10.0	43.6
Benin	2006	1,373,389	4	2	6	6	1,356,818 1,987,182	122.8	115.9	129.5	0.89	70.5	344	210,515 83,149		44.1
	2006	313,535	3	3	6	7	330,417	105.4	104.2	106.5	0.98	96.5	94.3	50,265	De contra	25.4
Botswana	2012	310,475	3	3	6	7	330,417	103.4	104.2	200000	0.38	30.3	34.3	30,203	2000	2000
	2006	2,240,499	4	3	7	6	1,390,571	62.1	55.8	68.2	0.82	32.8	86.9	1,128,686	1775.4	45.8
Burkina Faso	2012	2,758,821	3	3	6	6	2,344,031	85.0	82.6	87.3	0.95	57.6	94.8	917,044	5.7 2 2 3 4 4 5 5 6 3 3 3 3 9 19.8 5 5 6 3 3 3 3 17.7 3 3 2.4 4 24.5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	48.2
	2006	1,301,720	4	3	7	6	1,324,937	101.8	96.1	107.5	0.89	0.0	100	342,265	202	54.2
Burundi	2012	1,441,506	5	2	7	6	1,980,846	137.4	136.9	138.0	0.99	62.2	95.0	.00	000	47.1
	2006	3,020,646	4	2	6	6	2,998,135	99.3	90.4	108.0	0.84	49.5	61.8	166		44.7
Cameroon	2012	3,479,284	4	2	6	6	3,848,611	110.6	103.2	117.9	0.88	72.8	78.8	294,813		45.6
	2006	71,727	3	3	6	6	81,434	113.5	110.6	116.5	0.95	98.3	81.5	3,581	and the last of	25.4
Cape Verde	2012	60,654	3	3	6	6	67,903	112.0	107.0	116.9	0.91	99.0	94.6	1,623	100	23.0
Central African	2006	632,235	3	3	6	6	418,825	66.2	54.0	78.6	0.69	27.1	(84)	316,475	50.1	0.0
Republic	2012	695,697	3	3	6	6	662,317	95.2	81.3	109.3	0.74	45.3	57.9	193,652	27.8	80.1
	2006	1,813,990	3	3	6	6	1,296,486	71.5	57.9	84.9	0.68	29.8	200	101		62.7
Chad	2012	2,191,871	3	3	6	6	2,090,758	95.4	82.4	108.2	0.76	35.3	HY	(éx+	441	61.3
	2006	91,975	3	3	6	6	31/	***	***	- ***	-00		344	307	-10-	-107
Comoros	2012	113,330	3	3	6	6	133,023	117.4	111.7	122.9	0.91	0.0		-1041	100	386
	2006	559,271	3	3	6	6	617,010	110.3	104.8	115.8	0.91	77.8	89.0	245,608	43.9	54.8
Congo	2012	671,286	3	3	6	6	734,493	109.4	113.4	105.5	1.07	73.0	80.3	56,264	8.4	44.4
	2006	2,838,243	3	3	6	6	2,111,975	74.4	66.0	82.8	0.80	47.8	***	407	***	46.1
Côte d'Ivoire	2012	3,100,028	3	3	6	6	2,920,791	94.2	86.6	101.8	0.85	61.2	99.4	- in-	444	41.7
Democratic Republic	2006	9,247,834	3	3.	6	6	***	100	.444	-266	100	244	***	144	499	1885
of the Congo	2012	10,825,001	3	3	6	6	12,004,804	110.9	103.6	118.2	0.88	72.8	93.5	166	201	34.7
WHE COLD	2006	113,401	4	2	6	6	53,745	47.4	42.6	52.0	0.82	36.8	79.1	66,770	58.9	33.6
Djibouti	2012	91,477	4	2	6	5	63,612	69.5	65.9	73.1	0.90	64.9	0.0	35,104	38.4	34.9
	2006	9,138,691	4	2	6	6	9,794,591	107.2	103.9	110.3	0.94	96.3	***	198,740	2.2	26.0
Egypt	2012	9,539,388	4	2	6	6	10,819,639	in	Serv	166	0.96	100	09	100	160	760
Equatorial Guinea	2006	76,430	3	4	7	5	au.	343	- 144	- MAR	in	2,2	i iii	, ac	pika.	4.0
Equatorial Guillea	2012	101,432	4	3	7	6	92,029	90.7	89.6	91.8	0.98	54.8	1990	38,352	37.8	26.2
Eritrea	2006	635,224	5	2	7	5	364,263	57.3	51.8	62.7	0.83	44,2	87.5	357,434	56.3	47.2
Limea	2012	787,256	5	2	7	5	334,245	42.5	38.8	46.0	0.84	31.2	89.6	517,937	65.8	40.9
Ethiopia	2006	0	4	3	7	6	10,971,581	83.6	77.8	89.3	344	47.2	944	-4,451,317	33.9	an-
Eamopid	2012	0	4	3	7	6	14,532,477	95.4	91.8	98.9	314	50.7	56.8	3,010,737	19.8	53.7
Gabon	2006	175,712	3	3	6	5	***	999	***	1441	96	100	5,000	(449)	119	(40)
2000	2012	197,311	3	3	6	5	144	***	1000	944	40	444	144	0.64	1494	200
Gambia	2006	233,642	3	4	7	6	207,474	8,88	90.8	86,8	1.05	69.6	0,0	52,811	22.6	38,5
	2012	286,388	3	4	7	6	244,033	85.2	87.0	83.4	1.04	70.3	63.5	75,180	26.3	33.9
Ghana	2006	3,283,353	4	2	6	6	3,130,575	95.3	94.5	96.2	0.98	71.2	56.3	1,082,925	33.0	35.4
	2012	3,695,531	4	2	6	6	4,062,026	109.9	106.3	113.4	0.94	98.2	52.3	652,518	Walkers !	33.0
Guinea	2006	1,532,624	4	3	7	6	1,258,038	82.1	74.2	89.8	0.83	59.3	67.7	496,789		44.5
	2012	1,761,313	4	3	7	6	1,599,839	90.8	82.7	98.8	0.84	61.5	74.5	431,051	24.5	43.6
Guinea-Bissau	2006	224,558	4	3	7	6	269,287	119.9	40	10	000	100	211	.116	19.	62.2
	2012	256,569	3	3	6	6	400	***	-/444	***	1440	1444	1544	. 164	1,400	- 111
Kenya	2006	5,825,560	3	3	6	6	6,101,390	104.7	103.3	106.2	0.97	40	99,4	1,433,002	24.6	44,3
	2012	7,042,148	3	3	6	6	40	99.	250.0	999	102.00	144 2013			West of	
	2006	361,859	3	3	6	7	424,855	117.4	117.7	117.2	1.00	80.4	66.7	91,857	10000	40.8
Lesotho		200	12	16	-	100	200 000	8.00								
Lesotho	2012	343,863 527,901	3	3	6	7	381,690 488,438	92.5	109.6	112.4 96.1	0.97	72.5	67.5 39.6	61,289 342,559	17.8 64.9	34.1





													4	100	540	7484
			64	ucatio	n Syst	tem	- 5	Prim	ary Gross	Enrolment	Ratio	9		ot		
Country	Academic Year	Primary aged population	Entrance Age of Pre-Primary	Buration in Pre-Primary	Entrance Age of Primary	Duration of Primary	Enrolment in Primary Education	Total	FEMALE	MALE	GPI	Gross Intake Ratio to the last grade of primary	Percentage of trained teachers	Number of primary out of school children	Rate of out of school	Pupil teacher ratios - Primary
Libya	2006	660,243	4.	2	6	6	755,338	114.4	112.0	116.6	0.96	344	1440	3.0	110	244
Libya	2012	702,460	4	2	6	6	344	(0)	919	114	100	100	44.	61	1614	744
Madagascar	2006	2,678,199	3	3	6	5	3,698,906	138.1	135.4	140.8	0.96	56.7	***		ice	48.1
	2012	3,032,470	3	3	6	5	4,402,722	145.2	144.2	146.1	0.99	69.5	.000	in in	7.500	43.1
Malawi	2006	2,314,870	3	3	6	6	2,933,557	126.7	129.0	124.5	1.04	57.6	89.9	66,605	2.9	75.9
	2012	2,609,940	3	3	6	6	3,687,625	141.3	143.9	138.7	1.04	74.2	78.2	.++	40	74,1
Mali	2006	1,938,721	3	4	7	6	1,609,979	83.0	74.6	91.2	0.82	51.4	400	722,904	37.3	52.8
	2012	2,389,100	3	4	7	6	2,113,857	88.5	82.9	93.8	0.88	58.7	100	637,251	26.7	2004
Mauritania	2006	496,672	3	3	6	6	465,970	93.8	94.9	92.7	1.02	43.6	100.0	130,814	26.3	41.4
	2012	572,608	3	3	6	6	553,584	96.7	99.2	94.2	1.05	68.7	100.0	169,318	29.6	40.1
Mauritius	2006	113,860	3.	2	5	6	121,387	106.6	106.2	107.0	0.99	98.1	100.0	4,245	3.7	21.7
	2012	105,052	3	2	5	6	113,634	108.2	107.4	108.9	0.99	99.3	100.0	2,167	2.1	20.9
Morocco	2006	3,772,284	4	2	6	6	3,943,831	104.5	99.3	109.6	0.91	81.6	10)	481,342	12.8	27.0
	2012	3,461,270	4	2	6	6	4,016,934	116.1	113.1	118.8	0.95	99.3	100.0	87,247	2.5	25.8
Mozambique	2006	4,040,601	3	3	6	7	4,165,580	103.1	95.3	110.9	0.86	41.0	64.6	816,872	20.2	67.3
	2012	5,099,793	3	3	6	7	5,359,019	105.1	99.9	110.3	0.91	52.2	83.6	691,512	13.6	54.8
Namibia	2006	372,166	5	2	7	7	402,529	108.2	107.9	108.4	1.00	82.4	92.9	48,921	13.1	31.4
	2012	379,540	5	2	7	7	415,454	109.5	107.7	111.2	0.97	85.4	97.6	43,474	11.5	40.7
Niger	2006	2,224,224	4	3	7	6	1,126,073	50.6	42,6	58.3	0.73	33.3	91.9	1,243,999	55.9	40.0
	2012	2,882,819	4	3	7	6	2,050,656	71.1	64.9	77.1	0.84	49.3	97.1	1,048,707	36.4	38.8
Nigeria	2006	22,486,958	3	3	6	6	22,861,884	101.7	94.2	108.8	0.87	90.6	51.2	7,408,899	32.9	40.4
	2012	27,049,663	3	3	6	6	144	100	200.0	100.0	200	(Next)	22.0		100	700
Rwanda	2006	1,707,496	4	3	7	6	2,019,991	118.3	120.0	116.6	1.03	(411	98.3	***		65.9
	2012	1,790,808	4	3	7	6	2,394,674	133.7	135.1	132.3	1.02	57.7	95.6	23,118	1.3	59.3
Sao Tome and Principe	2006	24,057	3	3	6	6	22.000		4467	1001	0.07	244	40.4-	140	440	
( Interpre	2012	28,660	3	3	6	6	33,893	118.3	116.3	120.1	0.97	20.0	944	201001	100	28.7
Senegal	2006	1,827,353	4	3	7	6	1,473,464	80.6	80.0	81.3	0.98	49.4	49.7	494,564	27.1	38.5
	2012	2,128,198	4	3	7	6	1,783,178	83.8	87.0	80.6	1.08	60.5	64.7	438,556	20.6	31.7
Seychelles	2006	8,181	4	2	6	6	744	***	***	Sa.	(344)	-six	101	10.	***	***
	2012	8,081	4	2	6	6		***	784	1945	***	100	986	***	-511	144
Sierra Leone	2006	813,006	3	3	6	6	1 252 242	121 5	120.0	122.2	0.00	72.4		Site.	0.00	22.0
	2012	952,392	3	3	6	6	1,252,343	131.5	130.8	132.2	0.99	72.4	54.6	300	200	33.0
Somalia	2006	1,510,964	3	3	6	6	440	644	944	10.	246	dia	1833	ash.	49.6	10
	2012	1,747,150	3	3	6	6	7.255.510	107.2	1047	110.4	0.04	-der	.994	210 071	47	24.0
South Africa	2006	6,763,402 6,895,128	6	1	7	7	7,256,518	107.3	98.9	110.4	0.94	10	900	318,071	9.5	31.0
	2006	0,033,120	6	0	0	0	7,004,482	101.6					947	656,487		
South Sudan	2012	1,757,131	3	3	6	6	(14)		1640	(244)	244	(#10	219	***	1846	/161
	2006	5,172,276	4		6	6	3,472,215	67.1	62.2	71.9	0.87	444	311	***		307
Sudan	2012	0	4	2	6	6		1				400	100	W1	in.	-0.0
	2006	212,341	3	3	6	7	229,686	108.2	104.5	111.8	0.93	66.3	92.2	37,745	17.8	33.3
Swaziland	2012	209,352	3	3	6	7	100000000000000000000000000000000000000	T-SERVED	100000		THE REAL PROPERTY.	8830	20,00	Testine.	300000	200
	2006	894,737	3	3	6	6	1,051,872	117.6	108.7	126.4	0.86	73.4	444-	59,924	6.7	37.6
Togo	2012	1,030,139	3	3	6	6	1,368,074	132.8	127.4	138.2	0.92	13/3	83.4			41.7
	2006	1,033,760	3	3	6	6	1,134,414	109.7	107.5	111.8	0.96	100	05.4	14,516	1.4	19.1
Tunisia	2012	954,077	3	3	6	6	1,046,671	109.7	108.4	110.9	0.98		100.0	510	0.1	17.1
	2006	6,227,589	3	3	6	7	7,363,721	118.2	118.4	118.1	1.00	200	100.0	310	0.1	49.0
Uganda	2012	7,628,402	3	3	6	7	7,303,721	110.2	220.4	110.1	1.00					
	2006	7,356,212	5	2	7	7	7,959,884	108.2	106.8	109.6	0.97	72.4	100.0	282,148	3.8	52.4
United Republic of Tanzania	2012	8,867,154	5	2	7	7	8,247,172	93.0	94.5	91.5	1.03	80.8	96.6	Patron Control	1986	45.6
	2006	2,270,189	3	4	7	7	2,678,610	118.0	116.1	119.9	0.97	88.3	50.0	127,261	5.6	57.0
Zambia	2012	2,760,142	3	4	7	7	3,135,442	113.6	113.3	113.9	0.99	91.3	***	124,814	4.5	49.2
	2006	2,393,433	3	3	6	7	710		ai.	14931		1444	101	344	100	
Zimbabwe	2012	2,441,159	3	3	6	7			let:	194.9	749	***	***	***		
	The Part of the Local Division in the Local	The second second				1		1000	1000		101					1777

# **Appendix 3: Continental Perspective for Secondary Education**

	- Bar	pulation	Er	ducatio	n System	G	iross Enra	lment Ratio		of	dary	ratio		ntage of ogramme				
Country	Academic Year	Secondary Aged Population	Entrance Age	Duration	Enrolment	Total	Male	Female	GPI	Percentage of Trained Teachers	TVET enrolment in total secondary	Pupil /teacher	Lower secondary	Upper secondary	Total secondary.	Lower secondary	Seco	Total Secondary
Algeria	2006 2012	4,690,234 4,517,137	12	6	3,664,852	78.1	74.9	81.5	1.09	300	349,151	300	8.4	11.8	9.5			***
Angola	2006	2,922,251	10	7	ine.	100	in-	10	in	5112 5112	114	100	ALC:	79.0	***	m.	-	***
	2012	1,302,133	12	7	(44)	490	***	100	***	200	je;		444		200	517		****
Benin	2012	1,560,531	12	7	100	***	***	rie:	144	sin'	***	- 100	(10)	161	40	949	***	(11
Botswana	2006	222,871	13	5	174,843	78.5	76.3	80.6	1.06	98.8	10,642	14.0	***	19.1	6.1			100
Bushing Page	2006	2,125,885	13	7	319,749	15.0	17.4	12.6	0.72	1944	23,002	29.6	2,7	25.8	7.2	117		
Burkina Faso	2012	2,609,032	12	7	676,337	25.9	28.6	23.2	0.81	47.5	27,381	26.3	1.3	17.4	4.0	m	10	41
Burundi	2006	1,375,470	13	7	192,296 420,117	14.0	16.3 33.0	11.7	0.72	74.9	11,912	28.4	0.5	19.0	6.2	81.3		84.
	2006	3,016,223	12	7	698,444	23.2	25.8	20.4	0.79	.eft	118,042	16.2	16.9	16.9	16.9			-
Cameroon	2012	3,401,200	12	7	1,713,452	50.4	54.3	46.4	0.86	349"	359,513	21.4	19.9	23.5	21.0	1886	***	.23
Cape Verde	2006	72,839	12	6	61,465	84.4	78.0	90.9	1.17	1816	2,085	26.0	- 300	8.9	3,4	991		
W. College	2012	66,807 636,240	12	6	61,956	92.7	84.7	100.9	1.19	83.9	1,664	16.8	400	6.7	2.7	244		100
Central African Republic	2012	707,665	12	7	125,907	17.8	23.6	12.1	0.51	anir	3,850	68.1	1.4	9.2	3.1	***		
er i	2006	1,628,903	12	7	262,714	16.1	23.7	8.5	0.36	an.	3,751	33.0	0.3	4.6	1.4	***	100.0         	160
Chad	2012	2,009,441	12	7	458,034	22.8	31.2	14.3	0.46	16.7	6,855	29.8	0,3	4.4	1.5	1.6	34.4	28
Comoros	2006	89,773	12	7	344	***	1999.0	***	inc.	300	***	200	***	***	90	.00	100.0 100.0 100.0 100.0 100.0	
	2012	102,275	12	7	75,158	73.5	75.0	71.9	0.96	iere:	387	10	411	1.4	0.5	200	100.0 100.0	
Congo	2006	536,794 632,184	12	7	339,250	53.7	57.5	49.8	0.87	55.5	34,336	18.7	5.3	22.4	10.1	100.0		100
	2006	2,706,729	12	7	333,230	(14	-01		(994)		37,330			***	7012		/FI teacher /FI te	
Côte d'Ivoire	2012	3,110,928	12	7	-111	100	- 04	140	144	-702	-	100	vii.	15.1	-in	***		
Democratic	2006	7,539,731	12	6	(16)	Sec	144	in.	le.	ingle.	-10	a) a	- 444	90	444	54	44	
Republic of the Congo	2012	8,984,870	12	6	3,894,024	43.3	54.5	32.2	0.59	3000	732,683	15.3	4.0	30.7	18.8	and	/FI teacher  /FI t	- 22
Djibouti	2006	137,431	12	7	30,265	22.0	26.2	17.7	0.68	77	1,731	31.3	0.5	18.0	5.7	1000		
Shouth	2012	125,680	11	7	55,082	43.8	49.4	38.1	0.77	(80)	2,289	26.6	- 400	11.7	4.2	****	***	.,
Egypt	2006	9,374,949	12	6	111	400	704	en:	164	***	100	***	- 414	140	700		-04	
V-11	2012	9,095,829	12	7	7,849,734	400	10.0	iii.	0.98	Sec.	1,560,440	- 100	- 414	141	***			**
Equatorial Guinea	2012	90,032	13	6		446		100	(444)	,910, 410_	jn.	***	40.	***	-40	211		**
	2006	839,566	12	7	227,786	27.1	33.6	20.6	0.61	47.1	2,060	54.4	***	2,6	0.9	444	0000	44
Eritrea	2012	891,378	12	7	265,600	29.8	33.0	26.4	0.80	444	2,520	37.9	ani	2.6	0.9	in	***	
Ethiopia	2006	0	13	6	2,992,589	29.0	35.5	22.5	0.00		123,557		ni.	50.0	4.1	140		att
стори	2012	0	13	6	4,849,280	37.2	38.9	35.4	0.00	78.6	314,159	39.7	-m	49.2	6.5	***	79.4	79
Gabon	2006	220,040	11	7	(44)	1940	1881	100.	-3041)	3440	in	1979	1910	10)	-400	(44)	100.0 10	- 22
	2012	243,168 190,328	11	7	200	144	444	444	444	444	***	411	411	444	in	1998		
Gambia	2012	231,956	13	6	1140	100	144	197	111	-99.	, , , , , , , , , , , , , , , , , , ,	100	***	444	-101	144		
	2006	2,964,055	12	6	1,454,097	49.1	53.1	44.9	0.84	300	31,466	19.7		8.5	2.2	in		- 11
Ghana	2012	3,807,549	12	7	2,215,529	58.2	61.3	54.9	0.90	51.0	79,986	17.8	ani	9.4	3.6	100	51.0	51
Guinea	2006	1,471,036	13	7	482,825	32.8	43.0	22.5	0.52	944	4,461	35.8	217	3.5	0.9	Mt.	100.0	
	2012	1,723,842	13	7	657,383	38.8	47.4	30.0	3000	1999	21,691	31.1	***	15.5	5.0	99		-33
Guinea-Bissau	2006	160,129	13	5	55,176	34.5	1000	110	300	144	977	37.3	***	iden.	1.8	Taxa"		4.
	2012	186,036	12	5	7 592 755	50.0	51.7	18.3	U 03	90 7	27.952	75.9	444	7.7	0.0	10		57
Kenya	2006	5,165,682 5,721,229	12	6	2,583,755	50.0	51.7	48.3	0.93	98.7	22,952	25.8		2.2	0.9	***		52
a disease	2006	241,154	13	5	96,073	39.8	34.6	45.2	1.31	84.6	1,528	25.8	1.0	3.4	1.6	***		53
		****	-	-	424 542	51.7	43.4	60.3	1.40		£ £003	24.0				New York		
Lesotho	2012	252,456	13	5	134,543	21.7	43.4	60.2	1.40	342	6,691	24.9		991	-917	31	141	73





														5K. s.		Sec			
	Year	notelation	E	ducatio	in System	G	iross Enro	olment Rati		chers ment mdary	ment	r ratio		Percentage of TVET Programmes			Percentage of tra TVET teacher		
Country	Academic Year	Secondary Aged Population	Entrance Age	Duration	Enrolment	Total	Male	Female	GPI	Percentage of Trained Teachers	TVET enrolment in total secondary	Pupil /teacher	Lower secondary	Upper secondary	Total secondary	Lower secondary	Upper secondary	Total Secondary	
Libya	2006 2012	702,403 651,740	12	6	732,614	104.3	96.0	113.0	1.18	100	***	944	.000	1640	***		444	200	
Madagascar	2006	3,042,886	11	7	726,998	23.9	24.5	23.3	0.95	air	28,589	23.7	1.1	16.1	3.9	***	***	777	
(Madagasca)	2012	3,694,849	11	7	1,405,063	38.0	38.9	37.1	0.95	ère	27,883	27.6	0.4	8.1	2.0	***	***	****	
Malawi	2006	1,931,377	12	6	565,467	29.3	31.8	26.8	0.84	100	100	37.9	98.97	1641	4.89	100	- 400	- 944	
	2012	2,223,377	12	6	761,366	34.2	36.1	32.4	0.90	100	960	41.5	344	Sie	111	- in	366	1111	
Mali	2006	1,600,756	13	6	474,976	29.7	36.3	22.8	0.63	/ ess	45,422	540	inc.	37.2	9.6	144	and .	1332	
	2012	1,902,102	13	6	963,128	50.6	58.3	42.6	0.73	100.0	192,805	26.2	4.6	53.0	20.0	100.0	100.0	100.0	
Mauritania	2012	427,353 567,471	12	7	98,946 152,011	26.8	25.1	21.2	0.84	100.0	3,174	26.2	1.6	5.4	3.2	100.0	100.0	36743100	
	2006	143,091	11	7	128,925	90.1	89.0	91.3	1.03	die	ne ne	16.6	15.8	100	141	***	dee	***	
Mauritius	2012	132,625	11	7	127,123	95.9	93.9	97.8	1.04	444	11,446	14.7	12.3	6.2	9.0		siee .	144	
	2006	3,935,888	12	6	2,061,046	52.4	56.0	48.6	0.87	- 446	118,515	341	2.5	12.0	5.8	327	441	- 111	
Morocco	2012	3,708,134	12	6	2,554,050	68.9	74.1	63.4	0.86	444	155,414	10.	2.4	11.6	6.1	-60	-00	- 111	
	2006	2,383,764	13	5	367,962	15.4	18.0	12.9	0.71	62.7	26,269	35.8	7.2	6.6	7.1	58.2	50.4	56.5	
Mozambique	2012	2,809,108	13	5	727,895	25.9	27.4	24.4	0.89	83,4	32,331	33.1	3.9	6,9	4.4	***	444	62.4	
Michigan	2006	238,317	14	5	151,805	63.7	59.3	68.1	1.15	iee		25.2	48.4	2000	399	***	200	i i ee	
Namibia	2012	263,104	14	5	110			ini	.004	44.6	10.0	101	***	1444	211	-811	.00	1881	
Niger	2006	1,878,904	13	7	216,961	11.5	14.2	8.9	0.63	21.0	6,335	29.5	0.7	14.2	2.9	24.7	60.5	40.6	
Miled	2012	2,440,483	13	7	388,641	15.9	19.1	12.8	0.67	414	22,755	200	0.7	32.7	5.9		910	***	
Nigeria	2006	18,826,596	12	6	6,436,449	34.2	37.3	30.9	0.83	65.7	991	31.9	10.0	344	>40	***	100	104	
1.30	2012	21,844,201	12	6	40	100-	4.00	ini	-111	-344-	.014	140	164	200	***	100	-iii	in	
Rwanda	2006	1,268,596	13	6	239,629	18.9	20.3	17.6	0.87	Arr.	41,958	30.7	Mar.	50.4	17.5	10	(Bed)	211	
	2012	1,679,788	13	6	534,712	31.8	30.8	32.8	1.07	67.0	58,431	22.9	tir.	32.1	10.9	200	- 1111	(See	
Sao Tome and Principe	2006	18,990	12	5	40	100	(ter	100	3.24	165	400	3491	601	(10)	24	975	944	(9.64)	
1,110,000	2012	19,670	12	5	14,061	71.5	67.0 27.6	76.1	1.14	and .	461	SAA	200	23.5	3.3	jan.	100	110	
Senegal	2012	1,839,708 2,074,073	13	7	447,425	24.3	34,44	21.0	0.76	***	***	A*7	144	***	***	***	***/	1972	
	2006	7,152	12	5		***	200	199	222	ans	- 175 - 176	and and	200	***	105	944	10	- 100	
Seychelles	2012	6,917	12	5	400		244	100	100	710	224			***		300	100	112	
	2006	688,504	12	6	440	***	449	***	***	1964		-911	***		***	944	***		
Sierra Leone	2012	792,969	12	6		116)	116	64	1941	-0.0	***	200	***	-	***	***	.000		
47.00	2006	1,144,406	12	6	in	146	346	100	100	100	Sec.	447	316	See	144	100	1946	1144	
Somalia	2012	1,425,982	12	6	- siz	111	120	Via.	154		***	pia:	444	111	111	***	-111		
South Africa	2006	5,120,502	14	5	4,790,382	93.6	91.3	95.8	1.05	jan	246,177	30.2	***	8.8	5.1	117	ni.	***	
South Airies	2012	4,753,757	14	5	4,843,800	101.9	100.3	103.5	1.03		246,515	2007	(444)	8.9	5.1	***	1946	1990	
South Sudan	2006	0	0	0	166	100	114	160	100	***	.mr	361	544	- 100	-	-mi	-100	Taxa .	
	2012	1,528,021	12	6	***	***	110	442	m	444	22.	444	464		344	1.66	100	- Mar	
Sudan	2006	3,643,409	12	5	1,318,122	36.2	37.0	35.4	0.96	227	9.		100	100	***	911	144	//*	
	2012	0	12	5		tir-		PR 0		[916]	100	200	100	2440.	+++	- in-	119	1999	
Swaziland	2006	152,926	13	5	76,979	50.3	49.7	50.9	1.02	99.3	.664-1	19.3	***	144-	**		Sheet	444	
	2012	149,643	13	5	430.064	47.0	60.8	22.2	0.55	net.	27.840	39.0	1.1	24.9	65	416	244	70.7	
Togo	2006	915,777	12	7	430,064	47.0	60.8	33.2	0.55	44)	27,840	38.9	1,1	24.9	6.5	***	4442	70.7	
	2006	1,430,525	12	7	1,247,046	87.2	83.3	91.3	1.10	100	112,869	16.9	10.1	7.9	9.1	***	der	989	
Tunisia	2012	1,221,601	12	7	2,2,17,0,10	***		777		444	1000		2012	444	111	111	100		
	2006	4,160,789	13	6	857,776	20.6	22.7	18.5	0.81	***	43,689	18.8	, in-	21.9	5.1	***	300	1111	
Uganda	2012	5,113,389	13	6		***	240	121	.00	100	***	249	100		***	***	200		
United Republic	2006	5,273,466	14	6	444	44	444	.000	.001	in	20.0	449.	190.		424	-810-	.000	994	
of Tanzania	2012	6,056,111	14	6	2,118,067	35.0	37.3	32.6	0.88	200	233,795	26.4	6.3	58.0	11.0		in.	1666	
Zambia	2006	1,297,242	14	5		196	***	***	***	pite	99	340	eve	Same.	,Gap	911			
Lambia	2012	1,580,052	14	5	1,592,366	100.8	107.5	94.1	0.87	446	848,371	248	55.0	50.2	53.3	.iu	100	des	
Zimbabwe	2006	1,981,636	13	6	-99	-iii-	100	-000	***	***	01.	200	122	33.	7.1	iller.	441	> 100	
	2012	1,984,432	13	6	344	sia.	Vie.	1940		411	343	in		100	***		100	1996	