

GENERAL EDUCATION QUALITY ANALYSIS/ DIAGNOSIS FRAMEWORK (GEQAF)

This framework adopts a comprehensive and systemic approach to education. It acknowledges the reality that accountability to deliver quality education and to effectively facilitate learning lies at all levels and in all aspects of an education system.

February 2012

Table of Contents

INTRODUCTION.....	3
I. ANALYTICAL TOOL: RELEVANCE / RESPONSIVENESS.....	9
II. ANALYTICAL TOOL: EQUITY and INCLUSION.....	12
III. ANALYTICAL TOOL: COMPETENCIES	14
IV. ANALYTICAL TOOL: LIFELONG LEARNERS	17
V. ANALYTICAL TOOL: LEARNING	20
VI. ANALYTICAL TOOL: TEACHING	23
VII. ANALYTICAL TOOL: ASSESSMENT.....	26
VIII: ANALYTICAL TOOL: CURRICULUM.....	30
IX. ANALYTICAL TOOL: LEARNERS.....	33
X. ANALYTICAL TOOL: TEACHERS/EDUCATORS	36
XI. ANALYTICAL TOOL: LEARNING ENVIRONMENT.....	39
XII. ANALYTICAL TOOL: GOVERNANCE.....	42
XIII. ANALYTICAL TOOL: FINANCING.....	46
XIV. ANALYTICAL TOOL: SYSTEM EFFICIENCY	50
XV: ANALYTICAL TOOL ON ICTS IN EDUCATION.....	52

Contributors to the development of GEQAF

The UNESCO General Education Quality Analysis/Diagnosis Framework (GEQAF) was developed by the **UNESCO Secretariat in close cooperation and consultation with Ministries of Education, UNESCO Delegations and National Commissions** of the People's Republic of China, Finland, Norway, the Republic of South Africa, and the United Arab Emirates. Moreover, the People's Republic of China, the Republic of South Africa and the United Arab Emirates provided substantial financial support toward the organization and hosting of three joint review meetings during the course of 2011 where various drafts of GEQAF were thoroughly reviewed and quality assured. Representatives of Nigeria and Gabon also joined the last review meeting of GEQAF. A number of external experts also served as reference committee members and peer-reviewers also variously contributed to the development of GEQAF. These include Luis Crouch of the Global Partnership for Education, Koji Miyamoto from the OECD, Kai-ming Cheng of the University of Hong Kong, David Istance of the OECD, Zhou Nanzhao of Beijing Normal University, and Daniel Wagner of the University of Pennsylvania.

The work on GEQAF has been led by Ms. Mmantsetsa Marope, Director, Division for Basic to Higher Education and Learning. The Team Leaders for the development of the different Analytical Tools which make the GEQAF are: Edem Adubra, Moritz Bilagher, Min Bista, Dakmara Georgescu, Tekaligne Godana, Yoshie Kaga, Faryal Khan, Mmantsetsa Marope, Florence Migeon, Ushio Miura, Renato Opertti and Jin Yang. Other Team members and contributors, all UNESCO Secretariat and UNESCO Institutes staff unless specified, include: Patience Awopegba, Carolina Belalcazar, Gabrielle Bonnet (UNRWA), Ali Bubshait, Carolina Cano, Bernard Combes, Laurent Cortese (Global Partnership for Education), Keith Holmes, Mariana Kitsiona, Sara Lang (Uppsala University), Brian Male, Werner Mauch, Mariana Patru, Clinton Robinson, Mioko Saito, Florence Ssereo, Philip Stabback, Nyi Nyi Thaung, Nhien Truong, Jacques Van der Gaag (Brookings Institute), and Mari Yasunaga.

Design work for the interactive web- based version of GEQAF has been led by UNESCO CLD.

INTRODUCTION

Background

One of the undeniable successes of the Education for All (EFA) agenda has been the opening of access to formal primary education [link to data 1].¹ Just over the last decade (1999-2008) 52 million more children enrolled in formal primary education. Out-of-school children declined by 39 million; with South and West Asia as well as Sub-Saharan Africa accounting for over 80 percent of this decline. North America, Western Europe, East Asia and the Pacific, and Latin America are likely to reach the 2015 numeric EFA and MDG targets. Central Asia and, Central and Eastern Europe should be within close range of the target; having reached 94 percent primary Net Enrolment Rate by 2008. Access to secondary education registered modest improvement. Though with wide regional and country-level disparities, some 525 million—nearly 60 percent—of children of eligible age were enrolled by 2008. [link to data 2]² This constituted an increase of nearly 91 million since 1999. A significant number of countries are close to gender parity at both the primary and secondary levels. All the same, the 2015 numeric target remains a challenge, especially for low income countries. 67 million children of eligible age are still not enrolled in primary schools, 74 million adolescent are out of school and some 793 million adults and 127 million youth still lack basic literacy skills. [link to data 3]³

From compelling evidence[Technical note 1],⁴ an even more daunting challenge is that while many countries have successfully enrolled millions of learners in schools, a significant majority of them are actually not effectively learning, at least, not to levels commensurate to their educational attainment. This is manifest in the system's failure to sufficiently prepare learners for subsequent levels of education, for trainability and educability, for taking up life-long learning (LLL) opportunities on their own, for the labor market and for the world of work. Due mainly to current analytical approaches and instruments, hard evidence on the general education systems' effectiveness in producing graduates with appropriate dispositions, attitudes, aesthetics, life views and core values—peace, multiculturalism, respect for diversity and living together—remains scant. (Technical note 2)

Evidence further shows that the challenge of poor quality education, low learning effectiveness and low learning outcomes is deeper in low income countries, globally for learners from poor households and for other marginalized groups [Technical note 3].⁵

Poor quality and ineffectiveness challenges are also most pernicious at the basic levels of education, where the majority of learners have the highest levels of participation. Poor quality of basic education bequeaths not only poor quality to the post-basic levels but also constitutes acute exclusion of the marginalized thus aborting the social equity imperative of basic education. A stark manifestation of this reality is in the gross under-representation of learners from marginalized groups in post-basic and higher education systems, in high income jobs and from lucrative work opportunities. Unlike access, inequity of education quality, of learning experiences and of learning outcomes remains a formidable challenge for both developed and developing countries[Technical note 4]⁶.

¹ Regional trends in primary education enrolment since 1990 and by gender

² Evidence on access to secondary education by region since 1990 and by gender as well

³ Distribution of out-of-school children, out-of-school youth and illiterate youth and adults by region

⁴ Evidence on the disconnect between educational attainment and achievement

⁵ Current evidence on inequity of quality.

⁶ Hyperlink evidence of inequity of quality across developed countries starting with ECCE to higher education

GENERAL EDUCATION QUALITY/DIAGNOSIS FRAMEWORK (GEQAF)

RATIONALE

All of the well-documented benefits of education to development—reduction of a wide range of poverties, individual growth, economic growth, prevention of diseases and epidemics, good health, participatory democracy, sustainable use of the environment, diverse forms of equity and inclusiveness, peace, global citizenship, social cohesion, political stability etc—are not feasible unless that education and that learning is of good quality, effective and relevant. General education lays the foundation for quality, effective and relevant education and learning throughout life. As such, failure to equitably provide quality, effective and relevant general education and effective learning at this level is tantamount to failure to realize the development impact of education and of learning. Poor education quality, therefore, stands in the way of inclusive and sustainable development at the individual, national and global level, of attaining virtually all MDGs and of attaining the six EFA goals, each of which has education quality as a precondition; and more directly goals 2, 5, and 6.

Both developed and developing countries are well aware of the quality crisis and its development consequences. Most of their education reform programs have education quality improvement and the enhancement of equity among key strategic objectives. The global EFA agenda has also identified quality as requiring attention. Yet, the challenge persists, and the EFA quality goals are dauntingly off track. UNESCO Member States have therefore overwhelmingly called on the Secretariat to redouble its technical support for their efforts to address the global challenge of equity of education quality and learning effectiveness.

*Hitherto, what seems to be lacking are tools for systemic analysis and identification of critical constraints that prevent Member States from attaining and sustaining intended levels and equity of education quality and learning outcomes. In response, the UNESCO Secretariat, in collaboration with some Member States, has developed a General Education Quality/Diagnostic Framework (GEQAF) that seeks to enable Member States to profoundly analyze/diagnose and identify critical impediments that prevent their general education systems to equitably and sustainably provide high quality education and effective learning experiences to **all** learners. The lack of tools is particularly noticeable in general education (Kto12) relative to Higher Education and to Technical and Vocational Education and Training. Beyond national and international examinations which have very limited scope and longitudinal comparability, general education systems in most countries do not have a strong system-wide tradition of diagnosing/analyzing, improving and assuring quality.*

Weak analysis translates into serious gaps in the knowledge base required to guide the design and implementation of responsive quality improvement interventions.

The diagnostics/analysis guided by GEQAF is meant to help Member States strengthen both the qualitative and quantitative knowledge base required to effectively guide the design and implementation of responsive, targeted and timely general education system quality improvement interventions. Eventually, evidence from the diagnosis/analysis could be used to generate country and even sub-country level qualitative and quantitative indicators for general education system quality. These indicators could be used to establish a national and even sub-national baseline on the quality of the general education system, establish benchmarks toward which the country should work and support the monitoring of progress.

The GEQAF is also meant to strengthen Member States' capacities to regularize and institutionalize the analyses of the quality of their general education systems as well to sustainably monitor progress in improving their quality. It is NOT meant to support cross-country comparisons, but is rather meant to support the monitoring of country progress over time. Where a cluster of countries wish to develop common indicators emanating from the results of respective country reviews, such regional indicators and joint monitoring of progress can be supported by UNESCO.

NATURE OF THE FRAMEWORK

The key premise of GEQAF is that equitable delivery good quality education and effective learning experiences requires robust and well-functioning education *systems*. As an analytical tool the Framework is NOT meant to 'tell' Member States what is wrong with their general education systems and/or how to fix it. It is rather meant to help Member States raise key questions about their systems, assess whether the systems are able to deliver on the quality priorities States have set for themselves, and, if not, why not? The Framework will also be able to help Member States judge whether their education systems have efficient ways to monitor themselves.

This Framework takes national knowledge of general education systems as a starting point and brings in international knowledge to enrich local knowledge as necessary. By facilitating Member States' to raise and answer questions pertaining to their general education system themselves, this Framework acknowledges and respects local knowledge. It assumes the existence of sufficient within-country expertise and experience to identify challenges as well as to design and implement responsive interventions. At the same time, the Framework acknowledges the potential contribution of global knowledge(s) but only when it is "grafted to a resilient local root." Such resilience is to come from being well-adapted to the national context.

Developing a "resilient local root" starts with an understanding of the national and sub-national development context of general education systems; including a deep understanding of their political economy. Understanding the development relevance/responsiveness or the expected development impact of an education system is therefore a starting point toward answering the question of what constitutes a quality general education system.

Acknowledging a "resilient local root" or contextual development relevance means acknowledging that quality education is necessarily contextual. The context has geographic, time and client dimensions. Conditions differ across countries and also over time. Stakeholder expectations of education systems may also vary. Accepting this contextual nature impels the humility of "technical assistance providers" to let the context define its quality; AND once defined, to support the necessary efforts to reach and sustain that contextualized quality. At the same time, accepting the contextual nature of quality entails the recognition of not only the immediate context; but also national, regional and global contexts. Thus regional and global standards do still serve as critical points of reference.

This Framework adopts a comprehensive and systemic approach to education and acknowledges the reality that accountability to deliver quality education and to effectively facilitate learning lies at all levels and in all aspects of a general education system. Fragmentation of sub-systems of general education quality has often led to inherently inconsistent and sometimes contradictory policies, strategies and programs. It has also, often, led to uneven and imbalanced improvements of sub-systems of general education quality. For instance curricula reforms have not always taken into account the books and instructional materials, teachers, teaching processes and assessment methods required to give them effect. Changes in student curricula have not always taken into

account the teaching and learning environments within which such curricula are to be delivered, or teachers who are supposed to implement such curricula. Conversely, changes to the physical teaching and learning environments have not always taken the demands of diverse curricula into account or even taken into account teachers' and learners' needs that have to be met within such environments. What often is referred to as a system actually does not pass as "system", but rather comes out as loosely coupled sub-systems and elements of general education.

To assure fidelity to a systemic approach, this Framework is comprehensive in its analysis/diagnostics but is targeted in the interventions that follow the diagnostics/analysis. Metaphorically, it compels the builder of a quality general education system to shake each pillar that supports system quality and then allows the builder to focus the repairs on pillars that rattle the most and specifically those whose rattle threatens to collapse the system if not repaired. However, while repairing the weak pillars, the builder stays cognizant of the impact of their strength on existing previously strong pillars and may have to iteratively adjust the strength of both the old and new pillars. In other words, the builder safeguards the integrity of the system and remains loyal to the systemic approach by ensuring balanced strength of all pillars, with the weights of the balance determined by the specificities of the system's needs and priorities.

CONCEPTUALIZATION OF A QUALITY EDUCATION SYSTEM

This Framework operationally conceptualizes *a quality general education system* as ***“one that is effective for purpose, has enduring/sustained development⁷ relevance or responsiveness, is equitable, is resource efficient and translates into substantive⁸ rather than symbolic access.”*** Consistent with the key premise of the GEQAF, this definition focuses on a quality general education system as an inescapable precondition for equitable delivery of good quality education and learning effectiveness. Thus, we operationally define what constitutes a good quality education system and not what constitutes quality education; with the latter being a result of the former. This definition thus focuses on key elements of the *system* that should allow for optimal provision of quality education and optimum delivery of effective learning experiences.

STRUCTURE OF THE FRAMEWORK

The UNESCO GEQAF is structured around key elements that are proven to interactively and iteratively work together to enable the system to optimally provide quality education and effective learning experiences. These elements pertain to the *development goals that guide the key outcomes of an education system, desired outcomes of an education system, the core processes and core resources that produce those outcomes and support mechanisms that enable the production of outcomes.*

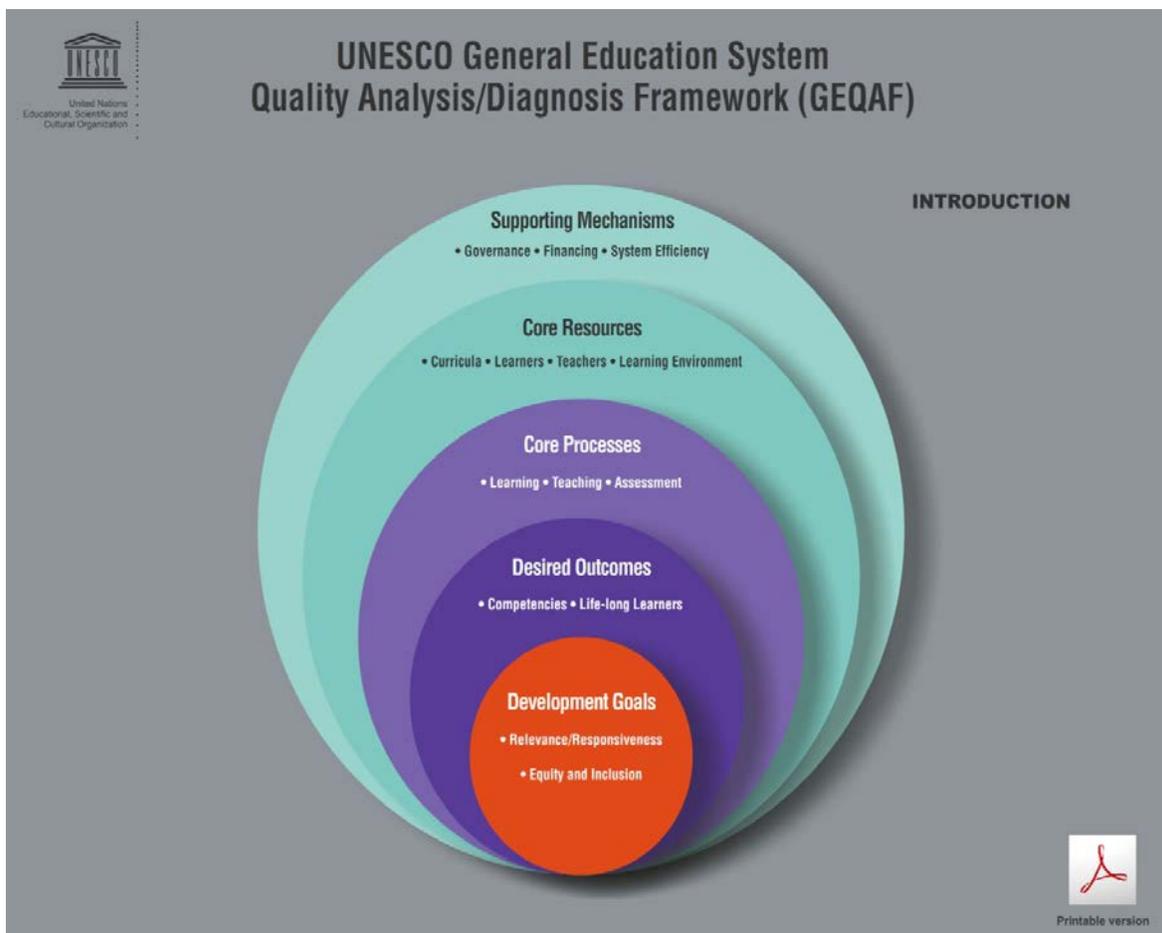
Detailed elements are elaborated in the diagram below and are translated into a total of 15 analytical tools that together constitute the GEQAF. On the web-based application the diagram serves as an organizing heuristic or schema to navigate through the GEQAF during application. The various elements appear sequentially for schematic purposes, but in reality they are nested, interactive, iterative and integrated. Each Analytical Tool elaborates critical questions that need to be raised during the analysis of the adequacy of each element of the GEQAF to contribute to

⁷ Development here is broadly conceptualized as already outlined above.

⁸ Substantive access refers to effective and successful participation in education rather than token participation which does not lead to real learning outcomes. It is a construct that distinguishes access to schooling which most children have and access to education which most children don't have.

quality and learning effectiveness. For instance, the treatment of *teachers* as a critical element entails questions pertaining to: *their choice of the profession, admission criteria, pre and in-service training, recruitment, working conditions, management and utilization, salaries and incentives, retention and retirement*⁹. A treatment of *learners* includes *their status at entry— socio-economic background, learning readiness, health conditions, nutrition — access to health services, access to legal and social protection services, admission criteria, in-school academic and pastoral services and other support services. Questions on fiscal resources pertain to their sources, adequacy, allocation, equity, management, utilization, efficiency and sustainability.*

Diagram: General Education Quality Analysis Framework (GEQAF)



⁹ This work is already started under the TISSA initiative.

The backbone of the GEQAF is a set of key questions that are meant to facilitate the diagnostic process. Each of the analytical tools will be hyperlinked to a virtual Library of Resource Materials that includes Technical Notes and examples of promising practices that support the diagnosis and analysis. This Library of Resources will be continuously updated with new promising practices and new knowledge. Questions on core elements of the GEQAF are cross-referenced to each other, when such cross-references are critical for understanding the system as a system. *The analytical tools that constitute the GEQAF are generic and are not tailor made to any specific country. The starting point for any country or regional block to use this Framework is adapting it to the specific local or regional context.*

APPLICATION OF THE FRAMEWORK

The process of applying the Framework is envisioned to consist of three key steps: a) initial piloting, b) ongoing adoption and adaptation, and c) ongoing improvement of the Framework. During a piloting stage, a set of countries will test the Framework in their own systems. This piloting needs to be systemic and comprehensive, because it is aimed at actually assessing the Framework's ability to address systemic issues. The countries participating in the piloting are providing a global public good for use by other countries, by testing the Framework. But they will also benefit themselves, because the Framework may indeed lead them to ask certain questions that had not been asked previously, or had not been addressed in a systematic way. UNESCO has developed Piloting Guidelines as well as a Piloting and Feedback Instrument to facilitate effective piloting. Based on the feedback from the piloting, GEQAF, its Guideline and Piloting Instruments will be further refined and the Framework will be ready for adoption and adaptation. As more countries use the Framework more experience is gained in its application, improvements will be made on a regular basis. Being a web-based instrument, GEQAF is well suited for continuous refinement and sustained currency.

KEY USERS, BENEFICIARIES AND TARGET AUDIENCE

The target audience of this Framework is principally policy makers, education planners and practitioners who wish to improve the quality and equity of their general education system. Key beneficiaries would be countries whose capacities for identifying quality constraints of their systems and to effectively redress those constraints would be enhanced. Learners, their families and their communities are the ultimate beneficiaries: Especially learners from poor households and other disadvantaged groups whose chances of receiving quality education and its consequent benefits will be greatly enhanced.

I. ANALYTICAL TOOL: RELEVANCE / RESPONSIVENESS

1. Introduction

As outlined in the introduction this Framework perceives sustained development responsiveness / relevance as starting point for determining what constitutes a quality education system within a given context. The world over, individuals, their families and their countries heavily invest in education not only because it is a human right, but also because of its well documented sustainable development impact. Because development is necessarily contextual, systems that support development—like the education and training system—have to necessarily be contextually responsive. The development context has national, regional, global and time dimensions. An education and training system that fails to meet individual and collective development needs and aspirations cannot be considered as being of good quality. Yet more often than not education and training systems are castigated for their irrelevance to individual and collective needs and aspirations. Signals of this irrelevance range from the perceived or even real inability of the systems to enable learners for: effective learning at different levels of the system, acquisition of competencies commensurate to levels of educational attainment (evidence from international competency tests Technical note I.1), effective functioning in the world of work and in the labor market, and effective contribution to sustainable growth (evidence linking economic growth to test scores on maths and science Technical note I.2) The education system is also blamed for not preparing learners to effectively contribute to national and global citizenship, civic responsibility, social cohesion, peaceful co-existence and living together. This Framework holds that inadequate understanding of the development context of an education and training system is a fundamental cause of its irrelevance to geographical and temporal development context(s), its irrelevance to individual and collective development needs, its “ineffectiveness for purpose” and therefore its poor quality. The Framework therefore takes a thorough analysis and a textured understanding of the development context(s) of an education and training system as an important starting point for determining the adequacy of the system to provide education quality and learning effectiveness.

A key focus of this Analytical Tool is to assist countries to ascertain how and if their general education system adequately responds to development challenges and effectively contributes toward development as envisaged and defined by the country [See Full Version for more details]. **The paramount question addressed by this analytical tool is: Have we ensured that our general education system derives its purpose and strategic direction from its development context(s)?** The Analytical Tool is meant to support the users’ analysis and identification of the sources of dissonance between the general education system and its development context(s), to prioritize them and to strengthen an analytic knowledge base for redressing the dissonance. The analysis is facilitated by posing some key questions pertaining to development relevance in specific country context(s) and to mechanisms for assuring relevance.

2. Diagnosis and analysis

Country level relevance

1. How do we articulate our vision/concept for development of our country? Where is the vision/concept articulated? How and with whom is the vision/concept shared? Where is the evidence of a shared understanding of this vision/concept? How is the vision/concept operationalized? Where is the evidence that it informs our general education system? What

are the mechanisms for keeping the vision/concept current? [**technical note I.3 views on development**]

2. What are the key dimensions of the operational definition of the development concept? Who gets involved in this operational definition? Where is the evidence of their involvement? [**Promising practice I.1**]
3. Where in the country does the responsibility for operational conceptualization of development lies? How do these loci of responsibility interact with and inform the strengthening of the development relevance of the general education system? How adequate and sustainable are the response mechanisms?
4. How is the responsiveness of our general education system to our concept of development ensured and sustained? Where is the evidence of this sustained responsiveness?
5. How is the general education system positioned to benefit from national development? How is the education system positioned/ranked among key levers of national development?

Labor market and world of work responsiveness

1. What are the mechanisms for ensuring labor market/world of work responsiveness of general education? [**promising practice I.2**] Where is the evidence that these mechanism work? [**Promising practice I.3**]
2. How do we attain and sustain labor market / world of work responsiveness? What are the key markers of labor market / world of work responsiveness? Where is the evidence of this sustained relevance? [**Promising practice I.4**]

External global level responsiveness

1. How do we ensure and sustain the general education system responsiveness to global development challenges and opportunities? Where is the evidence of sustained global relevance?
2. How is the general education system positioned to benefit from global development opportunities? How is the education system protected from global development threats?

External individual level responsiveness

1. How do we ensure that the general education system optimally responds to development needs of individual learners, to their aspirations and to the aspirations of their families, households and communities? How does the system learn about these levels of needs and aspirations? Where is the evidence that these mechanisms work?

Internal system coherence and responsiveness

1. What are the mechanisms for ensuring that different levels of the general education system are internally coherent, support each other and mutually reinforce each other? How do we ensure that different aspects of the general education system internally cohere, support and mutually reinforce each other?

2. How do we support learner transitions between levels of the general education system and across the same levels of different pathways?

3. Priorities for action

1. Where and which are the most formidable sources of disconnect between the country's development needs and the general education system? How can we redress the disconnect? Where and which are the most critical sources of dissonance between different clients' development needs and the general education system? How can we redress the dissonance?
2. What are the most urgent steps needed to reduce disconnect and to assure adequate and sustainable responsiveness of the general education system?

II. ANALYTICAL TOOL: EQUITY and INCLUSION

1. Introduction

The introduction of the GEQAF underscores educational achievement (quality) rather than just attainment (participation) as a determinant of the holistic development impact of education [Technical note II.1]. It also underscores the reality that, in a nutshell, inequity of education quality and of effective learning amounts to unequal development. Equitable and inclusive education quality and learning effectiveness are therefore increasingly recognized as essential for creating and sustaining **inclusive and equitable societies**. In line with international human rights treaties, guaranteeing **all** the right to education is not enough. What is required is for **all** to be guaranteed the right to quality education and effective learning opportunities. Yet globally, a range of factors [Technical note II.2] continue to deny millions of children, youth and adults the right to quality education and effective learning. As an entry point to education, general education bears the most formidable social equity imperative than all other levels of education and training. It is not only a gateway to education and training itself, but is also a gateway to inclusive and sustainable development. Identifying and redressing factors of inequity and exclusion in general education is therefore critical.

This Analytical Tool [See Full Version for more details] aims at supporting Member States to diagnose, analyze and identify critical factors of inequalities and exclusion in their general education systems and on the basis of the analysis, to design remedial interventions at all levels of the system.. **The paramount question that the Analytical Tool addresses is: How well does our general education system assure all learners equity and inclusion in quality education and effective learning?**

2. Diagnosis and analysis

Understanding the situations of inequalities and exclusion in education in our general education systems and in the country

1. Is there any difference in people's educational opportunities on the basis of socially ascribed or perceived differences, such as gender, economic condition, ability, language, place of residence, social origin, ethnic origin, disability, nationality, etc.? What are the most significant factors of exclusion in our context? Which categories of people tend to experience exclusion more in education? Between which categories of people do wide inequalities exist? (required information and data to know who is excluded, (Technical note II.3))
2. What are the critical points in the general education cycle at which exclusion begins to strongly manifest? What precedes these points and can it be aborted? What are the critical points in the general education cycle at which inequalities begin to strongly manifest? What precedes these points and can it be aborted?
3. How is exclusion manifest for those who experience it? How do inequalities manifest?

Policies and strategies to address inequalities and exclusion in education

1. What are the existing policies, programs and interventions in education that are intended to address exclusion? What is the evidence that they are effective? What are some of the persisting forms of exclusion if any and how are they being addressed?
2. Which current interventions—laws, policies, structures of the system, financing and operational frameworks, programmes, etc.—are redressing exclusion? What is the nature of that impact? Where is the evidence? How do we sustainably monitor the evidence?
3. Beyond the education system—health, social, legal services etc—what current interventions have an impact on exclusion in education? Where is the evidence? How do we sustainably track the evidence?
4. Based on your analysis of all of the above questions, what are the major gaps, obstacles, contradictions and dilemmas in your country's efforts to provide quality education and effective learning experiences equitably and inclusively? What are some of the ways to fill the gaps, remove the obstacles, resolve the contradictions and negotiate the dilemmas?

3. Priorities for action

1. What are the required actions to deal with the priority constraints to inclusive and equitable provision of quality education and effective learning experiences?
2. What are the most crucial next steps we need to take to improve the effectiveness of the education system to address inequalities and exclusion?
3. What are the roles of different stakeholders in taking these steps?

III. ANALYTICAL TOOL: COMPETENCIES

1. Introduction¹⁰

The development impact of quality education and learning effectiveness is actualized through the application of competencies that have been defined as essential for supporting development in specific contexts. **Development contexts** are rapidly and sometimes unpredictably changing (**Link to Analytical Tool on Relevance/Responsiveness**). Quality education systems not only have to effectively support the acquisition of development responsive learner competencies but also have to ensure the sustained responsiveness of those competencies. **Quality education systems** have to enable learners to continuously adapt their competencies while continuously acquiring and even developing new ones¹¹ [**Link to Analytical Tool on Lifelong Learners**]. These competencies are **diverse in scope** ranging from core skills, content knowledge, cognitive skills, soft skills, to occupational skills and enable us to “meet a complex demand or carry out a complex activity or task successfully and efficiently in a certain context”. Their typologies and approaches are as diverse as entities—countries, organizations and individuals—that¹² define them [**Technical note III.1**].¹³ Competencies are acquired through learning cycles and throughout one’s life (**Link to Analytical Tool on Lifelong Learners**). They are acquired through formal, non-formal and informal education and settings. When developed among disadvantaged groups early in their lifecycle, competencies can play a critical role in fostering conditions for an inclusive and sustainable development and in reducing socio-economic inequalities (**Link to Analytical Tool on Equity and Inclusion**). The range of competencies address diverse development needs including the creation of democratic, just, peaceful and sustainable societies with social cohesion and cultural diversity, the development learners’ capabilities fully and throughout life to enable them: to live the kinds of life they prefer; to be responsible citizens; to adapt to swift and complex changes in society and the world of work; and to critically analyze and transform society.

Learning outcomes are essentially evidence of having acquired competencies. They attest to the effectiveness of education systems at delivering quality education and effective learning. This Analytical Tool considers desired learning outcomes with a particular focus on the notion of competency [**concept of competencies and areas of debate, Technical note III.2**]. It aims to assist Member States in undertaking a thorough diagnosis of competencies that learners should acquire in order to effectively support their defined development agendas.

What learners can acquire, however, depends not only on a clear definition of intended competencies and learning outcomes but also on different inter-linked elements of the GEQAF such as how they are packaged and presented [**link to the Analytical Tool on Curriculum**], how they are taught (**Link to Analytical Tool on teachers and on teaching**), where they are taught and acquired (**Link to Analytical Tool on learning environment**), how learners are facilitated

¹¹ (Jonnaert, Ettayebi & Operti, 2008)

¹² It is generally understood that a competency implies an articulation of knowledge, values, skills, know-how and attitudes that learners can mobilize independently, creatively and responsibly to address challenges, solve problems and carry out a complex activity or task in a certain context. In other words, a competency is “what the individual achieves in results, in an action, or in a way of behaving” (Rychen & Salganik, 2002). It is the ability to act effectively, backed by knowledge but not reduced to it (Perrenoud, 1997).

¹³ [Put all this in a technical note that exposes the reader to different approaches]. There are also different approaches to categorize competencies, including key (core, generic or transversal/cross-cutting/cross-curricular) competencies; basic competencies; subject (or domain)-bound or specialized competencies (Acedo & Georgescu, 2010) or a **hybrid**¹³, as well as diverse ways of developing them (**Link to the resource “Module on Competency-Based Approaches”**).

([Link to Analytical Tools on learners, teaching and on learning](#)), how we verify their acquisition ([Link to Analytical Tools on assessment](#)). Hence this Analytical Tool [See Full Version for more details] has to be used in conjunction and in complementarity with others.

Its paramount question is: **What are the most important sets of competencies for our general education learners to acquire as learning outcomes if they are to effectively contribute to our development agenda and to face today's (and tomorrow's) world?** This question is addressed in two aspects: 1) conceptualization of desired learning outcomes / a set of key competencies (**Definitions and selection of competencies: theoretical and conceptual foundations**¹⁴ [Technical note II.3](#)); and 2) reorienting policies and interventions as well as revisiting visions and restructuring elements of education systems to achieve identified learning outcomes.

2. Diagnosis and analysis

Conceptualizing learning outcomes

1. **Vision and national frameworks:** What is our country's vision about the kind of society desired today and in the future? Does our vision address issue of equity and inclusion? Are the aims and purposes of education identified relevant to our vision of future society and citizen? [[Link to Analytical Tool on development relevance and on equity and inclusion](#)]
2. **Competencies/desired learning outcomes:** What is our understanding on key competencies with which citizens have to be equipped to realize desired societies? How are desired learning outcomes (both short-term and long-term) currently understood and conceptualized in our country's context (i.e. as standards, competencies, learning objectives) and shared by stakeholders? To what extent are the aims of current national development and educational policies and programs reflected in the desired learning outcomes?
3. **Identifying desired competencies/learning outcomes:** What has been done to consider desired key competencies in our country and how the stakeholders contributed to their development? What is the mechanism for engaging and promoting participation of stakeholders from inside and outside the education system in the identification and prioritization desired learning outcomes? ([Link to Analytical Tool on governance](#))

Ensuring the achievement of intended learning outcomes: reorienting policies and interventions as well as adjusting elements of education systems

1. **Policies:** Are current national education policies relevant to achieve desired learning outcomes? If there are controversies/different opinions with regard to the understanding of competencies and competency development, how are they taken into account in our current educational policies? Have any particular policy measures been taken to address equity in learning outcomes?
2. **Curricula:** To what extent is the current curriculum relevant in leading learners to achieve the desired competencies? What approaches were used to effectively develop a curriculum which ensures equitable acquisition of desired competencies? Can competency-based

¹⁴ See UNESCO: International Bureau of Education, 2004. Studies in Comparative Education. *Developing Key Competencies in Education: Some lessons form International and National Experience*. S. S. Rychen and A. Tiana.

approaches be a main syllabi organizer and the sequence of learning and teaching? How are learning areas and cross-cutting issues and related contents organized in the curriculum?

3. **Teachers as well as teaching and learning:** What is teachers' understanding of desired competencies that learners should acquire? What measures have we taken to improve teachers' competencies? How well do current teacher policies, management and teaching strategies accommodate learners' diverse needs? How are competencies taught and learnt at school and classroom levels?
4. **Assessment:** How well do existing assessments cover key competencies that should be measured? What are the current strengths and weaknesses of learning outcomes (e.g. type of competencies, level of acquisition, and equity in learning outcomes)? What have been the key challenges in measuring competencies acquired (e.g. technical capacity, curricula reform, teacher training, governance, financial issue)? How do we assess the effectiveness of policies and interventions introduced to ensure learners' acquisition of key competencies? How were the results of assessment used to improve the relevance of expected learning outcomes?
5. **Learning environment:** To what extent have we provided the necessary learning and teaching environment conducive for attaining the desired learning outcomes? What is the role of learning environment to facilitate the understanding of real-life situations?

3. Priorities for action

1. What are the knowledge gaps which need to be filled for an evidence-based policy and practice to enable learners to develop and acquire a set of competencies relevant for individual and development needs?
2. What changes (e.g. visions, policies, programs and interventions) should be made in our education system to attain the desired learning outcome more effectively? What are strengths that exist in our current system to facilitate these changes? How can they be leveraged most effectively?
3. What are the required actions to deal with the priority constraints and the identified knowledge gaps?

IV. ANALYTICAL TOOL: LIFELONG LEARNERS

1. Introduction

As outlined in the Analytical Tool on development relevance / responsiveness, development contexts are in constant, rapid and sometimes unpredictable change. Development relevance therefore varies across geographic and temporal contexts and across diverse stakeholders. The complexity and fast pace of change require us to constantly adapt by rapidly acquiring new competencies that enable effective functioning across different contexts and different spheres of life (**link to Analytical Tool on Competencies**). An individual will not be able to meet life challenges unless he or she becomes a lifelong learner, and societies will not be sustainable unless they become learning societies. Lifelong learning has been accepted by UNESCO Member States as the master concept and guiding principle towards a viable and sustainable future. The quality of education is not only determined by formal schooling, but also by continuous provision of learning opportunities in non-formal and informal settings (**Technical Note IV.1**). A rich variety of formal, non-formal and informal learning opportunities reflecting the wide range of people's talents and learning needs must be developed and made accessible to all. Social, demographic and economic factors combine to point to the need for more serious attention to be paid to youth and adult learning and education needs. Current developments require a constant update of competencies, not only with regard to the world of work but in an encompassing approach to participating in contemporary societies. Moreover, in recent years, international communities have made progress in developing the concept of 'key competences' for lifelong learning which include a combination of knowledge, skills and attitudes. (**link to Analytical Tool on Competencies**).

The topics of 'learner' and 'learning' for the school-aged children are addressed substantially by other Analytical Tools of the GEQAF (**See Analytical Tools on learners and Learning**). Therefore this Analytical Tool focuses on the challenge of how to build and sustain capabilities and the culture of life-long learning and how to systematically provide opportunities and stimulate their uptake so that learning becomes an activity throughout people's whole lifespan. **The paramount question addressed through this Analytical Tool** [See Full Version for more details] **is: Does our education system develop capabilities for life-long learning and do we provide our citizens effective opportunities for learning throughout their life?** The Analytical Tool aims at facilitating an assessment of Lifelong Learning systems in place or being developed in each country and the environment for such learning by raising some key questions regarding policy and practice for supporting life-long learning. While the questions are not meant to be exhaustive, they will facilitate a systematic and structured identification of constraints to developing and sustaining life-long learners.

2. Diagnosis and analysis

Developing integrated system of Lifelong Learning

1. How do we effectively embrace lifelong learning as the master concept and guiding principle in the development and reform of general education?
2. How do we provide opportunities of lifelong learning for all? What evidence do we have for effective uptake of these opportunities?

3. Where is the evidence of equity of these opportunities? What policy has been developed and implemented to ensure that there will be no exclusion in the opportunity for learning? (**link to the Analytical Tool on Equity and Inclusion**)
4. Does the education system support flexible learning pathways which enable each learner to choose his/her learning path more freely (**Technical note IV.2**)? In that way have the artificial **barriers between different educational disciplines, courses and levels, and between formal and non-formal learning** been abolished, and informal learning has been supported and integrated?
5. In what way do we assess and monitor the progress our country has made in lifelong learning? (**Technical Note IV.3**)

Vertical integration

1. What legislation and policy have been developed to facilitate learning at various developmental stages of life of people (infant, child, adolescent, adult and elderly)?
2. How effectively does the basic education system equip learners with core skills that facilitate learning and sustainable self-educability (**link to the Analytical Tools on curriculum, learning, teaching, assessment and competencies**)? What evidence do we have?
3. What mechanisms have been developed to ensure smooth transition between different areas and levels of education (early childhood, primary, secondary, vocational, adult and higher)? Are the mechanisms working properly? What is the evidence?
4. What institutional arrangements do we have to assure diverse, flexible, convenient and relevant provision of learning opportunities throughout life? Where is the evidence of the uptake?

Horizontal integration

1. What mechanisms do we have for ensuring mutual reinforcement, transition and even seamlessness across diverse learning pathways? Where is the evidence of this mutual reinforcement, smooth transition and seamlessness?
2. What mechanism has been developed to create links and build synergies between learning taking place in formal and non-formal settings? How effective are the mechanisms in terms of recognizing competencies acquired in non-formal and/or informal means and settings? (**Technical Note IV.4**)
3. What mechanisms have been developed to promote learning in a plurality of learning spaces covering life-wide contexts across family, school, workplace, cultural and community settings? What is the evidence of equitable benefit from learning opportunities in these varied learning settings?
4. In what way do diverse institutions and channels (museums, libraries, parks, recreational places, cultural organisations, and faith-based organizations, media and ICTs) play role in facilitating lifelong learning?

5. What are the major barriers to lifelong learners and what targeted policy measures have been adopted to overcome them? Is there evidence that these targeted measures have been effective?

Developing enabling learning environments

1. What measures are being taken by villages, communities, cities and regions in our country to encourage individual citizens to become lifelong learners? (Technical Note IV.5) What are the lessons learned from those efforts?
2. What mandate have media received from the government to play a major role in informing on and opening up learning opportunities? What policy and strategies have been developed and implemented in exploiting the potential of media in providing lifelong learning opportunities? What is the evidence that media is playing that role?
3. What specific measures have been taken in ensuring the quality of open and distance learning? How effective are those measures? Have ICT been effectively integrated into formal, non-formal education and informal learning?
4. What activities and programmes such as learners' weeks and learning festivals have been organized to motivate and mobilize learners or potential learners? How effective are these programmes and activities?

3. Priorities for action

1. What are the key areas to be addressed urgently to further develop an integrated system for lifelong learning for progress towards a learning society?
2. What are the knowledge gaps which need to be filled for an evidence-based policy on the provision of opportunities and conditions for lifelong learning?
3. What are the required actions to deal with the priority constraints and the identified knowledge gaps?

V. ANALYTICAL TOOL: LEARNING

1. Introduction

As learners are the ultimate producers of education enterprises, learning is the ultimate production process of the enterprise. As highlighted in the Analytical Tool on competencies, *having learnt how to learn* is the ultimate competency, and the ultimate test of a quality education system. This is especially so in the 21st century where what is learnt quickly becomes obsolete and the agility to adapt and learn anew is the ultimate currency of 21st century markets. Concern for understanding how humans learn has always been and continues to be the core challenge of education practice. Our concepts of learning and the results of learning are influenced by what we know/presume about how people learn; the way we organize learning processes and environments; but also the nature of the out-of-school environments. Learning has been studied from different perspectives and through different disciplines including humanities, philosophy, sociology, anthropology, behavioral sciences, cognitive science, computer science, neuroscience, health and nutrition etc. [Technical note V.1, the most influential theories of learning] More recently we have seen the burgeoning of the “sciences of learning” underpinned by neuroscience and facilitated by technological advancements that enable the analyses of brain activity during learning. At the same time there is growing acknowledgement of what the social learning theory¹⁵ long documented that learning is fundamentally a social or collective phenomenon. This acknowledgement is bringing to the centerpiece of the education process what used to be the lowly regarded “soft skills” and “social learning outcomes” [link to Analytical Tool on competencies] not only as competencies in their own right but as facilitative for the acquisition of the much regarded “hard skills” and “cognitive learning outcomes”. The complementarity of neuroscience with social learning theory is pushing frontiers in understanding learning as a critical process. The accumulation of research evidence on learning from both the natural and social sciences is wedging a keen differentiation of *education* from *learning* with the latter taking precedence and the former almost shunned as a less alluring yesteryear’s discourse!

Learning permeates 21st century discourse on education. It features prominently in seminal documents such as the Delors report (1996) where each pillar of 21st century education starts with *learning*. Current education strategies of all key development agencies feature *learning* and not education in their titles. *Learning* is a subject of premier policy forums [Technical note V.2, key resolutions of the 2011 policy forum on learning]. *Learning* is becoming “the qualifier” of other education processes such as assessment and leadership. Concepts such as “assessment for learning” [link to the Analytical Tool on assessment], “learning leadership” [Technical note V.3, distinction between education leadership and learning leadership] are becoming common place. *Learning* is even used to reify human institutions and other constructs enough to talk of learning societies, learning institutions, learning nations, and learning cities! The prominence of *learning*, as a concept and not just a process, is also separating what has been the unfortunate welding of *education* to *schooling*. Wrongly, education has become equated to schooling; so much that education that does not take place in schools had to be differentially labeled as “non-formal” and designated second cousin status or informal and almost equated to happenstance! Rightly, learning is recognized as taking place all the time, everywhere and throughout life!

¹⁵ (Bandura 1977)

The GEQAF posits that *learning* as preceding *education*. Learning is a natural process to all living beings and to human beings in particular. Human beings are inherently learning beings. Learning is fundamental for human survival, development, progress, innovation and even dominance. Education on the other hand is a human construct and education systems were created primarily to structure, control and in a concentrated manner, facilitate *learning*. The coming to age, of the realization that education systems are mostly ineffective at facilitating desired learning, the refocusing of attention on learning is a refreshing “*back to basics*”. The reality that a significant number of education systems fail to facilitate learning and even worse, thwart the natural “human instinct to learn” is of grave concern. However, the challenges isn’t to pit *learning* against *education*; but rather to *bring back learning as a core business of education enterprises*. It is to use the current focus on *learning* to untangle *education* from *schooling* and to optimally exploit the multi-setting, multi-pathways and multi-channels to *learning* including those made possible by ICTs. The core question of this Analytical Tool [See Full Version for more details] is therefore: **What are the critical impediments for making learning the core business of our general education system and how may these impediments be removed?**

2. Diagnosis and analysis

Understanding and positioning learning

1. What is our understanding of learning vs education vs schooling? How is this understanding shared with critical stakeholders? Where is the evidence that it is shared? How is learning positioned in our education system? For instance does learning drive education policies, strategies, programs, other processes, organizations, financing frameworks, other resourcing, etc? Where is the evidence that learning drives our education system? How is this evidence documented and how is it monitored? Is learning how to learn an explicit outcome of our general education system? How do we support the attainment of this outcome? How do we monitor its achievement?
2. How do we characterize diverse forms of learning? What are those diverse forms in our education system? How do we ensure complementarity of those forms? How impactful is this complementarity? Where is the evidence of this impact? How do we optimize complementarity and impact?
3. How does our knowledge and understanding of learning affect other education processes such as assessment, teaching, management and governance? How does it affect key resources such as the curriculum, learning materials, teachers, physical and psychosocial environments, etc.? What is the evidence of this effect? How do we ensure currency of this effect? [Technical note V.4, integrative perspective on student learning]

Using extant research evidence to support effective learning and to innovate

1. What do we know about research evidence on learning? How do we ensure that critical stakeholders are knowledgeable of this evidence? Who are these stakeholders? How do we ensure the currency of that knowledge? How does this evidence get translated into impact? Where is the evidence of this impact? How do we optimize this impact? How do we sustain the link between research evidence and practice and vice versa?

2. What are our recent innovations in optimizing effective facilitation of learning? How do these innovations get initiated? How are they monitored and with impact documented? When impactful, how are they scaled up?

Making effective learning equitable

1. How do we ensure equity of effective learning opportunities? What are the dimensions or the factors that drive this equity? How do we monitor equity of effective learning opportunities? What do we have as direct and/or proxy evidence?

3. Priorities for action

1. What are the key challenges and constraints which we need to address to achieve effective learning in our education system?
2. What are the knowledge gaps in our understanding of learning processes which need to be filled for an evidence-based policy and strategy to make our education system deliver quality learning to all our learners?
3. What are the required actions to deal with the priority constraints and the identified knowledge gaps? What partnerships and resources are needed to implement the actions identified?

VI. ANALYTICAL TOOL: TEACHING

1. Introduction

Teaching is the most immediate process for supporting learning and for enabling learners to acquire expected competencies. What happens within the classroom is of crucial importance for the quality of education¹⁶. Research also shows that considering the profile of the teacher alone is not sufficient to determine what is really happening in the classroom¹⁷: teachers and teaching are two separate, though closely interrelated, issues. Teaching and learning processes are not only crucial to education quality and to the effectiveness of learning experiences but also to equity of education quality and of learning. Individuals learn differently. They should be taught differently. For learners to reach their full potentials, teaching methods, approaches and assessment modalities must be well understood by those entrusted with teaching and those making decisions about education. What research also underlines is that adaptability to context matters as different countries and students may need different teaching contents (both in terms of subject matter knowledge and of medium of instruction) and different levels of structure tailored to students' profile. It is therefore important to critically assess the relevance of both current and planned objectives (in terms of the content, structure, and context of teaching) to the diverse contexts. What kind of teaching can be provided is shaped/constrained by the learner and the learning environment, the teacher and the teaching culture. Research¹⁸ shows, that countries which have been successful in improving their education system followed a number of general principles but also tailored their intervention to match the current situation of their education system. **[Technical note VI.1: Common characteristics of good teaching]**

The overall objective of this Analytical Tool [See Full Version for more details] is to support the analysis of how teaching processes contribute to the quality and equity of general education and to effective learning. **The paramount question this Analytical Tool raises is: Do our teaching processes facilitate or impede the attainment of quality education and effective learning experiences for all our learners?** The probing of this paramount question is facilitated by posing some key questions regarding critical factors affecting and influencing teaching.

2. Diagnosis and analysis

Understanding an effective teaching process

1. What is our operational understanding of effective or quality teaching? Who defines this understanding? What is the role of research and innovation in determining our operational definition of effective or quality teaching? Where is the evidence that our evidence is informed by research and innovation? How is this understanding documented and shared? Where is the evidence of it being shared? How does this understanding take

¹⁶ UNESCO (2004) EFA Global Monitoring Report 2005, the Quality Imperative

¹⁷ Bernard J.M., Tiyab B. K. & Vianou K. (2004). Profils enseignants et qualité de l'éducation primaire en Afrique subsaharienne francophone: bilan et perspective de dix années de recherche du PASEC. PASEC :CONFEMEN

¹⁸ Mc Kinsey & Cie (2010) How the world's most improved school systems keep getting better

into account the diversity of our education settings, learners and teachers as significant factors in our definition of quality/effective teaching?

2. How do we collect information on core teaching methods [Technical note VI.2, different teaching methods] and repertoires used in our general education system? How are these repertoires selected? How effective are they in facilitating learning effectiveness and the acquisition of desired competencies? What is the evidence of their effectiveness?

Equity and effective teaching

1. How do we ensure that all learners in our general education system are exposed to effective teaching as we operationally define it? Where is the evidence of equitable exposure to effective teaching? Where there is inequity, what are our available remedial measures? Where is evidence that these measures work? How do we track the differentiated impact of effective teaching for diverse learners? What dimensions of diversity do we use to track differentiated impact?

Monitoring and supporting teaching

1. What mechanisms do we have for identifying and documenting ineffective teaching?? Once identified, what remedial actions do we employ? How regularized and/or institutionalized are these remedial measures? How effective are these measures in supporting effective teaching? Where is the evidence that they work?
2. Who evaluates teaching? Who are the involved stakeholders? How are stakeholders who evaluate teaching selected? Are learners, parents and teachers part of these stakeholders? How effective is stakeholder participation? Where is the evidence of this effectiveness? How do we use feedback from the assessment of teaching effectiveness? Where is the evidence of this use? What impact has this use had? Where is the evidence of the impact?
3. How are outcomes from national, regional and international assessments utilized in our evaluation of the teaching process?
4. How do we support and incentivize effective teaching? How do we sustain effective teaching? [Technical note VI.3, pedagogical freedom or prescriptive curriculum]

Conditions for teaching

1. How do we operationally define environments that support and/or induce effective teaching as we operationally define it? What are the levels of these environments? What are the key features of these environments? What are the most impactful features? How do they manifest across the diverse contexts of our general education system? Where is the evidence of the impact of these environments and/or their specific elements across specific contexts? **[Link to the Analytical Tool on learning environment]**

2. To what extent and how are ICTs being integrated in teaching and learning to achieve desired learning outcomes? Do we know if the introduction of ICTs has improved teaching effectiveness as we operationally define it? Where is the evidence of this improvement?

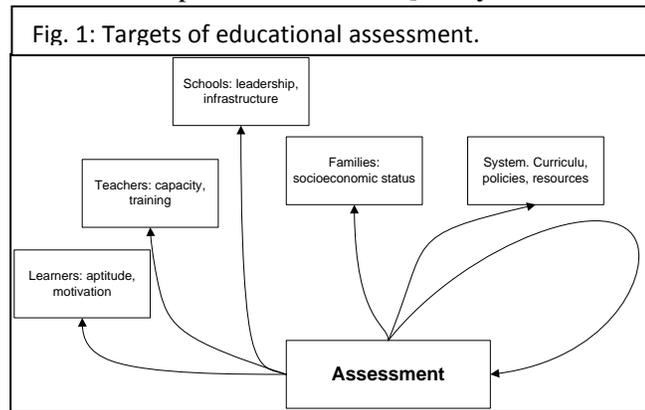
3. Priorities for action

1. What particular strengths do we have to achieve our goals with regard to effective teaching? What are the problem areas hindering effective teaching?
2. What are the changes we need to consider to further improve the outcome of the teaching process? What other key areas beyond the classroom need to be integrated in our reform and improvement plans?
3. What are the knowledge gaps which need to be filled for an evidence-based policy and strategy to improve teaching in our schools to achieve the goal of quality education for all?
4. What are the required actions to deal with the priority constraints and the identified knowledge gaps?

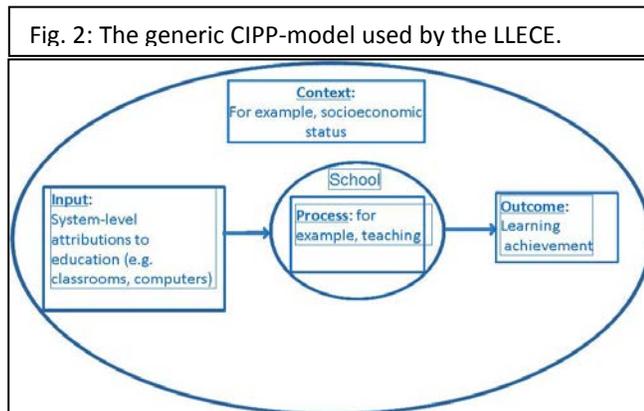
VII. ANALYTICAL TOOL: ASSESSMENT

1. Introduction

The nature and extent of learning outcomes to be achieved at different levels of the general education system, and the means through which they should be achieved, is usually articulated in the curriculum or education programme. The curriculum, on the other hand, will usually receive its cue from national development goals and priorities (**Analytical Tool on Relevance/Responsiveness**). Teaching [**Analytical Tool on Teaching**] and learning [**Analytical Tool on Learning**] processes operationalise these outcomes and give them effect. Assessment verifies if stipulated outcomes have been achieved, although it can also be an input for learning to occur and / or be directed. The extent to which stipulated outcomes [**Analytical Tool on Competencies**] have been achieved remains a dominant¹⁹, though not exclusive signal of the quality of education, as well as of the effectiveness of curriculum implementation, teaching and learning. That is to say, assessment procedures will normally only be able to capture limited elements of learning that has occurred, in specifically defined areas, for example, literacy and numeracy.



Assessment in itself is a varied education process. It varies by purpose (**Technical note VII.1**), forms of assessment²⁰ and area of assessment. An initial distinction has to be made between assessment *for* learning and assessment *of* learning. The former is concerned with the function of assessment as an educational process. For this, feedback to the learner is essential²¹. Nevertheless, on a systemic level, assessment of learning is essential in order to monitor achievement of the education system as a whole. Assessment of learning, on the systemic level, can also result in (policy) lessons to improve systemic performance and, in this sense, on this level as well, ‘assessment for learning.’ can take place



¹⁹ It is, in general, important to emphasise that assessment does not just have a descriptive function (i.e., indicating the state of the system) but also a normative one. That is to say, there is a recognised mechanism of learning and teaching to the test. This can occur both at the local and national level. This is not an intrinsically negative phenomenon, but one the ‘assessor’ should be aware of so as to effectively steer the learning – teaching process. In terms of international assessments, this has been termed the ‘PISA-effect’ (i.e. delivery mechanisms being geared to achieving learning outcomes aimed for by PISA).

²⁰ In addition to its purposes, the targets of assessment can also vary substantially. For example, to assess systemic performance as a whole, students are assessed. Nevertheless, the students are not the main targets of the assessment – the system is (see Fig. 2 for targets of assessment).

²¹ William, D. (2010). The role of formative assessment in effective learning environments. In: H. Dumont, D. Istance & F. Benavides (Eds.), *The nature of learning: Using research to inspire practice* (pp. 135-159). Paris: OECD.

(although this expression is not usually used to refer to systemic learning). To this end, such large scale assessments usually use instruments for assessment of factors associated with learning in addition to the actual tests, which are normally grounded in a framework such as the generic ‘CIPP’-model (CIPP stands for Context, Inputs, Process and Product, see adjacent Figure 2), which is used, for example, by the Latin American Laboratory for Assessment of the Quality of Education (LLECE).

This Analytical Tool [See Full Version for more details]²² aims at assisting users to diagnose if, and to what extent, the existing assessment system is part of the impediments to reaching the desired and / or stated goals of education quality. The paramount question in the diagnosis of our assessment systems is **how assessments can contribute to improving the quality of our education system and learning effectiveness**. The diagnosis addresses this paramount question by posing some key questions with regard to assessment policies, frameworks and methods in place, the implementation mechanisms, and the systems for drawing appropriate lessons from assessment results and using the results from assessments to improve the different aspects of education processes and outcomes.

2. Diagnosis and analysis

Assessment policies, frameworks and methods

1. Do we have a national strategy / policy / position paper on educational assessment? If yes, how recent is this? Which educational levels (both in terms of ISCED and in terms of location (local – regional – national) and subjects are covered by this? Has it been evaluated?
2. To what extent is the choice of purposes, targets and subject matters for assessment, for example in national assessments, related directly to what the country thinks of as important in terms of learning outcomes for its learners and *not* only in terms of what is easy to assess? **(Technical note VII.2) [Analytical Tool on Competencies] [Analytical Tool on Curriculum]**
3. What have been the criteria used to determine the coverage of the assessment and the level at which national assessments are conducted? Are these criteria linked to clear objectives and goals of the assessment? Is there evidence that the coverage and the levels at which the assessments are made contributed to improvement of education system quality?
4. In general, to what extent is assessment in this country effective? To what ends? Is it inclusive? In what way? What evidence do we have for this? Do we know where the system stands in terms of achievement outcomes at every level? **[Analytical Tool on Equity and Inclusion]**

Implementation of assessment

1. If there is an educational assessment policy has it been implemented / enacted? How do we know? At what levels is assessment implemented? What are the objectives of this?

²² Hyperlink the longer version of this toolkit

2. Is there evidence that the implementation of the assessments is according to rules of good practice, incl. inclusiveness? What is this based on? [**Analytical Tool on Equity and Inclusion**]
3. Who implements assessments? How does this vary by types of assessment?
4. How are tests conceptualised (i.e. how are test items developed) and what is the conceptual basis for this (for example, a curriculum / syllabus analysis or rather an orientation of ‘life skills’)? What **psychometric methods** and techniques are used to classify items²³, and to what extent are these item characteristics taken into account in the development of achievement tests? Are open and closed items used? In terms of test conceptualisation, is there a good mix of standardised and non-standardised testing available? (**Technical note VII.3, Alternative assessment**)
5. Are assessments also measuring ‘associated factors’ that facilitate analysis (e.g. looking at age, gender, socioeconomic status and other background information)? [**Analytical Tool on Equity and Inclusion**]
6. If applicable, how are data processed and fed into a centralised information system?
7. What is the evidence that participation in international quality assessment (LLECE, PISA, SACMEQ and others) help us to bench mark the quality of our education system? What has been our and others experience of international assessments? If we have not participated, was it a deliberate decision and, if so, why?

Utilisation of assessment results

1. What mechanisms do we have for making the evaluation of the assessment results inform education policy and practice (at classroom, school, regional and national level)? How often do we use these mechanisms? What is the evidence that we do such evaluation in a purposeful and systematic way? [**Analytical Tool on Relevance**] [**Analytical Tool on Governance**]
2. How do we interpret the findings from evaluations of assessment results findings, and how do we make sure that educational assessments have the intended impact of improving the education system quality and learning effectiveness? How do we communicate our evaluation so as to focus on how we can do better? How are outcomes data linked to other variables, such as finance data, which permits rigorous analyses? [**Analytical Tool on Financing**]
3. Are assessment results made public, and to whom (for example, individual student results to parents / carers; school rankings to the general public, etc.)? [**Analytical Tool on Governance**]

3. Priorities for action

²³ Main psychometric item characteristics include difficulty and discrimination, but there exist other characteristics. Item difficulty is often established using ‘scaling’ according to the Research methodology. The process for doing this is called ‘item calibration’. New models for scaling, such as 2PL and 3PL, are gaining in significance.

1. What are the key areas to be addressed urgently to make assessment contribute to the quality of our education system?
2. What are the knowledge gaps which need to be filled for an evidence-based policy and practice of school-based and national assessments?
3. What are the required actions to deal with the priority constraints and the identified knowledge gaps?

VIII: ANALYTICAL TOOL: CURRICULUM

1. Introduction

Curriculum is a systematic and intended packaging of competencies (i.e. knowledge, skills and attitudes that are underpinned by values) that learners should acquire through organised learning experiences both in formal and non-formal settings (Technical note VIII.1: Different meanings of curricula) Good curriculum plays an important role in forging life-long learning competencies, as well as social attitudes and skills, such as tolerance and respect, constructive management of diversity, peaceful conflict management, promotion and respect of Human Rights, gender equality, justice and inclusiveness. At the same time, curriculum contributes to the development of thinking skills and the acquisition of relevant knowledge that learners need to apply in the context of their studies, daily life and careers. Curriculum is also increasingly called upon to support the learner's personal development by contributing to enhancing their self-respect and confidence, motivation and aspirations. In addition, there are many new and emerging challenges to education and demand on curriculum, such as new Information and Communication Technologies (ICTs); intercultural understanding; Sustainable Development; Learning to Live Together (LTLT); HIV and AIDS; Life skills; Competency development for life. Through their guiding function for education agents and stakeholders, clear, inspired and motivational curriculum documents and materials play an important role in ensuring education quality. Curriculum is implemented by teachers, and depends moreover on the quality of teaching and learning strategies, learning materials and assessment. The process of implementation of the curricula and the related issues are dealt in a number of Analytical Tools which form the UNESCO General Education Quality Analysis/Diagnosis Framework (GEQAF) of which this Analytical Tool is just one. [Link to Analytical Tools on Teachers, Teaching and Learning]

This Analytical Tool [See Full Version for more details] is intended to support national education authorities (i. e. decision shapers/makers; curriculum specialists; teacher trainers; assessment specialists) to carry out a critical scanning of their curriculum "system" with a view to identifying the strong elements to be built upon, as well as the weaknesses/shortcomings that hinder education quality. **The paramount question for this Analytical Tool is whether or not the curriculum we have in place enables us to impart on our learners the kinds of competencies (i.e. knowledge, skills and attitudes that are underpinned by values) we require for the type of society we envision to build and the challenges people have to face now and in the future.** The paramount question can be addressed by assessing the alignment of the curriculum to national development goals, the effectiveness of curriculum policies as well as the development, design and planning of the curricula. Monitoring and evaluation of the implementation of the curricula and its responsiveness to new challenges and requirements is also a critical element which needs to be assessed. The diagnosis and analysis section below raises some key questions in each of the stages of the curriculum development and implementation process to support a structured discussion of the major issues regarding curricula and its effect on education quality.

2. Diagnosis and analysis

Development relevance of curricula

1. What does the country/community want to achieve with regard to the personal development of learners and societal well-being and advancements? And how well the curriculum reflects that education vision?
2. What are the mechanisms for making the curricula to respond to national development policies and strategies? Is there evidence that the mechanisms work effectively?
3. How well are the key/core/cross-cutting competencies identified in the curricula aligned to education policy goals? Is there evidence that such key competencies have been at the core of curriculum development? [**Link to Analytical Tool on Competencies**]
4. How are education stakeholders (teachers, learners, private sector, civil society) involved in developing the curriculum vision and appropriate curriculum policies? Is there evidence of their involvement having made a difference? [**Link to Analytical Tool on Governance**]

Curriculum planning, design and content

1. Is there evidence of curriculum development being effectively led and guided in accordance to the set education/curriculum vision and quality standards (i.e. Are there publicly-known and recognized curriculum institutions/agencies and leaders of curriculum processes; Are there guidelines developed for guiding the process of curriculum design, writing, piloting, implementation and revision? Are those guidelines taking into account the results of curriculum evaluation processes? Is the curriculum laid down in a set of public documents, such as curriculum frameworks; syllabuses (subject curricula); textbooks, teacher guides; assessment guides? How are stakeholders involved? (Promising practice VIII.1, Bosnia and Herzegovina)
2. What evidence exist that curricula are grounded on up-to-date concepts of, and approaches to learning and that the learning content is well selected and organised? (i. e. Is there an emphasis on learner-centredness and comprehensive/holistic learning; Are there broad Learning Areas and subjects that cater for meaningful continuity and inter-linkages, balance and curriculum integration; appropriateness to age / stage of development; core curriculum and differentiated curricula; How are ICTs and e-learning considered for improving the quality of curricula and learning) [**Link to Analytical Tools on Teaching, Learning, Equity and Inclusion**] (Technical note VIII.2, What makes a quality curricula?)
3. How well are cross-cutting & emerging issues covered in the curriculum? (i.e. What are “current” issues to be addressed; How to incorporate issues such as gender equality; HR and citizenship education; ESD; LTLT – peace education, intercultural understanding; HIV and AIDS; Life skills; preparation for life and work; How to keep the curriculum open and flexible in addressing new/emerging issues...) (Promising practice VIII.2, Vietnam)
4. How do you keep a balance between the need of providing basic skills (i.e. reading, writing, numeracy); the need of imparting relevant knowledge in different subject areas; and the need of addressing cross-cutting and emerging issues, such as LTLT and ESD? (Technical note VIII.3, Defining the curriculum content), (Promising practice VIII.3 Botswana)

Curriculum implementation, monitoring and evaluation

1. What is the evidence that teachers and students play an effective role in defining and implementing the curriculum (i.e. how well teachers are trained and understand the curriculum; whether teachers can participate in curriculum development processes; whether teachers are prepared to take on new roles, i.e. teachers as facilitators; advisors, moderators; curriculum developers; students as participating in selecting and structuring their learning activities)
2. What is evidence that curriculum implementation is supported by enabling learning environments? What is evidence that schools make efforts to improve their learning environments? (i.e. Communication strategies; Student participation; Enhanced access to learning facilities and resources; Counselling; School ethos and Aesthetic) **[Link to Analytical Tool on Learning Environment]**
3. How well are assessments aligned to the goals of the curriculum? What elements pertaining to assessment have hindered curriculum implementation and hence education quality? **[Link to Analytical Tool on Assessment]**
4. Is there evidence of a country-wide system of monitoring and evaluation of curriculum processes? Has it been used for continuous development of the curricula? What is the evidence that evaluation of curricula and associated textbooks have influenced curriculum & textbook revision? **[Link to Analytical Tools on teaching and learning]**
5. What actions are taking place to frame future developments in the realm of learning and curriculum? (i.e. National and/or international curriculum research projects; National curriculum conferences; Forums and Task forces set up to define forward-thinking curriculum policies)

3. Priorities for action

1. What are the key areas and binding constraints to be addressed urgently to achieve major improvements in the quality of our curricula?
2. What are the knowledge gaps which need to be filled for an evidence-based policy and practice of curriculum development?
3. What are the required actions to deal with the priority constraints and the identified knowledge gaps?

IX. ANALYTICAL TOOL: LEARNERS

1. Introduction

The Analytical Tool on Competencies underscores learning outcomes—signalling acquired competencies—as an ultimate evidence of a quality education system and learning effectiveness. Learners on the other hand are the “ultimate producers” of learning outcomes since competencies have to be acquired by them. All other elements—teachers, the curriculum, learning environment—of the UNESCO General Education Quality Analysis/Diagnosis Framework (GEQAF) are to facilitate Learners in producing desired learning outcomes. The GEQAF holds a view of the learner as not only a beneficiary of these facilitators, but as a “self-benefitting agent,” a “benefactor” and “the prime human resource” on which a quality education system depends for its effectiveness. However, most education systems view learners as beneficiaries that need to be acted upon, helped and/or developed. While learners do need facilitation, nothing and/or no one can learn on behalf of the learner and no learning can happen without the learner’s self-benefitting agency. Thus a view of learners as empowered prime human resources of quality education systems is fundamental to reaching and sustaining quality education and effective learning.

Like all key human resources of a productive enterprise, education enterprises need to intelligently and strategically invest in learners as their prime producers. Accumulating research evidence on learning specifically and on education in general suggests that to be effective self-benefitting agents, learners require facilitation of different types across stages of their life cycle. For instance advancements in overall brain research and on brain plasticity in particular should guide not only the scope and nature of investments but also the nature of investment that should enable learner efficiency and effectiveness in the process of learning [**Technical note IX.1, brain research on diverse learner needs across ages**]. We now know that investment in holistic child development [**Technical note IX.2, the HEDCI**] between ages 0 to 8 is an indispensable facilitator of learner effectiveness in the learning process throughout life. Investment in early childhood development is the most resource efficient investment in the immediate and long term [**Technical note IX.3, multi-sectoral returns on investment in early years**], and it is an early start at shared growth and inclusive development [**Technical note IX.4, evidence on inclusive development**]. At the same time, brain plasticity research informs us of appropriate opportunities for learners in the late ages [**link to Analytical Tool on Lifelong Learners**]. For Latin America and the Caribbean region, the WFP has calculated that governments lose significant income in labour market underachievement, and lower learning results, due to brain underdevelopment, which in turn is attributed to feeding deficiencies²⁴.

There is also evidence from social and behavioural science, philosophy particularly epistemology, sociology, anthropology and psychology, particularly psychology of learning. Both psychology of learning and epistemology bear substantial pointers on how to best facilitate learner effectiveness and how to assure the centrality of learners in education in general and in pedagogy in particular. The learner has to be at the center of the pedagogical relation, and one of the key concept is empowerment. How do we manage to create a learning environment, that will empower the learner to get so much self-knowledge about her/his learning needs, to match them with learning provision, and give the energy/power, self-confidence, strength, that the individual can take

²⁴ The cost of hunger: Social and economic impact of child under-nutrition in Central America and the Dominican Republic Rodrigo Martínez and Andrés Fernández, Economic Commission for Latin America and the Caribbean (ECLAC), February 2008.

her/his life in possession and master his/her learning carrier, overcome barriers, obstacles. [Technical note IX.5, learner-centered pedagogy and epistemology]

Whatever the source of learner diversity, the right-based approach to education, respect for human rights and the social equity imperative accords all learners the right to quality education. Thus, the GEQAF holds equity and inclusion as one of the hallmarks of a **quality general education system** [link to the Analytical Tool on equity and inclusion]. Good quality general education systems respond to learner diversity regardless of the source of that diversity. Failure to respond to the learner diversity is not only a violation of human rights but is an affront to the right to education.

This Analytical Tool [See Full Version for more details] seeks to support Member States' efforts to place the **learner at the centre** of the education enterprise as a prime producer of expected competencies and learning outcomes. The Tool facilitates Member States' in-depth analysis of the diversity of learners and helps to draw implications for appropriate facilitation to become effective and efficient learners. The GEQAF posits that being a life-long learner or ability for life-long learning is perhaps the most significant outcomes of a good quality general education system. The critical question posed in this Analytical Tool is: **What are the critical impediments that prevent our learners of all ages and all diversities from becoming and remaining effective and efficient life-long learners and how should we remove these impediments?**

2. Diagnosis and analysis

Our views / perspective of learners

1. What is our formal/official view of our learners? [Technical note IX.6, different views of learners] Who is involved in articulating this view? Are those who should be involved really involved? Where is the evidence of their involvement? What are the drivers that change our view of learners? Where are the key markers of this change and where is the changing view documented?

Knowing our learners and responding to their needs

1. How do we get to know and capture the diversity of our learners? What are key factors of this diversity? How do these factors differ across national contexts? How do we use assessment data to get to know our learners and their needs? For example, assessment can illustrate that certain learners have learning challenges.
2. Where is the evidence of our knowledge of learner diversity? How do we keep the knowledge current? Who has this knowledge and how do they acquire it? How do we determine who should have this knowledge?
3. How is our knowledge of learner diversity applied to differentiate support for learner effectiveness? Where is the evidence of this differentiated support? What are the diverse sources of support to learners? Where is the evidence that it works? How do we track the impact of our support on diverse learners and how do we ensure and sustain equity of learner effectiveness in learning? What are our proxies for tracking learner effectiveness? What are

the mechanisms that we use to respond to diverse learner needs?[**Technical note IX.5, potential mechanisms and promising practices**]

4. What is the role of diverse types of learners in defining their learning needs and how they should best be met? How do we incorporate the view of learners into the education and the learning systems? Where is evidence of the impact of this incorporation?

3. Priorities for action

1. What are the key challenges and priority constraints which we need to address in order to equitably and effectively support each learner to become an effective and efficient learner throughout?
2. What are the evidence, knowledge and information gaps that prevent us from effective and equitable support for diverse needs of learners? How can we close these gaps?
3. What are the required actions to address priority constraints and the identified knowledge gaps to make our education system learner-centered? What partnerships and resources are needed to implement the actions identified?

X. ANALYTICAL TOOL: TEACHERS/EDUCATORS

1. Introduction

Teachers/educators are the major pillars in the teaching and learning process. Without an appropriate focus on teachers, access, quality and equity of education for all is not feasible. The quality of teachers/educators has been found to explain significant differences in learning outcomes. Equitable deployment of qualified teachers/educators also has a significant bearing on the distribution of learning outcomes and thus equity²⁵. There are clear indications that provision of quality education tends to have a greater impact on the most vulnerable or deprived students²⁶ and thus providing quality teachers/educators to all schools and educational institutions is one important way to address the problem of inequity. As new and more complex roles are ascribed to teachers/educators, coherent and adequate selection, preparation and continuous professional development strategies must be in place to endow those entrusted with teaching with the required knowledge, skills, attitudes and values, and retain them in the profession. **[Link to the Analytical Tools on Learners, Learning and Teaching]**

This Analytical Tool focuses on teachers/educators as a critical sub-system that can support or impede MS from achieving the goal of quality education for all. The Analytical Tool is one of 14 tools in the UNESCO General Education Quality Diagnostic/Analysis and Framework (GEQAF) designed to help MS to assess all aspects of their education system to improve quality and equity. It is particularly linked to the analytical tools on the teaching and learning processes hence should be used in a complementary manner with those. It is expected that the Analytical Tool [[See Full Version for more details]] will serve as a guide for reflection and not as a prescription of a particular choice, or of a particular method to analyze the issue of teachers/educators and education quality. **The paramount question to be addressed by this toolkit is to what extent the teachers/educators sub-system has been a major factor in explaining the quality problems we face in our education system.** This question can be addressed by a thorough analysis and reflection on the systems and mechanisms we have in place for attracting suitable and motivated individuals to the teaching profession, for selection and preparation of teacher/educator candidates, their recruitment, deployment, retention and their effective management for the delivery of quality education. At each of these critical stages, from initial entry into the profession to the delivery of quality education, we need to pose some fundamental questions to identify the factors affecting the ability of our teachers/educators to deliver quality education to our learners. The diagnostics of the teachers/educators sub-system will facilitate the identification of areas of strength to build on and also areas of weaknesses and gaps to address. The diagnostic and analysis of both strengths and remaining challenges should lead to the formulation of action plans focusing on the most critical challenges, if addressed, can unlock great potential for improving the education system to deliver equity and quality.

²⁵ Scheerens J. 2004, Review of school and instructional effectiveness research, background paper for the EFA Global Monitoring Report 2005.

²⁶ UNESCO (2006). Teachers and Educational Quality: Monitoring Global Needs for 2015. Montreal: UNESCO Institute of Statistics

2. Diagnosis and analysis

Entry into the teaching profession

1. Who is attracted to the teaching profession and why? Do we have data on the profile of those applying for teacher/educator training? **[Promising practice X.1, Examples of countries which managed to attract the best students to the profession]**
2. How well do our criteria for selection into training of teacher/educator (e.g. minimum qualification, attitudes and values, motivation) and selection modalities (e.g. exam, interview) reflect the type of teachers/educators we want to train?

Training of teachers/educators

1. What is the profile of the trainers of teachers/educators? How are they trained, recruited, remunerated? Does the financing of training institutions reflect the central role teacher/educator training plays for quality education? **[Link to Analytical Tool on Financing]**
2. How well does teacher/educator assessment reflect the competencies expected of new teachers/educators? Is practical training assessed? What are the modalities of assessment?
3. Has the efficiency of our teacher/educator training programs in imparting teachers/educators with the expected knowledge and skills been analyzed? Is there any analysis of the impact of trained teachers/educators on learners' achievements? **[Promising practice X.2]**
4. How has in-service and CPD program been effective in raising the quality standard of our teachers/educators? Do we have evidence of that? **[Promising practice X.3]**

Recruitment, deployment and retention of teachers

1. What mechanisms are in place to attract and retain the best qualified people to teaching? **[Link to Analytical Tool Financing for Quality]** Have they been effective? What is the extent of teacher/educator attrition in our country? Why did these teachers/educators leave?
2. Are there mechanisms in place for the best teachers/educators to be recognized and rewarded for their teaching? **[Link to Analytical Tool on financing]**
3. Are qualified teachers/educators deployed equitably throughout all educational levels, educational settings and in line with curriculum requirements? What are the mechanisms in place to ensure that teacher/educator deployment is equitable and the mechanisms are applied consistently? **[Link to Analytical Tool Equity and Inclusion]**

Management of teachers/educators

1. What mechanisms are in place to support teachers/educators at all moments of their career? Do they foster a feeling of motivation and promote increased performance of teachers?
2. What forms of supervision and performance evaluation are in place and how effective have they been? **[Link to Analytical Tool on Governance]**

3. To what extent do teachers/educators participate in planning and decision-making at all levels of the educational system [**Promising practice X.4**]

3. Priorities for action

1. What are the key areas and binding constraints to be addressed urgently to achieve major improvements in the quality of our teachers/educators current and future?
2. What are the knowledge gaps which need to be filled for a evidence-based policy and practice?
3. What are the required actions to deal with the priority constraints and the identified knowledge gaps?
4. Who does what and when? What will be the coordination mechanism to effect the changes in a cohesive and systemic way?

XI. ANALYTICAL TOOL: LEARNING ENVIRONMENT

1. Introduction

“Learners in supportive environments have high levels of self-efficacy and self-motivation and use learning as a primary transformative force.”²⁷ Welcoming the learner – child, youth or adult – in an environment where they can feel safe and nurtured for is very important for the development of each individual and the society as a whole. Addressing the issue of learning environment in a comprehensive and systematic way is even more critical in countries with limited financial resources. These scarce resources should be invested with a clear definition of what constitutes an enabling learning environment and with a clear benchmarking of progress toward the attainment of that environment. Despite the wide variety of learning systems and complexity of layers of decision-making, it is critical to not lose the importance of building learning environments and integrate these aforementioned considerations in a national and local policy context.

Learning takes place in multiple settings and the learning environment can be structured or unstructured and the learning in different environments can complement each other. Formal and non-formal education occurs mainly in structured environments in the form of institutions (schools, community centers, multi-media centers, learning villages/cities, etc.). Informal education on the other hand takes place in both structured and unstructured environments. This Analytical Tool focuses on structured environments [See Full Version for more details]. The paramount question this toolkit aims to address is: **Have we assured every learner an environment that is both physically and psychosocially enabling to their learning and thus conducive to improving the quality of education and learning effectiveness?** Through a series of structured questions, the toolkit supports an in-depth analysis of the different aspects of the learning environment both physical and psychosocial and also the policy context.

2. Diagnosis and analysis

Policies, instruments and process in support of a good learning environment

1. How well do existing policy guidelines and instruments ensure enabling learning environments? To what extent are our legal frameworks consistent with the goal of creating an enabling learning environment? What is the evidence that they support a rights-based approach to education (the principles of availability and accessibility for all, non-discrimination, equality of opportunity, fundamental freedoms)?
2. To what extent do education quality improvement efforts reflect the learning environment as key factors of achieving quality education for all? What key dimensions of these environments are taken into account and using what instruments?
3. What is the mechanism for participation of the education community (administrators, headmasters, teachers, learners, counselors, support staff, etc.), in setting the criteria for a good learning environment? How do we ensure a gender balance? Has the mechanism been effective? How do we know?

²⁷ (Bereiter & Scardamalia, 1989)

4. What is the role of centralized/decentralized structures in defining an enabling learning environment? [**Link to Analytical Tool on Governance**]
5. What evidence exist that current policies, legal frameworks and instruments have been effective in improving the learning environment? Which are the mechanisms in place for data collection and analysis to support measures to create and sustain a good learning environment?

The physical learning environment

1. What mechanisms (guidelines, standards, norms and safety requirements) have we in place to address the selection of sites and the design and construction process of our learning places? To what extent the community, including staff, learners, and villagers is consulted in the planning and design? What is the evidence that these standards and requirements are adhered to? [**Promising Practice XI.1**]: **Rwanda's "Child friendly schools infrastructure standards and guidelines**]
2. How do we ensure that our physical spaces correspond to the requirements set in our educational policies and programs (e.g. availability of laboratories to ensure the delivery of science programs; ICTs spaces, etc.)?
3. What concrete measures have we taken to ensure that access routes to the learning places are safe and secure for all, especially for girls and women?
4. What physical conditions exist in learning settings that may impact on the health of learners (e.g. access to clean drinking water, proper sanitation facilities, lighting, ventilation and heating, drainage and dampness)? Do we have separate provision of sanitation facilities for girls and boys?
5. How do we ensure the needs of learners with disabilities?
6. How do we ensure equitable distribution of physical learning environment throughout the country (e.g. rural versus urban)? What is the evidence that physical infrastructure and facilities are distributed equitably in accordance with policy goals?
7. How efficiently are physical environments utilized and maintained? To what extent is it closely monitored? What is being done to address possible poor management and maintenance of infrastructure?

The psychosocial learning environment [**Technical Note: XI.1**]

1. What concrete measures have we taken to address discrimination, to ensure respect for diversity and to promote living together? [**Link to Analytical Tool on equity and inclusion toolkit**] [**Promising Practice XI.2**]: **Rights, respect, respect: A Whole School Approach (United Kingdom)**]
2. What are the measures put in place to protect our learners, such as safety and protection from violence (including corporal and humiliating forms of punishment of children): physical violence; **bullying**; mental/psychological violence; cyber bullying, external violence (e.g. effects of gangs, conflict situation)? To what extent does our curriculum integrate the

necessary tools against violence? [**Promising Practice XI.3**]: **Anti-bullying programme in Finland**]

3. What is the evidence on the type, form and extent of violence on our learners? What national mechanisms for data collection, monitoring and evaluation of violence exist?
4. What are the vigilance mechanisms (national/regional/local levels) within the learning environment?
5. Do we have a national policy/plan/framework in regard to health and nutrition in schools? If so, what aspects (e.g. HIV and AIDS, malaria, deworming, school feeding, etc.) does it cover? How effective is the implementation? Which specific health and nutrition issues merit more specific policies/plans/frameworks?
6. To what extent do our educational policies promote effective Guidance and Counselling Programmes innovations that are sustainable, demand driven and implementable? What types of services and thematic areas are included in our Guidance and Counselling programme policy?

3. Priorities for action

1. What are the key areas to be addressed urgently to make our learning environment conducive to delivering quality education to all our learners?
2. What are the knowledge gaps which need to be filled for an evidence-based policy on the provision of adequate and quality physical and psychosocial learning environment?
3. What are the required actions to deal with the priority constraints and the identified knowledge gaps?

XII. ANALYTICAL TOOL: GOVERNANCE

1. Introduction

The 2009 Global Monitoring Report (GMR) has clearly demonstrated that governance (Technical Note XII.1)²⁸ is a critical factor in creating enabling conditions for quality learning and overcoming inequalities in education. At the system level, governance determines what education policies and priorities will be put in place; how much funding will be available to education and how these resources will be distributed, used, managed and accounted for; how the powers and functions of governing education will be distributed across the different layers and actors within the system and to what extent the rule of law and transparency will be maintained so that those who hold powers are accountable for their performance. At the institution level, governance ensures the deployment of qualified, motivated and accountable personnel (e.g., teachers/facilitators and leaders/managers). It ensures that learners are provided with high quality and relevant curriculum materials and they are engaged in learning and get adequate support from their teachers/facilitators. Governance gives diverse critical stakeholders (parents, local community members, civil society, private sector, etc.) an opportunity to participate in decision-making and contribute to learning processes. Poor governance can seriously contribute to poor education quality and ineffective learning experiences.

Education governance consists of multiple layers from the central down to the community level with various actors and stakeholders holding varying degrees of powers, authority, influences and accountability (Technical Note XII.2)²⁹. For quality learning, every level of the system has an important role. Hence, in trying to understand education governance one must examine the complex web of institutional/governance arrangements designed to govern both formal and non-formal education settings at all levels.

This Analytical Tool is part of the overall UNESCO framework for diagnosing the quality of the general education system and learning effectiveness. The Analytical Tool aims at supporting Member States in diagnosing their governance structures and processes at all levels of the education system [See the Full Version for more details]. The paramount question this tool helps to address is: **To what extent does governance of our education system support the attainment and sustainability of high quality education and effective learning experiences.** The diagnosis is facilitated by raising key questions around critical elements of governance.

2. Diagnosis and analysis

Governance at the institution level

1. How effective are *existing governance structures at the institution level* (ECCE administration, School Councils/School Management Committee, adult learning organisation, adult literacy provider, prison administration, etc.) in helping to improve teaching and learning? What is the support mechanism in place to enable governing

²⁸ Technical Note # 1 provides a detailed explanation of the concept of governance.

²⁹ Technical Note # 2 introduces the concept of accountability.

- bodies at the institution level to shoulder their responsibilities? Where is the evidence that it works?
2. How inclusive and participatory is the process of constituting the governance and accountability structures at the institution level? Does the composition of the governance body reflect the diversity of critical stakeholders? What are the criteria for identifying these stakeholders? What are the mechanisms for their effective engagement? Where is the evidence of the effectiveness of that engagement? [See an example of a good practice from Nepal that shows highly participatory and democratic nature of forming school management committees **Promising Practice XII.1**]
 3. What is the role of leadership in promoting learning? How effective are the existing mechanisms for recruiting heads of institutions that are able to exercise instructional or learning leadership (**Technical Note XII.3**)³⁰? Where is the evidence to show that leadership made a difference in learning in our country? [**Link to Analytical Tool on Teachers/Educators**] [See an example of a good practice from Singapore that illustrates the rigor involved in the recruitment and development of school principals. **Promising Practice XII.2**]
 4. What measures are adopted to make institutional operations transparent and make them accountable for performance? Is information related to finance, staff performance, quality of learner achievement, or any other aspects of management made available to stakeholders, parents of pre-school and school children, to students' and learners' associations, civil society and local community members? How effective have these transparency measures been in improving the quality of education? [See an example of a good practice from Uganda that illustrates the use of Public Expenditure Tracking Surveys in tracking the flow of funds in education. **Promising Practice XII.3**]

Governance at the intermediate level

1. How clear are the lines of authority and functional responsibilities between the provincial and district authorities defined and delineated so that each authority is aware of its role for quality education? Where is the evidence to confirm that educational authorities pay attention to quality learning?
2. What kind of plans and programmes do the regional and local bodies prepare for quality education? How effective are these plans in setting the quality agenda and driving quality improvements in educational institutions?
3. How adequately are provincial and local authorities resourced to support the educational institutions, administrators and facilitators/teachers for quality education through proper guidance, educational leadership and professional support? [**Link to the Analytical Tool on Financing**]
4. How are provinces/regions/districts or other bodies at the local level held accountable for their performance and results?

³⁰ Technical note # 3 provides a short introduction to learning leadership.

Governance at the national level

1. How do different actors/stakeholders participate in the policymaking process? Are there any evidence suggesting that there is a strong national ownership of and commitment to policies and programs for improvement of education quality?
2. How effective have various levels of governance been in discharging the roles and responsibilities entrusted to them? Have we done a review of our education governance? What lessons can we draw on the balance between centralization and decentralization of education governance? [[Link to Analytical Tool on financing](#)]
3. Have we adequate national capacity to translate policies and strategies into plans and programs? How do we know that the plans and programs are implemented effectively?
4. What coordination mechanisms exist between the central and decentralized bodies to ensure the delivery of quality education? What is the extent of information sharing, consultation and joint work with various line ministries and other key stakeholders? [Example of good practice from China on literacy coordination, [Promising Practice XII.4](#)]
5. What mechanisms are in place to hold public officials and service providers accountable for results? How have we ensured that the accountability system takes account of quality and equity objectives? Has the media been effective in enhancing transparency and accountability in the education sector? [Example of good practice from Brazil on the use of report card to improve school accountability, [Promising Practice XII.5](#)]

Monitoring and evaluation

1. What are the mechanisms and processes that exist in the country for quality assurance³¹ of different types and levels of education? Are there structures with a clear mandate for promoting quality? What aspects of quality learning form the objects of monitoring and evaluation? [[Link to Analytical Tools on curriculum, teacher training, assessment, financing](#)] How effective are these structures in assuring quality? What is the evidence of their effectiveness?
2. How effective is the existing regulatory framework in ensuring that education institutions in the non-state sector satisfy required minimum quality standard and deliver value for money to the learners? [Example of a good practice from Pakistan in regulating non-public schools for quality education, [Promising Practice XII.6](#)] [[Link to Analytical Tool on financing](#)]
3. How far does the existing system provide accurate and up-to-date information about the functioning of the education system? Does the information system provide data on instruction and learning, examination results? What other indicators are used to refer to quality? Is information readily accessible to decision-makers/managers at different levels? Is there evidence that policymakers use the data and the analysis in their decision? [[Link to assessment toolkit](#)] [Example of a good practice from New Zealand on school review that generates information on the performance of education institutions which is widely disseminated to the concerned stakeholders, [Promising Practice XII.7](#)]

³¹ The concept of quality assurance is elaborated in Technical Note # 4.

3. Priorities for action

1. What are the key areas to be addressed urgently to further develop our governance system in the education sector to achieve quality education?
2. What are the knowledge gaps which need to be filled for an evidence-based reform on the system of education governance?
3. What are the required actions to deal with the priority constraints and the identified knowledge gaps?

XIII. ANALYTICAL TOOL: FINANCING

1. Introduction

The EFA 2011 Global Monitoring Report shows that education spending as a share of Gross Domestic Product (GDP) increased from 2.9% in 1999 to 3.8% in 2008 in low-income countries. In more than one third of low income countries the share of education expenditure in total government expenditure exceeds 20%. Moreover, households, especially in low income countries, account for a significant share of education expenditure. International aid to education has also been very significant (about US\$ 30 billion between 2002 and 2008) of which about 90% went to low income and low middle income countries. Despite the growing investment and commitment by governments, households and donors education finance continues to experience a huge financial gap. The 2010 EFA report estimates that the financial gap to reach the EFA goals to be US\$ 16 billion annually until 2015. There is no doubt that it is important to mobilise more funds for education to achieve the millennium development goals and beyond. However, more importantly the issue of effective utilization of the already huge and growing investment in education is of critical importance if gains in education are to be sustained over the medium to long-term. Countries and donors need a clear understanding of how education resources are linked to learning outcomes to make informed policy decisions toward improving the quality of education. The best way to measure this link is by constructing comprehensive national education accounts (NEAs) to track all financial resources for education and document their end use in detail. While financial resources are by no means the sole driver to improve quality education, governments need to allocate sufficient funding to providers at the appropriate levels. Access to NEAs connected to learning outcomes and other drivers of learning such as educational equity and efficiency will allow countries to know where to focus their resources to improve school achievement³².

Evidence shows that more financing is not the solution to the chronic problem of low quality education in many countries. There is also evidence that education finance in many countries continues to a large extent benefit the better-off groups, especially at the higher levels of the education ladder. Thus, improving the effectiveness and equity of education expenditure is yet an untapped potential for delivering quality education for all. Quality and equity of education outcomes hinges on a variety of factors including the level and quality of education inputs, the teaching, learning and assessment processes. The UNESCO General Education Quality analysis/Diagnosis Framework (GEQAF) deals with each of these education sub-systems and their inter-linkages. A well-functioning education financing system is one of the key enabling factors for the delivery of education quality for all. This Analytical Tool [See the Full Version for more details] will deal with the education finance sub-system. The paramount question is: **How well have we designed our education finance system to enable the achievement of equitable and quality education outcomes?** Through a set of structured questions, this Analytical Tool helps countries to undertake a diagnosis and analysis of their education finance system to identify potential strengths and challenges and design appropriate policies and measures to address quality and equity issues in the education sector. The diagnosis and analysis will focus on key areas of the education finance system covering adequacy of funding, financial allocation, distribution and utilization as well as system capacity for management of education finance.

³² Using National Education Accounts to Help Address the Global Learning Crisis, Jacques van der Gaag and Pauline Abetti, Policy Brief, 2011-03

2. Diagnosis and analysis

Adequacy of funding

1. Have we properly costed our education strategic plan to determine the financial resource requirements for achieving the goals set in the plan? If yes how and how well was the costing done? What is the financial gap between what is required and funds allocated? Did we use benchmarks from other comparable countries?
2. How well is the education financing requirement projection consistent with the government's Medium Term Expenditures framework (MTEF) allocation to the education sector? Have we considered different scenarios for availability of funding and prioritised our education programmes? Are potential efficiency gains considered to close potential financing gaps?
3. What data is available on the budget execution rate regarding current and investment public expenditures? What are the bottlenecks? What remedial actions have been planned (capacity building, organizational changes, changes in procedures)?
4. What mechanism do we have in place to estimate the amount of education spending from all sources including from households, development partners and private sector (**Technical note XIII.1: National Education Accounts**)? Is there evidence that we regularly monitor that and use the information in our financial planning?

Allocation of expenditure

1. What are the criteria for determining the allocation between different education sub-sectors? Do the criteria take account of expected relative social and private benefits of the various levels of education (**Link to Analytical Tool on System Efficiency**)? How transparent and participatory is the process of setting the criteria for resource allocation?
2. What percentage of public education funds are allocated to the Ministry of Education? Of these, how much are allocated to teachers' salaries?
3. What share of the public and private resources reach the classroom and contribute to teaching and learning?
4. To what extent does the allocation encourage performance? What is the evidence that more resources have been translated into improved learning outcome in this country? To what extent is differential performance in learning outcomes between different schools and between different types of school is accounted for by differences in availability of resources?
5. Have we conducted analysis of the relative effectiveness of different inputs in raising quality? What does the evidence say? To what extent does education finance prioritize those inputs which improve learning outcomes most?
6. What lessons can we learn from promising practices and existing research to understand the linkages between resource use and learning achievements, in order to steer available resources where they contribute most to learning outcomes?

Distribution of education finance

1. Have we made sure that the criteria for allocating education finance between different districts and schools reflect our equity and quality goals? Are the criteria applied transparently and consistently? What is the evidence to support that?
2. How do we know how much different groups (rural-urban, different income groups, regions) benefit from education at different levels of the education system? Is data available, analyzed and made available to policymakers?
3. What measures have we taken to improve equity in education finance and learning outcomes? What are the mechanisms in place to monitor the effectiveness of these measures in achieving equity in learning outcomes?
4. What is the burden of education expenses on households?

Utilization of financial resources

1. How do we make sure resource leakage in the system is kept to a minimum? Have we conducted some type of Public Expenditures Tracking Survey? If yes, what are the key findings?
2. What incentives has the management of educational institutions to be cost-effective in its procurement and utilisation of different inputs?
3. What performance based incentives are in place to achieve the most possible education outcome for the level of funding provided to the school?
4. To what extent have we the necessary human resources and tools at all management levels to manage education finance effectively and transparently?
5. How effective is our data management on education finance at each level of the education system? Is financial data made available to all stakeholders in a transparent way?
6. Do we have a system for tracking the flows of funds between different actors? Do we have the capacity to disaggregate the data on the flow of funds by sub-sector (pre-school, secondary, non-formal) and by target beneficiaries (urban or rural, male or female)? (Technical note XII.2) Forbes and Baidas, Morocco National Education Accounts, 2006)
7. To what extent have we utilized findings emerging from monitoring and evaluation to inform financing choices to improve education quality? Have we been able to build and maintain the institutional and human capacities to assure sustainable results-based financing?

3. Priorities for action

1. What are the key areas to be addressed urgently to further improve our education financing system to support the delivery of quality education to our learners?

2. What are the knowledge gaps which need to be filled for an evidence-based policy on the system of education finance?
3. What are the required actions to deal with the priority constraint and the identified knowledge gaps?

XIV. ANALYTICAL TOOL: SYSTEM EFFICIENCY

1. Introduction

A quality education system is conceptualized in the UNESCO General Education Quality Analysis/Diagnosis Framework (GEQAF) as one delivering quality education equitably and efficiently. Therefore, the way resources are allocated, managed and used at different levels of the education system is an important dimension and determinant of a quality education system. Improvements in **resource efficiency** can free significant resources which could be utilized to address education quality. There is evidence that in many cases more resources have not meant better results in terms of education quality and learning outcomes (**Technical Note XIII.1**). The education sector needs to save resources internally by reducing various types of inefficiencies before justifying increased resources to the sector. All those who invest in education (parents, learners and society at large) legitimately ask whether they get the highest possible value from their investment. This is no different than an entrepreneur asking whether s/he makes the highest return on invested capital. Governments face multiple and competing needs which have to be catered for and therefore the education sector must demonstrate efficient use of public resources to be able to justify increased or maintained level of financing. The long-term sustainability of education finance strongly hinges on continuous improvement in efficiency. Hence improved system efficiency remains a cardinal issue in any reform aimed at improving education quality and learning effectiveness. Ultimately, the education system's overall efficiency/inefficiency is judged by its internal and external efficiency. Internal efficiency measures the output and outcome of the education system while external efficiency measures the extent to which the competencies (**Link to Analytical Tool on Learning Outcomes**) acquired in school translate into private and social benefits.

This Analytical Tool is part of the UNESCO General Education Quality Diagnosis/Analysis and Framework (GEQAF). As this Analytical Tool deals with system efficiency it relates to all the other tools in the Quality Framework as efficiency and effectiveness issues are critical in all dimensions of efforts to improve the quality of education. The aim of this Analytical Tool [See the Full Version for more details] is to support UNESCO Member States undertake a diagnosis and analysis of the efficiency/inefficiency of their education system. **The paramount question the toolkit helps to address is: To what extent is resource inefficiency in our education system a serious impediment to improve education quality and equity.** The diagnosis and analysis is facilitated by posing key questions regarding policies and strategies in place to enhance system efficiency and the monitoring and evaluation mechanisms in place to support that.

2. Diagnosis and analysis

Policies and strategies for resource efficiency

1. How do our education policies and strategies promote and assure efficient use of resources? What are our indicators of resource efficiency? To what extent do we set resource efficiency targets and what mechanisms are there to monitor their achievement?
2. To what extent do we conduct cost-effectiveness of various measures before committing resources? How have we benchmarked the resource needs of various sub-sectors and programs?

3. To what extent is our resource allocation results-oriented than input-focused? What is the evidence of that? What adjustments have we made in our resource allocation to take account of the differential impact of various inputs (teachers, teaching material, management, monitoring, supervision, etc.) on learning outcomes? What is the evidence such consideration is taking place?
4. What incentives are there for managers at different levels to be efficient in their use of resources at their disposal? How is resource allocations linked to performance?
5. In our context, what are the key factors that drive resource efficiency/inefficiency? How do we know? If we know, what have we done to address them? Have the measures ben effective?

Monitoring and evaluation of system efficiency

1. To what extent have we been able to provide the human, organizational and technical capacity to monitor and analyze resource efficiency in our education system?
2. Does the EMIS provide quality and up to date information on internal efficiency (repetition, drop-out, completion and retention rates)? What analysis of the data have we done to understand the underlying causes of observed internal inefficiency? What measures have we undertaken to improve the situation? Do we have evidence that the measures have been effective?
3. What is the level of external efficiency of our education system (**Technical Note XIV.2**)? What recent studies are available on private and social rate of returns to education? Do we know the extent of graduate unemployment? what does the evidence on rates of return to education suggest about external efficiency of education in our country?

3. Priorities for action

1. What are the key constraints which we need to prioritize in order to achieve significant gains in efficiency for improving education quality?
2. What are the knowledge gaps which need to be filled for an evidence-based policy to improve system efficiency?
3. What are the required actions to deal with the priority constraints and the identified knowledge gaps?

XV: ANALYTICAL TOOL ON ICTS IN EDUCATION

1. Introduction

Information and communication technologies (ICTs) have opened up endless possibilities of access to information and knowledge, and have become a powerful tool in the hands of learners and educators around the world.

Appropriate and effective application of state-of-the-art ICTs can bring a lot of benefits to education related practically to all fields of learning and teaching **activities** including efficient social interaction between teachers, students and parents, as well as to the administration and management procedures having a positive impact on the quality of education on the whole.

Both learning and teaching are qualitatively different with regard to the use of advanced ICTs. The education process becomes significantly richer when students have access to new types of information and knowledge, and when they can complete experiments and manipulate virtual labs in ways never before possible, as well as share their learning experience, results and conclusions through social media with their classmates, their teachers, and other students practically around the world.

This Analytical Tool has been developed to support the analysis and determine the potential of ICTs in general education for raising the quality and equity of general education and for promoting access to education for all.

The paramount question which this Analytical Tool aims to address is: Does the country have relevant vision and adequate implementation mechanisms to raise the quality, equity and accessibility of general education by means of ICTs?

2. Diagnosis and analysis

Understanding ICTs from education perspective

1. What is our vision of ICTs in education? How is this vision articulated and shared? How does this vision correlate to the national development plan? Does our national educational strategy reflect ICTs in education vision?
2. In what ways do ICTs impact the development and quality improvement of general education? How does the vision of ICTs in education consider socio-economic and geo-political factors of access to education by means of ICTs?
3. How does the vision take into account the level of the ICT infrastructure development in the country, the availability of unified ICT-based information-educational environment, the approaches to curriculum development and the diversity of educational settings, and the ICT competencies of teachers and learners, and educational staff?

Policy development and implementation strategies on ICTs in education

1. What are the existing policies, strategies and programmes of ICTs in general education? [**Technical note 1**] What is the scope of that impact – purchasing of equipment, ICT integration into curriculum, ICT teacher training, Open Educational Resources (OER) and/or Open Courseware (OCW) development, etc.? [**Technical note 2**].
2. Are there any kinds of national standards of teacher ICT competencies and/or competency-based national system of teacher professional development in the country? (If any, please provide appropriated examples.)
3. Are there any standards of learner ICTs competencies and/or competency-based national systems of ICT skills/competencies assessment for learners at different levels of general education? (If any, please, provide appropriated examples.) What is the evidence that they are effective? How do we sustainably monitor the results?
4. Has the country got guidelines/recommendations on the application of any kind of standard learning environment, Learning Management System (LMS), Learning Content Management System (LCMS) and Content creation tools in general education?
5. What are the barriers for ICT incorporation into education policies and strategies? What challenges can prevent effective execution of such initiatives (absence of clarity, lack of implementation strategy and/or monitoring procedures, etc.)?

Access and utilization of ICTs in education

1. What is the extent of access to national and global information-educational resources including OER and OCW, virtual laboratories and/or digitized collections of content units in the country? (If any, please, provide appropriated examples.) Are teachers and/or school administrators connected to communities of practice (if the latter exist)? Are social media used in teaching/learning processes in general education? Is there any kind of ICT-based learning performance assessment/evaluation tools and techniques to be used in general education in the framework of the national System Assessment and Benchmarking for Education Results (if appropriate)? Does the country have education and ICT statistics including indicators and data on computer equipment and communications in rural and urban educational institutions? What is the Internet access coverage in the educational institutions across the country? Is the national statistics based on the internationally agreed benchmarks and indicators of ICTs application developed by UN agencies?

3. Is ICT and/or information literacy training integrated into the general education curriculum? What are the challenges of ICT incorporation into the existing curriculum? What modifications in the curriculum design should be applied for more effective ICT application?
4. What data is available about the level of ICT literacy and/or ICT competency among the teachers in our country? How do the teachers (and learners) use ICTs for: (a) supporting the learning process for pupils; (b) preparing lessons; (c) developing self-competencies, etc.? How were their ICT competencies built? Do the pedagogical institutions have educational programmes aimed at raising teachers' ICT competencies? Are there any regular workshops and trainings in our country to raise awareness and skills for teachers (and for learners) in using ICTs in education? Do the web-based professional networks of general education teachers as well as specialized social networks for learners exist in the country?
5. What current interventions on ICTs in education have the most obvious impact on general education system? What is the nature of that impact and where is the evidence of the impact? Is there any kind of common approach to individualization/personalization of learning process based on ICTs in the country? What mechanisms do we have for analyzing the effectiveness of ICT application in general education? Who evaluates the effectiveness of ICT integration in education? Who are the involved stakeholders? How are internationally agreed indicators and benchmarks utilized in our evaluation of ICT application in education? Once identified, what remedial actions do we employ? Where is the evidence of the impact?
6. Based on your analysis of all of the above questions, what are the major challenges and obstacles which prevent effective integration of ICTs in education? Is there evidence that we regularly monitor and assess the effectiveness of the state programmes on ICT-mediated teaching and learning? Whether the results of monitoring and assessment improve our financial planning?
7. What mechanism was set to define the financial needs to gain the national educational strategy in terms of ICT-mediated teaching and learning? What are the effectiveness criteria of the budget implementation? Which areas of education are covered in the financial planning documents and approved budgets?
8. Does my country fund development of its own or localization of existing international ICT-based educational programs and resources for teachers and/or learners on your regional (national) languages?

3. Priorities for action

1. What particular strengths do we have to achieve our goals on ICT integration in general education? What are the problem areas hindering effective integration?
2. What are the changes we need to consider to further improve the implications of ICT integration in education?
3. What are the gaps needed to be bridged for an evidence-based policy and strategy to improve ICT application in our schools to achieve the goal of quality and accessible education for all?
4. What, in your opinion, should be the priority steps for our country to overcome the existing challenges and implement the potential of ICTs in general education for raising the quality and equity of general education for all?

Technical note 1.

ICT policy in education refers to the collection of laws and rules that govern the process of ICT application in the education. As usual the policy covers 3 major areas – IT infrastructure in education (hard- and software, global communications and the Internet); ICT integration into curriculum (methodologies, learning design, e-resources); ICT competencies of teaching staff and education administrators. Policy and planning issues are available at the at UNESCO Sector of Education <http://www.unesco.org/new/en/education/themes/planning-and-managing-education/policy-and-planning/>

Technical note 2.

Open Educational Resources - *‘materials offered freely and openly to use and adapt for teaching, learning, development and research’*. While OER are mainly shareable in digital formats (both online and via offline formats such as DVD or CD-ROM), OER not just synonymous with online resources, online learning or e-learning, and within the development context, OER can also be in printable formats. The term Open Courseware is used for *publicly available materials that are either a part of, or a complete course from an educational institution such as a university or college* [<http://www.col.org/resources/crsMaterials/Pages/OCW-OER.aspx>]. Two other most widely accepted definitions of OER that encompass adaptation and re-purposing are the following: *“Open Educational Resources are teaching, learning or research materials that are in the public domain or released with an intellectual property license that allows for free use, adaptation, and distribution.”* [<http://www.sourceoecd.org/education/9789264031746>] and *“OER are teaching, learning and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use or re-purposing by*

others. Open educational resources include full courses, course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials or techniques used to support access to knowledge.” [http://www.oerdives.org/wp-content/uploads/2007/03/a-review-of-the-open-educational-resources-oer-movement_final.pdf]