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Promoting critical knowledge, skills and qualifications for sustainable development in Africa: How to design and implement an effective response by education and training systems

Sub-theme 1

Common core skills for lifelong learning and sustainable development in Africa

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Synthesis Paper - Sub-theme 1

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Working Document

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ACRONYMS AND ABBREVIATIONS

ADEA	Association for the Development of Education in Africa
BEAP	Basic Education in Africa Program (UNESCO-BREDA)
CCS	Common Core Skills
CEBNFs	Centre d'Education de Base Non Formelle
CFPNF	**Centres de Formation Professionnelle Non Formels**
CONFEMEN	Conference of Ministers of Education of Francophone Countries
DRC	Democratic Republic of Congo
ECD	Early Childhood Development
ECOM	Ecole Communautaire
EFA	Education for All
ESD	Education for Sustainable Development
GIZ	German Institute for Cooperation
ICT	Information and Communication Technologies
ICQN-PE	Inter-Country Quality Node for Peace Education
JICA	Japanese International Cooperation Agency
LLL	Lifelong learning
MDGs	Millennium Development Goals
NGOs	Non-Governmental Organizations
NQF	National Qualifications Framework
OECD	Organisation for Economic Cooperation and Development
PASEC	Program on the Analysis of Education Systems (CONFEMEN)
ROCARE	West and Central Africa Research Network
SACMEQ	Southern and Eastern Africa Consortium for the Monitoring of Educational Quality
SADC	Southern African Development Community
SD	Sustainable Development
SSA	Sub-Saharan Africa
UIL	UNESCO Institute for Lifelong Learning (Hamburg)
UNEVOC	UNESCO International Centre for Technical and Vocational Education and Training (Bonn)
VET	Vocational Education and Training
WGBLM	Working Group for Book and Learning Materials (ADEA)
WGECD	Working Group for Early Childhood Development (ADEA)
WGNFE	Working Group on Non-formal Education (ADEA)

1. ABSTRACT

1. This synthesis paper reviews the analytical work undertaken in preparation for the discussions at the ADEA Triennial on Sub-theme 1, "Common core skills for lifelong learning and sustainable development in Africa". The analysis is based on a wide variety of studies specially commissioned for the Triennial, as well as a range of other current literature, published or unpublished, produced in Africa or beyond.

2. The paper focuses on three dimensions of this sub-theme: (i) the background, conceptual framework and agenda for more fundamental education reform necessary to create lifelong learning environment for all people–children, youth and adults–to contribute to sustainable development; (ii) the nature, state-of-practice and challenges of a range of common core skills whose acquisition can make different forms of education more relevant for life and work; and (iii) a set of enabling conditions that seem essential for such learning to be achieved by all.

3. The paper finds that, although countries are moving towards a holistic and integrated approach to basic education provision, systems still have enormous difficulties in changing the fundamentals of teaching and learning in such way that proficiency in core skills can be acquired by all. Key challenges relate to the nature of pedagogical processes; the education and development of teachers; the effectiveness of education leadership, supervision and professional support; the content and usage of materials and assessment systems; and the relationships between schools and the wider socioeconomic and cultural environment.

2. EXECUTIVE SUMMARY

Introduction

4. This synthesis paper reviews the present state-of-the art as regards perspectives, policies and practices in Africa related to sub–theme 1 of the Triennial, i.e. Common core skills for lifelong learning and sustainable development. It forms part of a set of four papers that review key issues related to the overall theme of the Triennial: Promoting critical knowledge, skills and qualifications for sustainable development in Africa: how to design and implement an effective response by education and training systems.

5. The intention of this paper is to prompt discussion at the Triennial Meeting. Thus it aims to highlight major issues regarding the nature and conditions of effective lifelong learning for sustainable development; the state of practice and experiences regarding different types of common core skills; the nature of paradigm change in basic education and the challenges this poses; and current debates and recent developments in areas of reform that constitute a critical enabling environment for change.

6. The paper is divided into three parts: Part I addresses the focus and agenda for deeper educational reform in relation to the framework of lifelong learning and education's contribution to sustainable development. It starts with follow-up from the Maputo Biennial, discussing reform initiatives inspired by the Maputo outcomes (Section 2) and continues with an in-depth focus on the notions of common core skills, lifelong learning and the challenges of linking learning with sustainable development at the level of basic education (Section 3). Ongoing reflection and action related to lifelong learning in relation to education for sustainable development are reviewed in Section 4.

7. Part II reviews the nature and state-of-practice regarding key areas of skills and competencies. Section 5 starts with exploring the state of thinking and practice regarding "common core skills" for sustainable development by introducing the "common core" in relation to curriculum reform and there after addresses different types of skills and competencies in some depth: literacy and language (Section 6), cognitive and scientific skills (Section 7), personal development and life skills (Section 8), social and citizenship skills, including peace building (Section 9), and work-related skills (Section 10). This part concludes by listing several key challenges of such agendas for educational reform.

8. Part III addresses essential enabling conditions for achieving effective acquisition of skills relevant for sustainable development. Here, Section 12 addresses relevant conditions pertaining to education systems themselves, while Section 13 looks at various issues related to conditions in the wider socioeconomic and political environment. The final section (14) gives an overview of the principal findings of the analytical work.

Part I – Background and setting the agenda

9. The principal argument in Part I is that the Biennial in Maputo has inspired countries to move their education system towards a holistic and integrative approach, and to take on a lifelong learning perspective but that much work is still required. More countries have come to recognize other existing forms of education and training, including non-formal education, Qu'ranic schools and education outside schools such as shepherd schools and market schools. Implementation of an integrated approach, in such way that diversified but equitable basic education systems would emerge, remains very challenging as this would require the upgrading, expansion and subsidization of quite a few alternative education provisions, enabling disadvantaged young people to transfer from one program to another according to circumstances in order to access further education and training.

10. Some countries that have made great efforts towards inclusivity, such as Kenya, find that improved access and participation do not necessarily go together with higher levels of achievement. It appears that performance may not correlate with socioeconomic background but that improvement of

the teaching-learning interaction in the classroom can be a major factor in offsetting constraints for learning in the home situation.

11. It was also found that the concepts of lifelong learning and education for sustainability are still poorly understood and need to be operationalized in national context as a basis for policy development and change of practice. Too often, lifelong learning is still equated with adult education only, rather than with a comprehensive framework to organize all education and training in terms of their life-wide (covering different forms of education) and lifelong (continuing learning through all stages of life) dimensions, bringing these together in an integrative way.

12. Education for sustainable development (ESD) is about building a critical mass of citizens who are not just informed and trained, but who are above all capable of using their achievements to bring about the economic, social, cultural and political changes required for sustainable development. UNESCO emphasizes a wide range of aspects of education that should be part of ESD: such as the centrality of respect for others, for difference and diversity, for the environment and for resources of the planet; working towards an inter-disciplinary and holistic curriculum, critical thinking and problem-solving; using multiple methods in teaching and learning; participatory decision-making; integration of learning experiences in daily life and work; and addressing local as well as global issues using languages which learners commonly use.

13. ESD has implications for educational reform in terms of re-structuring education provision, extensive curriculum reform, and reviewing the actual quality of teaching and learning to make them more effective and to ensure continuous impact on the environment and society. Above all, as UIL points out, simply expanding the quantity of education and lifelong learning will not be sufficient to advance sustainable societies. The quality of education and training, including appropriateness and relevance, must be enhanced. Thus ESD has come to strengthen the agenda for improvement of quality by focusing on the importance of learners effectively acquiring core skills needed for life and work.

14. Thus, ESD is more than environmental education or training young people for work. It affects the entire curriculum in all learning, whether through formal, non-formal or informal channels, and is intended for all ages, as learning new skills necessary to cope with the continuing challenges of life and work never ceases. It is also argued that an African sustainable development paradigm calls for a pedagogy that is based on community-focused learning and the expansion of learning beyond the school-walls and into different sectors of society, thus facilitating the convergence of academic knowledge, local wisdom and experience. Thus, education becomes "learning without walls", involving learners, parents and teachers in joint efforts to share knowledge and acquire relevant skills.

Part II – Exploring the challenges of different core skills

15. In Part II the nature of the challenges that a lifelong learning framework poses are elaborated in greater detail in relation to a range of common core skills that countries can put at the heart of good quality and relevant basic education. The types of core skills are not new to most education systems. Indeed, it is shown that many of these have in various ways become part of efforts to improve relevance of education for different age-groups, starting with pre-school learners up to adults. Important innovations have been developed in both formal and non-formal education settings. However, the complex nature of many of these skills and their specific requirements for effective pedagogical methodologies require that they need far more explicit attention; thus, they should be systematically developed in relation to one another across the curriculum.

16. It is established that the skills of literacy and early reading are the most essential skills of all as they determine the acquisition of knowledge and other important skills in later years of learning. The paper re-emphasizes that literacy, not only for adults but also for children, must be acquired in the mother-tongue and that strategies for early grade reading must be drastically improved, as assessment in a range of countries has shown that children are not learning because of language constraints.

17. Much attention is also given to the continuous strengthening of cognitive and scientific skills. It is shown that the basis for cognitive skills is already laid in the early years of childhood through stimulation of thinking, curiosity and creativity. Thus, the quality of pre-school learning tends to be crucial for a child's later academic success.

18. The paper argues that in Africa an early interest in science needs to be developed in school and at the primary level, with as much parental support as possible. It is important that at this level skilled teachers capitalize on children's natural interest in their environment and interact constructively with the "theories" ("children's scientific ideas") that children develop to make their own sense of the world. This means that it should be recognized that children do not start in a void but that teachers can help to construct learners' knowledge by linking new ideas and experiences with what they already know.

19. An important part of social skills in several countries affected by fragility and conflict is the exploration of modalities for peace education. Some papers have shown what progress is being made to change education from a force for maintaining divisions, inequalities and tensions in society to a force for building and maintaining peace, by enabling young people to reflect more deeply on issues of conflict and peace, and also to develop critical skills and values, such as tolerance, respect for other views and cultural traditions, and peace-building skills. The importance of peace education also involves ensuring greater access to tailor-made education provision for young people directly affected by conflict and violence. Such education should acknowledge their needs for various kinds of support, including life and coping skills, vocational skills and psycho-social support.

20. The current trend to regard core skills as valuable only in the light of their relevance for the labour market denies their broader significance for the lives of younger and older people in general as well as for the social, cultural and environmental dimensions of sustainable development. It is also argued that core skills need to be linked to the "life world" of the learners and that they must be applied in the school environment and the community in a practical manner. This implies that schools and parents think about how their own ways of thinking and acting can be adjusted to produce models for learning. It further implies a need for school learning to be connected to learning in the home environment as well as to indigenous knowledge for the purpose of helping children to understand the value of different traditions.

Part III – Implications for changing the enabling environment

21. Part III reviews a number of implications for educational reform that are essential to ensure that core skills can effectively be developed in different education environments. It is argued that the entry point to wholesale and integrated educational reform towards greater relevance for sustainable development must be the curriculum; thus, developing a comprehensive curriculum framework to be valid across all forms of basic education, incorporating selected common core skills, must be the first priority.

22. The introduction into education systems of skills-based curricula will need to be done in a holistic manner, linking curriculum reform to major changes in teacher education and development, teaching-learning support materials, use of ICTs, school leadership, management and supervision, and assessment practices. This should involve all forms of education, including early childhood development, non-formal and informal forms of learning, thus creating "schools without walls".

23. The lifelong learning perspective demands that youth and adult education become integral parts of the overall education system, and that essential complementarities can be identified between skill requirements for children and those for their parents, as well as those for adolescents and adults. It should be acknowledged that curriculum reform for school education may need to go together with fundamental reform of adult education and functional literacy programs, as large numbers of adults have experienced the same deficiencies (if not more) that characterize current school education and thus are equally poorly prepared to face the impacts of present radical changes in society.

24. Such holistic reforms will require participation and collaboration in decision-making on design and implementation by all stakeholders, in particular communities, relevant civil society and private organizations, teachers' unions and sector ministries. This is necessary in order to create effective partnerships in developing new approaches and programs as well as in governance and mobilization of funds. This is also necessary for pedagogical reasons as in basic education for children where there is need for a pedagogic triangle of teachers, learners and parents (community) in order to achieve desirable learning outcomes. The interactions in this triangle should be based on respect, trust, care and concern for the wellbeing and learning of the child.

25. In terms of the further implications of curriculum reform to ensure its relevance for ESD, much attention needs to be given to actual pedagogical practices in the classroom, effective use of appropriate teaching-learning support materials, and the central role of learning assessment. Research in East Africa showed that teacher-pupil classroom interaction appears to be the single most important factor accounting for wide differences in outcome measures using the same curriculum materials and purportedly the same teaching method.

26. Changing pedagogical styles and classroom interaction constitutes a major challenge to teachers, and to teacher training and development institutions and programs. While the challenge lies partly in the area of pedagogical skills, other issues include the development of a very different mindset about teaching and learning and thus about the roles and responsibilities of teachers and learners in the pedagogical process. Teachers need to be assisted to understand and appreciate their roles and responsibilities and to accept what may be an additional workload. This can be a major issue, particularly in countries where teacher motivation and commitment have been negatively affected by decreasing salaries and poor conditions of service.

27. Further issues concern changes in classroom management and the organization of learning; changes in school governance and organization; the very "ethos" and culture of schools; the principles governing learners' activities and behaviors; and changes in the manner in which teachers interact with the outside world, from parents to employers. Moreover, changes in pedagogy pose challenges to school heads, supervisors, professional support and quality assurance personnel, and not in the least to learners and their parents.

28. Inclusivity linked to achieving equality of opportunity for all children regardless of their background, circumstances and age is gradually being recognized, but there is still a long way to go to ensure that young people can follow different pathways and still have de facto equal access to further education and training opportunities. One major factor is how schools place themselves within the wider environment of available support provided by other public and private agencies. A strategy pioneered in SADC countries makes schools the sites of integrated and comprehensive care and support necessary to improve children's access, retention and achievement in school, thus catering for different non-educational aspects of vulnerability.

29. The learning environment of young people also concerns other aspects related to the integrity and moral behavior of those who deal with young people. Learners will benefit much from protection against harassment, drugs, violence and conflict, and from the integrity and ethical behavior of government officials and education staff. Countries emerging from conflict face the arduous task of reconstruction, but a much more comprehensive challenge must be faced to create a conducive environment for young people that responds to their education needs in a holistic and equitable manner. This points even more strongly to the urgent and broader needs of countries to produce effective education policy, management and planning capacity as essential contributions to sustainable development.

3. INTRODUCTION

30. This synthesis paper will review the present state-of-the art as regards perspectives, policies and practices in Africa related to sub–theme 1 of the Triennial, i.e. Common core skills for lifelong learning and sustainable development. It forms part of a set of four papers that review key issues related to the overall theme of the Triennial: Promoting critical knowledge, skills and qualifications for sustainable development in Africa: how to design and implement an effective response by education and training systems.

31. While three of the papers address issues associated with different parts of the education and training field, one is an overall paper addressing the broader context and significance of the theme as well as the main challenges countries are facing. The paper on Sub-theme 1 links up directly with the overall synthesis paper and focuses on conditions, developments and challenges in promoting common core skills through basic education within a frame of lifelong learning and sustainable development.

32. The review will be primarily based on the many contributions to this theme produced by research teams of ministries of education, international technical agencies, ADEA working groups, African research organizations, regional and international NGOs, and individual researchers. Since the area and scope of this sub-theme are wide, the analysis also uses supplementary documents, published and unpublished, that have recently been produced by organizations and individuals in Africa and elsewhere.

Purpose of the synthesis paper

33. The intention of this paper is to serve as a discussion paper for the Triennial. Thus it aims to highlight major issues regarding the nature and conditions of effective lifelong learning for sustainable development; the state of practice and experiences regarding different types of common core skills; the nature of paradigm change in basic education and the challenges this poses; and current debates and recent developments in areas of reform that constitute a critical enabling environment for change.

34. The paper will be discursive in that it reviews a range of viewpoints, developments, experiences and outcomes, while at the same time raising issues and questions. Thus, while synthesizing what seem to be current theories and practices, the paper aims to explore the present terrain and to challenge participants in the Triennial to confirm, modify, critique and augment these views and arrive at realistic insights as to where we are and how we can best move forward in enabling learning to become more effective and productive for personal and societal development.

Broader context of educational performance

35. The Triennial takes place within a broader context of mixed successes and deficiencies as regards developments in basic education. On the one hand, according to the 2011 MDG Report, some of the poorest countries have made the greatest progress in education (Burundi, Rwanda, Sao Tome and Principe, Tanzania, Togo). Others are making considerable progress, such as Benin, Burkina Faso, Ethiopia, Guinea, Mali, Mozambique and Niger, with net enrollments in primary school having increased by more than 25% between 1999 and 2009. With an 18% gain between 1999 and 2009, sub-Saharan Africa (SSA) is the region with the best record of improvement: its net enrollment rate reached 76% in 2009 (UN, MDG Report, 2011:4 and 16).

36. At the same time it is reported that northern Africa leads the way in expanding literacy among youth: the region increased these literacy rates by 19% between 1990 and 2009. During the same period, SSA rates increased by 7% (UN, MDG Report, p. 19).

37. The same report notes that SSA will be unable to meet the hunger-reduction target by 2015 (UN, MDG, p. 12). Thus, large numbers of children enter school with low levels of nutrition which affect their participation in learning. Moreover, by 2009, some 32 million children in the region

remained out-of-school, constituting almost half of the total out-of-school children worldwide. Children most affected are the poor, female or those living in conflict zones (UN, MDG, p. 17).

38. Focussing on eastern and southern Africa, SADC, quoting the UNICEF report on the State of the World's Children for 2009, notes that children in the region are at risk of not attending school regularly, of not progressing through the system, of failing to complete primary school, and of not progressing to secondary school. In the sub-region there is a marked difference between the high enrollment rates compared to the attendance and completion rates of children of primary school-going age: on average, attendance rates are 68% for boys and 69% for girls, compared to enrollment rates that are nearly 90% (SADC, 2011).

39. The MDG report also points out that household studies show that the majority of children out-of-school in SSA will never enter a classroom (UN, MDG, p. 18). However, the pattern of exposure to education varies much between countries and within countries.

40. For those who attend school, the major problems remain quality and relevance. In many systems dropout is rampant and often accumulates through the primary cycle to more than half of the cohorts. While this is often caused by poverty and other family circumstances, much of it is due to poor quality of teaching and learning. What has been learned can often not be used because of very poor mastery of basic skills.

Structure of the paper

41. The paper is divided into three parts: Part I addresses the focus and agenda for deeper educational reform in relation to the framework of lifelong learning and education's contribution to sustainable development. It starts with the follow-up from the Maputo Biennial, discussing reform initiatives inspired by the Maputo outcomes (Section 2) and continues with an in-depth focus on the notions of common core skills, lifelong learning and the challenges of linking learning with sustainable development at the level of basic education (Section 3). Ongoing reflection and action related to lifelong learning in relation to education for sustainable development are reviewed in Section 4.

42. Part II reviews the nature and state-of-practice regarding key areas of skills and competencies. Section 5 starts by exploring the state of thinking and practice regarding "common core skills" for sustainable development by introducing the "common core" in relation to curriculum reform and there after addressing different types of skills and competencies in some depth: literacy and language (Section 6), cognitive and scientific skills (Section 7), personal development and life skills (Section 8), social and citizenship skills, including peace building (Section 9), and work-related skills (Section 10). This part concludes by listing several key challenges for educational reform.

43. Part III addresses essential enabling conditions for achieving effective acquisition of skills relevant for sustainable development. Section 12 addresses relevant conditions pertaining to education systems themselves, while Section 13 looks at various issues related to conditions in the wider socioeconomic and political environment. The paper concludes with a summary of the main findings of the analytical work reviewed.

4. PART I - FOCUS AND AGENDA FOR CONTINUED REFORM

4.1. Continuing the reforms set by the Maputo agenda

44. The Maputo Biennial set the tone for a paradigm shift in educational development in Africa. This concerned both the substance and structure of basic and post-basic education. It called for a holistic and integrated approach that recognized the essential diversity of categories of learners, with their different backgrounds and circumstances, as well as the diversity of modes of provision. The structure of the system needed to be reviewed in order to allow for rapid moves towards inclusivity and quality, and thus to cater for the needs of large numbers of young people out-of-school whose (re-)absorption into the system may require recognition and enhancement of alternative modes of provision (ADEA, 2009).

45. Maputo also called for following a system's perspective so that the interrelatedness of all learning and all forms of education could be recognized. This implied attention to the connections between general education and vocational training, between institution-based and work- or home-based forms of learning, and between basic education for children and that for youth and adults. Such perspective would enhance the promotion and recognition of lifelong learning pathways and thus the transfer from one mode of learning to another for all people in accordance with their circumstances and interests (ADEA, 2009).

46. The Maputo meeting encouraged various countries and organizations to embark upon or continue with work to promote holistic and integrated approaches to educational reform. This was particularly notable in West Africa, although further work towards achieving diversified basic education systems also continued in eastern and southern Africa.

47. For example, in **Burkina Faso** and **Senegal**, and to a lesser extent in **Mauritania**, education policy documents now take account of all sub-sectors as part of a holistic vision:

> Burkina Faso has a framework law on education (2007) that covers the entire education and training sector.
>
> In Senegal, the overall education development program is coordinated by the Department of Planning and Education Reform which is a central department in one of the four ministries responsible for education.
>
> In Mauritania, the National Plan for the Development of the Education Sector (PNDSE) and the Strategic Framework for the Fight against Poverty (CSLP) adopt a holistic vision (WGNFE, 2011:26).

48. As part of a holistic vision, a standard curriculum is now being implemented in **Cape Verde, Mauritania** and **Senegal**, although progress is varied. The standard curriculum, within an integrated approach, entails:

> The development of a common strategy for education (its role in development, goals, etc.);
>
> The definition of learners' leaving profiles within an inclusive approach, irrespective of the educational provision in question (a "core curriculum");
>
> Efforts to take into account the specific nature of provision through specific modules, for example for literacy, alternative approaches, Qu'ranic schools (WGNFE, 2011:30).

49. The **Burkina Faso** national study illustrates the implementation of such a strategy and describes the gradual integration of non-formal education within the overall system. Through examples of alternative approaches cutting across all levels, it demonstrates the potential of the system to reform itself while paying attention to what happens outside formal structures. The study shares lessons learned through a range of experiences, including alternative early childhood schemes (such as Bisongo), alternative approaches to integrating early school leavers and non-educated children (such as the CEBNFs), non-formal vocational training centers (CFPNFs) and community schools (ECOM) for adolescents, and new approaches to literacy training in relation to anti-poverty and development (BURKINA FASO, 2011. The possibility of reforming the system by taking a close look at all aspects of it is not without constraints and difficulties which are extensively documented (WGNFE, 2011).

50. A country study on **Kenya** to review interventions towards an all-inclusive and equitable basic education reports that since 2003 much effort has been made to review policies and practices aimed at achieving inclusivity in the sense that all children and young people, regardless of cultural, social and learning backgrounds, should have access to equivalent learning opportunities in all kinds of schools. Hence, there is need to transform education systems and other learning environments in order to respond to the diversity of learners. Moreover, it was accepted that a transformed education system should reflect three dimensions of equity: equity of resources, equity in the process of education and equity of outcomes (Njoka *et al*, 2011:16).

51. In order to achieve this, a range of key reforms have been introduced. These include free primary education (FPE); a school health and nutrition intervention involving the promotion of school health and hygiene; and a school feeding program (in arid rural and in urban slum areas). Investments in school infrastructure development are made in collaboration with various national partners, providing extra support to children with special education needs, developing and implementing policies on HIV and AIDS intervention, and implementing a variety of strategies to promote gender parity and equality in education (Njoka *et al*, 2011).

52. This empirical study to assess the success of these interventions concluded that in spite of serious challenges to implementation, overall the interventions contributed much to increasing access to primary education. The gender program was least successful due to persistent barriers such as sociocultural and religious practices, poverty and lack of community awareness. However, it was also found that performance in the end of primary examinations had generally declined during the last decade and that neither successful implementation of interventions nor improved inputs were significant predictors of performance (Njoka *et al*, 2011:48-53).

53. In many countries a major contribution towards equitable inclusion could be made by the development of a national qualifications framework (NQF). NQFs play a facilitating role towards the recognition and validation of non-formal and informal learning, thus enabling young people and adults who have been excluded from formal education to acquire knowledge and skills in other settings. Their education is recognized so that they can gain access to further formal education and training, and the labour market (UIL, 2011a:10; WGNFE, 2011). UIL undertook a comparative analysis of the effectiveness of NQFs in **Botswana, Ghana, Mauritius, Namibia, Seychelles and South Africa** as a contribution to the Triennial.

54. Findings show that policy reforms are being driven by lifelong learning strategies that include NQFs and recognition developments, but coherent and comprehensive lifelong learning strategies and practices covering the full life-course are still not the norm, with some still focusing on specific sectors (Ghana) or groups. Implementing lifelong learning through formal, non-formal and informal learning, and increasing mobility remain a challenge (UIL, 2011a:9).

55. The study points out that the learning outcomes approach underpinning NQF development needs to be more widely accepted so as to increase the validation of learning taking place in different settings. This makes it possible to focus on the specification of sets of skills and competences in

partnerships with the world of work, and to build these into competence and qualification frameworks. Several countries have made much progress in this regard. Once established, NQFs and recognition can also support the continued development of basic skills and new skills important for sustainable and inclusive growth (UIL, 2011a).

56. However, despite this progress, effective implementation of NQFs in Africa still needs a lot of effort. According to the ADEA WGNFE, the holistic, integrated and diversified vision is still little known and needs to be more widely promoted (WGNFE, 2011:12).

4.2. Greater focus on common core skills, lifelong learning and sustainable development

57. The challenge for the Ouagadougou Triennial is to reach beyond the broad parameters of holistic and integrated educational reform and focus more specifically on the substance, processes and outcomes of learning. It aims to give the concept of common core skills for young people as well as adults a much more central place on the education agenda. Moreover it aims to link such core skills to Africa's commitment to sustainable development, thus addressing how, within integrated education systems, effective learning of knowledge and skills throughout life can be achieved in line with the need for sustainable development.

58. The above is clearly an agenda for reviewing and clarifying what is to be learned, for what purpose, by whom, how, with what outcome, and validated in what manner? These basic questions need to be addressed within the context of what is meant by *common core skills*, *lifelong learning* and *sustainable development*. There is then a further question as to the meaning of *education for sustainable development*. Finally, how can learning achievements themselves become sustainable?

4.2.1. Common core skills

59. *Common core skills* can be defined as those basic learning outcomes–in the form of knowledge, skills, competencies, values and attitudes–that all people, both young and old, should be able to acquire in the beginning or at some point in their lives in order to grow as human beings and to effectively participate in the sociocultural, economic and political development of their society. This definition assumes not only the acquisition of particular abilities but also the interest and commitment of acting upon this learning. In this context an extended definition of common core skills is proposed, as a "combinatory [sic] form of knowledge that makes use of theoretical, procedural and environmental knowledge, or learning, know-how and life skills, to solve problems, make decisions, carry out plans, etc." (ADEA, 2011).

60. UIL suggests using the concepts of *core skills* and *competencies* in the sense of *capabilities* which have more breadth, ambition and sense of agency. Capabilities can be developed to a high level: there is always the challenge to develop further and this is appropriate from a lifelong learning point of view. Core skills, competencies, and capabilities enhance people's ability to exercise a degree of control over their own lives; to take part with others in decisions that affect the contexts of their lives; and to envisage an alternative future for themselves and for their families (UIL, 2011b:2; Sen, 1999).

61. The challenge to address the acquisition of common core skills for sustainable development is the continuation of the challenge set by the Jomtien conference which defined *basic learning needs* as: "essential learning tools (such as literacy, oral expression, numeracy, and problem solving) and the basic learning content (such as knowledge, skills, values, and attitudes) required by human beings to be able to survive, to develop their full capacities, to live and work in dignity, to participate fully in development, to improve the quality of their lives, to make informed decisions, and to continue learning" (WCEFA, 1990:11).

4.2.2. Lifelong learning

62. *Lifelong learning* can be defined as the lifelong, voluntary, and self-motivated pursuit of knowledge for either personal or professional reasons. As such, it not only enhances social inclusion, active citizenship and personal development, but also competitiveness and employability (ROCARE, 2011b:3). UNESCO-UIL (2011b) points out that the concept of lifelong learning has drawn much from the Faure Report (1972), emphasizing that learning should be universal and lifelong. It developed the four pillars of learning: learning to know, learning to do, learning to live together and learning to be[1] (Delors, 1996, quoted in UIL, 2011b:3). These ideas later found their way into the visions of Jomtien and Dakar.

63. However, UIL notes that the understanding of the concept of lifelong learning (LLL) and its importance to sustainable development is still limited and that comprehensive policy frameworks for promoting LLL have remained patchy; implementing a holistic vision of LLL has remained weak (UIL, 2011b:3). As this situation is in stark contrast with the socioeconomic, political and cultural demand for high-quality skilled people and active citizens across the African continent, the study argues that it is imperative to incorporate the vision and practice of LLL into overall national policy frameworks and to embed LLL into national education and training systems of African countries (UIL, 2011b:3).

64. Hence, much of UIL's work has been to help increase capacity of policy-makers and leading researchers to develop national policies and strategies and to make LLL a reality for all. UIL regards LLL as an "integrative concept" which can contribute to sustainable development in Africa. As a paradigm to organize all education and training, LLL recognizes three components*: life-wide learning,* referring to the breadth of learning across family, cultural settings, communities, work and leisure; *life-deep learning,* referring to contemplative, meditative, spiritual learning practices; and *lifelong learning,* referring to the four stages of life–childhood, productive age, age of maturity, old age (UIL, 2011b:8).

65. Thus, as a composite term, lifelong learning is seen as reflecting all contexts in life from a life-wide, life-deep and lifelong perspective. Thus it promotes learning behaviors obtaining of knowledge and understanding, attitudes, values and competencies for personal growth, social and economic wellbeing and democratic citizenship. In UIL's view the focus on learning also denotes an increasing recognition of the porous boundaries between forms of education and training, i.e. formal, non-formal and informal education (UIL, 2011b:8).

66. According to ROCARE, the common themes in literature on lifelong learning articulate four characteristics which transform education and training into the concept of lifelong learning. These are:

> Formal and non-formal/informal types of education and training;
> Self-motivated learning with heavy emphasis on the need for individuals to take responsibility for their own learning;
> Taking responsibility for own learning and prepared to invest time, money and effort in education or training on a continuous basis;
> Commitment to universal participation in education and training, including both informal and formal learning for all purposes:social, economic and personal (ROCARE, 2011a:6).

67. While LLL is a very valuable concept, its usage as an organizing principle in the entire domain of learning has many implications which make its application highly complex. A major consequence is that many connections need to be forged among providers, managers, groups of professionals, funding organizations, even entire bureaucracies, all with different interests and varying degrees of power and influence. Among programs, even those within the same form of education/learning, coordination and collaboration are at a premium as they tend to have their own supervisory, service and consultative

[1] Adama Ouane, director of UIL, has suggested additional pillars to be learning to change and to risk (UIL, 2011: 8).

infrastructure. Moreover, each form tends to have its own gatekeepers and protectors (often backed by support networks) who tend to protect the existing institutional rules and practices. Building national systems around LLL is therefore a daunting task requiring careful leadership and negotiating skills and very practical minds to build connections and collaboration over time.

4.2.3. Sustainable development

68. The concept of *sustainable development* (SD) has been fully outlined in the general synthesis paper (ref). This section discusses the relevance and usage of SD in the areas of basic education and lifelong learning as a basis for further policy development.

69. In the overall synthesis paper ADEA argues that the very concept of sustainability has expanded beyond caring for the environment to encompass "the social and economic infrastructure that determines a society's capacity to maintain itself in a rapidly changing global context." This interpretation suggests that the SD concept contains four inseparable and complementary dimensions: (i) the protection and preservation of the environment, particularly efforts to tackle climate change; (ii) the development of a model of sustainable economic growth based on the rational exploitation and conservation of natural resources; (iii) the construction of inclusive societies founded upon effective efforts to alleviate poverty and tackle all sorts of discrimination and marginalization; and (iv) the strengthening of mutual knowledge and cultural and spiritual understanding between groups, societies and peoples to foster solidarity and peace(ADEA, 2011).

4.2.4. Education for sustainable development

70. What then is the meaning of *education for sustainable development* (ESD)? The ADEA synthesis paper posits that SD makes it imperative to increase the effectiveness of learning so as to meet current and future challenges. Education needs to build "a critical mass of citizens who are not just informed and trained, but who are above all capable of using their achievements to bring about the economic, social, cultural and political changes required for sustainable development" (ADEA, 2011). This implies that education needs to ensure that people acquire a range of skills, competencies, values and attitudes enabling them to act in their environment so as to enhance its quality. Education should not only be effective towards the achievement of valuable learning outcomes but also encourage learners to apply these skills in their communities and society.

71. UNESCO has given much attention to ESD and regards the concept not as a program but as an umbrella that affects all components of education and under which current education programs can be rethought and a wide variety of new initiatives implemented (UNESCO website). The Framework for the Implementation Scheme for the UN Decade for Sustainable Development (2005-14) states that the goal of the Decade is to integrate the principles, values and practices inherent in sustainable development into all aspects of learning to encourage changes in behavior that allow for a more sustainable and just society for all (UNDESD, Framework for the UNDESD International Implementation Scheme, UNESCO, 2006).

72. UNESCO emphasizes a wide range of aspects of education that should be part of ESD. These include the centrality of respect for others, for difference and diversity, for the environment and for resources of the planet; working towards an interdisciplinary and holistic curriculum, critical thinking and problem-solving; using multiple methods in teaching and learning; participatory decision-making; integration of learning experiences in daily life and work; and addressing local as well as global issues using languages which learners commonly use (UNDESD, 2006).

73. According to UIL, the 2009 Bonn Declaration for ESD, adopted at a UNESCO world conference, re-affirmed that "through education and lifelong learning we can achieve economic and social justice, food security, ecological integrity, sustainable livelihoods, respect for all life forms and essential values that foster social cohesion, democracy and collective action" (UIL, 2011b:6).

74. The expanded SD concept and the broad agenda set out by UNESCO can affect educational development in different ways by providing:

> Attention to the environment, its exploitation and preservation, as part of learning and to the relationship between schools/learning centers and their environment;
>
> A fully inclusive approach to educational development in that all children, youth and adults have equitable access to relevant and appropriate basic education following the principle of lifelong learning;
>
> Incorporation into the curriculum of a range of basic skills, competencies, attitudes and values associated with living together in a non-discriminatory and non-racial manner; with promoting democratic decision-making, avoidance of conflict and respect for differences; building capacity and commitment to work for the betterment of society; enabling younger and older learners to deal with change;
>
> Promotion of direct utilization and application of such skills and values in the life situation, becoming the basis for lifelong interaction between learning and living.

75. Thus, ESD can be seen as having implications for educational reform in at least three ways: in terms of re-structuring education provision, extensive curriculum reform, and reviewing the actual quality of teaching and learning to make them more effective and to ensure continuous impact on the environment and society. Above all, as UIL points out, simply expanding the quantity of education and lifelong learning will not be sufficient to advance sustainable societies. The quality of education and training, including appropriateness and relevance, must be enhanced (UIL, 2011b:6).

76. Nevertheless, some voices in the literature also point out that ESD, in spite of its growing popularity, still lacks clarity in the role of education in the quest for sustainable development and that confusions around SD and ESD have made it difficult for most countries and their education systems to use the concept to develop a coherent philosophy to inform educational thinking and practice (Manteaw, in press:7). While the Decade has given ESD valuable backing and visibility *"*proponents of education as an avenue for the resolution of social and ecological problems have in most instances stopped short of asking and answering the critical question of what kinds of education are required in addressing some of the challenges of the time" (Manteaw, in press:7).

77. It has been pointed out that education itself has been complicit in creating the currently unsustainable world, and that therefore, if education is to *"*fulfill its potential as an agent of change towards a more sustainable society, sufficient attention must be given to education as the subject of change itself*"* (Sterling, quoted in Manteaw, in press:9). Thus, ESD should aim at helping learners unlearn old and unsustainable ways of living on a fragile planet and to explore more sustainable pathways.

78. There is an additional, specific challenge for Africa in that the ESD concept has to be made meaningful to diverse audiences, particularly within local contexts. "An African sustainable development paradigm could, therefore, be seen as an effort to re-conceptualize SD by linking it to the lived experiences and the cultural knowledge systems, as well as the situated realities of the different African peoples." This calls for pedagogy that is based on community-focused learning and the expansion of learning beyond school-walls and into different sectors of society, thus facilitating the convergence of academic knowledge, local wisdom and experience (Manteaw, in press:24-7). Thus, education becomes "learning without walls", involving learners, parents and teachers in joint efforts to share knowledge and acquire relevant skills.

79. In this vein several African scholars have argued that SD needs to be addressed also from an indigenous perspective, so as to use different knowledge systems to produce a more comprehensive understanding of sustainable development interventions. This would imply a re-validation of indigenous knowledge in education systems. Thus far, however, documents related to the Decade do not seem to reflect this concern (Sillitoe, 1998; Chilesa *et al*, 2003; Breidlid, 2009; Manteaw, in press).

80. Other authors have argued that the challenges of education to respond to climate change are closely linked to the issue of quality, in terms of both meaningful access and the promotion of key knowledge and skills. ESD is not about adding environmental topics to curricula and training programs; it is about providing appropriate education and training in a diverse and rapidly changing world that develops human potential to address future change and challenges (Bangay and Blum, 2010). ESD builds on ongoing efforts at improving quality by emphasizing the importance of higher-order thinking skills and values as well as the move from a pedagogy of "transmission" to one that is more interactive and that helps learners to expand their understanding of themselves, potentially leading to individual or social change (Idem).

4.3. Implementing lifelong learning for education for sustainable development

4.3.1. Reviewing lifelong learning

81. As pointed out in Section 3, the understanding among policy-makers and education professionals of the concepts of LLL and ESD has remained limited. Thus it has been difficult to actually work with these in practice, for example developing policy frameworks and strategies for effective implementation. Nevertheless, the Draft Strategy of Education for Sustainable Development in sub-Saharan Africa was produced by UNESCO-BREDA in 2006 to assist countries in developing appropriate education responses to SD. The question is to what extent an SD framework has been helpful to countries for reforming the substance and pedagogical practice of education and for implementing an LLL framework.

82. The UIL study on key issues and policy considerations to promote lifelong learning in five selected African countries throws some light on ESD development and its relation with LLL. The study entailed a comparative review of developments and experiences in **Ethiopia, Kenya, Namibia, Rwanda** and **Tanzania** (UIL, 2011b). The study took a macro-perspective looking at broad system development trends and the extent of country responses to the different dimensions of SD.

83. The study reports that in recent years at national policy level in these countries the importance of SD, at least at the rhetorical level, has become more pronounced. It highlights increased economic growth in these countries but notes that this does not seem to translate into sustainable development, for example, by creating employment and reducing levels of poverty and internal inequalities. At the same time, major challenges emerge from demographic pressures and rapid urbanization.

84. There is a relationship between the massive socioeconomic changes taking place in these countries and the increase and impact of lifelong learning opportunities. While formal education provisions have dramatically increased there has also been much pressure to increase complementary, non-formal learning programs for children and adults, in particular those who have been most marginalized and disadvantaged. It should be noted that government increasingly is becoming the main provider and sponsor of complementary forms of basic education. There are also signs of increasing diversity, flexibility and responsiveness to the needs of learners. In turn, this wider distribution of learning opportunities makes for more informed citizens, a development that, together with progressive decentralization, could underscore progress to democracy and good governance.

85. It is, however, noted that in practice LLL still tends to be associated with adult education, and no indication was found of the concept having been widely accepted as a master plan to transform the education system. It was also found that there is still a lack of concrete strategies towards effective implementation (UIL, 2011b).

86. However, the study does not dwell on how these countries *de facto* have started building lifelong learning systems, providing life-wide and lifelong opportunities for children, youth and adults to continue developing and renewing their skills and competencies. In several countries, efforts have

been initiated in recent years to expand such opportunities and to inter-link these with each other, horizontally and vertically, in order to enable young people and adults to continue learning. This applies, for example, to **Burkina Faso, Kenya** and **Uganda** (Hoppers, 2008); however, in these countries such innovations have not been explicitly propagated as LLL initiatives, even though many education professionals are aware of the underlying principle.

Main challenges for LLL in the context of ESD

(1) Moving towards an overarching policy framework for LLL, involving all types and levels of learning (several countries are making much progress, though not necessarily under the flag of LLL). Moreover such framework needs to be anchored in legislation.
(2) Promoting equity among provisions in terms of outcomes and benefits, as well as in access to resources and support; promoting also quality of teaching and learning and relevance for sustainable livelihoods and social cohesion.
(3) Enhancing affirmative action in favor of marginalized groups, for example school feeding programs, rescue centers for girls, and orphanages.
(4) Further development of adult and non-formal education provision, its linkages with formal education and with the immediate social and economic needs of communities.
(5) Building a learning society*, starting with community-based learning and embedding this within a wider system of informal, non-formal and formal education.*
(6) Strengthening the linkages between different forms of learning through the development and implementation of National Qualification Frameworks.
(7) Providing information, guidance and counselling services for learners across all ages through a wide variety of channels.
(8) *Improving coordination through building among all stakeholders using holistic and cross-sectional collaboration mechanisms*.
(UIL, 2011b:33-8).

4.3.2. Country-cases on ESD implementation

87. The study undertaken by ROCARE/ERNWACA for the Triennial provides educationist perspectives regarding the value of ESD for re-shaping Ghana's education and training systems (ROCARE, 2011b). The study demonstrates that the debates on ESD largely focus on the relevance of curricula and teaching subjects at various levels for economic development, in particular employment gains. Major issues include types of core skills to be developed; the extent to which such core skills should focus on helping young people to secure employment; and at what levels the orientation towards employment should be most emphasized.

88. Although core skills were generally appreciated by all respondents, different values were attached to them. Education authorities believed that core skills in basic education were a major means towards employment, while national development planners considered core skills to be important for both social and economic development. The study also found that teachers and pupils were divided on this matter, though many learners seemed to attach much importance to those core skills that could serve as vehicles towards jobs. They also seemed to be aware of the relevance of a wide variety of general core skills (such as those related to personal development, social and thinking skills) for their future life. Opinions among professionals are divided as to the extent to which basic education must have an explicit human capital formation function.

89. The study shows that ROCARE is in favor of aligning basic education with the needs of economic development in general and aligning the choice and interpretation of core skills with the demands of the labor market. There is further need to improve the sequencing of core skills development throughout the various levels of education, notably from primary to junior high school. All of this would have to coincide with efforts to improve the linkages with systems of measurement, assessment and certification. Much attention would need to go to improving teacher training as teachers reportedly are using inappropriate methods for imparting some of the core skills (ROCARE, 2011b).

90. The ROCARE study did not determine to what extent and how the debates on skills for socioeconomic development were influenced by national perspectives on SD and the role of education therein. Perhaps the shift from a focus on economic development and employment to a broader and more inclusive ESD agenda must still be made.

91. **Kenya** has made progress in reviewing the entire curriculum for basic education within the context of ESD. Otieno (2005) reports that Kenya has had a long-standing concern with environmental education. Through the influence of a Kenya strategy on ESD (2005-2010) the focus changed from a concern primarily for nature and the non-human environment to an approach emphasizing the interdependence of human welfare and a healthy environment (Otieno, 2005:3). This approach came to involve the entire education system, both formal and non-formal, from pre-school to higher education and adult education. The strategy recognizes that education provides not only scientific and technical skills but also the motivation, justification and social support for pursuing and applying such skills.

92. The Kenyan paper offers the EAL/Eco-schools Nyanza initiative as a pilot program in developing a framework for ESD aimed at providing long-term environmentally sound decisions leading to appropriate joint activities for the environment. The program established an open-ended learning and problem-solving process to all sectors and learning groups; it applies the following five key components of *environmental action learning*:

a. Development of a school environmental policy within the school's development plan, along with an "eco-code" involving the schools and the communities; this would produce an environmental audit and the establishment of a plan of action;
b. Development of local curriculum teaching and learning resources within the context of school syllabi aimed at enhancing students' understanding;
c. School-community cooperation aimed at promoting collaborative efforts in solving common problems through local environmental projects;
d. Development of school networks and exchange programs to promote the dissemination and exchange of information through visits, the local press, newsletters, television, radio and the Internet.

93. The anticipated outcomes included teachers becoming skilled in environmental action-based learning; school income-generating micro demonstration projects on health and environmental schemes; local communities involved in improving school environment; curricula teaching in relevant subjects localized to address local conditions and enhance student motivation; and increased awareness about concepts of environmental action-based learning within the education system and the general public (Otieno, 2005:7). There is, however, no indication as to what skills and attitudes learners should develop as a result of such projects, nor is there information as to the success of this program.

94. The implications of SD for educational development are also being explored in **Mauritius**. In this country the entry point was also through a review of environmental education (EE). Efforts by a national team to review EE led to the recognition of the need for a paradigm shift in thinking about education and learning, using a new approach to EE as a catalyst (Gokool-Ramdo *et al*, 2011).

95. It was realized that in Africa mainstream education systems are not very responsive to addressing environmental issues. EE teaching was often implemented without much understanding of its meaning, depth, processes, outcomes, and implications; EE actually contributed to continued un-sustainability. Moreover, it appeared that environmental degradation was leading to corresponding degradation in the quality of life of people as evidenced by unsustainable consumption patterns, food insecurity, climate change, etc. (Gokool-Ramdo *et al*, 2011) .

96. In this context it was felt that EE itself needed a different approach, one that was more pedagogic in orientation and more open to initiatives of affirmative action. Thus, there was a move towards a form of critical pedagogy characterized by a more politically sensitive stance; a more penetrating approach to EE; a view that all stakeholders are engaged participants rather than target groups for information; and an enhanced potential for responding to identified deficits.

97. The new approach resulted in the change from EE to *environmental literacy* (EL). EL could be seen as a critical tool to enable participants to examine power relationships against environmental issues; to understand the importance of building harmonious relationships with all creatures and the overall living environment; and to recognize the constraints to be overcome. These ideas produced a framework to help structure policy actions, support a continuous flow of information, devise education materials and recalibrate education practice. It also followed that EL needed to be a lifelong and life-wide initiative, inclusive of all groups, ages, approaches and technologies. Thus strategies would have to be found to use EL effectively as an entry point towards transformation of the formal education system (Gokool-Ramdo *et al*, 2011:9-10).

98. In order to work effectively with EL and reach all learners, inside or outside classrooms, the team identified distance education as the best means for achievement. This led to the design of a distance education program based on a system's approach which ensured interaction between teachers and learners. The program facilitated dialogue and respected learner autonomy, i.e. their ability to decide for themselves what to think and how to proceed (see Gokool-Ramdo *et al,* 2011, for system details).

5. PART II - NATURE AND STATE OF PRACTICE OF COMMON CORE SKILLS

5.1. Common core skills for ESD and curriculum reform

99. The concept of common core skills (CCS) is widely regarded as essential in a reform effort that focuses on a fundamental review of what is to be learned and why (the issue of *relevance*), how this is to be effectively learned (issue of *achievement* of outcomes) and how learning can best be evaluated (the issue of *assessment*). Following the principle of lifelong learning, such review takes into account the learning needs that are considered to be essential for all people, regardless of background, circumstances, and age.

100. The precise content of such skills, their interpretation, the extent of their depth and scope, as well as their phasing, however, will be context-specific and vary with age. Moreover, where they are identified and defined by way of democratic decision-making, their nature and composition will vary from country to country, and perhaps even from region to region.

101. At the same time it should be acknowledged that each country has become part of a globalized world and is thus compelled to enable all learners to act meaningfully and constructively in this wider environment. This suggests the importance of harmonizing the range and nature of CCS at least across entire age-groups. While CCS packages need constant adaptation, in the present circumstances ESD requires more fundamental review than ever and thus is discussed in the three dimensions below.

5.1.1. Competency development in OECD

102. An example of how key competencies have been defined and selected is provided by the OECD. Some years ago this organization of industrial countries engaged in a systematic, scientific and collaborative process to identify a small set of key competencies rooted in a theoretical understanding of how such competencies are defined and informed by an understanding of shared values across the participating countries (OECD, 2005). It assumed that each competency must contribute to valued outcomes for societies and individuals; help individuals meet important demands in a wide variety of contexts; and be important not just for specialists but for all individuals.

103. Competencies were divided into three broad categories:

> Individuals need to be *able to use a wide range of tools for interacting effectively with the environment*: both physical ones such as information technology and sociocultural ones such as the use of language. They need to understand such tools well enough to adapt them for their own purposes to use tools interactively.
>
> In an increasingly interdependent world, individuals need to be *able to engage with others*, and since they will encounter people from a range of backgrounds, it is important that they are able to interact in heterogeneous groups.
>
> Third, individuals need to be *able to take responsibility for managing their own lives*, situate their lives in the broader social context and act autonomously (OECD, 2005:5).

104. These categories formed the base for identifying key competencies for the OECD member states. The need for individuals to think and act reflectively was considered to be central to the framework of competencies. This reflectiveness involved not just the ability to apply routinely a formula or method for confronting a situation, but also the ability to deal with change, learn from experience, and think and act with a critical stance. The ultimate selection of competencies was based on questions concerning what individuals needed in order to function well in society, questions such as: What competencies they needed to find and hold down a job? What kind of adaptive qualities were

required to cope with changing technology? Further competencies were related to the nature of goals at both personal and societal levels. Finally, each of the competencies was operationalized in terms of what kinds of specific outcomes were required (OECD, 2005).

The OECD framework of key competencies

Competency category 1: Using tools interactively
Competency 1a – the ability to use language, symbols and text interactively
Competency 1b – the ability to use knowledge and information interactively
Competency 1c – the ability to use technology interactively
Competency category 2: The ability to relate to others
Competency 2a – the ability to relate well to others
Competency 2b – the ability to cooperate
Competency 2c – the ability to manage and resolve conflicts
Competency category 3: Acting autonomously
Competency 3a – The ability to act within the big picture
Competency 3b – The ability to form and conduct life plans and personal projects
Competency 3c – the ability to assert rights, interests, limits and needs

105. According to OECD, the value of such approach is that the framework can provide a reference point for further development of competencies such as construction of profiles incorporating a mix of competencies; improve forms of testing the achievement of competencies; and explore the contribution of key competencies to social and economic wellbeing (OECD, 2005:17).

106. The OECD notes that such framework focussing on key competencies applies equally to the competencies to be nurtured at school and those that can be developed throughout the course of life. Thus it provides a single frame of reference for school-based assessment and assessments of adult competencies. However, it also points out that central to the concept of LLL is the assertion that not all life-relevant competencies can be provided by initial education as competencies may change throughout the lifespan, demands on individuals may change throughout adult life, and competencies grow with maturity (OECD, 2005:17).

5.1.2. The competency-based approach and Africa

107. In the last two decades, many African countries have become interested in the competency-based approach (CBA, known in Francophone countries as *Approche par Compétences, APC)*. This reform movement has evolved due to socio-structural reasons and the need to adapt schools to national development objectives. It has been pointed out that the use of competency-based curricula was presented as a panacea to the challenges that were arising. While the democratization and increase in the number of schools were deemed satisfactory, there are still major problems as regards the quality of education. Internationally the traditional "transmission model" is being questioned and there have been calls for significant paradigm changes which focus on teaching-learning processes and advocate adaptation and differentiation. In this context a skills-based approach is acknowledged, with its main characteristics being a focus on behavioral skills, strong involvement of learners, perception of teachers as mediators of knowledge, "contextualization" of knowledge, and progressive and integrated assessments to facilitate the transfer to other situations. (Cros *et al*, 2010).

108. It is pointed out that there have been many problems in the practical implementation and delivery of a CBA approach. The reforms appear to have had little effect on teaching practices and teacher training systems, where the transmission model predominates. In most cases, the reform processes have been top down, with little effort to communicate with the actors concerned (Cros *et al*, 2010). "The different reform processes experienced various difficulties, most often related to the way the reform was implemented, coordinated and steered, the fact that it was introduced too early or even too slowly, the lack of communication resulting in ignorance of the selected approach and resistance to change among various actors, the shortage of qualified teachers and coaches, poor training of school

staff and trainers in the approach, the limited focus on monitoring and evaluation of the reform's implementation and the lack of material, educational and financial resources*"* (CONFEMEN, 2010).

109. CONFEMEN has pointed out that it has always stressed the importance of a curriculum change to foster the development of cross-cutting skills, the transfer of learning processes, better integration of societal problems and the breaking down of divisions between disciplines (CONFEMEN, 2010). This suggests that reflection and practice concerning a competence- or a skills-based approach needs to be very carefully thought through and should build upon existing ad hoc practices and lessons that can be learned from.

5.1.3. Progress of age-related CCS development

110. Arguably, in Africa, across different countries and involving various categories of stakeholders, there has been a lot of reflection on the problems of poor quality learning, the limited value of what seemed to be learned and the low levels of achievement. This has produced many instances whereby broadly felt concerns and new insights have come to be translated into an array of what are considered to be valuable personal qualities and skills. The common categories that have been identified over time include the following: (i) communication, language and literacy skills; (ii) basic cognitive skills; (iii) personal development and life skills; (iv) social and citizenship skills; and (v) basic work-related skills. This categorization is not universal and different countries or agencies use their own system.

111. The establishment of CCS packages by government is not new. Countries are used to listing the overall purposes of education in their curriculum documents for formal education. What is new is, firstly, the need to re-define desirable CCS far more precisely in the light of ESD and to operationalize these as concretely as possible; and secondly, to set CCS across all forms of learning for entire age-groups, and within a frame of LLL. Whether in such effort the OECD approach would be helpful needs to be explored.

112. The experience has been that combinations of various categories of skills, values and attitudes have been examined and elaborated in relation to different age-groups. For example, in the context of early childhood education the emphasis has tended to be on the significance of social and cognitive skills. For a number of years, international technical agencies and ECD-focussed NGOs have argued for greater attention to early childhood care and development (ECCD) as a major focal point for improving the quality and effectiveness of learning in later school and adult years (ADEA, 2008).

113. It has been pointed out very convincingly that the first six years of life form the most critical period in the development of a child's brain. Positive stimulation of the brain during these years prepares the ground for building the child's capacity to learn, build language skills and interact with others in the future. The quality of pre-school learning tends to be crucial for a child's later academic success.

114. There is abundant international evidence that the essential "psychological capital" of young people, in terms of their basic cognitive and non-cognitive dispositions, has already been formed through early socialization before they enter school (Nash and Harker, 2006; Esping-Andersen, 2006). The significance of structured basic education lies in its ability to build upon early acquired competencies and to develop these further, with appropriate remedial work if necessary, to a desired level of learning outcomes at the end of basic education.

115. In terms of the important transition from ECD programs to primary schools the concept of *school readiness* has become very useful. This concept is based on three factors: (i) children's readiness for school, focusing on children's learning and overall development progress; (ii) schools' readiness for children, focusing on the school environment and practices that foster a smooth transition into primary school to promote continued learning; and (iii) families' readiness for school, focusing on parental and caregiver attitudes and involvement in their children's early learning and development (UNICEF *et al*, 2011:30-2). The attention to families is a significant shift towards a holistic approach

and has led in several countries (such as **The Gambia)**, to initiatives such as the Baby Friendly Community and a broad parental education program pioneered by UNICEF and other organizations such as Plan West Africa (UNICEF *et al*, 2011).

116. The present vision of ECD development is that, apart from broad socio-medical support for the most disadvantaged and vulnerable families, comprehensive curricula and materials, along with appropriate teacher development are required for early stimulation of children through play. As an example, the Gambian play-oriented curriculum includes literacy and communication, knowledge and understanding, numeracy, personal and social development, creative and physical development (UNICEF *et al*, 2011:52). This needs to be linked to the lower primary curriculum. These concerns about early learning underscore the campaigning for at least two years of quality ECD programs to prepare children for school entry (ADEA, 2008).

117. For the school-going age-group of children and adolescents the emphasis has increasingly come to lie on language and literacy skills, basic cognitive skills, life skills (including health education) and social/citizenship skills. Much work has been done by a wide variety of Africa-based and international organizations to develop, test and promote skills acquisition in these areas. Nevertheless, there are still major controversies regarding the language and literacy agendas.

118. In general, problems for skill development at this level are not so much associated with recognition, guidelines or even funding, but rather in how to effectively build these cross-cutting skills (along with appropriate values and attitudes) into subject-based school curricula, pedagogical strategies and assessment systems. Often, such skill development programs tend to be more successful when addressed in the extra-curricular sphere and as non-formal programs for young people out-of-school.

119. In adult education the emphasis continues to be on *functional literacy* in the broadest sense of the term, thus usually including age-appropriate life skills, livelihood or vocational skills and social/citizenship skills. While most of these programs operate in the non-formal education sphere (without qualifications recognized in the formal system), increasingly countries are experimenting with equivalent programs for youth and adults which, though their format may be non-formal, are allowed to function as part of the formal system (UIL, 2011a). This implies that such programs may adopt a wider mix of skill types in their curriculum.

5.1.4. Comprehensive curriculum reform

120. Across the continent some curriculum reform efforts can be found that focus on a much more integrative and holistic review of curricula in basic education. The most prominent of these is the Basic Education in Africa Program (BEAP), designed and facilitated in various countries by UNESCO-BREDA in conjunction with UNESCO-IBE and GIZ (BREDA, 2009).

121. BEAP was designed as an integrated instrument to implement the goals of the Kigali Plan of Action (2007). It provides a framework for curriculum renewal linked to a variety of complementary initiatives (such as in the area of teacher and materials development) which together may improve quality, relevance and equity in education. The program aims to help bring about comprehensive education reform across the entire basic education field, including ECD, formal and non-formal education. In response to the Kigali agenda it focuses on three major thrusts:

> Extension of quality basic (primary) education to a minimum of 9-10 years duration, thus including lower secondary education;
>
> Viewing this cycle in a holistic perspective, ensuring that it is inclusive, coherent and seamless;

Development of a skills- and competency-based integrated curriculum framework relevant to the expectations and needs of all children and youth in Africa as a basis for lifelong learning (BREDA, 2009:6).

122. BEAP started operating in 2008 and has now established a presence in a number of African countries, including **Djibouti, Ethiopia, The Gambia, Mali, Mauritius, Rwanda**, **Seychelles** and **Tanzania.** The initial approach has been to follow a two-track path. One has been to work with country teams on the production of an integrated and competency-based curriculum framework for basic education as a whole, with recognition of multiple entry-points through formal, non-formal and informal learning pathways. The other focussed on human resource development through capacity development and sensitization. There have been very good experiences with bringing all country stakeholders together for reviewing practices and developing common perspective, and with bringing in representatives from other countries for sharing experiences and promoting collaboration (BREDA, 2009).

123. In a review of BEAP implementation in four countries (**The Gambia, Mali**, and **Rwanda**) the following messages were identified:

- Strong leadership and political will are essential ingredients in the successful implementation of the extended basic education of 9 years.
- Partnerships, both national/local and international are critical in securing the technical, financial and physical means to embark on the reform.
- Education policy-makers, managers and technicians must "*t*hink outside the square", or think unconventionally in addressing the issue of school infrastructure/classroom space or curriculum.
- Building in or integrating reform into education sector programs or strategic plans is crucial for funding and sustainability.
- Capacity building in a range of areas is essential to support the reform exercise; this means building the capacity of education sector personnel: curriculum developers, quality assurance and examinations specialists, teacher trainers, planners, system managers and school heads. (UNESCO-BREDA, 2011).

124. An example of a skills-based curricular approach, developed by civil society organizations in direct response to the learning needs of youth and adults is Pedagogy of the Text (PoT). This approach was trialed in several countries (**Benin, Burkina Faso, Cape Verde** and **Niger**) and offers basic education in a cycle of three to four years, longer than conventional literacy schemes. Its proponents argue that this period of time can empower learners, ensure lasting achievements and develop education for sustainable development (Faundez *et al*, 2011).

125. PoT attaches great importance to developing learners' abilities to produce various kinds of oral and written texts as a basis for acquiring skills. It divides the teaching/learning process into four disciplines (language, mathematics, social sciences, and life and earth sciences) and recognizes a range of knowledge and core skills.

(1) Theoretical and practical knowledge and skills include:

- languages: a strong emphasis on bilingualism and the language of the text (production of various kinds of oral and written texts in a variety of communication situations: developing arguments, defending a point of view, explaining, etc.;
- mathematics: mastery of concepts that go well beyond calculation (metric systems, spatial orientation, statistics, accounting) and are useful for solving practical problems;
- natural and social sciences: problems linked directly to the environment (hygiene, health, water, natural resources, waste management, history of the village/area, children's rights, etc.).

(2) More advanced intellectual skills, of a cross-cutting nature, include oral and written language, attention and voluntary memory, logical, critical and conceptual thinking and intellectual autonomy (Faundez et al, 2011).

> *"*Thanks to the educational process that emphasizes critical thinking, detailed reasoning and the practical application of concepts learned, learners will become better able to: solve many practical problems, situate themselves with regard to spatial and temporal coordinates, understand certain oral and written texts with numerical content, communicate (inform and understand) with others by applying mathematical knowledge and making decisions in relation to mathematical knowledge, processes and/or instruments*"* (Faundez *et al*, 2011:49).

126. The **Mali** study provides information on curriculum reforms undertaken since 2002. The approach is essentially based on skill development, which involves:

> A frame for pedagogical action broad enough to consider multiple aspects of educational activities;
>
> Holistic and integrated vision of training by breaking down disciplinary barriers and a more significant grouping by distinguishing between fields of topics;
>
> Differentiated instruction to respond to the style and pace of learning of each learner through the use of appropriate methods;
>
> Creation of learning situations to allow for learning outcomes related to the needs of life;
>
> Formative assessment as a basis for modifying the learning process;
>
> Adjusting the role of the teacher, who becomes a facilitator for the acquisition of knowledge, skills and life skills (MALI, 2011:13).

127. In view of the development of life and work-related skills a large number of practical activities has been designed. It includes study and design of simple objects, use and handling of instruments, simple machines, etc. At the end of each learning unit, specific projects are proposed to consolidate the gains. The curriculum also takes into account local characteristics which result in relevant contents (such as health, HIV and AIDS, culture of peace, EE and gender (MALI, 2011:23).

5.2. Language and literacy skills

128. Several types of skills have come to be recognized as core skills in basic education, both initial and lifelong learning. The emphasis here is on: (i) the current state-of-the-art regarding these skills within the African context; and (ii) recent significant experiences in working with these skills in policy and practice.

129. It is generally acknowledged that by far the most "core" of the common core skills are the skills of expressing oneself and communicating with others through language, both orally and in writing. Language, as a basic tool, is vital for interacting with other people and the environment, as a way of expressing ideas, views, emotions, interests and ambitions, and thus of projecting identity, understanding and intentions (Wertsch and Sohmer, 1995). The quality of language and literacy skills strongly influences learning and the creative engagement with knowledge, and thus how one interacts with the world.

130. In many countries of Africa command of language and its effective usage in communication has become a major issue as a result of political preferences for the usage of a metropolitan language as the language of instruction at most, if not all, levels of learning. The value of basic learning in the mother-tongue has been widely recognized. The constraints of using a second, foreign language as the language of instruction in schools are most severe at the level of basic education when foundation knowledge and cognitive skills must be acquired (Alexander, 2005).

131. These conclusions are consistent with findings in the field. The **Burkina Faso** national study demonstrates the effectiveness of the Intensive Literacy Training for Development (AFI-D) bilingual education program which has been fully transferred to the Ministry of Education and Literacy so that it can be gradually rolled out everywhere. It was found that "The success rate of the Primary School Certificate (CEP) in bilingual schools with only 4 to 5 years of tuition was ... higher than the national average, despite CEP exams being completely in French and devised for pupils who have done 6 years' tuition*"*. The team concluded that *"*bilingual (national language/French) AFI-D centers enhance the child's first language and facilitate the learning of French*"* (Burkina Faso: 25-6).

132. Furthermore, a recent study of existing language learning models in **Ethiopia**, using mother-tongue as medium of instruction in basic education, found that instruction in English did not necessarily result in better English learning. In fact, those regions with stronger mother-tongue schooling had higher student achievement levels at Grade 8 in all subjects, including English. This showed that students who learn in their mother-tongue can interact with the teacher, other students and curricular content in ways that promote effective and efficient learning (Heugh *et al,* 2007).

5.2.1. ADEA and languages of instruction

133. The concern about language is not new in ADEA. Since during the last decade the choice of language of instruction in schools has come to be regarded as a key factor in improving the quality of learning, the issue of mother-tongue and bilingual education programs has featured very strongly on ADEA's agenda. A significant milestone was the stock-taking exercise on this problem carried out by a team of experts for the Libreville Biennial in 2006.

134. This team particularly addressed the scientific and empirical evidence pertaining to language use and its implications for quality of learning. It came to the overall conclusion that in the context of an African agenda to move towards a more transformative and culturally relevant education that takes into consideration African values and languages, people's sociocultural and linguistic background as well as their education needs, "the best approach to the issue of language in education is the use of mother-tongue (MT) or the use of an African language familiar to the children upon school entry as the natural medium of instruction in all African schools and institutions of higher education" (Alidou *et al*, 2006:10).

135. More specifically the team pointed out that "using African languages as media of instruction for at least 6 years and implementing multilingual language models in schools will not only increase considerably the social returns of investments in education, but will additionally boost the social and economic development of African nations and contribute to the improvement of the continent to knowledge creation and scientific development" (Alidou *et al*, 2006:7).

136. The report on the stock-taking exercise also identified obstacles to be overcome, including the uninformed attitude towards languages in education by key stakeholders in Africa, negative attitudes among western experts regarding African languages, and the fact that African universities were not fulfilling their leadership role in promoting and developing mother-tongue education. It advocated for greater awareness that development needed to involve the masses and give more emphasis to indigenous languages; at the same time development needed broader access to foreign sources of knowledge and information, suggesting attention to the strengthening of national/foreign languages in education as well.

137. The findings and conclusions of the stocktaking exercise led to a ministers of education conference, Integration of African Languages and Cultures into Education in Burkina Faso, in January 2010. Conference participants adopted the Policy Guide on the Integration of African Languages and Culture in Education, and the Conference further led to a policy advocacy brief, entitled "Why and how Africa should invest in African languages and multilingual education" (UIL/ADEA, 2010) for wider distribution. This brief addresses seven core concerns, representing assumptions about African languages as media of instruction. In discussing these concerns the document puts the responses

squarely in the context of ESD, for example by emphasizing that linguistic diversity and language competencies:

- assist towards conflict resolution;
- activate whole populations for social development;
- promote regional socioeconomic activities;
- stimulate the development of a language industry;
- help children in acquiring knowledge and skills through other subjects;
- improve learners' participation in the actual learning situation and thus enhance achievement (especially among girls) (UIL/ADEA, 2010).

138. The brief also shows the results of an international comparison of second language proficiency, demonstrating that the longer the mother-tongue was maintained in education, the better the scores in the assessment of performance in the second language (UIL/ADEA, 2010:35).

139. The brief observes that in recent years several countries (including Burkina Faso and Niger) have started to evaluate, improve and revise their policies and strategies for the use of language in education. Following the success of the *Ecoles Bilingues*, **Burkina Faso** adopted a medium-exit transitional model of bilingualism, meaning that the medium of instruction gradually shifts from mother-tongue into French by year 5, retaining the former as a subject. **Niger** adopted a similar strategy but with a more abrupt shift in the middle of the primary cycle (UIL/ADEA, 2010: 35/38).

140. The brief also pays attention to the important issue of actual usage of language in the teaching-learning situation. There is increasing evidence that, while choice of medium of instruction is a major factor affecting learning in schools, a highly relevant additional factor is the extent to which and how the chosen language is used in class. In the prevailing teacher-centered pedagogical practices used in African education, learners get little chance to raise questions, express their views and engage in dialogue with their teachers or each other. Thus self-expression remains poor, and while the use of mother-tongue makes a significant difference, this can only be fully exploited in the context of a transformed pedagogy (UIL/ADEA, 2010:29; Mlay, 2010; Faundez *et al*, 2011).

5.2.2. Early grade literacy

141. Directly related to language acquisition is the ability to read and write. Proficiency in language facilitates the acquisition of literacy. Thus, when the language of instruction is not the mother-tongue, literacy tends to be the first casualty. Poor teaching methods also exacerbate children's problems with learning how to read and write.

142. The concern about literacy acquisition in African countries is not new, but in recent years much evidence has been produced about low levels of learning outcomes, showing how serious the situation has become. Various studies have found that in most low-income and even middle-income countries somewhere between 25% and 75% of children in Grade 2 cannot read any words at all. Large percentages leave school without being functionally literate (UWEZO, 2011). This "tripping at the first step", in turn, explains another important fact derived from studies such as PASEC, SACMEQ and others, that the average child in poor countries learns at about the level of children at the 5th percentile in richer countries. This points to a veritable learning crisis (communication, Luis Crouch, FTI Secretariat).

143. Given the importance of literacy as a basis for acquiring other knowledge and skills, and thus its importance for lifelong learning, the resulting strong interest in the issue of early grade reading has now produced a number of new initiatives. These are taking place in a number of countries (**Cameroon, Ethiopia, Gambia, Kenya, Liberia, Malawi, Mozambique**, **Senegal,** and others) and involve a variety of national and international organizations focusing on the development of new approaches to pedagogy, materials development and teacher support. Major attention is also being

given to the enhancement of the literate environment outside the school, and thus to parental attitudes and support.

144. The methodology of the initiated programs brings together several components: an in-depth assessment of the existing gaps in core reading skills, the training of teachers in how to develop and emphasize these skills, and the mobilization of communities and families for reading action. For the purpose of effective skill acquisition, reading skill was broken down into a number of sequenced part-skills through which learners were carefully guided towards the goal of reading a passage with comprehension by the end of year two. Following these principles, progress could already be made in the first year of intervention.

145. Trudell *et al* (2011) reviewed some of the programs[2] for the Triennial; they revealed a range of major obstacles in education:

> Education systems are very inefficient in student learning; the first two years are lost years for the learning of grade level content as children are struggling with letters.
>
> Policies on mother-tongue as language of instruction are not followed in many classrooms; where it is implemented, children have very few materials in that language.
>
> School libraries are often not used, or used for other purposes; books were often not appropriate; and nobody tends to take responsibility.
>
> Sometimes teachers' deployment practices do not support language policies.
>
> Many teacher training colleges do not include specific courses on how to teach reading in the mother-tongue.

146. There are significant lessons to be learned from these experiences:

> Improved student reading benefits strongly from mother-tongue instruction.
>
> Success also depends strongly on having access to reading materials.
>
> The development and application of systematic ways of learning to read is essential.
>
> Yearly assessment of progress in literacy acquisition helps inform pedagogic action.
>
> Reading done outside the school and raising parents' awareness of the importance of reading are positively related to improved literacy skills.
>
> The combination of improved instruction and enhanced literacy environment can produce school-wide results in spite of large class sizes.
>
> Success in gaining reading skills encourages children to be engaged and learn together.
>
> Success is also correlated with reduced absenteeism from school (Trudell *et al*, 2011).

147. The review also showed that there are quite a few challenges, such as the problem of scaling up small pilots to system-wide implementation; the improvement of teacher development in early childhood approaches and methods; the creation and maintenance of "print-rich" classrooms and schools; the challenge to get teachers to read more and to create, display and use materials in the mother-tongue (Trudell *et al*, 2011).

5.3. Cognitive and scientific skills

5.3.1. The nature of cognitive skills

148. Cognitive skills are any mental skills that are used in the process of acquiring and processing knowledge. They include the ability to pay attention, ask questions, reason, comprehend and use information, and analyze information and experiences. Cognitive skills are also referred to as "thinking skills" and are often categorized as lower order thinking skills (memorizing and

[2] Save the Children: the Literacy Boost Program; RTI International: Early Grade Reading Assessment (EGRA); PRAESA: Creating Literate School Communities (CLSC), and SIL Africa.

comprehension) and higher order thinking skills (analysis, creatively applying knowledge and evaluation of information). The latter category is also referred to as "critical thinking" which is acquired through both formal and informal training. Cognitive skills also include perception and intuition.

149. Cognitive skills are at the heart of learning and purposive action; they largely determine academic success at school as well as in tertiary education and training. Their development begins well before school age and tends to be much influenced by cognitive stimulation of parents and the immediate environment of the child. The criticism often levelled against formal schooling in Africa is that it does not provide enough room for learners to develop critical thinking skills. Much of this is associated with teaching-learning methodologies; even when the curriculum or syllabus emphasizes attention to such skills, their achievement is not assured due to inappropriate classroom practices (Ackers and Hardeman, 2001)

150. It is widely recognized that cognitive skills have cross-curricular relevance and need to be part of all learning throughout life. The ability to use knowledge and information interactively requires critical reflection on the nature of knowledge and information as well as on the social, cultural and ideological context. Such competence is necessary as a basis for understanding one's environment, forming opinions, weighing options, making decisions, and carrying out informed and responsive actions (OECD, 2005:11).

151. Cognitive skills can be seen as the basis of the development and application of other core skills, for example life and social/citizenships skills. They also have an impact on scientific skills which have great significance in relation to scientific and technological developments in Africa (Matachi, 2011).

5.3.2. Building scientific thinking skills

152. Matachi's contribution to the Triennial makes a distinction between two possible purposes of science education. One is to foster core skills such as scientific thinking skills and problem-solving skills, along with positive attitudes towards science and technology, referred to as *scientific literacy*, for ordinary citizens to participate in society and work. The other purpose is to learn scientific knowledge and skills as the foundation for future study of science (Matachi, 2011:8-9). While in the past the main emphasis tended to be on the latter, due to the rapid advancement of science- and technology-based changes, all citizens are required to have a certain level of the former. Thus, scientific thinking skills constitute an important set of core skills of lifelong learning to be developed through science education.

153. The paper argues that in Africa such early interest in science needs to be mainly developed in school and at the primary level, with as much parental support as possible. At this level skilled teachers could capitalize on children's natural interest in their environment and interact constructively with the "theories" (children's scientific ideas) they tend to develop to make their own sense of the world. This means that it should be recognized that children do not start in a void but that teachers can help to construct learners' knowledge by linking new ideas and experiences with what they already know. This requires teachers to have both pedagogical content knowledge in science education and sufficient instructional capacity based on cognitive science perspective (Matachi, 2011:10-12).

154. Matachi's paper also makes the point that *science* is often regarded as a kind of culture and that science education is about acquiring the culture of school science. This culture is greatly influenced by western culture and is characterized by highly rational and abstract ways of thinking. This means that when the culture of the learners' "life world" and the culture of science are not compatible (as with Japan and Africa) or when learners cannot easily adapt themselves to the culture of science, schools have to deal with issues of transition between the culture of the life world and the one of science, which is referred to as *cultural border crossing* (Aikenhead *et al*, 1999, cited in Matachi, 2011).

155. It has been argued that learners' success in science depends on three factors: the degree of cultural difference that students perceive; how effectively they can move between the two cultures; and the assistance they receive in making these transitions easily (Aikenhead *et al*, 1999, cited inMatachi, 2011:12) It is pointed out that such crossing may be even more difficult when the school language is not the language of the home. As a result, it is necessary to have a pedagogy that combines "minds-on" learning activities with "hands-on" and "hearts-on" activities.

5.3.3. Learner-centered methodologies

156. In Japan, school science is introduced at a very early stage, putting strong emphasis on hands-on activities such as observations and experiments. Even though the science curriculum was frequently revised, this approach has essentially been maintained up to the present. Its main features concern the role of the teacher and the selective nature of the curriculum. Teachers do not give correct solutions but encourage learners to find a solution for themselves, bringing out learners' ideas and opinions. The content and concepts taught in the science curriculum of Japan are carefully selected so that teachers can concentrate on a few essential concepts and spend sufficient time fostering scientific attitudes and skills by allowing students to discuss and think about the linkages between data, evidence and scientific concepts (Matachi, 2011:16-18).

157. There are other important factors at play that have a strong impact on successful development of thinking skills. One factor is the effort made by teachers to deepen their understanding of subject content and to improve their instructional skills in relation to learners' realities and development stages. In addition, there is the widely accepted and practiced mentality among teachers that learners must be given opportunities to construct knowledge by themselves but with teachers' guidance; this is in marked contrast to the teacher-centered pedagogical styles in many African schools (Matachi, 2011). Japanese teachers are encouraged to put in this effort by the wider social environment in which education is highly valued and teachers receive much support from communities and agencies, stimulating mutual trust and reciprocity. Within this culture, schools can offer a protective environment that is very conducive for learning and in which attention is given to the social and emotional needs of learners (Matachi, 2011; Kubow and Fossum, 2007:215-6).

158. Like the Japanese approach, the Africa-based Pedagogy of the Text approach draws strongly on Vygotskian psychology through its emphasis on students playing an active role in learning and teachers collaborating with students in the construction of meaning (Wertsch and Sohmer, 1995). This makes it possible to effectively focus on advanced abilities (attention and voluntary memory, logical and conceptual thinking, critical judgment, oral and written language) that the teaching-learning process must develop in order to achieve skill. The authors argue that the rationale for this process is to transform individual abilities regardless of the context (formal or informal). "The PoT approach considers that these cannot be 'left until later' and they will 'miraculously' appear once learners have memorized enough knowledge disconnected from the context*"* (Faundez *et al,* 2011:4)

5.4. Personal development and life skills

159. *Life skills* refer to a wide range of knowledge, skills and attitudes that enable young people to deal with major challenges in their socioeconomic, political and cultural environment. The challenges relate to poverty, HIV and AIDS, conflict, violence, use of drugs, environmental destruction and different types of discrimination associated with gender, ethnicity and race.

5.4.1. Life skills

160. Life skills education is essential for young people in many African countries as these challenges are still very wide-spread and make youngsters vulnerable to being exploited, abused, and locked into other life-threatening situations. Thus life skills education includes health education, HIV and AIDS prevention, human rights education, violence prevention and peace building. It also includes the promotion of moral and social values and attitudes that are commensurate with active citizenship and

productive employment. A central focus is on awareness building as a basis for making personal decisions regarding behavior and life choices. Also important are developing assertiveness, empathy, motivation skills, coping and self-management skills, collaboration with others, the management of anger, dealing with abuse and trauma, and positive thinking (UNICEF, 2004).

161. In this section the focus is more on self-development and personal care skills, such as coping and self-management skills. Those skills that are related to how persons interact with others in different domains of life, such as social skills and attitudes, citizenship and peace building skills, will be discussed in Section 9.

162. For the OECD, life skills are very much part of their Competency Category 3, i.e. the ability to act autonomously (OECD, 2005:14). Acting autonomously is all about individuals being empowered to manage their lives in meaningful and responsible ways by exercising control over their living and working conditions. This requires abilities to "act within the bigger picture", to "form and conduct life plans and personal projects", and to "defend and assert rights, interests, limits and needs". These abilities are considered important within a modern context in which each person's position is not as well-defined as was the case traditionally. Individuals need to create a personal identity in order to give meaning to their lives and define how they "fit in". This is particularly relevant in relation to the world of work where there are few stable, lifelong occupations (OECD, 2005:14).

5.4.2. Life skills in education

163. Life skills have come to be regarded as central to any program of basic learning, be it for children, youth or adults. As a result they have increasingly become part of school-based learning as well as of non-formal education programs for marginalized and disadvantaged youth and adults. However, life skills tend to be defined in many different ways and thus take on different forms depending on overall social context and life situations. It is argued that the social dimensions are particularly important as they condition life itself and compel individuals to purposefully acquire skills and develop attitudes and values in order to face and master real life situations (Ouane, 2002).

164. There is not much information as to how countries have incorporated life skills into the curricula for basic education and how successful this has been. Clearly there are countries that have been making a major effort, such as Ghana (see ROCARE, 2011a). In a study for UNESCO and GTZ, Stabback *et al* (2007) found that in their African case-studies of lower secondary education, life skills subjects were part of the curriculum. These included Life orientation (foundation phase) and Economic and management sciences (intermediate and senior phase) in South Africa; Practical subjects in Botswana; Personal development in Mali and Republic of Congo; Lifeskills in Burundi and Mauritius; Life and work skills in Mozambique; and Living together in Senegal. In several cases this particularly involved attention to entrepreneurship and practical skills relevant for the workplace (Stabback *et al*, 2007).

165. The study noted that in several countries much effort was made to make these subjects outcome-based, thus emphasizing competencies to be gained. It remains, however, unclear as to "what learning strategies are used in practice and with what result. However, the study recognizes that the very introduction of learning areas developed with the specific purpose of ensuring that life and work-related competencies and skills are incorporated into the curriculum, is significant. These learning areas, labelled 'carrier subjects' by Stabback, along with the frequent consideration of cross-cutting aspects may contribute to these skills receive more attention in the teaching-learning situation" (Stabback et al, 2007:129).

5.4.3. HIV and AIDS prevention

166. A major component and driving force behind the attention to life skills has been the prevention of HIV and AIDS. UNICEF notes in a recent publication (UNICEF, 2011) "In 2009, young people aged 15–24 accounted for 41 per cent of new HIV infections in people aged 15 and older. Reducing

this level of incidence requires not a single intervention but a continuum of HIV prevention that provides information, support and services to adolescents and young people throughout the life cycle, from very young adolescents (aged 10–14) through older adolescents (aged 15–19) to young adults (aged 20–24) .... Twenty countries in sub-Saharan Africa accounted for an estimated 69 per cent of all new HIV infections globally in young people in 2009. About one out of every three young people newly infected with HIV in 2009 was from **South Africa** or **Nigeria**" (UNICEF, 2011:5-6). It is noted that in some countries, such as **Swaziland**, HIV and AIDS still permeate every aspect of the educational system from student non-enrollment and dropout to illness-related absences of teachers (Steiner-Khamsi and Simelane, 2011:5).

167. Education continues to be regarded as one of the main avenues to reduce the number of infections. It is noted that in particular age-appropriate sexuality education can increase knowledge and contribute to more responsible sexual behavior. Although the percentage of schools providing life skills-based HIV education has been growing in recent years, the teaching of content and prevention practices is said to depend on the existence of a supportive policy, appropriate teacher training and clear curricula and teaching materials. Especially for young adolescents it appears that school-based programs improve knowledge and self-efficacy which are important foundations for prevention. Social marketing and the use of mass media influence attitudes and increase uptake of HIV-related services. Many behavior change efforts, however, show little or no impact if not targeted at those most at risk and if not implemented alongside measures to address norms and structural influences on behavior and access to prevention commodities and services (UNICEF, 2011:8).

5.5. Social and citizenship skills

168. Social skills are those dealing with how to handle relations with other people and how to participate in society. They stimulate the affective and motivational elements of relying on oneself as well as cooperating with others; persevering, accepting criticism and having the ability to choose one's courses of action constructively and to act sensitively and democratically. Social skills are directly associated with social values and attitudes, for example towards people with whom life activities are shared and towards others who are different.

5.5.1. Social skills

169. OECD recognizes three types of competencies in social skills each of which reflects significant concerns that are also relevant within the African environment: the ability to relate well with others, the ability to cooperate, and the ability to manage and resolve conflicts. The first key competency allows individuals to initiate, maintain and manage personal relationships with, for example, personal relations, colleagues and customers. Relating well is not only a requirement for social cohesion but, increasingly, for economic success as changing firms and economies are placing emphasis on emotional intelligence. This competency is about respect and appreciation of the values, beliefs, cultures and histories of other people. It especially requires empathy and the effective management of emotions (OECD, 2005:12).

170. The ability to cooperate involves the ability to balance commitment to the group and its goals with personal priorities and the ability to share leadership and support others. This competency requires an ability to present ideas and to listen to those of others, an understanding of the dynamics of debate and following an agenda, the ability to construct alliances, to negotiate and to make decisions that allow for different shades of opinion (OECD, 2005:13).

171. In the view of OECD, conflict resolution recognizes that there is a process to be managed rather than to be negated. This requires consideration of the interests and needs of others and solutions in which both sides gain. Thus participation in conflict management and resolution needs abilities to analyze issues and interests at stake, to identify areas of agreement and disagreement, to reframe the problem, and to prioritize needs and goals, deciding what people are willing to give up and under what circumstances (OECD, 2005:13).

172. An in-depth study produced by GIZ regards social competencies as those social, emotional and cognitive skills and behaviors that people need for successful social adaptation. It attaches special importance to the need to balance the tension between pursuing one's own interests and adapting to the interests of others. Also, it recognizes that individuals act within specific social situations and contexts and that thus the development of social skills is shaped by the social environment in which people live. This means that social skills are value-related and can also be used for wrong ends. Hence, the study proposes that social competencies must "refer to those competencies which are bound and committed to the public welfare and to democratic and humane values [….] Social competencies prove themselves just in dealing with divergent perspectives and when negotiating with different positions" (GIZ, 2011:14-5).

173. The study notes that the competencies, as defined by the OECD, have direct relevance in the context of ESD and thus they need to be faced by education systems. They are often referred to as *social learning, democratic education* or *peace education*, but they all contain deeper meaning in terms of the core attitudes and psychological dispositions that need to be promoted. Therefore, such competencies are not only supported by subject content but have value across the curriculum in the mode of communication itself and the way learning allows participation and empowerment. Expectations towards behavior demanded by society are implicitly communicated and passed on in the way learning is organized and by the behaviour of teachers (GIZ, 2011:17).

5.5.2. Social learning

174. Social learning is often related to the effects of learning on social cohesion. The latter is defined as "the capacity of a society to ensure the well-being of all its members, minimising disparities and avoiding marginalisation [...] the achievement of social cohesion has to centre on actively managing differences and division in a context of democratic citizenship. This is the bridge-building element. Both, material or objective resources (e.g. economic situation, social protection) as well as more subjective dimensions (such as feelings of belonging, security and recognition) have to be managed. This highlights a policy approach that seeks actively to prevent, negotiate and manage tensions, divisions and conflicts (relating to resource distribution as well as identity)" (Council of Europe 2008, 14, in GIZ, 2011:18).

175. Social learning can very well be embedded within learning in schools. Education can contribute to the development of social effectiveness and self-regulation, in both their cognitive and emotional dimensions, by enabling young people to experience themselves as socially effective and challenging them to gradually take over responsibility for their actions. Effective communication at school can help in providing recognition, guidance, encouragement and praise of progress in these areas. Moreover, competencies in relation to others depend on how schools as institutions organize themselves, manage student relations, make decisions and resolve conflict. Social competencies can be learned by changing teacher and institutional behaviors, and such change can significantly contribute to the quality and effectiveness of learning in general (GIZ, 2011).

5.5.3. Peace education

176. It has been reported that 13% of the world's population lives in conflict affected or fragile states. Half of the world's of out-of-school children and young people can be found in these countries. Furthermore, most warfare takes place in developing countries, particularly in Africa where some of the highest numbers of child soldiers are found. Children and young people living in these countries are the least likely to receive an education, partly due to the circumstances in which they live and partly because education for children and young people in these circumstances is not considered a state priority or an imperative to humanitarian response (ICQN-PE, 2011).

177. When conflict ends, many children and young people are left without the support that would help them to find healing, restore their lives and reintegrate into society meaningfully and productively. Many young people who have been exposed to violence are at the highest risk of

perpetuating violence. Studies indicate that uneducated young people or dropouts are more likely to become involved in violence or behavior that is detrimental to their health and wellbeing.

178. It is commonly recognized that during times of hardship, education can be a mechanism for stability and the means of creating hope for children and their families. It addresses, economically, politically and socially, some of the post-conflict challenges facing societies and provides a course of action which ensures that young people are equipped to take up roles in society as active, responsible and self-reliant citizens. In this way education may play a significant role in the development of capacities within society for peacekeeping and peacemaking. Some findings from a study conducted by the Inter-Agency Network for Education in Emergencies (INEE) corroborate this position, outlining a number of micro- and macro-level contributions of education to mitigating fragility. They demonstrate that education can be used both as an instrument for maintaining the status quo and thus reinforcing fragility, and for reducing fragility:

- Education can enhance stability by contributing to social cohesion;
- Secondary education is an effective contribution to overcoming state fragility;
- Education can measurably reduce the risk of civil unrest and violent conflict;
- The perception of inadequate educational service often becomes a grievance that exacerbates state fragility;
- Education institutions can be suitable places to establish transparency;
- Political manipulation of educational provision and content may increase fragility;
- Education is highly desired by populations affected by state fragility; and peace education can have positive effects on students' attitudes.

(ICQN-PE, 2011)

179. Peace education is built on the assumption that school attendance is not enough to ensure positive peace (i.e. the absence of conflict). Much depends on (i) the extent to which the provision of basic and vocational education takes into consideration the location and life circumstances of young people affected by conflict; and (ii) to what extent the substance and methodology of the education process responds directly to the dispositions and learning needs of young people. The first defines the organization and management of the education and training that is on offer. The second focuses on curriculum; the nature of basic skills, knowledge, values and attitudes that are being promoted; appropriate teaching-learning strategies; and the whole ethos of the institution. By carefully adjusting both education provision and content, much can be done to lay a foundation for resolving conflicts in a peaceful manner.

180. Fragile countries and those emerging from conflict are clearly exploring how to shape peace education and embed this in the curriculum. **Kenya**, for example, focuses on awareness raising about causes and resolution of conflicts; stimulating global values of interdependence, social justice and participation in decision-making; developing skills that promote peace and human dignity; and fostering respect for cultural diversity. The country includes peace education in life skills curriculum and also in other subjects. The establishment of peace clubs and the sensitization of teachers are additional measures. In the **Democratic Republic of Congo** peace education focuses specifically on civic and moral education, giving attention to culture and human rights, moral development, social values, rights and obligations of citizens, and patriotism (ADEA, 2011).

5.6. Work-related skills

181. Basic work-skills and work-related education refers to developing basic knowledge about the world of work; learning about one's own talents, aptitudes and interests; and developing basic dispositions that are essential for successful job-search, engaging in self–employment and effective functioning in the workplace. Relevant dispositions include self-awareness, self-management, problem solving skills, creativity, ability to take initiative and responsibility (being entrepreneurial), negotiating skills and ability to work with others for a joint purpose.

182. Many of these skills are considered to be essential components of good quality education. Indeed, the various dispositions have already been reviewed as integral requirements for the competencies related to self-development and interaction with others. They are also seen as vital ingredients for operating successfully in the labour market and in the world of work in general. Building these learning outcomes into the curriculum and pedagogy of basic education for both younger and older people provides a basis for lifelong vocational skills development and effective functioning in the workplace.

5.6.1. Skills in relation to work

183. Countries have different approaches to the notion of core skills or generic skills in relation to employment. In some they are specifically related to employment while in others more emphasis has been placed on the social and economic relevance of generic skills (UNESCO-UNEVOC, 2011:15).

Thus it has been argued that "It is desirable to find agreement on terminology that is acceptable to all stakeholders—schools, VET, higher education, employers, individuals, and communities and which recognises that the new agenda of generic skills for the 21st century is about essential life skills as well as enterprise and employability skills (UNESCO-UNEVOC, 2011:15).

184. There is a trend to consider common core skills only in relation to their relevance for the labour market and thus legitimize their prominence in education exclusively in terms of access to jobs and contribution to economic growth. In this context, as in Australia, they are referred to as "competencies essential for effective participation in the emerging patterns of work and work organization", thus focussing on the capacity to apply knowledge and skills in an integrated way in work situations (UNESCO-UNEVOC, 2011:16). Such competencies are "generic" in that they apply to work generally rather than being specific to work in particular occupations. UNESCO-UNEVOC observes that such competencies became part of an *employability skills framework* and were incorporated into VET training packages (UNESCO-UNEVOC, 2011:17). This trend, however, denies the broader relevance of such skills for the lives of individual people, young and old, and their relevance for sustainable development. Moreover, it may lead to some competencies being interpreted in more restricted ways as they are adapted to the needs of industry.

185. UNESCO-UNEVOC's research and development work concentrated on the conceptualization of skills in two ways, each serving a different purpose: (i) as generic (broadly transferable) sustainable-development-related skills, and (ii) occupational job-specific sustainable development skills. It has been alleged that TVET systems have not understood the theory and practices of sustainable development, as they "remain locked in the role of being a mere supplier of skilled labour to industry and are therefore unable to respond effectively to the needs of sustainable development strategies" (UNESCO-UNEVOC, 2011:23).

5.6.2. Moving towards skill integration

186. Nevertheless, it is acknowledged that the trend has been towards bridging academic and vocational education, following a holistic, integrated, intersectoral approach to education, including all of TVSD and training in the informal sector. This has stimulated attention to the development of "domain independent" generic or core skills and a greater synergy between generic and specific skills development (UNESCO-UNEVOC, 2011:23). Such approach creates a more fluid situation in which TVSD can be given the space to provide training according to its own capacity and which enables other types of education/training to become more prominent in the promotion of core skills.

187. For basic education this means greater and more explicit attention to the development of common core skills, including those seen as generic with regards to preparation for entry into the world of work. This need was already recognized in the Bonn Declaration of October 2004. "Recognizing that the vast majority of the world-wide labour force, including knowledge workers, require technical and vocational knowledge and skills throughout life, we affirm that skills development leading to age-appropriate TVET should be integral to education at all levels, and can no longer be regarded as optional or marginal. It is especially **important to integrate skills development in Education for ALL (EFA) programs and to satisfy TVET demand created by learners completing basic education**" (UNESCO-UNEVOC, 2005).

188. This integration and how it can enrich basic education for children, youth and adults within a lifelong learning framework was also endorsed at the Maputo Biennial (ADEA, 2009). The importance of incorporating generic skills for work in all basic education is now emphasized more than before. UNEVOC points out that "in the different publications reviewed, there is a broad agreement that the increase of informal employment, scarce resources and high employment mobility in sub-Saharan Africa requires to teach generic skills rather than highly-specialized skills for technology and industry sectors" (UNESCO-UNEVOC, 2011:25).

189. In terms of the broader structural agenda it has been observed that "EFA initiatives in many countries and in particular in the LDCs have concentrated too exclusively on Universal Primary Education (UPE) and literacy (for children) and thereby neglected developing and designing longer-term pathways of learning and subsequent structures of a comprehensive system of lifelong learning. Over the years **two trends have become increasingly clear**: that literacy alone and a basic education consisting of a few years of primary schooling (whether 6 or 8 years) does not qualify for paid jobs and employment, and secondly, that even a second cycle of (up to 6 years) secondary education does not prepare the students for post basic learning, professional training and the world of work. They greatly lack the requisite knowledge, generic skills or competencies and attitudes" (UNESCO-UNEVOC, 2011:25).

5.6.3. Recent experiences

190. Many countries have tried to create or transform educational programs in order to enable learners to apply their skills in working environments. In SSA, reforms have been implemented to "vocationalize secondary education". In this approach, the main purpose of a student's whole curriculum remains general education, and the curriculum allows the student to remain on track towards higher stages of academic education (Lauglo, 2005). Hence, *vocationalization* means to add specific vocational subjects in the current curricula of secondary education. This approach clearly divides general subjects from vocational subjects but lessons can be learned from these experiences. **Botswana, Ghana** and **Kenya** implemented related reforms in current curricula with varying degrees of success (UNESCO-UNEVOC, 2011:22).

191. The integration of general and vocational education has been part of innovative initiatives for different categories of youth and adults in the non-formal education sphere. For example, in the case of Pedagogy of the Text, the integration of a practical dimension combining theory and practice and the inclusion of dialogue with communities often result in the introduction of "content to improve farming and/or pastoral techniques, address health issues (identification, prevention and treatment of diseases, hygiene) and protect and manage natural resources and the environment (particularly water)" (Faundez *et al*, 2011:9).

192. Integration of skills development, including work-related basic skills, is also enhanced by system reforms in basic education, whereby effective bridges are created among different pathways for learning, including regular forms of school education and other (recognized) forms such as broad-based non-formal education and forms of vocational training. The links can facilitate both effective transitions from one form of education and training to another as well as degrees of cooperation between such forms, depending on the needs of learners and opportunities within the local environment.

193. The WGNFE review of country experiences reports on progress in this area. Efforts are underway in several countries to recognize and promote transitions among alternative pathways that include vocational skills programs. In **Senegal** the only transition recognized so far concerns the ECB basic community schools. In **Burkina Faso**, alternative pathways are now regulated by Article 32.4 of the Education Act, which states the need to "encourage the creation of educational facilities to promote the development of technical innovations and construct bridges between formal and non-formal levels of education." The bridges are being developed but on a small scale and especially within the structures promoted by NGOs (WGNFE, 2011). Furthermore, the Burkina Faso team points out that the success of alternative forms of vocational skills training in NFE is due to the relevance and articulation of skills with regard to the context of the learner (Burkina Faso, 2011).

194. In **Mauritania**, such bridges have been considered for some years, but only involving schools providing formal basic education and Qu'ranic schools. However, little real progress has been made. The public authorities have been working to build bridges between these two areas of education since the 1970s in order to ensure their successful integration within a comprehensive strategy that would guarantee Mauritanian young people suitable training and employment. It is clear that links between

the two systems are still limited, and each operates in its own sphere of activity (WGNFE, 2011). The creation of effective linkages among different forms of basic education in a bid to move towards system integration is also on the policy agenda of countries elsewhere in Africa: **Kenya, Namibia, Uganda,** and **Zambia** (Hoppers, 2008**)**.

5.7. The challenges of common core skills development

195. Part II has reviewed a number of skill areas which across the African continent tend to be regarded as rather crucial components of "good" education. The presentation of the state-of-the-art of these skill areas shows that over the years there has been much reflection and debate on such skills by different stakeholders. Many of these debates have been the result of ad hoc findings of serious shortcomings in the education system. Problems are related to participation in further education or training, functioning of school leavers in communities, employment or productivity, low quality and irrelevance of education processes and content, inadequate proficiency in core skills, and inability of young people to meet the challenges of current socioeconomic and cultural changes in the context of globalization.

196. These reflections and debates have led to many intentions which, more often than not, did not result in dramatic changes in actual teaching and learning situations. If anything, changes were fragmented and often limited to certain aspects of education or to certain (pilot) areas. They were often not fully implemented, and, if implemented, the changes were often not sustainable. By contrast, Part II has also shown that improving quality and relevance within a context of lifelong learning in such a way that education can contribute to sustainable development is highly complex and requires changes in all aspects of education systems to be effective in an interlocking manner.

197. This posits a number of basic challenges to further education reform:

The development of CCS as outcomes of learning must be addressed in an inter-related manner, exploring the linkages and complementarities across the different types of skills, leading to integrated packages to be offered to different categories of learners according to needs and demand.

The introduction into education systems of skills-based curricula will need to be done in a holistic manner, linking curriculum reform to major changes in teacher education, teaching-learning support materials, school management and supervision, and assessment practices.

Such holistic reforms will require the participation and collaboration of all stakeholders in decision-making on design and in the actual implementation processes.

The LLL perspective demands that youth and adult education become integral parts of the overall education system, and that essential complementarities can be identified between skills requirements for children and those for their parents, as well as between adolescents and adults.

Curriculum reform for school education must go together with fundamental reform of adult education and functional literacy programs, as large numbers of adults have experienced the same deficiencies (if not more) that characterize current school education and thus are equally poorly prepared to face the impacts of present radical changes in society.

The accessibility to programs of CCS development for entire age-groups implies the necessity of widening the range of alternative provisions for basic education, of recognizing these for their (potential) contribution to lifelong and life wide learning, and of supporting and coordinating them within a framework of diversified and equitable education.

6. PART III - ENABLING CONDITIONS FOR SKILLS ACQUISITION

6.1. Enabling conditions within the education environment

198. The challenges to enable younger and older people to achieve proficiency in common core skills as outlined in Part II points to essential enabling conditions that can make the realization of such agenda possible. Part III reviews a variety of these enabling conditions, making a distinction between those pertaining to the education systems and those that belong to the wider socioeconomic and cultural context of education.

199. In earlier sections of this paper references were made to the necessity of changing the fundamentals of education systems. It was pointed out that ESD has implications for educational reform in three ways: in terms of restructuring education provision, extensively reforming curriculum, and reviewing the actual quality of teaching and learning. ESD gives a deeper dimension to the improvement of quality and relevance by emphasizing the need for a paradigm shift so as to achieve effectiveness of knowledge and skills development in the context of lifelong learning.

200. Various contributions to the Triennial have pointed out that in spite of over 40 years of educational reform, of which the last 20 were under the umbrella of the EFA and MDG agendas, the fundamentals of education systems have barely changed. Systems have continued to function in the way they were doing at the time of independence in most African countries. While officially curricula have been changed several times, the emphasis in teaching and learning remains firmly on lower order cognitive skills and memorization of basic knowledge for examination purposes. The essential purpose of schooling continues to be selection for privileged positions in society. In spite of a plethora of teacher education and development reforms over many years, a majority of teachers appear to continue teaching in the traditional way. New curricula often are not reflected in textbooks and they fail to give sufficient guidance to teachers who are keen to move towards a skills-based approach. Supervision and quality assurance services are not able to effectuate real changes in classrooms (WGBLM, 2011; ROCARE, 2011b). The nature and focus of external examinations continue to function as the prime drivers of education systems, resulting in the diminished scope of education as it is implemented in classrooms (ROCARE, 2011b:5).

201. This section explores different perspectives as to what extent and how this continuous cycle of curriculum, examinations, teacher training and learning support materials (especially textbooks) can be broken and how new initiatives can facilitate a transformation of teaching and learning that is in line with the expectations in ESD. Thus, several key dimensions of education will be highlighted that constitute critical conditions that may enable progress to be made.

6.1.1. Curriculum

202. Curriculum is the heart of teaching and learning; it refers to both the official frame within which all learning should take place and to what learners actually learn. It is thus in the curriculum that the effective teaching and learning of relevant skills, knowledge and values should take place. Following Bernstein (1980), one can say that the curriculum, together with the pedagogical frame (often reflected in the syllabus) and assessment define what counts as valid education knowledge. Their structure and content reflects a deeper *education knowledge code* representing the underlying vision of society as to what education is about (Bernstein, 1980:47).

203. In many countries in Africa the curriculum structure, especially at secondary level, still follows the colonial models of strong compartmentalization of knowledge areas and specialization in higher grades, with emphasis on those subjects relevant for entry into senior secondary and tertiary levels.

Pedagogy tends to be highly prescribed in terms of what teachers are allowed to present and how they should transmit relevant knowledge. Examinations confirm which subjects matter and what needs to be known, and thus what kind of achievement is valued. Teachers are generally trained to be as effective as possible in the implementation of these prescriptions, following well-established practices (ROCARE, 2011b; Ackers and Hardeman, 2001; Somerset, 2010).

204. It follows that in the context of ESD, with its emphasis on holistic and inclusive education, learner-centered pedagogy and greater emphasis on abilities to practice core skills, the prevailing education knowledge code and its associated school cultures will need to be transformed. This is not only a matter of adjusting what should be taught, but rather of changing the entire curriculum framework; establishing a close integration among learning areas; developing entirely new pedagogical approaches that allow teachers to develop knowledge and skills across the curriculum (for example through a thematic approach) and facilitate the continuous lifelong practice of the acquired skills; helping teachers to change their way of thinking about learning, and to develop and feel comfortable with entirely different ways of interacting with learners; allowing learners (younger and older) much more say in what and how they want to learn; and designing entirely new ways of monitoring and assessing skills development. International examples could come from Japan, Scandinavian countries and the USA (Matachi, 2011).

205. A curriculum with more separation between subjects tends to display a greater distance between education knowledge transmitted in the schools and non-school everyday community knowledge (Bernstein, 1980:50). In this approach, community knowledge does not matter in the formal education-work trajectory. However, in a context of ESD and the need for LLL, with its emphasis on greater integration and openness of what is to be learned and how, and increasing interest in applying skills and knowledge in the environment, the distances between school and community knowledge will be much reduced. This will be stimulated partially by increased influence of communities and other stakeholders on the content and purpose of education.

206. This is precisely the direction in which some systems, outside and inside Africa, already have been trying to go. Mixing cultures and knowledge systems may have great significance in Africa because of the opportunities to bring indigenous knowledge into the learning process. The latter is what has been referred to as the "crossing of cultural and epistemological borders" which is seen as essential for creating awareness of divergent world-views and perhaps enabling young people to navigate conflicting mental states when confronted with western science (Ogunnyi, 2003 in Breidlid, 2009; Matachi, 2011).

207. The significance of moving towards a new *education knowledge code* as a basis for curriculum reform and far-reaching changes in teacher training and assessment practices is increasingly recognized. It has inspired the design and implementation of UNESCO-BREDA's BEAP program, the instigation of radical curriculum reform in some countries, for example the activity-based curriculum in **Mali,** Curriculum 2005 in **South Africa** and the new thematic curriculum in **Uganda**. In a more limited way, it has stimulated in quite a few countries the recognition of local knowledge as a learning area in the curriculum (UNESCO-BREDA, 2011; Sayed, 2011).

208. Among the contributions provided in the context of the Triennial, the Pedagogy of the Text is a good example of an innovation that could bring about these changes and thus promote a paradigm shift. Schemes based on this approach not only have a reformed curriculum but also educational guidance texts (intervention strategy, study plan, trainer and teacher training plans, etc.). For example, study plans provide a structure for learning across the curriculum (3 or 4 years) for each level (or degree) and subject area (Faundez *et al*, 2011)

6.1.2. Pedagogical practices

209. The quest for ESD strengthens the shifts in debates on quality in education from inputs into the education process to the actual process itself and its relation to what children actually learn. Rather

than assuming that improved inputs such as qualified teachers, teaching-learning materials and trained managers automatically lead to higher levels of achievement, there is now a much greater realization that what matters most in learning is the quality of teacher-pupil classroom interaction. Research suggests that this is the single most important factor accounting for wide differences in outcome measures using the same curriculum materials and purportedly the same teaching methods. Quality in the classroom concerns key aspects of effective teaching such as lesson clarity, instructional variety, effective use of teacher time and high levels of pupil engagement (Hardman *et al*, 2011; UNESCO, 2010; Ackers and Hardman, 2001).

210. It has been noted that there tends to be a gap in research in the area of teacher effectiveness, particularly in SSA (Heneveld and Craig, 1996), but studies on classroom interaction that have been conducted are enlightening. In **Kenya**, a national survey on classroom interaction, as part of an effort to establish a larger national primary baseline, showed that the prevailing pedagogy in the primary schools has been dominated by the transmission of facts. While discipline was good, there was little evidence of interactions in which there was an exploration of a topic and interchange of ideas to enable higher order thinking. Also, virtually no pupil-to-pupil interaction or pupil-initiated questions were observed. If anything, pupil contributions seem to be discouraged (Ackers and Hardeman, 2001:256).

211. Findings like these are in strong contrast to what would be required in the context of ESD. Matachi, whose agency helps in changing classroom practices in the same country, **Kenya**, describes the Japanese practice:

> *"Regarding the 'implemented curriculum', namely, lesson delivery, in School Science, teachers pay special attention to bringing out learners' ideas and opinions. In order to do so, it is critically important for teachers to provide learners with a problem that is interesting enough to motivate learners to think and discuss. By bringing out learners' ideas and opinions, teachers can understand learners' pre-instructional conceptions and how they have been formed. According to the nature of pre-conceptions that learners have, a teacher makes decisions on how to deal with the pre-conceptions to modify them to scientific conceptions. One of the important roles of teachers is not to give a correct solution, but to let the learners find or construct a solution (a scientific concept), for example, by posing questions, clarifying issues for learners to think, and sorting out similarities and differences in opinions raised by learners" (Matachi, 2011:16).*

212. The biggest challenge is to develop teaching-learning methodologies that facilitate and sustain learners' acquisition of skills, competencies, attitudes and values in a broader sense. These can only be learned by doing and by the continuous creation of opportunities to apply and practice them (GIZ, 2011). This practice must start in the learning situation and be continued throughout life. Skill acquisition up to a minimally required level also implies providing support to the learners at the level where they are and at a pace that is appropriate to them. Hence, in order to ensure inclusive learning, flexible and varied methods may need to be used in the pedagogical situation, as well as a degree of *differentiation*, meaning the use of different levels of instruction and pacing, and different materials, in order to respond to individual needs, learning styles and interests (Heacox, 2002; Njoka *et al*, 2011). Key steps, as expressed in Pedagogy of the Text, are contextualization of the process, interaction with the environment of the learner, and ability to reflect upon achievements (Faundez *et al*, 2011).

6.1.3. Teacher development and management

213. Changing pedagogical styles and classroom interaction constitutes a major challenge to teachers and to teacher training and development institutions and programs. While the challenge lies partly in the area of pedagogical skills, beyond this there are other issues. These include the development of a very different mindset about teaching and learning and thus about the roles and responsibilities of

teachers and learners in the pedagogical process. Teachers need to understand and appreciate what they are in for so as to accept what may be an additional workload. This, by itself, can be a major issue, particularly in countries where teacher motivation and commitment have been negatively affected by decreasing salaries and poor conditions of service. Further issues concern changes in classroom management and the organization of learning; changes in school governance and organization; the very ethos and culture of schools; the principles governing learners' activities and behaviors; and changes in the manner in which teachers interact with the outside world, from parents to employers (Avalos, 2011; Abd-Kadir and Hardman, in press). Changes in pedagogy also become challenges to school heads, supervisors, professional support and quality assurance personnel, and, not in the least, to learners and their parents.

214. A recent review of teacher education policies across several African countries, commissioned by the EFA Task Force on teacher education (Sayed, 2011) shows that countries have been paying much attention not only to increasing the supply of teachers in basic education but also to improving teacher effectiveness in relation to educational outputs. New policies have focused on teacher competencies by reviewing teacher pre-service training and upgrading in-service programs. For example, **Ghana**'s move towards extending formal basic education to 11 years was accompanied by upgrading teacher colleges, improving conditions of service, special needs programs, training of teachers in TVET (as part of basic education) and development of training for kindergarten teachers (Sayed, 2011:12). There has also been a tendency to affiliate colleges with universities, even though it has also been reported that such collaboration still has a long way to go (Steiner-Khamsi and Lefoka, 2011).

215. **Uganda** also carried out a review of primary teacher education. The main purpose was to up-date the curriculum to incorporate new developments in primary education (such as thematic curriculum) and other initiatives that had been introduced in guidance and counseling, HIV-AIDS, gender, peace education, multi-grade, special needs education, children in conflict areas, mentoring and psycho-social education. Major problems identified include the inadequate training of teacher trainers which did not pay attention to imparting strategies to implement the new primary curriculum; lacked an emphasis on pedagogy; and used a type of examination that tested memorization of pedagogical knowledge rather than pedagogical skills to enhance learning. The review argued that there should be balance in teacher education between content knowledge, pedagogic content knowledge (*how to teach content*) and general pedagogic knowledge (*effective teaching strategies*). Teachers should also be supported in developing assessment strategies that provide feedback on individual student development (Sayed, 2011:25; GIZ, 2011:45).

216. Other recent literature complements the above exhortations. Hardman *et al* (2011) places pedagogy, and its training implications, centre-stage and warns international agencies that their best practices with regard to teacher professional development must be embedded in classroom reforms. Comparative research shows that teacher reform needs to combine the culturally or nationally unique with what is universal in classroom pedagogy in order to achieve this. Lessons that have emerged from **East Africa** include that the [provision of well organized, large-scale, but decentralized (school-based) INSET can do much to enhance teacher access to the competencies required to deliver higher quality basic education (UNESCO, 2010). School-based training can be supported by distance-learning modules, as in **Kenya** (Hardman *et al*, 2011). However, there are doubts whether this combination is cheaper than traditional full-time residential courses (Mattson, 2006, in Hardman *et al*, 2011).

217. According to PASEC, commenting **on West Africa,** the initial and continuing training of teachers is a complex and even paradoxical issue, which can sometimes have a positive or negative impact on student learning. Some hypotheses have been formulated to explain this paradox (CONFEMEN, 2011:12), but they are unsatisfactory because other parameters such as motivation have not been considered. PASEC points out that it is unclear how education systems can hope to impart basic skills when 35% of training/teaching staff has had no initial training (CONFEMEN, 2011).

218. There is no clear evidence that improved teacher training has an impact on improvement of quality and relevance in schools. It appears that harmonizing curriculum reform with teacher education, the availability of appropriate learner and teacher support materials, and external professional support, not to mention a reasonable level of funding, is a huge challenge for any reform-minded government (Sayed, 2011; WGBLM, 2011). Yet, such wholesale alignment is essential for a successful transformation towards ESD.

6.1.4. ICT and resources for teaching and learning

219. A transformation in teaching and learning within a context of curriculum reform towards enhanced and sustained lifelong learning skills development could benefit a great deal from a systematic application of ICT (ROCARE, 2011a; UIL, 2011a). While in recent decades ICT has made its entrance into schools and learning centers across the continent, its actual usage, whether for administration or for instruction purposes has remained very patchy and limited.

220. Many countries have developed policies on ICT in education which include not only the introduction of computers in schools, but also their effective usage for teaching and learning. Chief among these are the development of computer literacy among learners and the use of ICT as a resource for learning across the curriculum. The idea has been that ICT could help with complementary individualized instruction enabling learners to carry out diverse learning tasks associated with language and cognitive skills that have value for all learning areas. ICT could serve as a resource for information gathering and enable young people to collaborate with each other in the same classroom or across the country, if not internationally.

221. A comparative research study that focused on the extent to which ICT had been integrated in the curriculum and the process of teaching and learning of skills was implemented by ROCARE in **Ghana** and **Mali**. The key question was whether the development of lifelong learning skills was recognized in the curriculum and realized in schools with the help of ICTs.

222. It was found that the curriculum in basic education in both countries reflected the importance of lifelong learning skills in the context of various subjects and that generally teachers seemed aware of their importance. While core skills were often found to be part of teachers' schemes of work, their actual realization in the pedagogical process was still rather limited due to limited understanding among teachers of how to teach such skills directly. ICT did not seem to play a role in this process, partly because of lack of training in using ICT for skill development purposes, partly because of logistical problems such as lack of sufficient equipment, large class sizes and like of time. In contrast to Ghana, the basic education curriculum in Mali made no mention of ICT literacy, much less of its use for teaching and learning (ROCARE, 2011a).

223. The study also found that in Ghana teachers in primary education, who were class teachers, tended to be more conversant and also more concerned with lifelong learning skills. This was attributed in part to their greater understanding of cross-curricular skills and in part to the relative lower pressure from examinations, which in Ghana are only administered at the next, junior high school, level of education. There was a general assumption among teachers that common core skills did not need to be taught directly as their development mostly emerged through general class exercises and tasks assigned to the learners (ROCARE, 2011a:25).

224. The above would suggest that the actual demand for ICT usage in the teaching-learning process (and thus for resolving some logistical problems) would be much enhanced by a clearer understanding among teachers and their supervisors of the specific methodologies required for the effective acquisition of such skills.

225. Teachers are, of course, much more familiar with the usage of textbooks and other paper-based support materials. However, a study on learning materials in relation to skills-based curricula in **Tanzania** commented on the gap that was often found between a reformed curriculum with its

guidance in the area of pedagogy and monitoring of learners' progression on the one hand and the design, approaches taken and content presentation of official textbooks and teaching-learning support materials on the other (WGBLM, 2011). This is attributed to various factors, such as lack of sufficient knowledge among textbook writers about the orientation of the curriculum and the methodologies required for skills development; frequent absence of clear outcome statements (with measurable definitions of knowledge, skills and behavior) in the curricula; and poor attention to the needs of teachers for guidance in designing learning experiences that are student-centered and appropriate to the objectives and learner's level of ability (WGBLM, 2011; GIZ, 2011).

226. Thus, the coherence between curriculum framework, teachers' professional competency, teaching-learning support materials and quality assurance promotion is of vital importance. This not only concerns improved learning effectiveness in a general sense; it also helps to ensure that the social messages that directly or indirectly emanate from the curriculum and its associated resource materials are appropriate to the agreed upon vision of society.

227. One study pointed out that the way in which societies, minorities, ethnic groups and historical events are depicted in syllabi and textbooks may have significant impact on social cohesion. This is particularly relevant in the context of peacebuilding efforts. School books and syllabi can be composed in an intentionally manipulative manner, for example by depreciating others or presenting historical context in a one-sided way or as supportive action in regard to tolerance, mutual understanding and social cohesion. They can also unintentionally reflect the common ideas of an elite, political or societal group (GIZ, 2011:29).

6.1.5. Education leadership

228. In the context of educational reform, particularly one that seeks to transform the very nature of the curriculum and pedagogical practices in schools, a heavy burden is placed on school leaders. These leaders are expected to facilitate the implementation of new curricula, even where teachers do not feel comfortable with applying the new principles or express negative sentiments about the changes. School leaders are expected to adapt school management practices and staff-student relations so as to create an environment within which skill related outcomes can be practiced. In these situations, leaders themselves have to model values-based behavior as exemplars for the young people, whether in the manner of teacher-learner relations or the approaches to decision-making at the level of governance and management (Robbins and Trabichet, 2009). In the process, school leaders will need to recognize the implications of principles of equity, inclusiveness, democratic participation, peacebuilding and social justice, expected when functioning within a context of ESD (Bosu *et al*, 2011).

6.1.6. Evaluation and assessment

229. In recent years education systems have been confronted by a rapidly expanding culture of assessment. This culture has been visible at both system and classroom levels. This culture has often been regarded by educators as a nuisance, particularly where it seemed to put all accountability for the ills of education with school managers and staff. At the same time, however, it has revealed very serious problems with the achievement of desired education outcomes and thus with the processes of teaching and learning. In the context of a strongly felt need to emphasize the effective acquisition of common core skills for lifelong learning, evaluation and assessment provide an important foundation for a wholesale review of what goes on in education (Somerset, 2011).

230. Assessment of education systems at regular intervals has become commonplace in many countries. Pilots started by SACMEQ and PASEC at regional level in the early 1990s have inspired countries to use their newly acquired capacity to organize their own internal national assessments. While regional organizations focussed on Grade 6 reading literacy and mathematics competencies, national ministries complemented these, for example, with the UNICEF-sponsored early learning achievement (Grade 3 level) in East Africa.

231. SACMEQ, which just completed Project III, has been collecting data on quality improvements with respect to both school conditions and student achievement levels. Their comparative analysis of findings, undertaken for the purpose of the Triennial, found that there were substantial variations in the pupil reading and mathematics achievement levels across SACMEQ countries in both 2007 and 2000. There was also major cross-national variation in pupil achievement trends between these two years (SACMEQ, 2011:3).

232. At the pupil-level, grade repetition, socioeconomic background, pupil age, and pupil sex were found to be the most important factors affecting variations in pupil achievement. At the school level, resources and location were identified as important common factors. South Africa and Zimbabwe were among the school systems with the largest between-school variation (especially in reading) while Seychelles and Mauritius had the largest within-school variation. In addition, large social class differences in pupil achievement were evident in Mauritius, South Africa and Zimbabwe, while large gender differences in pupil achievement were evident in Seychelles and to some extent in Kenya and Tanzania, especially in mathematics (SACMEQ, 2011:5).

233. PASEC results since 2004 (VII-VIII-IX), as summarized for the Triennial, provide some interesting data and inter-regional/sub-regional comparisons of the CONFEMEN member countries. Results have been combined with socioeconomic variables. PASEC methodology makes it possible to calculate average scores in tests: initial tests ("pre-tests"), end-of-year tests ("post test"), subject tests (mathematics and French), and tests at different levels (for the second or fifth form). Results places countries in three groups:

- Burundi, Cameroon, Gabon and Madagascar had the best results;
- Burkina Faso, the Comoros, Republic of Congo and Senegal had middle scores;
- and Benin, Chad and Côte d'Ivoire had the lowest scores.

234. It appears, however, that only three countries (Burundi, Cameroon and Gabon) out of eleven achieved the basic skills level in the two subjects tested (mathematics and French). This was also the case for Madagascar and Senegal, but only in mathematics (CONFEMEN, 2011:8).

235. Developing the analysis further, the PASEC model identified school-related and non-school related factors by listing 34 variables grouped into three sets:

> Factors having a positive effect on educational attainment (high standard of living, ability to speak the language of instruction at home, ability to take a textbook home);
>
> Obstacles to the acquisition of learning (repetition, female gender, overstaffing, students' work out of school and the rural nature of the school).
>
> Factors having a varying effect, including teacher-related variables (type, initial and continuing training, absenteeism, frequency of meetings between teachers and principals) and student-related variables (help with homework and whether they are entrusted to someone).

236. Nevertheless, the PASEC model appears not to explain 25% of the variation. The team stresses that *"*while we can identify certain factors that foster educational attainment ..., many are indiscernible and unidentified, and student progress can only rarely be put down to traditional educational inputs*"* (CONFEMEN, 2011:14). This raises questions as to what extent other variables affect the scores, such as socioeconomic background, school management and partnership processes. Both SACMEQs and PASEC face the challenge of being more specific about the key factors that have the greatest impact on learning.

237. A significant more recent development is the emergence of national and regional NGOs getting involved with measuring actual learning through a household based (rather than school based) nation-wide survey focussing on ability in basic literacy and numeracy. *Uwezo* (meaning "capability" in Kiswahili), is a four-year initiative to improve competencies in literacy and numeracy among children aged 5-16 years in **Kenya, Tanzania** and **Uganda** through an innovative, civic-driven and public

accountability approach to social change. *Uwezo* will enable policy-makers as well as ordinary citizens (parents, students, local communities and public at large) to become aware of actual levels of children's literacy and numeracy, and build on that awareness to stimulate practical and policy change across East Africa (UWEZO, 2011:8).

238. A recent assessment of *Uwezo*, based on 2010 data, showed that, while high levels of investment in education have been made in the three East African countries, the focus still appears to be more on schooling than learning. Children in all three countries perform poorly compared to established curriculum levels (see findings on literacy in Section 6 above). Furthermore, there are large differences in (input) quality among schools, with Kenya outperforming the other two countries. But at the same time the study found that children in areas with better school infrastructure did not perform better on the *Uwezo* tests than those in lower quality schools or more crowded classrooms. Performance was more associated with household characteristics, and the figures show that children from wealthier households did significantly better than those from poorer households (UWEZO, 2011).

239. It must be noted here that greater emphasis on a wider range of core skills necessary for lifelong learning within a context of sustainable development may well imply a significant expansion of the scope of skills to be assessed, thus going beyond literacy and numeracy. Thus, there will be a need to develop appropriate instruments to continuously evaluate progress in a variety of skills. It has been pointed out, however, that quality assessment of skills development programs (especially in the personal and social spheres) also needs to take into consideration factors of the learners' social context, such as the social situation in the classroom, the school's sociocultural context and the family situation. All these affect the impact of school instruction (GIZ, 2011:48-9).

6.2. Enabling conditions within the wider environment of society

240. The successful acquisition of common core skills not only requires a coherent and well-attuned enabling environment within the education system, it also requires a supportive environment within the wider context of society as a whole. Essentially, the pursuance of common core skills as a central part of lifelong learning for the purpose of enhancing all people's effective participation in the sustainable development of their society can only succeed when there is a broad-based, shared vision of common underlying principles and close collaboration between institutions of learning, the wider community, places of work, decentralized structures of governance and services provided by other sectors, civil society and private organizations. The principles to be shared include participatory and democratic decision-making; respect for human rights and the need for social justice; equity and equality of opportunity; openness, ethical behavior and transparency; partnership and mutual accountability.

241. This last section reviews several key dimensions of the wider society that reflect these principles. The choice has been dependent on the focus of the studies submitted for the Triennial. The dimensions are intersectoral partnerships to cater for those in vulnerable conditions; inclusiveness and equality of opportunity; protection of girls and women; absence of corruption; and dealing with the aftermath of conflict and violence.

6.2.1. Partnerships for care and support

242. A fundamental dimension of sustainable development is the construction of inclusive societies founded upon effective efforts to alleviate poverty and tackle all sorts of discrimination and marginalization (see Section 3). These efforts can only be successful if they involve society as a whole and cover all areas of socioeconomic life. Thus, inclusivity in education must reflect an overall national vision and policy regime, and involve widespread intersectoral cooperation in order to be effective.

243. The **SADC** region has recognized that in order to address vulnerability among children and to realize their right to education a regional policy framework was necessary to guide member states. In 2008 SADC ministers of education committed themselves to a common program, Care and Support for Teaching and Learning (CSTL). This was to be effected through developing and harmonizing policy and program responses that address the multiplicity of children's needs in a holistic, comprehensive and integrated manner. A policy review was commissioned that informed the development of the Regional Policy Framework which became a foundation step towards realizing the envisaged policy environment (SADC, 2011:1).

244. The CSTL initiative was based on the rationale that access to quality education and the basic need of freedom from disease, hunger, violence and abuse, as well as emotional security, care and support, are all essential ingredients for children's development if they are to participate meaningfully in society. Moreover, it was argued that, although the provision of an environment where children can learn effectively is the mandate of the education ministries, various essential services fall within the mandate of related ministries. Thus, any initiative to deliver a comprehensive range of services to children should be significantly multisectoral but led by the Ministry of Education. The model is one where the school is transformed into a center for real and meaningful learning, a place where every child wants to be. Hence, the school becomes a multisectoral focal point for community action and care and support of vulnerable children (SADC, 2011:10).

245. The key development for SADC has been to move away from small, fragmented and unsustainable project-based support towards the systematic integration of projects within the education system. This would ensure that projects are scaled up, sustainable, integrated as a core educational mandate and sufficiently resourced. All these projects involved ordinary schools responding to vulnerability by providing access to a range of social, health and other relevant services that have not traditionally been viewed as belonging to the mandate of education. The new policy frame would recognize this extended role, whereby schools become sites of integrated and comprehensive care and support to children in order to improve their access to, retention and achievement in school. While schools and education infrastructure would continue to have their own responsibilities, ministries and other organizations collaborate using a multisectoral approach to exercise responsibility for prioritized, targeted interventions using schools as access points (SADC, 2011).

- Essential elements of care and support for school communities that are deemed legally and contextually necessary to realize the right to education include:
- Psychosocial support that addresses the social, emotional, spiritual and psychological wellbeing of learners and teachers;
- Safety and protection from violence, abuse and bullying;
- Social welfare services that address the care and protection needs of learners, teachers and caregivers;
- Nutrition to ensure that all learners are provided with sufficient nutritious food daily;
- Teacher development and support and curriculum support which include the provision of quality teaching of a curriculum that is responsive to, and inclusive of, a diversity of different learning needs;
- Infrastructure which involves providing and maintaining school structures that are designed to meet the needs of all learners;
- Health promotion addressing health risks and protective factors and promotes overall health and wellbeing;
- Effective and committed leadership at all levels of the education sector;
- Material support or services that address material or financial barriers to education;
- Water and sanitation infrastructure to meet the legal and health requirements of school communities (SADC, 2011:11).

246. The involvement of all stakeholders, at both national and local levels is a critical success factor in creating a supportive environment. A successful partnership requires prior deliberations before

decisions are taken. In **Burkina Faso**, there was a phase of social negotiation which had an impact on the opening of AFI-D centers (BURKINA FASO, 2011:26). In the same spirit, the vocational training scheme involved all stakeholders until the preparation of the class and workshop timetables (BURKINA FASO, 2011:31).

247. The same is true for all programs using the Pedagogy of the Text approach. "Communities are fully involved in the organizational aspects of the educational process, such as the organization of school timetables, the choice **of teachers** and the management of schools or education centers." The authors say that *"*all the organizations that have designed and run these programs have strong roots in the community. Some have a true vision of community and identity development in which education is the 'centerpiece' ... and many of them act in partnership and complementarity with other development actors and schemes (micro-credit, organization of women's groups, etc.)*"* (Faundez *et al,* 2011:19).

6.2.2. Inclusivity and equality of opportunity

248. An important precondition for achieving effective skills development within a frame of life wide and lifelong learning is a wider consensus in society that everyone, regardless of background, circumstances or age is entitled to have access to good-quality learning opportunities at different points in one's life, and has an equal chance to succeed and reap its benefits. Presently, statistics show that life-wide as well as lifelong learning for most is by far not yet a reality. Indeed, UIS estimates the percentage of children out-of-school in SSA to be 30.1 million, of whom 60% are unlikely to ever enter school; the majority (63%) are girls (UIS, 2011:46). "Schools without walls" do not yet exist in great numbers, even though efforts to develop these in relation to people's demands continue across the continent. Nevertheless, the principles of inclusivity and equality of opportunity are now more widely accepted than ever before and many governments have given these top priority in their education policy frameworks.

249. Since the Jomtien EFA conference, more and more countries have come to acknowledge the existence of different types of educational alternatives, from distance education and non-formal education programs of many different types to Qu'ranic schools. Many governments have come to officially collaborate with civil society and private organizations running such systems and in many cases have come to offer subsidies and professional support. Linkages between formal and non-formal programs, both as integral parts of the system, are being seriously discussed and implemented (UIL, 2011b; BURKINA, 2011; WGNFE, 2011). There is increased evidence that government itself is becoming directly involved, often through public-private partnerships, with the establishment of alternatives, such fast-track re-entry programs for early school leavers, over-aged female adolescents or young people who cannot enter regular schools for reasons of cultural practices or the need to work. In addition, much work on NQFs, around the continent is in full progress (UIL, 2011a).

250. However, public and government opinions as well as the views of some partner organizations are not yet fully attuned to accept what it takes to achieve equality of opportunity for all. Major issues here are: (i) the need for special treatment of many, if not most, disadvantaged learners as a result of deficiencies in their environment; (ii) the continued popular suspicion of the value of education alternatives in relation to future benefits, as the evidence of equivalence and transfers from one form of education to another is often not yet visible; (iii) the apparent reluctance within the established education bureaucracies as well as the middle classes to accept the opening up of the education system in a manner that gives real chances for all to achieve similar outcomes; and (iv) the hesitancy of many governments to accept equitable access to the national budget of all learners who have a right to basic education.

251. A study from **Nigeria**, submitted to the Triennial, found that educationally disadvantaged learners need additional or special education given the nature of their social, economic and physical challenges. Especially in Nigeria, that includes 38.5 million children who are not in any form of schooling (along with another estimated 23–40 million illiterate youth and adults). Reaching these learners may take enormous efforts as in some cases they cannot come to the school; education must be provided through flexible alternatives. Many of these have shown to be very effective in catering

for different categories of disadvantaged and vulnerable young people, especially girls. But the challenges are to evaluate and improve such provisions and take them to scale in relation to social demand, and thus to mobilize the necessary funds to do so. The latter is an issue, especially when "the tendency is [in the context of EFA] to care for the many and neglect specific programs that deal with smaller and disadvantaged entities" (Bah-Lalya *et al*, 2011:9).

252. Nevertheless, several countries are making very serious efforts, not only to increase access to non-formal education but also to upgrade Qu'ranic schools and to create adapted basic education provisions for children in nomadic communities (Bah-Lalya *et al*, 2011).

253. One contribution to the Triennial examined education provisions for nomadic populations in different countries. Experiences presented include the bilingual school approach (**Burkina Faso**), mobile schools (**Mali**), the Pedagogy of the Text approach (**Niger**), Islamic schools (Mahadra) in (**Mauritania**), low-cost boarding schools (**Kenya**) and adapted literacy (**Nigeria**). The study indicates that the core characteristic of mobility is particularly taken into account in the case of **Mali**, as well as in **Kenya** and **Nigeria.** In these countries nomadic populations are involved in the design of the (adapted) curriculum. The timetables are flexible to allow everyone to benefit from school. To enable a better consideration of these populations, the study emphasizes the need to integrate indigenous knowledge, Qu'ranic education and parental participation. In all cases, only a response adapted to the nomadic lifestyle of these people, including evening classes, seems to facilitate the autonomy of learners (Barry *et al*, 2011).

254. Because education systems often do not take into account the learning needs of rural populations, alternative experiments such as those carried out by CORADE (*Tylay* approach) in **Burkina Faso** and by the Association *Karoumba Toure* in **Mali** (*Kakili la Kunu* approach) deserve a mention. These approaches put the human being at the heart of the learning process regardless of background or educational level. The aim is to develop the potential of each individual by using personal experience as a basis to build a set of competencies that will facilitate autonomy and contribution to the transformation of the environment. In this way it is hoped that people's mindset will change from one focused on "consumption of training" to one that seeks knowledge and competencies in order to achieve life goals. Based on a process of consultation with various stakeholders, these two approaches challenge education systems to be inspired by non-formal alternatives and to develop individuals in their totality. Thus, they constitute a real paradigm shift towards lifelong learning that starts from endogenous contextual knowledge and aims to be continuously adapted and improved throughout life (Guiella, 2011).

255. Because they reinforce self-confidence, these approaches tap into each learner's potential to improve social relationships and as a result create a sustainable society. They encourage the youth in particular to consider the opportunities of their immediate environment and encourage farmers to use new methods to improve their production (Guiella *et al*, 2011:7–12)

256. Some recent studies in **Kenya** and **Uganda** demonstrate that the process of countries moving towards a more inclusive approach in basic education resulting in a more diversified and equitable education system can be long and cumbersome. This is largely because such process tends to involve a variety of internal and external stakeholders who have their own agenda and interests to promote. Civil society initiatives, often assisted by external technical organizations, are crucial in pushing towards an integrated and diversified system. Continuous negotiations help in ensuring recognition of educational alternatives and their incorporation into national arrangements for teacher education, professional support, quality assurance and, not least, the national budget. Investigations suggest that governments tend to follow their own models of integrating NFE and that *de facto* inequities between the formal system and educational alternatives tend to persist, thus affecting access to further education and training opportunities (Hoppers, 2011).

257. Educational alternatives are not necessarily more expensive than the formal system. Indeed, the findings of the case study pertaining to measuring the cost-effectiveness of the Pedagogy of the Text program in Niger assert that it is an affordable alternative. Furthermore, the long term effects show that adapted alternatives provide added value compared to regular school. In their conclusion the authors highlight the effectiveness of this alternative in promoting sustainable development based on a qualitative approach in poor areas (Hassan, 2011:14).

6.2.3. Learning and working together with integrity and respect

258. Students, teachers, parents, officials and employers need to be able to interact with one another to achieve common education goals without fear of harassment, violence or fraudulent behavior. Thus, personal and professional integrity, ethical behavior and respect for human dignity need to be the foundation for successful outcomes in education. Yet, these conditions are still far from being realized.

259. The network "Gender in Action", supported by the French Ministry of Foreign Affairs, having examined the phenomenon of violence suffered by them in and around the school, calls for a safe and protective environment for children, especially girls,. Without these conditions, learning is often disrupted and even discontinued. The prevalence of violence determines whether girls enroll, stay or withdraw from the education system. Thus violence could jeopardize efforts made in the context of the MDGs and EFA (Devers *et al*, 2011).

260. Several reports have already condemned such violence (UNICEF 2004, for example). It was defined in the Declaration on the Elimination of Violence against Women, which was adopted by the UN General Assembly in 1993, as *"*any act of gender-based violence that results in, or is likely to result in, physical, sexual or psychological harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life*"* (quoted in Devers *et al*, 2011). Although this report regrets the absence of figures that would help ascertain the extent of this phenomenon in Burundi, Chad, Djibouti, Gabon, Madagascar and Rwanda, it does provide information on the following:

- **Benin** - 43% of secondary students and 80% of primary students claimed to have known girls who dropped out of school because of gender-based violence.
- **Burkina Faso -** 13% of the students surveyed in a 2008 study said they had been a victim of sexual harassment.
- **Cameroon** - according to an action research project on sexual abuse in schools, 72.5% of the 15.9% of victims under age 16 were girls, with about 85% of the cases of sexual abuse having occurred outside school.
- **Central African Republic** - 42.2% of boys enrolled in secondary schools in Bangui said they have engaged in violent sexual acts inside or in the vicinity of school.
- **Democratic Republic of Congo** - figures on the number of rape victims and victims' accounts show that rape became a weapon of war and this continues in the post-conflict period.
- **Niger -** 50.4% of female lower and upper secondary school students said they have been victims of sexual harassment or rape.
- **Senegal -** a study by the Department of Education/USAID shows that psychological violence is recurrent; 62.5% of girls said they have been insulted and 44.5% said they have been humiliated; 37.3% of them had been victims of sexual harassment and 13.8% had been victims of rape.

(Devers *et al*, 2011:21–4)

261. The consequences are particularly serious for all levels of learners, not just in terms of health and psychological wellbeing, but also with regard to academic performance. *"*Students lose interest in school, have difficulty concentrating, refrain from participating in class, develop eating disorders and have depressive and sometimes suicidal tendencies. To escape an environment that is neither safe nor conducive to learning, students avoid walking alone in the school grounds or on campus or attending

libraries and computer labs in the evening, fail to attend their classes and even completely cease their studies*"* (Devers *et al*, 2011:18).

262. Another area in which integrity is at stake concerns transparency in decision-making and the provision of services. Increasingly, corruption has come to be regarded as a serious impediment to development, and more countries are taking serious steps to combat this, including through education. As an example, **Cameroon** reported on project Fight Against Corruption that focused on private providers of primary and secondary education. It aims to make these schools islands of integrity through training, education and awareness as part of educational programs of integrity, integrity pacts and clubs of integrity. The project is now in its second phase, during which the impact of the project on the school communities is measured (CAMEROUN, 2011:8).

263. Although still insufficient, the results are promising. For example, in the administration of schools, the evaluation found a decline in the falsification of transcripts by the staff. As for teachers, they say they are now more likely to reject and denounce attempts at corruption. As far as parent-teacher associations (PTA) are concerned, 60.86% of parents claimed to have seen a gradual improvement in the management of funds by the PTA in schools where the project has been implemented. At the level of pupils, improvement in their behavior can be observed through attendance and punctuality; courtesy; decreasing the rate of cheating; the return of lost items; the decline in cases of theft; and the application of transparency in the election of officers for school cooperatives (CAMEROUN, 2011:29).

6.2.4. Managing post-conflict responses for the benefit of all

264. A special situation arises when society has been deeply disrupted by conflict. In such situation education provisions need to take on extraordinary roles in helping people come to terms with the impact of conflicts to rebuild their lives, regain trust and cohesion within the new realities, and adapt to the new situation, whether this is seen as being for the better or for worse.

265. The challenge in post-conflict response is in re-tuning education to serve as a force for peace. Underlying such effort, however, are fundamental pre-conditions in countries trying to recover and get back on their feet. This may involve the return of large numbers of refugees, moving internally displaced persons, and beginning the task of rebuilding institutions in physical as well as organizational terms (ICQN-PE, 2011b). Education's contribution to peace building depends on the country expanding its capacity to manage reconstruction, develop appropriate policy interventions, and re-direct and mobilize resources.

266. ICQN-PE conducted a special study involving several case-studies in post-conflict countries. The study, "Education in Reconstruction", demonstrates the difficulties such countries experience in facing the challenges of responding to education needs, especially of those who suffered directly from the impacts of conflict on their lives (ICQN-PE, 2011b).

267. The study found that failures of early recovery and reconstruction are often the result of insufficient attention by governments and development partners to build inclusive, holistic and effective planning and management systems for education delivery. This particularly affects aspects of collaborative governance, management capacity for implementation, and data collection and monitoring. Policy processes tend to be ad hoc, fragmented, incoherent and insufficiently focussing on human rights, equity and inclusivity. Capacity building in these areas, with much attention to complementary roles of government, communities and private agencies, is badly needed (ICQN-PE, 2011b).

6.3. Main findings from the analytical work

268. This section, by way of conclusion, summarizes the main findings from the analytical work.

1. Many countries have taken note of the key messages from the Maputo Biennial regarding the holistic and integrated approach to educational reform and the recognition of diverse learning pathways in basic education. Implementation, however, tends to be uneven and still has some way to go.
2. Some countries that have made great efforts towards inclusivity find that improved access and participation do not necessarily go together with higher levels of achievement. Performance may not correlate with socioeconomic background, but improvement of teaching-learning interaction in the classroom can be a major factor in offsetting constraints for learning in the home situation.
3. The concepts of lifelong learning and education for sustainability are still poorly understood and need to be operationalized in national contexts as a basis for policy development and change of practice.
4. ESD requires strong emphasis on the process and effectiveness of acquiring relevant core skills; in this way ESD sharpens the agenda for improvement of quality in education.
5. It is essential that literacy, not only for adults but also for children, is acquired in the mother-tongue and that strategies for early grade reading are drastically improved as assessment shows that children are not learning because of language constraints.
6. The development of core skills needs to be linked to the life world of the learners, and they must be applied in the school environment and the community. This linking also needs to involve connecting school learning with learning in the home environment and indigenous knowledge traditions for the purpose of balanced development of the child.
7. Several countries affected by fragility and conflict are exploring modalities for peace education; however, much still needs to be done to ensure that education acts as a force for peace and that young people who are the victims of conflict can access equivalent forms of education that respond to their specific needs and circumstances.
8. The current trend to regard core skills as valuable only in regard to their relevance for the labour market denies their broader significance for the lives of younger and older people in general as well as for the social, cultural and environmental dimensions of sustainable development.
9. The entry point to wholesale and integrated educational reform towards greater relevance for sustainable development must be the curriculum; thus, developing a comprehensive curriculum framework for basic education as a whole, incorporating selected common core skills, must be a first priority.
10. Countries tend to have considerable experience in working with methods to enhance skills development for different age-groups, such as cognitive and social skills in ECD, mother-tongue based bilingualism, life skills and work-related skills among adolescents, and functional literacy for adults. Comprehensive curriculum development can build upon those experiences in a systematic and integrative manner.
11. The introduction into education systems of skills-based curricula will need to be done in a holistic manner, linking curriculum reform to major changes in teacher education, teaching-learning support materials, use of ICTs, school leadership, management and supervision, and assessment practices. This should involve all forms of education, including early childhood development, non-formal and informal forms of learning, thus creating "schools without walls".
12. Such holistic reforms will require the participation and collaboration of all stakeholders in decision-making in the design and implementation processes; in particular, this should include communities, relevant civil society and private organizations, teachers' unions and different sector ministries.
13. The lifelong learning perspective demands that youth and adult education become integral parts of the overall education system, and that essential complementarities can be identified between skills requirements for children and those for their parents, as well as between adolescents and adults.

14. Curriculum reform for school education must go together with fundamental reform of adult education and functional literacy programs, as large numbers of adults have experienced the same deficiencies (if not more) that characterize current school education and thus are equally poorly prepared to face the radical changes in current society.
15. In basic education for children there is an essential pedagogic triangle of teachers, learners and parents/community; their interactions should be based on respect, trust, care and concern for both the wellbeing and the learning of the child.
16. Teacher-pupil classroom interaction is the single most important factor accounting for wide differences in outcome measures using the same curriculum materials and purportedly the same teaching methods; thus pedagogical processes must be the central focal point of educational reform.
17. To achieve the above, the reform of teacher education and development, production of appropriate teacher-learner support materials and textbooks, and review of evaluation and assessment systems are imperative.
18. In order to address vulnerability among large numbers of (prospective) learners, schools need to become sites of integrated and comprehensive care and support necessary to improve children's access to, retention and achievement in school, as is current being pioneered in SADC countries.
19. Inclusivity linked to achieving equality of opportunity for all children regardless of their background, circumstances and age is gradually being recognized; however, there is still a long way to go to ensure that young people can follow different pathways and still have *de facto* equivalent access to further education and training opportunities.
20. The learning environment of young people will benefit much from protection against harassment, drugs, violence and conflict; and from the integrity and ethical behavior of government officials and education staff.
21. Countries emerging from conflict face the arduous tasks of reconstructing society and creating a conducive environment to respond to education needs in a holistic and equitable manner. It is a matter of urgency that such countries develop effective education management and planning capacity.

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