

Background Paper The Learning Generation

Developing the Education Workforce in Africa

Focusing on the Role of Families/Communities

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Developing the Education Workforce in Africa: Focusing on the Role of Families/Communities

POLICY BRIEF

**Prepared by the Association for the Development of Education in
Africa (ADEA)
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Table of Contents

Abbreviations.....	2
Executive summary	3
Introduction	6
Redefining the Education Workforce in Africa	6
The state of the education workforce on the Continent.....	6
The state of family/community contribution to this workforce	7
The Challenges facing Education Workforce in Africa (with special attention to challenges facing families and communities)	8
<i>Teacher shortages/teacher quality/lack of career ladder</i>	8
Scalable Successes in Equipping the Education Workforce in Africa (with special attention to the role of families and communities)	10
<i>Professionalizing the workforce</i>	16
<i>Improving accountability systems</i>	17
Critical analysis of Policy Options for building a sustainable “education workforce” in general.....	19
Policy Recommendations and actions	22
Conclusion.....	22

Abbreviations

ADEA	Association for the Development of Education in Africa
AU	African Union
BOG	Board of Governors
BOM	Board of Managers
CESA	Continental Education Strategy for Africa
ECD	Early Childhood Education
KCSE	Kenya Certificate of Secondary Education
ICT	Information and Communications Technology
ICT4E	ICT For Education
OER	Open Educational Resources
PTA	Parent Teachers Association
PTR	Pupil-Teacher Ratio
SDG	Sustainable Development Goals
SSA	Sub-Saharan Africa
TSC	Teachers Service Commission
UPE/UBE	Universal Primary Education/Universal Basic Education

Executive summary

In September 2015, the UN adopted the new 2030 Sustainable Development Goals (SDGs) to replace the Millennium Development Goals which came to an end. The SDG 4 on quality education states that countries should “Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.” Target 4c of this goal states that “by 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and Small Island developing States.” The target clearly illustrates the importance countries attach to the challenges they face in developing adequate numbers of qualified teachers.

During their Twenty-Sixth Ordinary Session on 31st January 2016 in Addis Ababa, African Heads of State and Government adopted the Continental Education Strategy for Africa 2016-2025 (CESA 16-25) as the framework for transformative education and training system in Africa; in relation to goal 4 of the sustainable development goals. The first Strategic Objective, which is to “Revitalize the teaching profession to ensure quality and relevance at all levels of education”, will guide the implementation of CESA 16-25. The fact that both the global and the continental frameworks prioritise the teaching workforce is evidence that it is a big challenge for most developing countries, especially in Africa. Ensuring inclusive and equitable quality education for all requires innovative ways of developing the education workforce to close the existing gap at all levels in Africa.

Financing education sectors in general and the workforce in particular, remains a major challenge. The 2015 Incheon Declaration stressed the need for increased public spending on education in accordance with country context, and urged adherence to the international and regional benchmarks of allocating 4-6% of Gross Domestic Product or 15-20% of total public expenditure to education. Given the large number of people in the education workforce, most African countries spend almost 75% of their education recurrent budget on teacher salaries.

The term ‘education workforce’ in this policy brief “refers to school principals, deputy school principals, teachers” and teacher trainers, “school health workers (including trained psychologists and/or counselors), Parents Teachers Associations (PTA) and school Boards of Governors (BOG) who work in Early Childhood Education (ECD) and those working at the primary and secondary levels” (Bodo, Gassama-Coly, Malinga, Musundi). The state of Education workforce in Africa has been greatly affected by African countries’ commitment to providing quality basic education for all (UPE/UBE) which has triggered the high demand for learning. In 2011, it was globally estimated that 99 countries will need at least 1.9 million more teachers in classrooms by 2015, with the sub Saharan region accounting for 57% per cent of this number.

The state of family/community contribution to this workforce

In most African countries, the Education Act makes provision for family and community participation in the running of education institutions at the various levels. BOGs and PTAs are some of the formal structures through which families and communities can contribute towards the education workforce. The responsibilities of the parents and guardians include: registering their children of school going age at school; providing parental guidance and psychosocial welfare to their children; providing food, clothing, shelter, medical care and transport; promoting moral, spiritual and cultural growth of the children; promotion of discipline of their children; participating in community support to the school; and, the development, review and reform of the curriculum.

The Challenges facing Education Workforce in Africa

Almost all countries in Africa have very clear profiles for their education workforce although there are staffing gaps at both primary and secondary levels of education. For example, Uganda’s 169,000

primary level established posts has a staffing gap of 14%, and 52% of the 57,000 established posts at the secondary level. Although with a pupil-teacher ratio (PTR) of 41:1 at the primary education level, Kenya appears to have no teacher shortage nationally, the situation is different in other countries. At the secondary education level, there is a proxy PTR of 1:27 but a deeper analysis is required to ascertain whether staffing premised on curriculum based establishment has been achieved.

Another challenge is the introduction of information and communications technology (ICT) in schools in Africa. In Uganda, most government primary schools have no access to computers and internet connectivity, while 69.8% of secondary schools have access. In Kenya, the number of teachers trained to teach using computers at primary level is 33%, while 26% are computer literate at secondary level.

Another important challenge in Africa is maintaining the quality of teaching and learning, while expanding access for all. The standard measure of quality used in the sub-Saharan Africa (SSA) countries is the proportion of qualified teachers according to each country's specifications, even though this indicator can be said to have questionable value in recent times. Nevertheless, virtually all SSA countries are concentrating efforts on ensuring that their teachers are trained and certified through a variety of upgrading programmes.

Equipping the Education Workforce in Africa

There are a number of good practices in Africa where families and communities have contributed towards learning outcomes in their schools. Parents and communities in Uganda do support efforts to close the workforce gaps through paying school fees to boost school budgets to which teachers are beneficiaries, paying development funds which are used to enhance the teacher for example through construction of teacher accommodation. In Kenya the profile of education workforce employed by families and communities includes about 17% of teachers in public primary schools who are employed by the school Boards of Managers (BOM) while one third of the teachers employed in public secondary schools are employed by BOM. There are also good examples from South Africa, Senegal and Ghana.

This situation has resulted in several innovations on the continent which include introduction of ICT in education, use of open and distance learning, and multi-grade teaching, among others. Teachers must have the initial training and also have access to continuous professional development in their career. All these initiatives try to tackle both the capacity issue relative to the adequate training of teachers in such numbers and to reaching as many teachers as possible with minimum cost. Many countries in Africa have established accountability systems in the education sector by developing guidelines to schools and local governments for accessing grants which require submission of acquittals before additional grants are released.

Leveraging community, family and/or technological resources to unburden the role of the teachers

Families and communities have played a big role in unburdening the role of the teachers in Africa especially in reaching learners in marginalized communities such as nomadic populations and children with disabilities. Although still lagging behind, Africa is increasingly integrating ICT in its education and training systems. The number of schools, teachers, trainers and learners using ICT is growing steadily. ICT integration promotes the emergence of new academic and pedagogical resources for teachers, just as it offers new alternatives for learning, self-training and inter-learning through online platform and digital content.

Critical analysis of Policy Options for building a sustainable "education workforce" in general

Africa will have to be innovative in developing policies that will help countries build a sustainable education workforce. Policy makers in Africa need comprehensive and well-designed teacher policies which are properly planned, costed and managed if they are to respond to the challenge of teacher supply, development and utilisation. The most promising approaches are those relative to using ICT for education (ICT4E), using open educational resources (OER) and mobile learning platforms to enhance the outreach and efficacy of teacher education programs.

There is a wide range of views about teacher motivation in Africa, most of which are country specific. However, there appear to be mounting concerns that unacceptably high proportions of teachers working in public school systems in many Low Income Countries are poorly motivated due to a combination of low morale and job satisfaction, poor incentives, and inadequate controls and other behavioral sanctions. Governments in Africa will have to address the issue of teacher motivation if they are to attract and retain an adequate education workforce.

Policy recommendations and actions

1. Ministries of Education in Africa are encouraged to conduct manpower surveys for education sector to determine the exact shortfalls in every category of the workforce. This will enable them plan effectively for the demand and supply of their education workforce.
2. It is necessary for Ministries of Education in Africa to clearly set out objectives, priorities and strategic lines of action for new or existing policies on the integration of ICT in education and training.
3. Ministries of Education in Africa should consider adopting alternative and innovative models of training additional education workforce where contextually relevant. The most promising approaches include using ICT for education (ICT4E), open educational resources (OER) and mobile learning platforms.
4. Continental associations like the African Union and ADEA need to document and widely disseminate successful family/community interventions in building education workforce. The production and sharing of regional publications should also be encouraged and supported.
5. Ministries of Education in Africa are encouraged to ensure that the involvement of families and communities in education is imbedded into their Education Acts to support implementation of their education policies including closing the education work.

Developing the Education Workforce in Africa: Focusing on the Role of Families/Communities

Introduction

Africa is making great efforts to deliver quality education so as not to be left behind in meeting the ambitions of the Sustainable Development Goals (SDGs) and closing the gap between developed and developing nations. Without urgent action, the prospects for more than 124 million children and youth denied access to schools and more than 250 million not learning the necessary skills, majority of whom are found in Africa, are severely diminished. Their education underpins improved outcomes in health, economic growth, job creation and employment, innovation, climate and security.

The role of families and communities in closing the gap in the education workforce and supporting student learning outcomes is very critical especially in Sub Saharan Africa where governments are not able to fully finance their budgets.

This Policy Brief presents recommendations for policy and practice for Ministers of Education, Senior Government Officers in Ministries of Education, Local Governments, School/Institutions, communities and families in Africa to guide them in developing an adequate, trained, efficient and motivated education workforce that will ensure children in Africa access good quality education and achieve goal four of the Sustainable Development Goals.

Redefining the Education Workforce in Africa

“The term ‘education workforce’ is a broad concept that could be used to refer to a host of professionals working at *any level* of the education spectrum. For instance, these could be teachers, early childhood educators, college “and university lecturers, rectors /presidents of universities, “administrative staff, student teachers, school health personnel, bursars, and many other personnel working within the school system. Therefore, for purposes of this Policy Brief, the term ‘education workforce’ will refer to school principals, deputy school principals, teachers “and teacher trainers, “school health workers (including trained psychologists and/or counselors), Parents Teachers Associations (PTA) and school Boards of Governors (BOG) who work in Early Childhood Education (ECD) and those working at the primary and secondary levels” (Bodo, Gassama-Coly, Malinga, Musundi).

The state of the education workforce on the Continent

The sixth aspiration of the “Africa We Want”, espoused in the 50-year continental framework (Agenda 2063) is “an Africa whose development is people-driven, relying on the potential of African people, especially its women and youth, and caring for children”. Recognizing that achieving this, and the other aspirations therein, requires a society that is knowledgeable and skilled, the Continental Education Strategy for Africa 2016-2050 (CESA 16-25) has “...knowledge societies... driven by skilled human capital” as the first of its six guiding principles and “Revitalize the teaching profession to ensure quality and relevance at all levels of education” as the first of the Strategy’s 12 strategic objectives. Prior to these two post-2015 frameworks for Africa, one of the priority areas that the just-ended African Union Second Decade for Education for Africa Plan of Action (2006-2015) tackled was Teacher Development; one of the most critical and yet most challenging quality input for education. It focused on ensuring “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 motivation¹. Despite these commitments, however, most countries in Africa continue to struggle with the issue of lack of adequate numbers of trained teachers at all levels of education.

African countries' commitment to providing quality basic education for all (UPE/UBE) has triggered the high demand for school education on the continent. In sub-Saharan Africa teacher pupil ratio grew from 42:1 in 1999 to 45:1 in 2008 before falling back to 42:1 by 2012, still well above levels suitable for disadvantaged learners (2015 GMR).

In 2011, it was estimated that 99 countries will need at least 1.9 million more teachers in classrooms by 2015 than in 2008 to provide quality primary education for all². More than half of the additional teachers are needed in Africa. Across the continent, an average of 306,000 teachers should be hired each year until 2015 to universalize primary education and to compensate for attrition whereby teachers retire or leave the workforce. Sub Saharan Africa (SSA)³ accounts for 57 per cent of the additional primary teachers needed in the world. Stated otherwise, this means that SSA needs a yearly recruitment of 225,000 additional teachers between 2011 and 2015 or more than double the region's capacity which, over the past decade, has only been able to increase its teaching work force by 102,000⁴.

[The state of family/community contribution to this workforce](#)

In most African countries, the Education Act makes provision for family and community participation in the running of education institutions at the various levels. BOGs and PTAs are some of the formal structures through which families and communities can contribute towards the education workforce.

In Uganda, like most countries in Africa, the roles of the various players in education are clearly stated in the Education Act. The responsibilities of the parents and guardians include— registering their children of school going age at school; providing parental guidance and psychosocial welfare to their children; providing food, clothing, shelter, medical care and transport; promoting moral, spiritual and cultural growth of the children; promotion of discipline of their children; participating in community support to the school; and the development, review and reform of the curriculum.

The foundation bodies are expected to ensure proper management of schools of their foundation; policy formulation; education advocacy; mobilization of resources for education purposes; implementation, monitoring and evaluation of education and services; and the designing, development, and implementation, monitoring and reviewing of the curriculum.

The Act also empowers the Minister or district education officer to constitute, a board of governors or a school management committee for any education institution declared by it and may appoint to it such number of members as provided for by this Act.

Membership to BOG generally reflects a well-spread representation. In the Uganda case, for example, the BOG comprises five members whose composition includes a chairperson nominated by the foundation body with at least one of whom shall be a woman; one local government representative; one nominee of the local council; two representatives of parents of the school one of whom shall be the treasurer of the parents teachers' association; two representatives of the staff

¹ AU Plan of Action. P.7

² UIS projections 2011.

³ The disaggregation of global teacher shortage figures does not include the Maghreb in the Africa region. Hence, the regional figures are only available for Sub-Saharan Africa, excluding 8 countries counted under Arab States.

⁴ GMR 2013/2014 pp. 222-229

elected by the staff; one representative of old students elected at a meeting of the association of former students, if any, of the respective institutions.

Among other duties, the board/school management committee monitors the behavior and performance of both the teaching and non-teaching staff of the school in addition to controlling the implementation of the school budget.

The PTAs are not statutory structures but associations agreed on by both parents and teachers. The institutions are expected to organize a meeting at least once a year for the parents and teachers to discuss among other things; administration, teaching and learning, discipline issues and utilization of school resources.

At the end of each term the institution issues a circular letter to the parents copied to the area community leader. The institution also organizes one orientation day for all new parents and new entrants at the beginning of each year.

The Challenges facing Education Workforce in Africa (with special attention to challenges facing families and communities)

Teacher shortages/teacher quality/lack of career ladder

With its commitment to achieving the AU's Plan of Action for Education in the Second Decade which expired in 2015, demand for education and training has increased in all African countries. This requires establishing learning-friendly schools and institutions; increasing the number of teachers and enhancing their quality through comprehensive policies that address issues of recruitment, training, retention, professional development, evaluation, employment and teaching conditions as well as the status of teachers, through increased national capacity. The recently adopted Continental Education Strategy for Africa (CESA 2016-2025) as the framework for transformative education and training system in Africa, in relation to SDG4 will now form the framework for completing the unfinished business of the last decade for the continent's education sectors by revitalising the teaching profession to ensure quality and relevance at all levels of education.

The profile of people employed in the education workforce is as follows in Uganda; Primary teachers comprise Grade III teachers (who are employed as Education Assistants), Grade V teachers (diploma holders) teachers who are supposed to be employed as Senior Education Assistants although it is not implemented in some schools due to inadequate funds and Graduate teachers (Bachelor's degree, Masters holders or higher qualification). However the salary scale for primary teachers is predetermined so regardless of qualification, a primary school teacher will not exceed the given highest pay for a primary teacher. This is followed by Deputy Head teacher who is at the Principal Education Assistant level and who must be at least a Degree holder; and finally the Head teacher who must also have a minimum qualification of a Bachelor's Degree and is at Principal Education Officer level.

At Secondary level minimum entry requirement to secondary teaching is a Diploma in Education and will be at Assistant Education Officers level. Degree holders are at Education Officer. Senior Education Officers have an additional qualification to the Bachelor's Degree and Principal Education Officers have at least a Master's Degree. The Deputy Head teacher is required to hold a Degree, and a Masters, be a registered teacher and must have served as a Principal Education Officer for a minimum of 9 years. The Head teacher is required to have all the academic requirements of the Deputy Head teacher as specified above. In addition, he/ she must have been deputy for over 10-12 years. All teachers are registered after graduation by the Ministry of Education Science, Technology

and Sports. These profiles are summarized in the table below. Shortage of teachers at primary level is mainly by demand as there are budgetary limitations on government while at secondary level it is by supply especially where science and IT teachers are concerned. There are staffing gaps at both primary and secondary levels of education in Uganda. The staffing gap at primary level is 14% of the 169,000 established posts while at secondary level the gap is 52% of the 57,000 established posts.

Workforce profile for primary and secondary education in Uganda

Designation	Position	Minimum Requirements
PRIMARY LEVEL		
Grade 111 Primary Teacher	Education Assistant	Grade 111 teaching Certificate
Grade V	Senior Education Assistant	Diploma
Graduate Teacher		Degree
Deputy Head teacher		Degree
Head teacher		Degree
SECONDARY LEVEL		
Secondary Grade V	Assistant Education Officer	Diploma
Graduate Teacher	Education Officer	Degree
Senior Graduate teacher	Senior Education Officer	Degree/additional qualification
Deputy Head teacher	Principle Education Officer	Degree plus Master's 9 years' experience
Head teacher		Degree plus Master's 10-12 years' experience

Please note that at primary level the salary scale for primary teachers is predetermined so regardless of qualification, a primary school teacher will not exceed the given highest pay for a primary teacher.

In Kenya, teachers and teacher trainers are employed by the Teachers Service Commission (TSC), which is an independent commission. Currently Kenya has 210,991 (105,479 M and 105,512 F) Primary school teachers while at Secondary level there are 85,438 (51,525 M and 33,913 F) teachers. Prospective Primary school teachers go through a two year certificate course having attained a minimum of "C" grade in Kenya Certificate of Secondary Education (KCSE), while Secondary school teachers go through a three year diploma or bachelors programme after form four having attained a minimum of "C+" grade in KCSE. After the training programmes, teachers are registered by the Teachers Service Commission.

The category of teaching assistants does not exist in most countries in Africa. However in South Africa, Teaching Assistants are recruited specifically to assist teachers in the classroom and are sometimes expected to lead some lessons in ECD centres. A teaching assistant typically provides assistance in a number of ways, either in a classroom or in a pre-school learning establishment or crèche (depending on the age of the children). Many teaching assistants in South Africa work with children up to the age of seven. This is a very important time in a child's life, and a teaching assistant is required to help them learn about all kinds of things that will help them develop through the rest of their childhood.

They are paid A teaching assistant typically provides assistance in a number of ways, either in a classroom or in a pre-school learning establishment or crèche (depending on the age of the children). They are paid R48,306 per year and most people move on to other jobs if they have more than 10 years' experience in this career.

In Uganda the term teaching Assistant is mainly used to refer to student teachers who are normally allocated some lessons from the fulltime staff. At ECD level they support the trained teacher in

managing the class. Their allowances are determined by the school they do their teaching practice from as they are not included in the budget.

The supply of teachers still outweighs the capacity of the government to absorb all trainees and even the demand for teachers. With a pupil-teacher ratio (PTR) of 41:1 at the primary level, the country definitely has no shortage of teachers and, hence, no teacher gap. The apparent gap exists in the country's counties. At the Secondary education level, there is a proxy PTR of 1:27 but deeper analysis is required to ascertain whether staffing premised on curriculum based establishment has been achieved. This can only be determined at school by school analysis because of the different subjects offered by different schools.

In Uganda, most government primary schools have no access to computers and internet connectivity. However, there is access to computers in 740 secondary schools which constitutes 69.8 %. As far as computer literacy is concerned among teachers in Uganda, there is no data; although schools which were supplied with computers have at least one teacher retooled in computer application skills.

In Kenya, information on internet connectivity is not available in the Ministry of Education although 2,121 primary schools have computers compared to 3,170 in secondary schools. On the number of teachers trained to teach using computers, Kenya indicates that 35,710 males and 33,274 females are computer literate at primary level which is 32.69% while 16,692 males and 5,176 females, 25.59% are computer literate at secondary level.

Another important challenge African countries face in expanding access for all to education is maintaining the quality of teaching and learning. The standard measure of quality used in the SSA countries is the proportion of qualified teachers even though this indicator is today of very little value. Nevertheless, virtually all SSA countries are concentrating efforts on ensuring that their teachers are trained and certified through a variety of upgrading programmes. In sum, though, there is not always a direct correlation between nationally acquired teacher qualifications and learner outcomes as a number of countries attest – such as Nigeria and Zambia which have more than 60% of their primary and lower secondary school teachers with high qualification profiles but report poor learning outcomes among their students at grade 4. This raises the issue of whether qualification is synonymous with competence.

Whereas it is well established that teacher subject-matter knowledge is a major factor influencing student learning, the examples of Nigeria and Zambia illustrate that formal teacher qualifications may not necessarily translate into teacher competencies, especially when such qualifications are not based on what teachers should know and be able to do.

In most countries in Africa, families and communities have concerns about the quality of education their children are getting given the big class sizes and lack of adequate number of trained teachers in schools.

Scalable Successes in Equipping the Education Workforce in Africa (with special attention to the role of families and communities)

Providing alternative modes of delivery

There are a number of good practices in Africa where families and communities have contributed towards learning outcomes in their schools. In Uganda, parents and communities can only employ teachers through the School Management Committees and Boards of Governors for primary and secondary levels respectively. This recruitment is done on private terms. However, while recruiting teachers, the application requirements are the same as those demanded by government except in

remote communities where they may fail to get a qualified teacher. In some cases “**contract**” teachers are recruited and these are usually not qualified but engaged by Government as licensed teachers in regions which may not be attractive to qualified teachers or qualified teachers under a bilateral arrangement with another country, like (Korean Secondary School teachers).

Other categories of the education workforce such as school physiologists/psychologists are not employed by government or communities; however, all secondary school teachers learn physiology/psychology during their course of training and can be assigned those roles administratively.

Parents and communities in Uganda do support efforts to close the workforce gaps through paying school fees to boost school budgets to which teachers are beneficiaries, paying development funds which are used to enhance the teacher for example through construction of teacher accommodation and provision of midday meals and also recruiting and facilitating extra teachers through the School Management Committees and Boards of Governors.

In Kenya the profile of education workforce employed by families and communities includes about 17% of teachers in public primary schools who are employed by the school Boards of Managers (BOM) while one third of the teachers employed in public secondary schools are employed by BOM. Contractual teachers in Kenya at Primary level are 1,671 (647 M and 1024 F) while at secondary level they are 202 (81 M and 121 F). There is no information readily available of the profile of physiologists/psychologists’ in schools in Kenya.

In Ghana, schools involve parents in school activities, and this has improved parents attendance of PTA meetings. Parents credit the PTA meetings as being their main source of interaction with the school. During such meetings parents are able to frequently exchange ideas about their children’s education with teachers and school administrators. Ghana is implementing a successful Model School Feeding programme which is being adopted by Uganda. Parents contribute food in kind and community organizes themselves to prepare meals for children in turns. The parents share the food they have prepared with the students. This programme has lowered the school feeding overhead costs as well as improving attendance. Ghana’s school feeding program commenced in September 2005 with the aim of reducing hunger and malnutrition, and increasing school enrolment, attendance and retention, as well as boosting local food production . Between 2005 and 2010, a total of 697,416 children had benefitted (GSFP, 2011). By March 2012 the average number of pupils enrolled in schools providing meals increased by 18% between 2005 and 2011, and now cover 216 districts within the 10 regions of the country. Drop out was at its lowest (1.4%). By 2013/14 academic year, enrolment of pupils under these schools increased by 320.6% from 2006/07 levels of 413,498 to 1,739,352 in 4, 887 public schools representing 39.43% of the total national public school enrolment.

The community within which the school is located is the first beneficiary. Government enters into agreements with small farmers to provide food to the school. About 80% of the feeding costs is spent in the community. The idea is to feed children on locally prepared nutritious meal. Parents benefit in that they are part of the local community marketing food staffs to the school. The community/parents then organize themselves to prepare meals for children in turn at no extra cost. It should be noted that parents make contributions in kind in terms of construction of kitchen, store and also provide food in kind

In Uganda the immediate beneficiaries of the Alternative Basic Education for Karamoja (ABEK) programme are all children of primary school age. The graduates of the programme acquire basic life skills to help them find and keep jobs and to improve the quality of their life. Those wishing to continue with their education are generally competent enough to join the formal primary school system at the appropriate level (usually the sixth year). This programme involves both parents and children in the arid Karamoja region of the country. Children and their parents benefit from improved literacy and numeracy levels, which lead to more positive attitudes towards school education and self-reliance.

This in turn benefits the community as a whole; assuring people that their culture is not under threat from school education but that it will enrich their culture improve conditions and their standard of living by creating better health practice, animal and crop care and general economic output.

Teachers create family friendly environments for parent encounters; use various strategies to communicate with the home (*parents are involved in ensuring children complete homework and they counter-sign*); they introduced innovative volunteering which has illustrated positive results for teachers, learners and parents. In South Africa, parents' involvement in schools has been primarily limited to financing schools and volunteering in school activities and programmes. The good school, family and community partnerships have led to improved academic learner achievement, self-esteem, school attendance and social behavior improvement. Parents and teachers experience mutual support and satisfaction in achieving positive changes in children and the school.

The introduction of universal primary education in Rwanda in 2003 led to a remarkable increase in the number of children completing six years of primary from 2008 onwards. This created a heightened demand for secondary education. Meeting this demand was prioritised by the Government of Rwanda. In 2009, a 'fast tracking' approach to provide an additional three years of lower secondary so as to achieve nine years of basic education was initiated. The objectives of the Nine Years Basic Education (NYBE) were: ensuring equitable access to nine years of basic education for all children and providing them with quality education and skills necessary to achieve their full potential and at the same time reducing repetition and dropout rates.

A core element of the programme involved rapid construction of classrooms and latrines. The strategy drew upon the Rwandan tradition of '*Umuganda*', which is a culture of community participation in developmental activities. Monthly community activities were conducted at village levels through the country and the NYBE fast tracking strategies were planned and implemented, with local communities contributing labour, resources and locally available building materials (such as stones, water, wood and sand).

Construction was accompanied by adaptations to the school system to ensure the quality of education. The strategies adopted included:

- The extension of double shifting to the full primary cycle as an interim measure; teacher specialisation to improve utilisation of teachers and their skills;
- A realignment of the curriculum and course content allowing students to obtain a more solid foundation of core literacy and numeracy skills;
- Teacher training; and
- Decentralisation of procurement and delivery of learning materials.

The community-based approach was very cost effective. A single classroom built using the new community approach cost about 50 per cent of the cost it would take using the traditional approach - saving the Ministry of Education an estimated USD 49 million in just one financial year.

Since its establishment, the NYBE fast tracking programme saw a rapid increase in enrolment, retention and completion at primary and lower secondary levels:

- The number of students in Primary increased by 34 per cent between 2001 and 2011.
- The transition rate from primary to lower secondary reached 94 per cent in 2010 against a 2012 target of 92 per cent, by 2011, it was at 96 per cent.
- 6,008 new classrooms and 14,899 latrines were constructed in 2009 and 2010.
- Primary repetition rates fell from 15.3 per cent in 2008 to 13 per cent in 2010; and dropout rates fell from 15.2 per cent in 2008 to 11.4 per cent in 2010.

Rwanda with this project, won the Commonwealth Education Good Practice Awards 2012, which was highly celebrated as a national victory. The increase in the profile of the project nationally, throughout Africa, in the Commonwealth and beyond is immeasurable.

In 2015 Commonwealth Education Good Practices Awards, Rwanda shared another initiative: The

'Parents, Step in!' ('Mubyeyi, Tera Intambwe!') project developed in 2012 to address dropout rates in Rwanda. Developed under the Innovation for Education Fund, the project was designed to prevent, reduce and limit school dropouts. Three pilot districts were chosen with high dropout rates – Gasabo (urban), Musanze (semi-urban) and Ngororero (rural). In these districts the project sought to: reduce school dropout rates; improve parent perceptions and attitudes towards education; increase completion rates; increase community participation in mitigating school dropouts; and increase parent involvement/participation in their children's education.

In contrast to previous dropout interventions that employed a top-down, institutionally-led approach, this project used a bottom-up approach, rooted in community engagement. Community leaders were engaged in the planning and implementation of the project, while volunteer community education workers (CEWs) were engaged to act as community-based intermediaries. The CEW model engages and educates students, teachers and parents on the value of children's education, and empowers them to actively contribute to school management.



Impact and effect: In seeking behavioural change, the project places importance on the education of parents to value and be involved in their children's' education. CEW-led surveys highlight changes in parents' perceptions as fundamental to the reintegration of children into the educational system. The project goal was to reduce dropout rates in the three pilot districts by five *per cent*, which the pilot project surpassed – with 8,939 of the 13,882 dropout students reintegrated since implementation. Over the two-year project period, overall dropout rates in Ngororero and Musanze decreased from 22 per cent to 11 per cent and 14 per cent respectively. During this period, 6,951 family sensitisation visits took place. ***Through collaboration with CEWs, the project has also resulted in the collection of reliable data on absenteeism through family visits and has prompted institutional intervention where necessary.***

Defining and diversifying the role of the teacher

The role of the teacher is spelt out in the Education Acts of most countries in Africa. In Uganda the Act states that no person shall teach in any public or private school of any description unless he or

she is registered as a teacher or licensed to teach. This practice protects the system from unauthorized people accessing classrooms and pupils/students. The common themes in the teacher definition is that one must have been trained and therefore should be qualified, should have been recruited and appointed by the appointing authority, should process a license allowing him/her to teach and should be registered as a teacher with the ministry of education. However there is no global definition of a teacher as different people in different contexts define it differently. Most schools face challenges as there is always need for additional teachers and yet the government cannot afford to recruit adequate numbers of teachers required.

This situation has resulted in several innovations on the continent which include introduction of multi-grade teaching, among others. Multi-grade teaching is the approach that involves teaching classes of students not only of different ages and abilities but also at different grade levels. Multi-grade teaching is an important and appropriate way to help provide good quality education to children who are often neglected by their education system because they live in small, poor, and remote communities.

Multi-grade teachers are expected to be able to utilize the following strategies:

- i) *Teach all groups together.* A teacher can decide which lessons or units are suitable to be taught to all students together. In this kind of instruction, the teacher provides the same content, use the same teaching and learning methodology in transmitting the content, and expect the same learning outcomes
- ii) *Teach one grade while others work independently.* After a short period of teacher-led instruction, one group can be left with their peer tutor, or students can practice independently in their workbooks while the teacher works with another grade group.
- iii) *Teach one subject to all grades and at varying levels of difficulty.* This strategy allows grouping children of different grades, ages, and abilities together and teaching them the same curriculum theme at the same time.
- iv) *Develop activities for non-taught groups.* Higher grades or older students can sometimes be left on their own to investigate and gather information by themselves while the teacher works with students who need more support.
- v) *Develop peer, cross-age and cross-grade teaching strategies.* Cross-age tutoring is based on the pairing of students and is used extensively in most multi-grade classrooms so that older children can help younger students with their lessons
- vi) *Relate learning with daily experience.* Relating a topic being taught to the students' daily lives, traditions, and culture helps them understand a concept more clearly than any other mode of teaching.

In addition to providing schools close to rural communities, multi-grade teaching has also had impact on the most marginalized children such as orphans, reduced late enrollment, reduced gender disparity, increase in attendance which may improve the pupil's educational progress, thus increasing pass rates and lowering attrition rates. Closer proximity to the community may also allow greater parent involvement in the management and supervision of the school.

The Association for the Promotion of African Open Educational Resources and the Teacher Education in Sub-Saharan Africa (TESSA) research and development network focuses on African Open Educational Resources. TESSA was created to raise all stakeholders' awareness of the importance of producing African open education related pedagogical innovations, in line with the priorities and issues identified in order to improve educational access and quality.

The aim of TESSA is to improve the quality of, and extend access to teacher education in Sub-Saharan Africa. Some 12 African countries participate in the TESSA network and more than 700 African academic teacher educators have produced core open source study units which are freely offered. The TESSA study units for primary teachers have been adapted to ten country contexts and

are available in four different languages; Arabic, English, French and Kiswahili. To date, more than 400,000 teachers on 19 teacher education programs have benefitted from their engagement with the TESSA resources and lessons. The development of TESSA open education resources for secondary science teacher training is underway in Ghana, Zambia, Kenya, Tanzania and Uganda. TESSA resources are being used in primary teacher education programs in colleges in Uganda and Zambia.

In addition, teacher education programs need to equip teacher trainees with skills in multi-grade and double shift classes teaching as these are still quite common delivery modes in several countries. In this regard, the ADEA Working Group on the Teaching Profession has collaborated with African educators to develop a set of multi-grade teaching modules to equip teachers with techniques and pedagogy to handle multi-grade classes. These modules have been adopted not only in African countries but also in the Commonwealth countries in the Caribbean and Pacific.

Good multi-grade practice: There are five key areas which are generally the focus of training packages for multigrade teachers. These encompass the following features:

1. Classroom management techniques: Managing a multigrade classroom is difficult because there is more than one grade level in the classroom. Hence, the teacher must be skilled in managing instruction to reduce the amount of 'dead time' during which children are not productively engaged on task. This means that teachers must be aware of different ways of grouping children, the importance of independent study areas where students can go when they have finished their work, and approaches to record keeping which are more flexible than those prevalent in the monograde classroom. Students may need to be taught the value of independence and cooperation by involving them in classroom decision making.

2. Instructional strategies: These are seen as a key to improving the quality of teaching and learning in the multi-grade classroom. The promotion of approaches that increase the level of student independence and cooperative group work tend to be suggested. These involve a change in the role of the teacher from 'giver of information' to 'facilitator'. This is to ensure that time spent away from the teacher is spent productively. Three important strategies are peer instruction, in which students act as teachers for each other, cooperative group work, which involves small groups engaging in collaborative tasks, and individualized learning programmes which involve the student in self-study.

3. Planning from curriculum; National curricula are typically produced for the monograde classroom. Each set of grade level material is typically placed in a separate booklet, which may include specific content to be taught as well as guidelines on how to teach it. Such curricula are difficult for the multigrade teacher to use because they tend to require plans to be written for each grade level separately. This is not only time consuming, but may also result in ineffective instruction. Teachers need to be taught how to plan across grade level objectives, or how to amend the curriculum to make it more suitable for their setting. Similar observations may also apply to the school timetable.

4. Instructional materials development: These also tend to be written for the monograde classroom. Consequently, they are produced as grade level textbooks and are designed to be delivered by the teacher to the children. More suitable materials include a self-study element. This might be in the form of workbooks with a self-correction key, or a small classroom library that can be accessed independently by the children. Teachers need to be shown how to produce such self-study materials in a cost effective way.

5. School and community engagement: Multi-grade schools are often located in remote and difficult to reach areas. They may be far from the educational center and receive little pedagogical support. The communities in which they are located may not see the value of education, and may speak a different language to the 'official' one of the school. For these reasons, it is essential that

the community be involved in the life of the school. Parents can be asked to come in to act as a resource, the curriculum of the school might extend out into the community, or the community can be asked to support the school in other ways. Multi-grade teachers should be trained in approaches that help to develop relations between the school and the community.

Among the reforms that need be considered in reorganizing teacher education programs, new areas need to address the Early Childhood Development expansion with the addition of one year of ECD to each primary school, the emphasis on core skills in basic education, the integration of multiple languages as medium of instructions and the development of technical and vocational competencies.

In most countries in Africa ECD is provided by the communities as government financial resources are limited. Communities provide structures, teachers from within the community and only get the curriculum from the Ministry of Education.

Most countries have adopted use of mother tongue as the medium of instruction during the first three years of basic education. Parents from the community who are fluent in the local language of the area the school is located in have supported the teachers by joining them as support teachers in the classrooms.

An analysis of six sub-Saharan African countries found that teacher educators helping train teachers how to teach reading skills were rarely experts in approaches used in this field⁵ hence the proposal that teacher training institutions develop close cooperation with schools and practising teachers.

All these initiatives try to tackle both the capacity issue relative to the adequate training of teachers in such numbers and to reaching as many teachers as possible with minimum cost. Reflecting on and reorganizing the current teacher education programs as well as exploring new paths have the double advantage of responding to both the effective and efficient teacher qualification. It is expected that such a teacher education reform is the quickest way to improve the countries' capacity to provide enough teachers that are adequately trained and qualified to reach all learners in a cost-effective manner.

Professionalizing the workforce

The data on trained teachers reveals that the proportion of trained primary school teachers in 2012 ranges from 40% among Guinea, Liberia, Ghana to 100% in Mauritania, Mauritius, Morocco and Tunisia. Most countries were able to train more teachers between 2006 and 2012. Of the 17 countries for which a comparison is possible, 10 experienced a positive percentage change ranging from 0.8% in Lesotho, which reports 67.5% of trained teachers, to 19% in Mozambique with reportedly 84% trained teachers. Four countries noted a decline in teacher qualifications among their teachers, in particular Rwanda, Tanzania, Congo, and Malawi.

In Uganda government is trying to close the teaching workforce gap by making the profession attractive through increasing the salary of the primary school teachers up to 50%, ensuring teacher training and recruitment are done with in the available resources and availing primary and secondary teacher continuous professional development. Science teachers are also paid allowances on top of their salaries. At primary level, the Government of Kenya through the TSC recruits every financial year to cover loss of teachers through natural attrition and cater for the real gap in secondary.

Many countries in Africa have adapted to new approaches to teacher development with emphasis on level of curriculum content and teacher training policies and approaches. School curricula from ECE

⁵ (GMR 2013/4 P. 27)

throughout all levels of formal and non-formal education and training must reflect agreed common core skills for sustainable education. Teachers must have the initial training and also have access to continuous professional development in their career.

Another approach covers the necessary structural adjustments in the pedagogy – the interaction between teacher and learners in the classroom; making children active and critical learners; preparing them to be self-learners; adopting new assessment methods; and developing teaching and learning materials (manuals and textbooks) in line with the curriculum. Implementing active pedagogy requires significant structural change of the classroom practices and dynamics. The teachers need to become effective instructors, to empower students to become effective learners.

In most countries in Africa, ECE is provided by the communities and the private sector although governments now provide policies and curriculum content. It is agreed that ECE professionals are more effective in supporting children's development if they have at least some specialized education and training (Mathers et al., 2014). From a very low baseline in 2000, when only Ghana, Mauritius, Namibia and South Africa had developed ECCE policies, sub-Saharan Africa has made great strides: 30 countries have adopted such policies and 7 are developing them (Vargas-Barón, 2015).

Altering pre-primary models to suit the cultural context has been found to boost demand. The success of this approach in Kenya, Uganda and the United Republic of Tanzania (Yoshikawa and Kabay, 2015) demonstrates that in education, no one size fits all. The East African Madrasa Early Childhood Programme has brought more children into school in countries where the religious aspect of life is considered of fundamental importance (Manji et al., 2015).

Improving accountability systems

Issues of accountability and corruption continue to pose a challenge in education in most countries in Africa. Ministries of education have developed guidelines for accessing grants which require submission of acquittals before additional grants are released.

In Uganda, Citizens' Advocacy Forums called Barazas bring together stakeholders from all the three sectors; Government – Policy Makers, Public Service Providers and Public service users to share relevant public information and develop corrective strategies to outstanding challenges / issues that affect their livelihood. These community meetings are conducted at district level attended by the entire community including leaders to discuss government programmes in a specific area. Government officials are on hand available to answer questions raised by the community on the implementation of government programmes.

The objectives of the BARAZA Initiative which was initiated by the President are;

- Establishment of public information sharing mechanism; providing the citizens with a platform to influence the government development programmes.
- Institutionalize downward accountability to bring about improvement in public service delivery and transparency in the use of public resources.
- Instill a home grown culture of independent citizens monitoring for constructive criticism to improve public service delivery to sustain the wellbeing of the people.
- Enhancement of the Central Government's responsiveness to Citizens development demands and public service delivery concerns.

The Office of the Prime Minister spearheads the mobilization of the public which is done through media especially through the most popular Radio stations, Mobile Van moving around, Posters, Banners, flyers etc.

Currently these Barazas are focusing on four sectors of Agriculture, Education, Health and Water and Sanitation. Issues of quality of education, lack of adequate numbers of trained teachers, teacher

absenteeism, teacher wages and infrastructure in schools have been discussed extensively at these Barazas and a way forward is normally agreed.

Also to enhance accountability, Kenya and Uganda have set up guidelines for schools to access government grants which must be fully accounted for before more additional funds are disbursed. Boards of Governors are entrusted with ensuring that school funds are disbursed as budgeted for and they also hire auditors to audit the school books of accounts on annual basis.

In addition, the concept of Programme Based Budgeting, which uses the Medium Term Expenditure Framework (MTEF), helps in increasing accountability, especially when used hand-in-hand with IFMIS and EMIS. Challenges remain, though, including inadequate staff capacity and staff turnover in critical departments.

There is the ADEA Working Group on Education Management and Policy Support (WGEMPS) pilot of monitoring teacher absenteeism by using mobile phones, currently going on in Swaziland – as part of accountability and improving learning outcomes.

Leveraging community, family and/or technological resources to unburden the role of educators

Families and communities have played a big role in unburdening the role of the teachers in Africa especially in reaching learners in marginalized communities such as nomadic populations and children with disabilities. Non-Governmental Organisations have come to be seen as key partners, especially in reaching these groups, and as a source of innovation and knowledge.

The 1st African Ministerial Forum on ICT integration in Education and Training in 2013 observed that although still lagging behind, Africa is increasingly integrating ICT in its education and training systems. The number of schools, teachers, trainers and learners using ICT is growing steadily. ICT integration promotes the emergence of new academic and pedagogical resources for teachers, just as it offers new alternatives for learning, self-training and inter-learning through online platform and digital content.

The use of cell phones has also seen spectacular growth and has become quickly democratized, extending to rural areas and the poorest social groups. The mobile phone has become an education and training tool being tried out at all levels of education systems and for all forms of education (formal, non-formal, informal). It can also meet needs in terms of policy formulation and planning, teacher development, and facilitation of reading and literacy. Learning through ICT thus rests on two foundations: the accessibility of knowledge and information, and connectivity between teachers and learners. This will require a reform of teacher training and strong political will.

Several countries in Africa such as Uganda and Kenya are implementing Integrated Finance Management System (IFMIS), similar to EMIS but dealing with Finances, which many governments have put in place to improve financial reporting. These systems are very useful to administrators and accounting officers both at local and central government level. This system was developed as all approvals are done on computer to expedite payment transactions and also enhance transparency and accountability as the system can be accessed by all financial agencies/officials including auditors.

Senegal is implementing a Project for Improving the Learning of Mathematics in Primary Education (PAAME) which aims at strengthening the achievements of mathematics learning in primary level through community participation in school management. The focus of this project is on improving the performance of learners by ensuring adequate investment in favour of teachers, community involvement in increasing learning time through monitoring, planning of quality-related activities and

introduction of mathematics drill books in addition to support by communities with remedial work in order to consolidate learners' achievement.

The ICT Innovation in School Education project in South Africa is also running an innovative ICT-based project to enhance access and quality of education through the use of webcasting (Commonwealth Secretariat, 2015). The Free State Department of Education and the ICT Innovation in School Education unit of the University of the Free State have teamed up to broadcast interactive web sessions to different schools across the Free State province. The programme looks to improve student performance, as well as skills development of teachers, offering teacher training, learner support, monitoring and evaluation, resource provision and usage, and ICT skills development.

Critical analysis of Policy Options for building a sustainable “education workforce” in general

Africa will have to be innovative in developing policies that will help countries build a sustainable education workforce. The emphasis here will be on the countries' capacity to educate their teachers, teacher education organization itself and also on entry requirements for education and training systems to respond to new challenges providing education for sustainable development.

Given that many countries face a challenge in training sufficient numbers of new teachers and addressing the new global challenges facing quality education and training, it is widely acknowledged in many international forums that teacher education needs to be reformed in terms of its organization, entry requirements and its pedagogic approach. In addition to conventional training, alternative and innovative routes should be explored and adopted where contextually relevant. Here, the most promising approaches are those relative to using ICT for education (ICT4E), using open educational resources (OER) and mobile learning platforms to enhance the outreach and efficacy of teacher education programs.

Making the best use of ICT4E would require that e-literacy be integrated into all teacher education curricula. Such a strategic move towards more adaptability would shift part of the responsibility for continuous professional development on to the teachers themselves with the effect of relieving the government that could then concentrate on other, equally strategic questions.

The first African Ministerial Forum on ICT Integration in Education and Training held in 2013 reflected, among other things, on ICT applied to teacher development and improvement in teaching practices. A central recommendation from the forum was that all African countries should have a national policy on how to introduce ICT at all levels of education, the effect of which will need to be monitored in the upcoming years. A Global e-Schools and Communities Initiative set up an African Leadership in ICT program to help African education and training systems develop their capacity to integrate ICTs and serve the continent's sustainable development.

A number of initiatives on mapping and planning for implementation of national ICT in education include ICT-enhanced Teacher Standards for Africa and the ICT-enhanced teacher development model advocated by IICBA. E-learning teacher development modules on Biology, Chemistry, Physics, Mathematics, African Geography and African History teachers are now available continentally. The policy implication of such initiatives is that these e-standards and models promote at least regional integration of educational systems, which in turn will facilitate teacher mobility with acceptable (minimum) standards to work anywhere in a region.

Policy makers in Africa need comprehensive and well-designed teacher policies which are properly planned, costed and managed if they are to respond to the challenge of teacher supply, development

and utilisation. This necessitates basing policy decisions on evidence from research and practice and practicing a culture of elaborating and weighting policy options to make the best possible decisions that consider budgetary implications by balancing the need for education technology and the resources available. This is all the more necessary as education is a labor intensive sector where teachers' salary, under current circumstances, can make up to 70-90 per cent of the budget; leaving policy-makers with very little room for maneuver to balance other quality input needs and the necessity to recruit and train new teachers as well as pay the additional salaries incurred.

There is a wide range of views about teacher motivation in Africa, most of which are country specific. However, there appear to be mounting concerns that unacceptably high proportions of teachers working in public school systems in many Low Income Countries are poorly motivated due to a combination of low morale and job satisfaction, poor incentives, and inadequate controls and other behavioral sanctions. Consequently, standards of professional conduct and performance are low and falling in many of these countries.

Incentives for schools and teachers in the public education system to perform well are frequently weak due to ineffective incentives and sanctions. Very low pay forces large proportions of teachers to earn secondary income from private tutoring and other activities. Poor human resource management also seriously de-motivates employees.

In some incidences teachers' pay large bribes to secure employment and desired postings, which may impact on job commitment and overall motivation. Being posted to a rural school is likely to be demotivating for most teachers. Increasing hours of work, larger class sizes, more subjects, and constantly changing curricula are cited as major de-motivators in many countries. In many countries, teachers are being asked to take on more responsibilities, including HIV/AIDS education, counseling, and community development.

The work and living environments for many teachers are poor, which tends to lower self-esteem and is generally de-motivating. Housing is a major issue for most teachers especially in rural areas.

For building a sustainable “education workforce” by scaling up successful family/ community interventions

Many countries in Africa have developed policies that encourage schools to work closely with families and communities in improving learning outcomes; however implementation of these policies is varied.

In Uganda, one of the indicators of a well performing education institution in the *Basic Requirements and Minimum Standards Indicators for Education Institutions*, is evidence of “Organisation and Development of Institution-Parents/Community”. This indicator requires that; parents/community and community leaders be invited at least once a year to attend school activities such as; a music festival, a science and technology fair, a sports and games day, an emergency response show. It also requires evidence of the institution inviting talented members of the community to address learners and staff at least once a term on any topic of development. This is an initiative that could be easily scaled up in several countries on the continent.

Various school associations such as PTAs, Old Students Associations have also contributed towards the education workforce in most African countries either by volunteering to teach subjects where there are teacher shortages or supporting the schools financially to be able to pay for extra school workforce required.

Senegal's Project for Improving the Learning of Mathematics in Primary Education (PAAME) which aims at strengthening the achievements of mathematics learning in primary level through community participation in school management is another successful intervention that could be scaled up.

Policy Recommendations and actions

1. Ministries of Education in Africa are encouraged to conduct manpower surveys for education sector to determine the exact shortfalls in every category of the workforce. This will enable them plan effectively for the demand and supply of their education workforce.
2. It is necessary for Ministries of Education in Africa to clearly set out objectives, priorities and strategic lines of action for new or existing policies on the integration of ICT in education and training. Such policies should also be holistic, covering all sub-systems and levels of education and training and giving consideration to all existing systems and technological tools. They should be explicitly linked to the national ICT policy.
3. Ministries of Education in Africa should consider adopting alternative and innovative models of training additional education workforce where contextually relevant. The most promising approaches include using ICT for education (ICT4E), open educational resources (OER) and mobile learning platforms, in addition to conventional training, to enhance the outreach and efficacy of teacher education programs.
4. Continental associations like the African Union and ADEA need to document and widely disseminate successful family/community interventions in building education workforce. The production and sharing of regional publications should also be encouraged and supported.
5. Ministries of Education in Africa are encouraged to ensure that the involvement of families and communities in education is imbedded into their Education Acts to support implementation of their education policies including closing the education workforce gap.

Conclusion

The education workforce of any country is very critical to its economic and social development. The data on trained teachers reveals that the proportion of trained primary school teachers in 2012 ranges from 40 per cent among developing countries to 100 per cent in the middle income countries in Africa. This gap has been amplified by African countries' commitment to providing quality basic education for all (UPE) which triggered the high demand for school education on the continent. The education workforce gap has spread across the whole continuum of education as pupil/student cohorts' move from primary to secondary and higher levels of education with the spectrum of the workforce getting diverse to suit the changing curriculum. It is apparent that most countries in Africa spend almost 70% of their reasonable budgets on workforce wage. That makes it imperative for families and communities to contribute towards closing the gaps. The Incheon Declaration of 2015 stressed the need for increased public spending on education in accordance with country context and urged adherence to the international and regional benchmarks of allocating to education 4-6% of Gross Domestic Product or 15-20% of total public expenditure.

With the adoption of the 2030 Sustainable Development Goals in 2015, countries must double their efforts to close these gaps if they are to achieve the education goal four which is "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all." In addition, the Continental Education Strategy for Africa 2016-2025 (CESA 16-25) has been agreed as the framework for transformative education and training system in Africa; in relation with objective 4 of the sustainable development goals. If Africa does not want to be left behind in education development and meeting the agreed goals, governments will have to be innovative in developing the required workforce through

designing comprehensive and well-designed teacher policies, policies on effective integration of ICT in education and training, ensuring prudent budgeting and accountability of available resources, adopting alternative and innovative models of training additional education workforce where contextually relevant while encouraging families and community participation in these endeavours given the limited financial resources.

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