Strategic Policy Framework for the Implementation of the ADEA 2017 Triennale Recommendations

on the theme:

Revitalizing Education towards the 2030 Global Agenda and Africa's Agenda 2063

THE BROADER HOW

14th – 17th March 2017
Diamniadio (Dakar), SENEGAL

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1. INTRODUCTION

The Association for the Development of Education in Africa (ADEA) organized its Triennale on the theme: "**Revitalizing Education Towards the 2030 Global Agenda and Africa's 2063 Agenda: The Broader HOW**" from **14th to 17th March, 2017** at the Abdou Diouf International Conference Centre (CICAD) in Diamniadio (Dakar), Senegal. The main theme consisted of the following four sub-themes:

- *Sub-theme 1: Implementing education and lifelong learning for sustainable development.* It is at the core of the revitalization of education and articulated priorities related to major challenges facing Africa in terms of education and development.

- *Sub-theme 2: Promoting science, mathematics, and information and communication technology.* It sought to bridge the scientific and technological divides and build African knowledge-based economies and societies.

- *Sub-theme 3: Implementing education for African cultural renaissance and pan-African ideals.* It focused on building a strong pan-African identity as a basis for continental integration and African renaissance.

- *Sub-theme 4: Building peace and global citizenship through education.* It sought to build a continent of peace, democracy, freedoms and human rights.

Based on a wide consultation process, ADEA settled on the above theme, which falls within the context of the ongoing examination of Africa's critical educational issues, particularly those highlighted at the last Triennale held in 2012 in Ouagadougou, Burkina Faso on *"Promoting critical knowledge, skills and qualifications for sustainable development in Africa: How to design and implement an effective response by education and training systems".* The Ouagadougou Triennale identified three main areas of expertise to be developed, namely, (i) Common core skills for lifelong learning and sustainable development in Africa; (ii) Technical and vocational skills development for sustainable socio-economic growth in Africa; and (iii) Scientific and technological knowledge and skills for the sustainable development of Africa in the context of globalization. The framework remains relevant because it is in line with accelerated growth and sustainable development, which are at the heart of Africa's Agenda 2063 and the 2030 Global Agenda on sustainable development.

1.1. The Context of the 2017 Triennale

The 2017 Triennale, however, took place in a context that is significantly different from its predecessor. It was marked by major changes and re-orientations following the 2015 assessment of the performance of the now-rested Education for All (EFA) and Plan of Action for the Second Decade of Education for Africa 2006-2015; changes that have substantially affected the environment, scope and aims of education and training. These include the commitments, orientations and objectives of the 2030 United Nations Agenda and the Framework of Action for the Implementation of the Sustainable Development Goal number 4 (SDG4) on Education, as well as those of the Africa's Agenda 2063, and the Continental Education Strategy for Africa 2016-2025 (CESA 16-25)[1]. Both the global and Africa-initiated frameworks propose to re-orient African education and training systems towards the realization of the continent's vision for the future.

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[1] CESA 16-25 works hand in hand with the Technical and Vocational Education and Training (TVET) Strategy and the Science, Technology and Innovation Strategy for Africa (STISA 2024).

While continuing with the pursuit of unattained objectives under the Millennium Development Goals (MDGs) and Education for All (EFA), these new reference frameworks focus on new philosophies, paradigm shifts and transformational requirements developed around the change of a sustainability concept that is no longer limited to the environment but based on four inter-related pillars:

- Social Sustainability: eradication of hunger and poverty, inclusion of all, gender equality and empowering women and girls;

- Economic sustainability: sustained, shared, inclusive and environmentally friendly economic growth that guarantees decent work for all;

- Environmental sustainability: modes of development, consumption, production and use of climate-friendly natural resources, including fauna and flora biodiversity;

- Cultural sustainability: recognition and respect for cultural biodiversity developed around peace, exchanges, cooperation and solidarity among all peoples of the world and around commitment to the universal human rights, fundamental freedoms and democracy; and

- Sustainability of Learning: eradication of illiteracy, quality education for all, opportunities for lifelong education for all.

Economic growth can hardly be sustainable without social inclusion and/or without environmental conservation, and vice-versa. These interactive linkages touch on seventeen sustainable development goals (SDGs), including SDG4 on education, the implementation of which must be designed, planned and executed through an integrated approach.

The aspirations of the Founding Fathers of the African Continent are crystalized and encapsulated in Agenda 2063: The Africa We Want. Their wish, couched in the African vision[2], is for an Africa where prosperous is based on inclusive growth and sustainable development; that is integrated, politically united and based on the ideals of Pan-Africanism and the vision of Africa's Renaissance; that demonstrates good governance and upholds democracy, and practices respect for human rights, justice and the rule of law; that is peaceful and secure; that has a strong cultural identity, common heritage, values and ethics; that realizes a people-driven development, unleashing the potential of its women and youth; and that is a strong, united and influential global player and partner. The roadmap giving life to these aspirations is CESA 16-25, together with the TVET Strategy and STISA 2024, in the form of 12 strategic objectives[3] guided by a mission of "Reorienting Africa's education and training systems to meet the knowledge, competencies, skills, innovation and creativity required to nurture African core values and promote sustainable development at the national, sub-regional and continental levels."

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[2] A "peaceful and prosperous Africa, integrated, led by its own citizens and occupying the place it deserves in the global community and in the knowledge economy."

[3] The 12 strategic objectives (SOs) are: SO1 - Revitalize the teaching profession, SO2 - Build and rehabilitate infrastructure, SO3 - Harness the capacity of ICT, SO4 - Ensure acquisition of requisite knowledge and skills , SO5 - Accelerate processes leading to gender parity and equity, SO6 - Launch comprehensive and effective literacy campaigns, SO7 - Strengthen the science and math curricula, SO8 - Expand TVET opportunities, SO9 - Revitalize and expand tertiary education, S10 - Promote peace education and conflict prevention and resolution, SO11 - Improve the management of education system as well as the statistic tool, and SO12 - Set up a coalition of all education stakeholders.

The 2017 Triennale was the first real effort initiated by ADEA, supported by the African Union and key partners, aimed at answering "the how" in implementing the continental and global agendas, from the lens and context of Africa.

1.2. Theme for the Triennale: Revitalisation Concept and the "How" Issue

The post-2015 agendas represent the revitalisation and diversification of education to respond appropriately to the needs for each and every one regardless of gender for their mobility, social equality and cohesion. Reorganizing education to achieve these goals requires a redefinition of the mission of education and training systems, which is to guarantee all human beings the equality and effective exercise of the fundamental right to education, and also makes such education a decisive factor in sustainable development. Given the history of African education, the concept implies here, more than elsewhere, a break driven by transformational policies, strategies, cultures and practices influencing both the purposes, contents, processes and resources, institutions and stakeholders.

Furthermore, an analysis of Africa's record shows progress but, above all, reveals persistent challenges in implementation, which means that the main objectives set at the time are still far from being achieved today. The theme of the 2017 Triennale aimed to interrogate pertinent and perennial questions such as, what are the challenges facing the implementation of education frameworks and programmes in Africa? How can they be identified through the African experiences studied and in the different fields targeted by the Triennale theme? What are the effective responses to them from lessons learned from successful implementation experiences? What new approaches to implementation require the achievement of much more ambitious targets in 2030 than those of past frameworks when the latter have so far not been achieved? The theme called for contributions in the preparatory analytical work, regional consultations and discussions at the 2017 Triennale on how to implement education transformation within the African context.

1.3. Thematic Focus and African ownership

The 2030 Agenda and its objectives are universal. To achieve the global transformation goals from a sustainable development perspective, including SDG 4, each region has to adopt inputs, approaches and priorities that reflect its realities, needs and challenges, depending on its peculiar circumstances and aspirations. In Africa, they are defined by Agenda 2063 and CESA 16-25. For this reason, the development of the Triennale theme placed SDG4 (sub-theme 1) at the centre of the revitalisation of education, and then articulated priorities related to major challenges in Africa's education and development, namely: bridging the scientific and technological divides to build African knowledge economies and societies (sub-theme 2); building a strong pan-African identity as a basis for continental integration and African renaissance (sub-theme 3); and building a continent of peace, democracy, freedom and human rights (sub-theme 4). This universal-continental framework achieves a first level of African ownership, which explains the structuring of the theme into four sub-themes. The second level of African ownership was achieved in the participatory approach to the analytical work on the theme. It involved consultations with countries and education stakeholders of the five African regions in the preparation process on issues raised by the theme and the sub-themes.

The objective of this document is to present a strategic policy framework for the implementation of the recommendations at the 2017 Triennale. The exploration of lessons learned from success stories and best practices identified can inspire every country in the search for successful factors and conditions suitable to its specific context. It seeks to present the knowledge and experience shared

at the policy dialogue – as captured in the Triennale synthesis report – and, more importantly, its outcomes in the form of the following framework:

1. Assessing the stakes, ambitions and issues of Africa's Agenda 2063 and the 2030 Global Agenda: challenges and opportunities for the development of education in Africa;
2. Analyzing the strategic axes and priorities for action towards the transformation of education in Africa;
3. Ensuring quality education and lifelong learning for all;
4. Bridging the scientific and technological divide;
5. Building Pan-Africanism and African cultural renaissance;
6. Promoting global citizenship and the culture of peace;
7. Deploying conditions and factors for successful implementation; and
8. Adopting a continental roadmap.

2. ASSESSING THE STAKES AND ISSUES OF EDUCATION DEVELOPMENT IN 2030 AND 2063 AGENDAS

Challenges and opportunities for the development of education in Africa

Africa's Agenda 2063, adopted in 2013 by the continent's Summit of Heads of State and Government, is based on six pillars: (i) structural economic transformation and inclusive growth; (ii) promoting science, technology and innovation; (iii) people-centred development; (iv) environmental sustainability, natural resource management and disaster risk management; (v) peace and security; and (vi) finance and partnerships. The 2030 Global Agenda adopted by the United Nations General Assembly in 2015 incorporates the general aspirations of the Agenda 2063 such as prosperity, inclusion and sustainable development, democracy and the rule of law, peace and security, and human-centred development.

2.1. Huge Challenges for the Future of Africa and the World

The challenges facing the continental 2063 Agenda and global 2030 Agenda are huge for the future of all humanity but particularly for the African peoples who live in a continent beset by desertification and famine; loss of immense arable land; food insecurity; deepening divide with the rest of the world and mass emigration; accelerated development and valuation of the demographic dividend; marginalisation or continental integration. The success of the desired transformation thus becomes an imperative, and at the same time, a huge challenge requiring historical break and a qualitative leap. However, such a revolutionary change cannot be accomplished without education. In other words, Africans need to acquire the consciousness, behaviour, values, knowledge and skills that make them capable of promoting sustainable development in all its dimensions. Besides the environmental, economic and social dimensions of sustainability concept, in contemporary African context, the "capacity of a society to maintain itself" poses the cultural dimension in relation to the imperative of cultural identity in globalisation. This is the basis for the renewal of the vision of education as an essential condition and decisive factor for achieving the objectives of the 2030 Global Agenda and Africa's Agenda 2063. The linkages between the SDG4 and the other 16 SDGs of the 2030 Agenda and the 23 goals of Agenda 2063 call for a rethinking and repositioning of education policies in respect of basic orientations: purposes, aims and general objectives. They also encourage educators to better target the promotion of individual and collective human development.

SDG4 of the 2030 Agenda and Goal 1.2 of Africa's Agenda 2063[4] are expected to play a decisive role in transforming Africa and the world in interaction with other development objectives. An interesting feature of both the global and continental agendas is that they have ambitious objectives and targets that are consistent with the scale of the transformation envisaged. The objective of SDG4 is to "ensure universal access to quality education on an equal footing and promote lifelong learning opportunities", and it sets seven targets and three implementation modalities. Goal 1.2 of Agenda 2063 focuses on "well-trained citizens and a skills revolution underpinned by science, technology and innovation" and has 14 targets. CESA 16-25) aims at redirecting education towards the realisation of the vision of the future, expressed in Agenda 2063, through the 12 strategic objectives. In examining all these goals, objectives and targets, a question that we need to ask from the outset is: Are African education systems capable of achieving the performance required by the 2030 Agenda and Agenda 2063?

2.2. Challenges in Achieving the Goals and Objectives of the Global and Continental Agendas in Africa

Africa remains the continent farthest from the targets of SDG4 and Goal 1.2 of Agenda 2063. In addition, it is also the region where the need for education increases most rapidly because of the relatively high annual population growth rate of 2.6 per cent, while it has the lowest GDP per capita (1,025 in current US $ and 2,258 in PPP dollars) and the highest poverty rate (38.4 per cent of the population live on less than 1.90 PPP dollars). In view of its history, culture and languages, Africa is also the continent with the lowest rate of ownership of official education systems by the populations. The situation explains the well-known and persistent challenges in education:

- The inclusion of high numbers of out-of-school children: half of the 55 million out-of-school children worldwide live in Africa, while the African population represents about one-tenth of the world's population;

- The inclusion of a considerable mass of young people (48,765,000) and illiterate adults (188,315,000);

- Eliminating the enormous waste of resources devoted to education: between 20 and 50 per cent is wasted because of repeating and especially drop-outs, which explains the low internal efficiency and, particularly, low completion rates in primary education (55 per cent);

- Reversing the strong extraversion of education: linguistic and cultural heritage, endogenous development needs and problems are barely present in education curricula;

- The substantial improvement of low learning outcomes for students, including in basic literacy and mathematics;

- The pedagogic revolution necessary to put back on track teaching and learning processes that prioritise memory at the expense of the observation, experimentation, analysis, logical thought, the critical mind, etc.;

- Strengthening external effectiveness to overcome the gap between learning outcomes and the ability to use them to solve problems of life and work.

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[4] Annex 3 (Agenda 2063 Results Matrix National Level: Goals, Priority Areas, Targets and Indicative Strategies) of the "Final Draft Agenda 2063 Framework -Formatted TOC-1", African Union.

- Sectoral coordination of educational sub-sectors and training under the oversight of several ministries.

The 2030 Agenda and Africa's Agenda 2063 have set goals, objectives and targets, as well as policy and strategic options that pose new challenges for education in Africa, namely, how to:

- Design a holistic vision of sustainable development, which establishes the place, role and the approach to education in an integrated and intersectoral perspective;

- Ensure a clear and operational definition of the responsibilities of the various stakeholders involved in the implementation and participatory and decentralised management of educational policies both at the local and national levels;

- Guarantee the combined universalisation and quality of free basic education including a year of pre-schooling, and primary and secondary education for all;

- Offer lifelong learning opportunities to all as an imperative and emergency in the 21st century as well as digital skills / ICTs;

- Go beyond parity to implement gender equality;

- Empower everyone to achieve decent work;

- Effectively integrate changes in awareness, attitudes and behaviour in the learning curriculum to promote a new world and a new Africa in the perspective of sustainable development;

- Promote African renaissance and the ideals of Pan-Africanism towards the emergence of the United States of Africa;

- Reverse the relationship between literary and scientific studies to the benefit of the latter for the construction of African knowledge societies and economies and to equip Africa with scientific and technological skills for building knowledge societies and economies.

2.3. Africa Must Seize Opportunities to Achieve Qualitative Developmental Leaps

In spite of these challenges, the advances that have been made through the MDGs and EFA movements confirm that post-2015 initiatives can be exceptional opportunities for further progress in education in Africa. Education approaches and objectives are closely linked to those of sustainable development for synergy of interaction and overall dynamics at the service of transformation. African countries can therefore leverage the following opportunities to achieve qualitative developmental leaps:

- African economic growth, which stands at between 5 and 6 per cent, clearly above the rate of population growth, provides an opportunity for increased financing and accelerated educational development, in contrast to the period of stagnation of the 1980s. Although a slowdown is projected a significant number of countries on the continent still manages to maintain a good growth momentum;

- The rise of a middle class (growth of 59.6 per cent, higher than the population growth estimated at 27.6 per cent over the period 2000-2010) which encourages the development of private education, especially at higher levels, thus offering an opportunity to redirect public financing towards basic education and the poorest sections of the population;

- The growing potential for the participation of communities and civil society, an inadequately exploited asset, which decentralisation policies that promote the emergence of local leaders and empower grassroots actors can enhance and harness;

- The rapid expansion of ICT to strengthen equitable access and improve the quality of education, while providing effective support to improve governance systems.

The African Union also offers support that can serve as levers:

- The establishment of a Committee of 10 Champions Heads of State and Government on Education, Science and Technology;

- The establishment of the Pan-African University comprising a virtual branch;

- The extension of Technical and Vocational Education and Training (TVET) to secondary and higher education levels;

- The institutionalization of a school feeding programme, which is observed annually on the first day of March.

3. STRATEGIC AXES AND IMPLEMENTATION STRATEGIES FOR THE TRANSFORMATION OF EDUCATION IN AFRICA

The post-independence era in Africa has witnessed a series of policies, resolutions and strategies aimed at developing and reforming education to meet the needs of African economies and scientific progress. The first Decade of Education for Africa (1997-2006) targeted equity and access to basic education, etc.; and the Second Decade of Education for Africa (2006 - 2015) Plan of Action which focused on the establishment of effective information management systems at national level (EMIS), improvement of educational outcomes (access, quality, effectiveness, merits) etc., were African policy frameworks supported by those launched at the international level. The Jomtien Framework for Action in March 1990 focused on the goals and strategies for addressing the basic educational needs of all in the year 2000 while Education for All framework of the Dakar Forum in 2000 focused on six objectives to be achieved by 2015.

These successive commitments have still not helped most African countries attain the minimum goals of equity and quality education: universal primary education and eradication of illiteracy. The reasons are not far to seek. It is due to the failure of African governments to reform policies inherited from the colonial era. The colonial educational policies were imposed from outside for goals oriented very often towards the selection and training of a local allied elite in the administration and economic exploitation, or even in the political and cultural domination of the colonies. The elitist orientation, the pyramidal structure and functioning modes, based on selection-elimination of these systems, as well as the paradigms, cultures, languages and educational contents, which ignore the endogenous heritage and problematic questions, are the marks of their profound influence. In the case of French colonies, the financing and cost modes were also made similar to those of the metropolis. That is the reason African countries that have left the colonial systems intact face serious challenges in realizing the objectives of structural transformation.

3.1. Strategic axes for the transformation of education Africa

Most educational policies adopted in response to challenges since independence up to the present have been oriented towards the quantitative expansion of these systems and, at best, the occasional correction of some of their glaring aberrations. That is why the achievement of the objectives of the 2030 Agenda and Africa's Agenda 2063 demands not only a clean break from colonial policies but also the adoption of transformational policies, which rest, first of all, on the key principles of re-contextualisation and re-connection.

3.1.1. Re-contextualisation

The first mission of education is to impart the inter-generational heritage which is the bedrock of the survival of human communities, taking into account the accumulation of experiences and knowledge as they confront common and specific challenges. The African context should inform the choice of the kind of educational system that must be adopted. It must take into account the specific challenges and problematic questions of health, hygiene, nutrition, communication, environment, social inclusion, axiological referential, cultural well-being, citizenship, labour and others which come up fundamentally in our national contexts. Education must provide responses to these challenges and help determine models and systems of education to be adapted to the mobilizable resources in our national contexts in order for us to be in charge of these responses.

Response to key challenges will form the basis of an educational system capable of meeting the needs of society, and providing social and economic individual and collective benefits. This process operates across the periodic evaluation of performances, followed by adjustments and introduction remedies, in line with lessons learnt from the analysis of experience and also include lessons learnt, which should not simply reproduced, but viewed as 're-created' models in terms of the specificity of the context.

3.1.2. Reconnection

Clearly, education is not made for itself, and the school must not be an island in a society. To place education at the service of educational development, it must be designed to have the capacity of transforming the economic, social, environmental and cultural dimensions of society and take the school out of isolation. It is through interactions with diverse environments and players that the school can optimise itself, in synergy with the other sectors to actualize the desired transformation. In short, for education to transform Africa and the world, it needs to transform itself by reconnecting to the society and by constructing a platform of interaction and convergences with the different sectors of the State, the society and the culture of the economy of the milieu.

3.2. Implementation priorities for the transformation of education in Africa

The discussions during the ministerial round tables organized at the 2017 Triennale highlighted educational reconstruction and restructuring for transformation by taking into consideration the SDG4 Framework of Action and the CESA 16-25 in order to meet the aspirations of Africa's Agenda 2063. Towards this end, the identification of implementation priorities underscores the need to rethink the existing educational models and work towards a paradigm shift. This can be achieved by integrating cultural identity and endogenous knowledge and practices into these systems. It also calls for the establishment of interactive links between educational systems and grassroots communities,

since the links create back and forth movements for the promotion of both intergenerational learning and better mastery of development issues and substantial enhancement of the local development potential through the school. To implement such an option, different additional multilingual strategies were viewed as effective: early, late or semi-late withdrawal.

The reorientation of the education system towards the attainment of the target, which is decent work for all, must be given decisive support by opening and diversifying the training sectors through learning, sandwich training, polytechnic education and the introduction of a system of vocational guidance that enable interested students to acquire a vocation at any stage of the educational system. In essence, it aims at achieving effective education-training by providing training suitable for the needs and vocation of every individual. The transformation process of education systems calls for exchanges and cooperation programmes between countries committed to knowledge and experience sharing. This can be realized through the pooling of research and resources. The Inter Country Quality Nodes represent precious points of support that must be put to good use.

Placed within the context of the SDG4 and Goal 1.2 of Agenda 2063, the deconstruction/reconstruction of education puts quality and equity at the centre-stage of the implementation priorities. Basically, achieving the above-mentioned Target 4.1 of SDG4 is to ensure successful learning for all by linking it closely with relevance and external efficiency of these learning activities. Embedded in these objectives is the understanding that quality and equity are inseparably connected. In addition to the required curricular reforms and materials, the challenge highlights the priority to be given to the issue of teachers. Apart from the challenge of the recruitment of teachers in adequate numbers to achieve the manageable pupil/teacher ratios, the implementation strategies focus on the change of cultures and practices for successful learning by all pupils. Teacher training policies should have as their implementation priority the promotion of innovative educational and teaching practices that can contribute to the dual objective of endogenous transformation of education and quality for all. In addition to praxis-oriented research and training for teachers, the process of change must ensure that research centres and African universities make contributions at the local, regional and continental levels.

The success of targeted reforms and changes is also contingent on good governance of education systems. This must be participatory and collaborative to include all stakeholders and must implement transparency in all management procedures and decision-making processes and ensure accountability at various levels, guarantee efficiency and equity in the allocation and use of resources. The strategic axes and implementation priorities of the transformation of education in Africa, were generally broken down into analytical work and discussions along the lines of the Triennale's four sub-themes. For each sub-theme, the analysis focuses on the main issues raised, the successful/promising experiences identified, the lessons learned and the key messages that emerged.

4. IMPLEMENTING QUALITY EDUCATION AND LIFELONG LEARNING FOR ALL

Regarding the bases and requirements for the promotion of quality education and lifelong learning for all, there is first and foremost the universal human right and the issue of sustainability of learning in the context of rapid changes. Quality education determines the effective exercise of this right by the success of basic learning by all, which opens the door of other fundamental rights. Quality education understood in this sense must take into account the diverse needs and capabilities of the

learners to offer to each one suitable opportunity for learning. Beyond the exercise of this fundamental right, quality education must equip learners to contribute effectively to the structural transformation of the African economy and to sustainable development. In pursuing these strategic objectives, it is necessary to mobilize and enhance the societal image of systems in all their formal, non-formal and informal modalities.

Such a policy should allow for training that leads to empowerment by virtue of the relevant knowledge acquired for life, health and employability. By broadening and strengthening partnerships with the grassroots communities and other stakeholders, the social governance of schools should improve and make it possible to: (i) obtain innovative and sustainable financing and (ii) promote a peaceful environment for learning, especially one that fosters gender mainstreaming.

4.1. Issues

For the promotion of quality, inclusive, lifelong learning, ten strategic interventions or problem pillars have been identified. They relate to (i) quality of learners; (ii) recruitment, deployment and professional development of teachers' quality; (iii) quality of content; (iv) dealing with gender inequalities; (v) inclusion of the "marginalised", (vi) provision of an Integrated Early Childhood Development (IECD) and basic education for all; (vii) continuum of education-training; (viii) development of technical and vocational skills and youth employability; (ix) development of the higher education sector; and (x) use and promotion of ICT. The lack of any continuum between education and training is a major cause of exclusion among the youth for the simple reason that those who leave the school system because of academic failure, and without attaining the required level of performance, are left out of the system without any opportunity for training required for employment. This exclusion of young people poses a threat to the socio-political stability of a country. The situation can be tackled, not only by building bridges between the different types of training and education in the formal, non-formal and informal sectors, but also by operating a shift from TVET towards technical and vocational skills development (TVSD).

4.2. Major Challenges to be addressed

Some of the major challenges that have been identified include the following: (i) a state of physical, mental and psychological preparation for the benefit of pupils to learn and have a network of support from their families and communities; (ii) the availability of libraries to contribute to the emergence of a culture of sustainable reading in a literate environment in the schools and institutions, in the community and at the home; (iii) the productive teachers: creative – resourceful – endowed with critical minds – capable of making good use of appropriate technology for teaching and learning; (iv) attracting new personnel to the teaching profession by improving the status and management of teachers; (v) development of a model and evaluation and monitoring procedures to obtain objective, equitable and transparent outcomes; (vi) harmonizing at the continental level, qualifications frameworks, the mobility system of teachers, thus highly reducing the brain drain syndrome and the shortage of mathematics, science, engineering and technology teachers; (vii) Addressing the gender gap in in education and skills training; (viii) a TVET that marks a departure from the traditional learning systems dating back to the colonial era to adopt a development of a more open and more flexible technical and vocational skills; (ix) a greater participation of the private sector and youth enterprises in employability of school graduates; and (x) strengthening of relationships between training and the labour market by developing programmes based on knowledge targeted by the labour market. Among other challenges to the development of higher education is the lack of

financing to meet the growth in demand for access (infrastructure – research – education scholarships for the most deprived persons). Additionally, there is insufficient commitment on the part of the stakeholders. Finally, as educational institutions, the universities are now confronted with the challenge of repositioning themselves as training, research and innovation institutions with a focus on development.

4.3. Successful or promising experiences

Several experiments and studies have been carried out in the area of quality education and lifelong learning. The results of these experiments and studies, carried out in Africa and elsewhere, point to benefits that can be derived from the promotion of quality education providing skills for all. These experiments centred on targets and beneficiaries, content development, methods, procedures and learning tools, learning environment, teachers' professional development, improving school environment, governance, increased educational financing, compulsory schooling, etc. Innovative teaching methods have been developed through integration of ICT in Côte d'Ivoire, DRC, Mauritius, Niger, Senegal and Egypt, including examples of the relevance of curricula that incorporate endogenous contents and entrepreneurial skills, quality assurance mechanisms involving stakeholders (in collaboration with the private sector) in order to strengthen employability of the learners. Select examples are cited below.

In Rwanda, a career and educational planning orientation programme in a post-conflict environment uses "Mobile Laboratories" equipped with appropriate ICT infrastructure, including Wi-Fi connectivity, tablets and laptops to maximise talents and potential and their population of learners and to harness them for personal, community and national development.

The CAMED in Tanzania is an example of packages of actions which (i) provide support for community initiatives to improve enrolment of girls; (ii) train the mentors of teachers and staff and parents to improve the quality of education; and (iii) develop and distribute low cost educational resources. It also enables young female graduates to play a leadership role as "Learners' Guides" in their local schools in order to train them and provide a relevant life skills programme.

Benin opted for a public integration policy in the school cycle rather than a separate institutional mechanism for the inclusion of children with disabilities in education and development. Several results of this experience are noteworthy: breaking the taboo and the stigma associated with people with disabilities in the community; successful mobilisation of private and public initiatives and interventions; partnership and strategy for multi-sectoral organization in public policy; continuous awareness enhancement and community ownership; and support for the learner with special needs.

 In Mali, close to 300,000 young people turn out on the labour market, the majority of them without qualifications. To address this problem, the government has developed several strategies which consist of establishing training centres for skills development among the youth, women and farmers. This includes, the creation of a national observatory for training and innovation covering all the ministries. Innovative financing mechanisms have been found: youth taxes, vocational training taxes.

The MasterCard Foundation supports the youth and underprivileged through various initiatives implemented by governments or academic institutions. One of them is "Africa Innovation", which identifies talents among the youth through learning by experience. The other one, ISSEP, develops a

professional and technical training where students are exposed to the same contents both in class and work place training under the supervision of professionals working in these enterprises. This type of collaboration between training centres and a production entity strengthens students' employability by facilitating school-labour market transition. It is in the same approach adopted by the African Institute of Mathematical Sciences (AIMS) Foundation and the African Leadership University.

The African Development Bank has focused its programmes on supporting the youth, particularly by developing higher education and entrepreneurship to enhance access, strengthen the effectiveness of the training, promote African integration and revitalize research. In this light, the "Jobs for Youth Strategy 2016-2025" initiative was launched to integrate youth employment through cross-cutting measures in projects covering all areas of intervention by the Bank. The initiative has set a target of 6000 learning young people and proposes a methodology to evaluate the Bank's employment creation and personnel training in this thematic area. The programme covers 16 countries and it is developing 61 projects at the cost of US$2 billion. They include a training centre for the manufacture of ready-made clothes in Côte d'Ivoire, an ICT Enterprise Initiative and an agricultural entrepreneurship project in Ethiopia and a women and youth training programme in Tanzania.

The Republic of South Korea has shared its economic acceleration experience. The main lesson drawn from it is the role played by education in promoting start-ups. The process started with the establishment of 50 start-up centres which attracted the best students from poor families who were trained for industry and equipped to become captains of their enterprises. These centres have increased from 50 to 182. The government has also supported this dynamic by establishing new technological innovation centres in 40 universities.

The Global e-Schools Communities Initiative (GESCI) has presented programmes on human/technology interface for employment creation. One of these programmes, "the *African Knowledge Exchange Program*", is an integrated model for skills development and digital-oriented start-ups. The programme converts ICT-based skills into a commercially relevant standard. It has trained 20 students in Kenya who have received work guidelines that provide technical counseling, mentorship and consultations with industries and experts to promote team work and collaborative projects. This has led to start-ups in marketable products and services.

4.4. Lessons learned: Conditions or factors that facilitate success

To achieve the SDG targets and Objective 1.2 of Agenda 2063, important lessons can be derived from shared experiences. The following conditions or factors have contributed to success:

- Governments must develop and implement holistic education policies linking and pooling all levels of the education and training system, from early childhood to higher education, including formal, non-formal and informal training and education, in order to succeed in providing quality education for all;

- Education systems must integrate endogenous and innovative contents in the learning programmes to strengthen their relevance while involving all stakeholders in their development with regard to the quality assurance standards; reduce the gap between school learning and issues concerning life and work; strengthen youth employability through a more

closer interaction between the school and the business community; and deepen the empowerment of stakeholders in school governance;

- The universalization of pre-primary preparation is necessary for quality education for all since it allows not only all the children to be ready to go to school and start well but to also maximize the opportunities to succeed in schooling;

- The transition from parity to equality requires the sensitivity of the learning environment and the pedagogy of teachers vis-à-vis the needs of the different groups of learners (people with disabilities, girls and women, chronically ill people, poor people in the rural communities, etc.), cultural transformation, representations, behaviours, institutions coupled with targeted policies of affirmative action (legal protection, free care, prepared teachers, feeding programmes, vocational guidance…);

- The remedial schools are workable (relevance, cost-effectiveness, broadening the opportunities for vocational training for employment, self-employment and entrepreneurship coupled with the maturation and entry into adulthood) in the fight against exclusion, dropout rates and school failures;

- Every level of educational continuum must produce values, knowledge and relevant knowledge to constitute the basis for the subsequent;

- The level of performance of students is enhanced when a learner takes the initiative to deepen his understanding and capacity to transfer knowledge to all disciplines and situations;

- Learners, especially in basic and preschool education, literacy and non-formal education produce best results when the teaching is done in the mother tongue or in the language they understand better;

- Vocational training and decent employment for all require the mobilisation and development of all the available training resources in the society and the economy: linkage between FPT and learning, partnerships with the private sector, employers' organizations and producer organizations, master craftsmen;

- The programmes which support youth transition from school to the labour market have common features: focused on the youth, they take into account their areas of interest, guide them to the relevant careers, through a curriculum that is consistent with the needs of the market and practical learning where the young people live in alternating environments between school and labour market while benefitting from linkages in job opportunities, partnerships, financing, etc. as well as sustained and targeted monitoring after completion of the training;

- Successful training in the area of socio-professional integration take into account the fast-growing workplace requirements and create the space for youth initiative and leadership; avoid double employment and tapping the expertise of each person and sharing their experiences and concentrating on delivery.

4.5. Key messages

A number of key messages emerge from the analysis of challenges to be addressed, successful and promising experiences, and lessons learned regarding conditions for success. They include the

following: (i) for any change in the education system to succeed it must have the support of an appropriate eco-system and the participation of stakeholders by greater involvement in the management of the schools; (ii) training systems must be re-oriented to vocational and technical skills, not only in the area of supply but also on the demand side by establishing the link between the curricula and the training programmes and the most important labour needs of the country, and by establishing training partnerships with all stakeholders of the economy; (iii) move from the concept of equal number of registered girls and boys in schools to the advancement of the priorities of education of "the second generation" of girls: completion at the different levels, success in scientific and technological training/learning; (iv) promote a multilingual education and internalise endogenous knowledge in the curricula; (v) Adopt and operationalise an attractive system within the teaching profession with continental professional standards which can be adapted by the countries as guiding principles for the management of teachers in order to boost motivation and professionalism; (vi) Transform the professional development of teachers by committing them to research-action, brainstorming practices, learning in pairs, approaches to cultural changes and practices, taking care of learners facing difficulties by preparing them for improved flexibility and adaptation to different formal, non-formal and informal learning contexts; (vii) Take into account the determining role of the evaluation system, textbooks and learning environments as well as the leadership and school projects in the orientation and contents of what is actually taught and learned in classrooms; (viii) Develop the equity indicators linked to inclusion in order to control the quality of education for all; (ix) Ensure adequate funding to guarantee the provision of good quality education, especially for the benefit of marginalised groups; (x) Promote ICT in the teaching-learning process; (xi) Ensure that schools are safer and more secure; and (xii) Promote lifelong learning.

5. BRIDGING THE SCIENTIFIC AND TECHNOLOGICAL DIVIDE BY POOLING AND INTERNALIZING SUCCESSFUL INNOVATIONS

5.1. Issues

One of the characteristics of the 21st century is the preponderance of the knowledge economy in a highly globalized world where science and technology have become the main drivers of economic growth and development. This preponderance is based on a critical mass of scientific and technological skills wielded by the developed countries and which provides them with a huge potential for research, invention, innovation and sophistication. In this vital area, the gap between Africa and the rest of the world seems to be so wide that the current focus is to bridge the technological, scientific and digital divide. According to the 2016 World Report on Education, Sub-Saharan Africa has recorded the lowest GER in the world in higher education or 8 per cent, whereas the global average is 34 per cent, the rate for developing countries is 29 per cent, that of countries in transition is 58 per cent, and for developed countries it is 74 per cent. This huge lag is worsened by the fact that 80 per cent of these African students register for courses in "arts and humanities", thus creating a huge imbalance to the detriment of Science, Technology, Engineering and Mathematics (STEM: cf. 2016 Report of the African Capacity Building Foundation). Recent data provided by UNESCO on science clearly indicate this gap. For instance, Africa's share of global research and development expenditure is 1.4 per cent (0.8 per cent SSA and 0.6 per cent for Arab States in Africa) whereas this share is 28.9 per cent for North America, 22.7 per cent for Europe, 3.5 per cent for Latin America and the Caribbean and 42.2 per cent for Asia. Regarding the share of the number of researchers in the world, the figures indicate 2.4 per cent for Africa, 18.5 per cent for North America, 31 per cent for Europe, 3.7 per cent for Latin America and the Caribbean and 42.8 per cent for Asia. The future seems

to be more worrisome since the Foundation's report cited above projects that Africa will have a deficit of 5 million engineers and scientists in the next five years.

All these figures are alarming, and they provide a measure of the extent of challenges posed. One therefore understands why the African Union's Agenda 2063 calls for a "sustained revolution of skills by means of science, technology and innovation". This is broken down in CESA 16-25 by positioning science, mathematics and ICT as the main drivers of accelerated and sustainable development of Africa. The issues raised revolve around (i) effective policies and strategies to be implemented to correct the imbalance in students' orientations in the course areas and to substantially increase intakes in STEM and improve the outcomes of their learning (ii) quantitative (inadequate recruitment due to lack of candidates) and qualitative (skills and performance to be enhanced) solutions for the teaching issue; (iii) curricular and pedagogical reforms to make these disciplines more accessible and attractive and enhance their sense in respect of the search for solutions to problems in the surrounding environment; (iv) the integration of ICT in schools and, in particular, their use in the teaching-learning processes; (v) introduction of national languages as a medium, and consequently, their conceptual enrichment in these disciplines; (vi) gender equality and equity in the acquisition of STEM; and (vii) STEM and research/development.

5.2. Major challenges

To promote science, mathematics and ICT education successfully in Africa, the following major challenges have to be addressed: (i) low production of research in STEM and in the physical sciences; (ii) lack of benchmarks in the culture of science and mathematical standards; (iii) poor command of the language of instruction by the teachers and learners; (iv) shortage of science, mathematics and ICT teachers; (v) teachers with inadequate training or without qualifications, less motivation because of poor working conditions and remuneration; (vi) shortage of science, mathematics and ICT teachers; (vii) teachers with inadequate training or without qualifications and lack of motivation because of poor working conditions and remuneration; (viii) lack of ICT tools such as radios, computers, television sets and installation of internet facilities; (ix) low mastery of the use of ICT tools by the teachers and students; (x) lack of comprehensive policies on integration of ICT in the provision of education; (xi) big size of classes at the higher education level; (xii) gender disparities in school participation and in science and mathematics results; (xiii) low educational background of learners in terms of basic skills in reading, writing and mathematics; and (xiv) gap in teaching and physical resources (school textbooks – basic services such as water, sanitation and electricity).

5.3. Successful Experiences – Promising Solutions

Several options and approaches can assist in surmounting the major challenges of promoting STEM and ICT in the teaching-learning processes. There are successful experiences or stories of success which could be replicated elsewhere in Africa. A sample of such success stories is provided below.

Kenya is implementing **an innovative school curriculum for environmental science education.** The curriculum allows the students to be linked to their environment through science, especially by incorporating indigenous knowledge into science taught at school. This is an example of "self-acculturation" or "scientific inculturation".

Another Kenyan programme, **"Strengthening Mathematics and Science in Secondary Education"** (SMASE), comprises several segments including online orientation for Elimika teachers, which provides the teachers with new information on the school curricula, the teaching methods, etc.

Subsequently, SMASSE has been institutionalised and regularised, both as a capacity building programme for mathematics and science teachers in the primary and secondary schools all over the country.

SMASE-Nigeria was launched and managed in the form of a project between the Nigerian Federal Ministry of Education and JICA. After the convincing results of the pilot phase, the project was replicated in all the same targeted regions before becoming a programme for the Federal Minister of Education, which took over the financing of all the activities in 2014. Similar activities have been implemented in Ethiopia, Malawi, Morocco and Zambia.

To address the issue of overcrowding in classrooms, the University of Cadi in Morocco is implementing and managing UC@MOOC, which is **a digital platform introduced to help address the issue of overcrowding of students in the universities**. The platform is also used by students in neighbouring countries such as Tunisia, Algeria and Senegal. It allows university students to learn, without any face-to-face interactions with their lecturers, through the use of the digitalized content in CD-ROMs and DVDs.

The **experimental solution EDUCI,** developed in partnership with Microsoft, Orange, Nokia and UNESCO-IIPE, was tested in December 2012 by the Ministry of Education of Côte d'Ivoire. It helps to collect information on educational inputs, thus replacing the traditional paper survey forms.

Connecting the learners to their environment and culture is the goal of the **Aga Khan Enterprise Initiative in Mombasa**. The students learn the scientific content in English, the official teaching language; then in Kiswahili, a national language; as a means of improving scientific understanding, developing their environment and connecting to their culture.

Linking mathematics to daily experiences: This is an approach adopted by the Rabat Advanced Teacher Training School for Mines, in Morocco. Mathematics is taught to show how it can be used to solve concrete problems such as population growth, resource management (water, energy, minerals, etc.). The initiative makes it possible for users to model mathematics problems and simulate a computer software.

5.4. Lessons learned and key messages

Useful lessons have been learned from successful or promising experiences and they include the following: (i) indigenous knowledge is as important as science and it must be reflected in the school curricula; (ii) the language of instruction plays a critical role to enhance the conceptual understanding and performance of the students in science and mathematics; (iii) when teachers spend more time on teaching and learning activities, students learn more and obtain better learning outcomes; (iv) and concerted efforts among all African countries will enable each of them to benefit from the various initiatives for improving the teaching of science and mathematics.

The key messages that have been distilled from the experiences and lessons are the following. It is important to: (i) provide adequate resources for the improvement and scaling-up of equipment required for strengthening science and mathematics education; (ii) ensure a better attraction and ownership of mathematics and science education: bilingual education, curricula reforms, linkages with problem-solving approaches of the surrounding environment, teaching methods reforms, enrichment of the learning environment with ICT and virtual training platform, multiple incentives to

schools, students, teachers and parents; (iii) develop and implement a professional development plan and motivation of teachers in the scientific disciplines; (iv) move towards the creation of a continental platform "virtual space" for the sharing of information and best practices in the area of teaching-learning of STEM to ensure that each African country can learn from these successful and innovative initiatives; (v) invest more in the research and innovation sector by going beyond 1 per cent of current GDP; and (vi) develop an operational strategy for the integration of the African youth in the STEM promotion programmes.

6. IMPLEMENTING EDUCATION FOR AFRICAN CULTURAL RENAISSANCE AND PROMOTION OF AFRICAN IDENTITY AND INTEGRATION

6.1. Issues

African integration can be developed around a humanistic approach to education, which would itself be developed around multicultural and multilingual ethic that promotes inclusion, mutual understanding and social cohesion. Furthermore, the close correlation between the use of mother tongues in multilingual settings and the promotion of African cultures has been highlighted on the one hand, and the use of mother tongues in education and sustainable socio-economic development, on the other hand. Hence, African education must not only depart from the school form but also open itself adequately to its environment in order to incorporate the three dimensions of indigenous knowledge, practical knowledge and innovative knowledge. In other words, it is important to discontinue with African educational systems which are based on models inherited from the colonial era. This is because, in these systems, African cultures, history and indigenous knowledge are not adequately incorporated into the educational curricula and in the training of the African youth.

Six basic concepts or structural components would guide the reorientation. They are: (i) Pan-Africanism; (ii) African cultural renaissance; (iii) multiculturalism; (iv) multilingualism; (v) continental integration; and (vi) indigenous knowledge and expertise. While Pan Africanism is a vision of social, cultural and political emancipation which hopes to promote and encourage the practice of solidarity between Africans wherever they may be in the world, African renaissance is a way of being and getting to develop Africa to bring about fruitful dialogue among Africans with their own cultural heritage. The multi-lingual nature of the continent is manifest in the fact that more than 65 African languages are used in written commercial communications, and more than 240 are used in the media. The multiplicity should be an asset and not a factor for isolating the continent in relation to the emergence of knowledge economies. African integration represents the concretisation of the feeling of solidarity for the entire continent. Such integration is founded on the following pillars: recognition and promotion of African social and cultural heritage – pooling of "national sovereignties" for the benefit of a "collective sovereignty" – convergence of sectoral and macroeconomic policies – formation of a regional market to stimulate investment and trade – building of regional physical infrastructure. It also contributes to an educational system that enhances cultural diversity, universality and inter-culturality.

Endogenous knowledge and expertise emerge from oneself and help identify experiences and good practices which should be incorporated into education and training at all levels in order to develop an education for African Cultural Renaissance, the ideals of Pan-Africanism and continental integration.

6.2. Major Challenges

Several major challenges must be addressed for the successful implementation of an education designed for African cultural renaissance. They include: (i) limited knowledge of traditions, difficulty in integrating the identified traditions in the curricula and low dissemination of work on multilingualism for curriculum development; (ii) mmethodological difficulties faced by educationists in incorporating Pan-African-related concepts and, African cultures and values into the curriculum; (iii) difficulty in correcting the image that Africans themselves create about Africa and Africans; (iv) unwillingness on the part of many policy makers to understand the importance of the integration of the cultural dimension into education; (v) active or passive, conscious or unconscious resistance by the elite, particularly, regarding the use of African languages in education; (vi) inadequate inclusion of African languages in educational systems; (vii) lack of skilled human resources and suitable learning materials; and (viii) poor dissemination, promotion and harnessing of work on multiculturalism for curriculum development.

6.3. Lessons learned

To achieve real African cultural renaissance in education, there is the need to re-profile and revisit, if not, rewrite school curricula by (i) adding more value to the existing work on multiculturalism and (ii) incorporating into it social issues and the specific needs of the people. It will be imperative to have a common set of core skills encompassing all forms of education (formal, non-formal and informal). The actualisation of a bold policy of literate environments sensitive to the issue of African languages is one the preliminary requirements or conditions to be addressed. This can hardly be achieved without promoting African languages as a medium and focus of education but also as a medium and cultural vector for greater social justice or as a component of a common body of knowledge and skills to be grasped by the learners. Education must design and disseminate curricula in mother tongues, particularly in the border areas which are real socio-cultural melting pots. Furthermore, it may be necessary to: (i) systematically codify African languages; (ii) legislate the implementation modalities for the use of mother tongues in the curricula; (iii) systematically incorporate modules on the transcription of African languages in the teacher training colleges; (iv) develop teaching materials that are sensitive to African cultural realities; and (v) popularise the integration of a common set of core skills.

The following aspects could be facilitated and accelerated: (i) the pedagogical use of General History of Africa as proposed under the UNESCO Project; (ii) the use of museums as a platform for learning as illustrated by the Burkina Faso experience; (iii) dedication of public places to great African heroes and to major events marking the history of the continent; (iv) Ubuntu approach, which seeks to promote humanism based on humanistic interdependency, positivism and collective approach to solving social problems; (v) use of family relationships, which is a widespread phenomenon in West Africa and which remain an excellent practice to facilitate inter-family and inter-tribal relationships; (vi) exploration of tales and drama to promote African values and identity among the learners; (vii) organization of study tours for teacher interns in the local communities of several countries in order to expose them to the multicultural realities and immersion into grassroots communities; (viii) the co-financing of cross-border educational programmes between countries with populations speaking the same language; and (ix) a reduction of taxes on African cultural works and products which impact on education.

6.4. Key Messages

The following key messages emerge from the foregoing discourse: (i) signing the African Charter for African renaissance is a sign of the commitment of African governments to promote African identity; to date only 14 countries have done so; (ii) The extreme diversity of African cultures and traditions should not be perceived as an obstacle but rather as a formidable opportunity for building national and African identities; (iii) re-inventing the African school will require time, a holistic approach and greater internalization of endogenous values and practical stocks of knowledge; (iv) bilingualism anchors in culture and improves the quality of learning if the planning of implementation is sufficiently takes into account linguistic, institutional, didactic re-arrangement of the learning environment, teacher training, IEC, etc.; (v) promotion of African integration is based on the grassroots communities: taking of ownership through education of the multicultural and multilingual traditions, the historical melting-pots and the sublimations of sources of conflicts, especially, in the border regions and points of encounters; (vi) the African cultural renaissance must be based on new concepts and paradigms marking a departure from strait-jacket habitual thinking on education, the economy and progress but focusing rather on experiences, heritage and common values inherited from African history; and (vii) promotion of benchmarking for the enhancement of the propagation of successful practices on cultural renaissance and continental integration.

7. PROMOTING GLOBAL CITIZENSHIP AND THE CULTURE OF PEACE

In the 21st century where globalisation has turned the world into a global village, Africa must see itself as part of that global community. Since it is acknowledged and taken for granted that learners spend much of their childhood at school, education affords them the opportunity to fashion out and reinforce the values that shape young people's character. Education must not be reduced to the acquisition of knowledge and the development of cognitive skills; it must inculcate in learners the values, the know-how to be and the attitudes that facilitate and promote social transformation and international cooperation. Peace education and global citizenship (PEGC) must open learners up to knowledge, understanding to respect others and adherence to universal principles and human rights. Thus, through peace education and global citizenship shall be developed skills and values for the participation in and conscious and active contribution of African youth to the dimensions of societal development at local and global levels.

7.1. Issues

In Agenda 2063, the third and fourth aspirations of the vision of the future of Africa are related to universal principles: "good governance, democracy, respect for human rights, justice and the rule of law" and " an Africa living in peace and security" respectively. For CESA 16-25, promoting education for peace and conflict prevention and resolution at all levels of education and for all age groups by focusing on common African values requires the following: (i) formulate national education policies for peace founded on African values and mechanisms for conflict prevention and resolution by involving the ministries concerned, as well as civil society representatives and communities; (ii) train teachers, social workers, security forces, representatives of religious and civil society organizations as peace actors and mediators; (iii) develop and disseminate teaching and learning documents on peace education and organize periodic training sessions in schools, training institutions, universities and adult learning centres; (iv) capitalize on on-going innovative experiences in the various African countries and networks and disseminate the lessons drawn from these experiences; and (iv) strengthen the initiatives and activities of the Inter-Country Quality Node on Peace Education" which

is a network for sharing practices and a platform for policy dialogue and exchange of experiences and expertise.

It can be observed that these aspirations, objectives and strategies, made at the continental level, have generally not been operationalized in the national educational systems. In cases where implementation strategies exist in the national educational plans, they are not based on a specific analysis of causes of conflicts and the means of preventing them, for example: (i) the reduction of all forms of violence as well as the associated death rates; (ii) the eradication of ill-treatment, torture, exploitation, and the trade in children; (iii) the promotion of the rule of law internally and internationally; (iv) the guarantee of equal access to justice for all. In short, it will be a question of enhancing the emergence of fairer, more peaceful, more inclusive, safer and more sustainable societies.

While more than 60 per cent of the African population consists of the youth, there is evidence of inconsistencies and conflicts faced by the youth since they are fighting to reconcile ethical expectations with their daily pressing needs which have been worsened by poverty. These contradictions also cut across other segments of the society and create a less resilient environment. Other issues related to peace and global citizenship which require attention in the education sector are: (i) the need for education to prevent radicalization and violent extremism which is increasingly attracting the youth; (ii) the difficulty teachers face in adopting a "transformational method" capable of changing the attitudes, values and behaviors of the youth; (iii) lack of resources and capacity to support the development of peace education and global citizenship; and (iv) inadequate use of existing platforms for pooling of efforts and sharing of knowledge and experiences.

7.2. Main Challenges

Challenges exist at both the political leadership and operational levels. At the political level there is limited willingness and leadership on the part of many African heads of governments, to defend policies and laws that favour peace and global citizenship. In addition, there is the lack of capacity of Ministries of Education to translate into actions the vision of PEGC and to forge relevant partnerships at the national and school levels. There is also the rise, in many countries, of extremist radicalised, violent groups that attack school buildings, and recruit into their ranks members of the school communities, including pupils.

At the operational level, there are, at least, four challenges to be noted. The first is the non-existence, in several African countries, of a curriculum that could guide the implementation of the PEGC programme. The second challenge is unequal distribution of power which results in deep-rooted conflicts because of historical injustices, marginalisation or corruption. Third, learning through community service and commitment is also a challenge to be addressed in the majority of existing curricula. The fourth is the corresponding gender question, not losing sight of, as UNESCO notes, that global citizenship education is founded on Human Rights and that the equality of sexes is a fundamental human right.

7.3. Profitable Experiences

Non-formal programmes have been successfully used to implement global citizenship, through initiatives led by youths in collaboration with non-governmental organizations (NGOs) and the private

sector. Illustrative examples that have been developed around the world, using this approach are cited below:

- **Peace First** (United States): It is a programme-based creativity involving critical thinking, knowledge about oneself and inclusiveness, and allowing youth volunteers to work with children by designing and implementing community projects in a participatory way.

- **Reinforcing institutions** and the response of "Civil Society to Specific Violations of Religious Liberty and the Promotion of Tolerance and pluralism" (Bangladesh) for the promotion of pluralistic values in children with the aim of averting conflicts and exclusion-related intolerance.

- **Learning to live together**: It is an inter-cultural and interdependent programme (Kenya, Tanzania, South Africa, Nigeria, Uganda, Comoros and Mauritius). Its vision is to assist children to live together in solidarity with persons of different religious persuasions, cultures and ethnic groups and allow them to take ethical decisions, nurture their spirituality and improve their inner capabilities of making positive contributions to transform their communities based on values which promote respect for their own culture and beliefs and those of others.

- **Children's Friendly Schools Programme**: An initiative of ministries of education in collaboration with UNICEF in Nigeria, Mozambique, South Africa, Kenya and Uganda. It aims at improving the teaching and learning process by adopting favorable approaches to learning. It improves the physical and psychological environment by dealing with the physical dangers in the school and eliminating physical, sexual and emotional abuses. The interventions are mainly implemented on the basis of an analysis of dangers in schools (research-action) and the improvement of leadership skills among teachers and learners, and the participation of the community. The intervention has a positive impact on the learners in terms of well-being, access, retention and learning outcomes.

- **'Safe schools statements'** is against the use of schools for military action: an intervention in countries experiencing ongoing violent conflict situation, aimed at protecting schools from the use of military attacks. The main objective is to protect learners, teachers and other members of staff and school infrastructure in order to preserve schools as environments of peace. The approach has been used in Central African Republic.

7.4. Lessons learned

It seems obvious from these experiences that the operational mechanism for a PEGC must address the following key issues:

- Identifying the specific causes of violence and dynamics that develop in each context (examples: Sierra Leone, South Sudan, Liberia, Burkina Faso);

- Strengthening the resilience to mitigate natural and human disasters and dealing with the link between conflicts and disasters (Burkina Faso, Uganda);

- Creating school sanctuaries to be protected from attacks and military occupation during conflicts ("Safe Schools Statements" in CAR);

- Highlighting the relationship between a high youth population and a very high statistical risk of armed conflict, especially in a context of youth unemployment or chronic youth under-employment, discrimination, bad governance, difficult access to quality education etc.;

- Transforming the demographic explosion of the youth into an economic dividend in Africa;

- Promoting inter-denominational dialogue at all levels and inter-faith learning to enable the learners to clarify their faith and avoid violent religious extremism;

- Using interactive teaching and learning materials (teachers' and learners' textbooks and materials) to support educational delivery based on value as they provide critical thinking and promote a spirit of discovery among the learners. Research conducted in Kenya has revealed that teachers can make a difference in the acquisition of values by learners through improved interaction with them;

- Providing opportunities for the youth to participate in peace building can be achieved by adopting creative approaches, for instance, the use of recreation, drama, arts and sports and as a means of advocacy;

- Fostering consciousness of the existence of resources produced through research on the theme "Promoting the Culture of Peace", particularly, those relating to women and the youth, allows the use of many tools and knowledge to promote peace education and conceptualization of education through global citizenship.

It is important to also incorporate cross-cutting issues affecting the implementation of PEGC: ICT, social media, sports, music and arts, climate change, political leadership, etc. The promotion of the PEGC requires a new paradigm for collaboration that eliminates the traditional silos separating governments, philanthropists and the businesses. Networks of partnerships developed in several countries helped to achieve promising results. This applies, for instance, to "Africa" of the Peace University (UPEACE), which launched Great Lakes Universities Peace Association (GLUPA), a partnership of ten universities in the Great Lakes region (Burundi, Congo, DRC, Kenya, Rwanda, Tanzania, Uganda and Zambia). In East and Central Africa, a partnership has been developed between the Pan-African Association, "Nairobi Peace Initiative" (NPI), the Secretariat of the Global Partnership for the Prevention of Armed Conflict (GPPAC), World Campaign for Peace Education and the Kenyan Ministry of Education. Increasingly, the private sector plays an important role in peace building efforts in the regions facing conflict and post-conflict situations by providing key expertise, know-how and capital. The Samsung and Cromcraft Group, for instance, has established peace clubs (Amani). In Ghana, the "Ghana Citizen Project" enables pupils to learn their rights and civic responsibilities as citizens.

7.5. Key Messages

The following key messages are worth noting particularly in designing a strategy or policy for peace education and global citizenship:

- Promoting equity is essential because any education system that is characterised by exclusion and inequality exacerbates conflicts;

- Adapting intervention to the context tends to ensure success, but it also demands knowledge of the types and causes of conflicts in order to determine the linkage with education.

- Preparing and implementing a system of identification and monitoring of potential signs of conflicts, and opportunities for prevention or arbitration;

- Adopting a multi-sectoral approach to peace education and including endogenous knowledge and practices, as well as women, in the peace education process;
- Developing a curriculum and partnerships at the horizontal and vertical levels and mobilizing, especially, community participation;
- Mainstreaming ICT and mobilizing political leadership and peace champions;
- Involving the youth in building peace by establishing targeted programmes and creating spaces;
- Calling on African countries through the Ministries of Education to commit to existing inter-country collaboration for capacity building of teachers on PEGC.

8. DEPLOYING SUCCESS FACTORS AND CONDITIONS

The analysis of the state of education in Africa, as well as lessons learnt from the successful experiences, underscore two decisive conditions for the attainment of the objectives and targets of 2030 Agenda and Africa's Agenda 2063:

- If educational policies are not transformed, the status quo is bound to produce the same results as those obtained from independence up to now: the countries always remain far removed from the set objectives by the successive education development programmes;

- It is necessary to transform the orientations, contents and the operational modalities of education to be able to transform Africa and the world in terms of sustainable development.

But what must Africa change in order to successfully attain the global and continental education objectives? What needs to be changed in education to enable it to change Africa and the world? How will the desired educational transformation be implemented? Admittedly, Africa is not lacking in educational reform projects. The problem is that only a handful of countries have succeeded in implementing them effectively. Therein lies the main challenge of achieving the goals and targets for the 2030 Agenda and the 2063 Africa's Agenda.

The following conditions and success factors which have been identified through studies and analysis are essential: (i) mobilisation of the political will; (ii) strategic and operational planning, targeted sectoral and multi-sectoral transformation; (iii) adequate financing; and (iv) availability of strong technical and institutional capacities. Each of these factors is discussed in further detail because of their criticality.

8.1. Mobilisation of Political Will

The mobilisation of political will is a key condition and it can be achieved through the commitment of the political leadership at the highest level. In this regard, it is important to highlight the critical roles played by African Heads of State and members of the Committee of 10 Champions Heads of State on Education, Science and Technology, both in enhancing the financial engagements for the implementation of the holistic development conditions and supporting consolidated education systems in Africa. The difference in performance between countries that have similar realities, resources and constraints, most often, is explicitly evident in the level of commitment. Certain African

countries have recorded remarkable transformations. Tunisia under Habib Bourguiba, Tanzania under Julius Nyerere, Zimbabwe, under Robert Mugabe, and Uganda under Yoweri Museveni have, among others, given, at different periods and in specific priority areas, a good illustration of what the commitment of political leadership can bring to the advancement and transformation of education. Among the factors of impact, we can cite, favourable arbitrations in terms of the volume of financing and / or the gains of efficiency for the sector, a strong commitment and a persevering determination in decision-making and application during the course of difficult reforms.

8.2. Systematic Strategic and Operational, Inter-sectorial Planning of Targeted Transformation

The commitment of leadership at the highest political level can therefore give a strong boost to the development of education, but on the condition that it is founded on well-defined political and strategic options, rigorously evaluated, relevant and efficient. Now, the latter come, first of all from a good sectorial analysis allowing for the diagnosis of the strength and the weaknesses as well as factors explaining performances and counter-performances of the educational system in question in order to identify precisely the specific challenges to take up and the levers on which to rest the dynamics of transformation. To this effect, African countries, beyond the continental averages, are experiencing different situations. Countries like Rwanda and Sierra Leone, which record net primary school attendance rates higher than 95 per cent, do not have the same challenges and priorities of participation that Liberia and Eritrea, whose primary school attendance is widely below 50 per cent. Burundi and Seychelles, where the percentage of primary pupils at last part of primary education is attaining a minimum level of competences in reading and mathematics, is nearly 100 per cent, are faced with the different thorny questions of improving learning results from those of Comoros or Niger, where the same percentage stands around 50 per cent. Consequently, the choices to make in terms of the targets, priorities of action and the budgetary arbitrations must be reviewed in line with the peculiar challenges and problematic questions that each system encounters in a given context. However, because they can call into question the established positions and are susceptible to resistance, there needs to be a wider dialogue with all the stakeholders in order to ensure their political and social acceptability. It is on this basis that a valid educational policy can be defined and planning and its implementation should be undertaken.

Moreover, a holistic and inter-sectoral approach to sustainable development adopted both for 2030 Agenda and the Agenda 2063 requires a multi-sectoral planning of education. The latter is translated by the action plans orienting the activities and the expected results in tandem with the different social, economic and environmental sectors. In Ethiopia, local educational plans are set out along multi-sectoral approach and Nigeria has set up an integrated mechanism of subsidies in the spheres of health, education, water and hygiene. Besides, development planning of innovation and reforms allows for a successful implementation when it adopts a systemic approach. For example, the planning of a curriculum reform, beyond the definition of the end results, objectives and new contents, must foresee: (i) the didactic transpositions to the different stages of schooling; (ii) the preparation of all the players involved in the new approach, notably, the inspectors and advisors, teachers, and learners, school heads and parents; (iii) adequate allocation of contact hours, visuals and appropriate learning environments; (iv) application of pedagogical processes, stimulating procedures and congruent evaluation systems; (v) modes of governance at all levels, notably, those allowing for the mobilisation of support of the institutional and community environment.

8.3. Adequate, Effective and Equitable Financing

Quality education requires adequate financing for the acquisition of personnel, infrastructures and other in-puts in sufficient quantity. The Global Education Monitoring Report 2016 mentions a recent estimation: 'in order to achieve the SDG's between now and 2030, it will be necessary for both the public and private sectors to invest each year an additional amount corresponding to one part of the GDP included in 1.5 and 2.5 per cent. Low income or lower middle income countries would have to increase their expenditures to higher than about 4 per cent of the expected GDP (Schmid and Traub, 2015)'. How can African countries increase, to the required level, the national resources allocated to education, especially in a period in which a declining tendency in the GDP for the continent has been projected, even though we need to take into account the diversity of situations?

The average public expenditure on education in Africa is 4.3 per cent of GDP and 16.6 per cent of the total public expenditure, according to the 2014 figures. The African GDP average is below the world average (4.6), of the developed countries (5.1) and of developing countries (4.4), but higher than those of countries in transition (4.1), countries in conflict (3.8), low-income countries (3.9) and the middle lower income countries (4.1). However, the level of public expenditure in education is not the same for all the African countries. The figures vary between 0.8 per cent (South Sudan) and 8.6 per cent (Swaziland) for the total reported public expenditure on education as a proportion of the total public expenditure. This strong variation indicates that the efforts deployed for increased financing as required by the attainment of SDG4 differ from one country to the other. But in all cases, the lofty ambition of attaining the 2030 targets will require a significant increase in domestic financing of education. Among the pathways to action, we emphasise the following:

- increase from 1 to 4 points the share of GDP allocated to education taking into account the current variability of public expenditures underscored above;
- increase the fiscal earnings ratio per GDP - for the latter is lower than 15 per cent in the majority of the countries so that it may attain 18 per cent in the emergent economies and 26 per cent in the developed economies;
- diversify public and private sources of financing; and
- re-allocate educational expenditures in certain State subsidies, especially those granted for fossil fuels.

The levels of public expenditures on education from the different regions of the world compared to the meeting of educational needs in these same regions show that the low African under-performances in terms of participation and of quality cannot be simply explained by the volume of public financing allocated to education. That is why, over and above the volume of financing, the attainment of the 2030 Goals, especially in Africa, raises the question of efficient allocation and use of the resources in the education sector. The disparities between countries are enormous when one considers the differences of unit cost per pupil. The unit cost for public expenditures in public schools at the primary level stands at 29.7 per cent of GDP per inhabitant in Niger, as against 5.6 per cent for Sierra Leone. At the secondary level, these figures for the same countries increase respectively to 73.2 and 7.9 per cent. At the higher education level, Niger still stays ahead with 617.7. South Africa spends the least (3.7 per cent) in higher education. Mathematically speaking, in terms of the resources available in a country for the educational system, the unit cost per pupil determines the capacity to meet the educational needs. In the unit cost per pupil at the primary level, the salary of one teacher represents 95.5 per cent (Cabo Verde) and 44.7 per cent (Burkina-Faso). Teachers'

remuneration also varies from one country to the other: "the average level of remuneration varies by less than twice the GDP per inhabitant (in DRC, in Angola, in Guinea, in Seychelles in Congo) to more than six times of GDP per inhabitant (in Ethiopia, in CAR and in Burundi) " (Universal Primary Schooling in Africa: the Teacher Challenge. *Pole of Dakar (UNESCO BREDA)*. These data and the management margin they offer points to the political economy of transformation that each country must undertake in order for better resource and specific priorities arbitrations to be effected for its development.

Domestic financing remains the main source of expenditures of education in Africa. However, whatever may be the agreed efforts for increasing on the part of low-income countries, external financing, estimated at more than 10 per cent of the expenditures on education between them remain necessary. In the hypothesis of increasing domestic financing as advocated, the financing deficit is estimated at 42 per cent of the total cost of achieving the new objectives. Between 2010 and 2014, total aid to education has dropped from US$ 14.2 billion to US$13. 1 billion; aid to basic education, from US$ 6.2 billion to US$ 5.3 billion, and that to higher education, from US$ 5.6 billion to US$ 4.9 billion. Only aid to the secondary education has experienced a slight increase, from US$ 2.4 billion to US$2.8 billion. Aid to basic education in Africa has dropped by 22 per cent. As a matter of fact, according the report quoted above, for "member countries of the Development Aid Committee (DAC) of OCDE, the total aid equals, on average, 0.31 per cent of the GNI and has almost not varied for ten years, while in 2015, 15 countries of the EU made a commitment to increase aid to 0.7 per cent of the GNI in 2014, only Denmark, Luxembourg Sweden and the United Kingdom met this commitment". In all, African countries will need to invest more and better in education in order to achieve the new set objectives. The increase in the volume of resources mobilised will call for efficiency and effectiveness in the use and allocation of these resources for the specific educational and development priorities of each country. Such utilisation demands arbitrations and targeting of priorities by the political leadership. It equally depends on the availability and the in-country mobilisation of technical expertise and institutions capable of rigorously ensuring the sectorial, planning and management analysis of educational development.

8.4. Availability of Technical and Strong Institutional Capacities

The capacity needs in the educational sector are vast. Teachers are a top priority and governance capacity is also a challenge. The vertical coordination of implementation of policies requires that the central services of the Ministries of Education, the devolved services, local authorities and the schools, at every level of the hierarchy should play their assigned roles effectively. The inter-sectorial approach of education involved in the interaction of the new objectives equally requires, at every level, the capacity to build a horizontal coordination with the other sectors of development in order to design and implement the integrated interventions. The capacities in question are, notably, the following:

- collection, analysis, the development and management of a knowledge bank on the educational system;
- preparation, strategic planning as well as the monitoring and evaluation of policies and programmes;
- planning and management of human and financial resources, including budgetary and administrative processes, procurement etc.;
- planning and management of the educational system infrastructure;

- planning and management of decentralisation and decongestion in the educational system;
- planning and management of the integrated multi-sectoral interventions; and
- good governance and the use of ICT in all the areas of education.

In most African countries, the number and quality of technical capacities tend to be paltry, thus weakening the institutions. Weak capacity also affects pedagogical research, training and supervision of teachers, the preparation of curricula, the development of school textbooks, etc. Such a situation is especially more worrying as it occurs at a time when governance in education needs to integrate new developments in the harmonisation of public policies, thorough decentralisation, standardised steering of the quality, transparency, indebtedness, results-based management, the move from average budget to result-based budget, performance contracts, increased efficiency and effectiveness expenditure procedures. Added to that is the ambition and complexity of the new global and continental objectives and targets, making their attainment and monitoring hypothetical if the present weak institutional and technical capacities continue. It is, therefore, an emergency to put in place strategies and programmes of capacity reinforcement in response to the needs. For the successful implementation of these programmes and strategies for capacity reinforcement:

- The strategies and programmes for capacity reinforcement must integrate a culture of quality education, which incorporates sensitivity to equalization of gender, socio-economic and geographical origins and among all human groups with a particular attention paid to the most vulnerable;

- Aid increase for poor countries must comprise resources for capacity reinforcement, while care must be taken to guarantee an adequate anchorage and effectiveness of assistance, as well as the taking of national ownership and responsibility as a pledge of relevance and sustainability;

- The reinforcement of regional and continental networks, such as ADEA, its working groups and its inter-country poles is vital for they represent essential public goods and play an irreplaceable role in the knowledge and experience sharing among countries, the exchanges among Education stakeholders in Africa, evaluation and learning among peers, research and the documentation of best practices, the management and dissemination of knowledge, all in one link with dialogue on the policies involving, notably, Ministries of Education and development partners.

Finally, the perspective of capacity development programmes and strategies is based on the establishment of wider internal partnerships in developing the capacities necessary for the attainment of the objectives and targets of the 2030 Agenda and Agenda 2063.

9. TOWARDS AN AFRICAN ROADMAP FOR THE IMPLEMENTATION OF SDG4 OF THE 2030 AGENDA AND GOAL1. 2 OF AGENDA 2063

To ensure the follow-up of the Triennale and provide support for African countries, an African roadmap was adopted towards attaining the objectives of education under 2030 Agenda and Africa's Agenda 2063. This roadmap traces the implementation path within the framework of pooling of knowledge and experiences of African countries to optimize the chances of Africa to attain the new targeted objectives. The African roadmap draws inspiration from the 2030 Framework of Action,

which represents the international roadmap for the realization of the SDG4 by 2030 and which proposes strategies of suitable actions for each country.

The African roadmap consist of the following guiding principles: (i) the principle of taking ownership and regional adaptation in articulating the perspectives of both the 2030 Agenda and Africa's Agenda 2063 as well as the outcomes of reflections at the Triennale; (ii) the principle of inclusion of all the education stakeholders in Africa: ministers, civil society organizations and the private sector, development agencies and foundation, teachers' unions, parent's associations, women and youth movements, research and expertise networks; and (iii) the principle of effectiveness, by avoiding duplications and putting in front the comparative advantages of coordination. In order to ensure ownership and effectiveness of the roadmap its coordination has to involve:

- The African Union, representing all the African States, will ensure its political leadership;
- The African Development Bank, representing all the development agencies will be responsible for the mobilisation of external partnerships and resources; and
- ADEA, which has been well positioned for a long time on the aspects already mentioned has the experience, capacity and necessary tools to ensure implementation.

9.1. Areas of Actions

As regards the strategic axes for action retained at the Triennale, the roadmap presents 5 key areas and 5 strategies of action.

9.1.1. Priority Area of Action 1: Achieve SDG4: It entails: (i) Implementation of quality education for all towards sustainable development; (ii) Integration of the approach to transformation of the curricula and the learning and training environments, schools and other training institutions and all educational resources into factors for the promotion of adult education and lifelong learning; and (iii) Development of technical skills, youth employability and decent work for all.

9.1.2. Priority Area of Action 2: **Build a new African School System**. It calls for Contextualisation and African transformation of education to better target the educational needs, adaptation of the models to the resources to enhance the search for solutions at the local level, integration of the programmes and perspectives to the processes of planning, and community decision-making, and the interaction of the systems with the surrounding community, through multi-partite networks.

Priority Area of Action 3: **Revolutionize Skills.** It will consist of (i) Skills revolution through the promotion of teaching and learning of mathematics, science and technology and the twofold increase in the number of students registered for these courses; (ii) Higher education and STEM at the service of economic acceleration and sustainable development of Africa; and (iii) Integration of ICT in education, particularly in the processes of teaching and learning and offer of quality online learning.

Priority Area of Action 4: **Learn to live freely and in peace together**: It involves: (i) Integration of peace education and global citizenship in the systems; (ii) and Participation of women and the youth: peace movements, global citizenship and sustainable development, contribution to advocacy and policy development and implementation.

Priority Area of Action 5: **Deploy conditions and factors of success**: They include: (i) Mobilization of the Committee of Ten Heads of State Champions of Education; (ii) Implementation of Innovative Financing Mechanisms and the African Education Fund; (iii) Transforming teachers' cultures and practices for educational transformation;

9.2. Strategies for Action

The strategies for action consist of the following:

- Strategy 1: Communication for mobilizing commitment from all the stakeholders: advocacy, information, sensitisation, social mobilisation...;

- Strategy 2: Assistance granted to the movement: dialogue forum on the policies, exchange networks on the best practices and knowledge sharing, learning and peer review, studies and research setting up of learning communities on the steps facing the problematic questions and major challenges;

- Strategy 3: Facilitation of sub-regional, regional, and international partnerships in collaboration with the institution and the players at these different levels;

- Strategy 4: Mobilisation of targeted resources on the effect of a lever for the creation of the catalyst effects;

- Strategy 5: Monitoring/evaluation of progress at the continental level, support to the diagnoses and studies, to exchanges on results and measures.

10. CONCLUSION

The key word during the discussions and conclusions of the 2017 Triennale was **Transformation**: It means:

- Jettison incremental and corrective policies in order to adopt transformational policies that will help to attain the objectives of universalisation, equity and quality of education.

- Transform the systems inherited from colonial powers to build a new African school system that promotes heritage and endogenous potential for development to meet as closely as possible the needs and aspirations of cultural and social development of the African population.

- Transform school knowledge far removed from daily realities and issues of development in order to promote the necessary skills among the youth to enable them live and work in the 21st century.

- Transform the imbalances that marginalise science, mathematics and technology in the current systems by a revolution of skills enabling Africa to bridge the divides separating it from the rest of the world in these disciplines; and anticipate and implement structural transformation of the economy and build African knowledge societies and economies.

- Transform the simple transmission of formal school knowledge into capacities to develop skills for brainstorming and action, to change the values, attitudes and youth behaviours

positively -- to acquire a real capacity to educate for peaceful and harmonious co-existence with humanistic ideals and universal principles of democracy, human rights and justice.

- Transform the insular nature of the school to ensure that it serves the population as an avenue for inter-generational learning, fruitful confrontation between endogenous and modern knowledge and experiences and local development.

- Transform the pyramid structure of the school and its elitist functioning of selection-elimination to promote a diversified system and an education-training continuum which offer to every individual learning opportunities at every stage of their lives and adapted to their needs and capacities for the success of all.

- Transform the elitist, teacher-centric and insular practices of the teaching personnel and the other stakeholders such as school heads, educational counsellors, teachers' trainers, parents and teachers so that they acquire new skills oriented towards the success of learning for all, with high priority and concern for disadvantaged learners, constructivist methods, educational partnerships with stakeholders in the community (i.e. social, economic and cultural environment of the school).

- Transform the modes of evaluation to ensure that they are more diagnostic and forward-looking at the service of continuous improvement of the quality of education for all and that they are in harmony with educational objectives focused on the development of skills, conceptual thinking, critical mindedness, new problem-solving capacity, innovation and activity-orientation.

- Transform the governance of systems aimed at the offer and the means of promoting results-oriented management, conscious of efficiency of expenditure, optimisation of allocation and use of resources and the accountability of all the stakeholders.

All this transformation must be seen and implemented in a coherent, holistic and interactive manner, taking into consideration the components of the education system (inputs, processes and procedures, outcomes and products, community and systemic environment, all levels and all modalities of education) and in relation to the guidelines and actions developed in the other sectors for the transformation of the entire social entity. This transformation is a pre-requisite in Africa for attaining the SDG4 targets and the Goal 1.2 of Agenda 2063. This is akin to developing education and training systems that will significantly advance the transformation of Africa and the world towards sustainable development. Among the critical conditions and factors for the successful implementation of this transformation, the following can be cited:

- The vision of transformation and the resolute commitment of the political leadership at the highest level: The intermediation of the Committee of 10 Champions African Heads of State on Education, Science and Technology established by the African Union must be mobilised towards this end, in particular, the high-level meetings proposed in the roadmap;

- The increase in educational financing coupled with a better definition of the implementation priorities and strengthening of effectiveness and equity in educational expenditure: The African Education Fund has been adopted to complement, pool and support the efforts of countries towards the attainment of the set objectives;

- The availability of strong technical and institutional capacities, including strategic planning and operational planning, requires planned programmes for the development of capacity

within the period and going forward: The roadmap incorporates them in exchanges between countries and in learning with peers, but it also allows for resource mobilisation for the African Fund to propose a regional institutional response to this vital need.

The implementation of the roadmap involves all stakeholders and partners in the transformation, with mutual accountability espoused by the participatory approach adopted. The roadmap will help measure the results obtained by the countries and by the continent, according to the comparative indicators for political dialogue and decision-making, as well as the technical preparations, which the adjustments need for continuous progress. The roadmap enhances the chances of Africa to attain the goals of the 2030 and 2063 agendas through the pooling of resources, brainstorming, learning and development of skills, and mutualisation, which makes impossibility a possibility for each one taken individually.

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