



THE RWANDA EDUCATION COMMONS

ANNUAL WORK PLAN FOR OCTOBER 2009 – SEPTEMBER 2010

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LIST OF ABBREVIATIONS

AEC	Africa Education Commons
AED	Academy for Educational Development
COL	Commonwealth of Learning
DFID	UK Department for International Development
ESWG	Education Stakeholders Working Group
EUN	European Schoolnet
EYC	Elimu Yetu Coalition
GEA	Global Education Alliance
GeSCI	Global eSchools Initiative
GLP	Global Learning Portal
GoR	Government of Rwanda
ICT	Information and communication technology
IYF	International Youth Foundation
KIE	Kigali Institute of Education
MINEDUC	[Rwanda] Ministry of Education
MOU	Memorandum of Understanding
MTN	Mobile Telephone Networks
NCDC	National Curriculum Development Center
NGO	Non-profit organization
OLE	Open Learning Exchange
OLPC	One Laptop per Child
ORINFOR	Office Rwandais d'Information
RDB	Rwanda Development Board
RDG	Rwanda Development Gateway
REB	Rwanda Education Board
REC	Rwanda Education Commons
RITC	[Rwanda] Regional ICT Research and Training Center
RNEC	Rwanda National Examination Council
RURA	Rwanda Utilities Regulatory Agency
TAB	[African Education Commons] Technical Advisory Board
TCE	Teacher College of Education
TESSA	Teacher Education in Sub-Saharan Africa
TSC	Teachers Service Commission
TTC	Teacher Training College
TWB	Teachers Without Borders
UNESCO	United Nations Education, Scientific, and Cultural Organization
USAID	United States Agency for International Development
WRI	Waterford Research Institute



A. OVERVIEW

The Rwanda Education Commons (REC) will help Rwanda expand access to quality education through the effective use of information and communication technologies (ICTs). It seeks to realize this goal by improving the climate for collaboration in the use of ICTs in education, and by implementing cost-effective activities that use ICTs to directly improve teaching and learning.

The REC is also a pilot initiative of the Africa Education Commons (AEC), which aims to establish a pan-African network where stakeholders from government, NGOs, business, education institutions, and civil society can come together to overcome challenges to education improvement in Africa. Commons initiatives will build on the successes and lessons learned from the REC to expand this network.

B. OVERALL GOALS AND OBJECTIVES

REC activities in Y2 have been reorganized into components that better reflect overall objectives. The first component now comprises activities that aim to realize the Commons vision of *transforming development practices* by reducing waste and overlap, promoting transparency and cooperation, and building lasting multi-stakeholder alliances. The second component now comprises activities that aim to *improve teaching and learning*, in particular by improving access to and quality of multimedia education resources, and by developing a community of learners around their use. The third component comprises a new set of activities to create opportunities to *expand the Commons beyond Rwanda*, to be designed and implemented by GLP officers in Washington, D.C., and Pretoria, South Africa.

Component 1: Improved climate for coordination and collaboration around the use of ICTs in education

Objectives:

- A. Improved collaboration among major education stakeholders around the use of ICTs.
- B. Enhanced capacity at major Rwanda education institutions to guide and manage ICT in education activities, and ensure alignment with national education goals.
- C. Increased investment in ICT in education by members of the Commons alliance.

Component 2: Improved teaching and learning through the cost-effective use of ICTs

Objectives:

- A. Enhanced capacity at major Rwanda education institutions for producing quality multimedia education resources.
- B. Enhanced capacity among Rwanda educators and learners for teaching and learning with multimedia education resources.
- C. Improved quality of education resources through the identification, acquisition, and adaptation of materials.
- D. Improved access to education resources through the development of an online and offline platform for distribution.
- E. Expanded opportunities for lifelong learning through the development of a social network for educators.



Component 3: Definition and launch of new Commons initiatives

Objectives:

- A. Enhanced opportunities for collaboration among education stakeholders in Africa.
- B. Expanded access to education materials and resources.
- C. Improved policy coordination and alignment through a Commons approach.

C. ACTIVITY AREAS

Any effort to improve education quality and access in Rwanda must tap and sustain the energies of the GoR and local education institutions, many of which are mandated by the highest levels of leadership in Rwanda to integrate the use of ICTs into their activities. To do so, the REC must quickly demonstrate an impact on teaching and learning. At the same time, the REC aims to realize an ambitious and long-term vision of improved collaboration among education stakeholders.

These outcomes will be achieved through the successful implementation of work within the following seven activity areas.

Coordination – REC will facilitate the establishment of multi-stakeholder mechanisms and management systems for continuous improvements to Rwanda’s education system through the use of ICTs.

Policy Development – REC will support the completion of ICT in education policy documents and support tools to ensure the alignment of ICT in education activities with national and education sector goals, and to identify priority areas for partner involvement.

Partnership Development – REC will facilitate partnerships between providers of ICT in education solutions and Rwanda education institutions that address critical gaps in Rwanda’s education system.

Content Development – REC and partner institutions will improve the quality of education materials by identifying, reviewing, acquiring and adapting materials suitable for a Rwandan context, and will facilitate the production of new education materials.

Capacity Development – Participants from partner education institutions will gain skills in requested ICT areas, including open source portal development and management, multimedia curriculum design, and pedagogy training around the use of multimedia education resources.

Platform Development – REC and partner institutions will design and implement a strategy for the online and offline distribution of educational resources and the establishment of a professional learning community around the use of multimedia education resources.

Outreach and Expansion – GLP, REC, and AEC alliance members will identify opportunities to launch new Commons initiatives and market Commons to potential end-users.

D. REC ACHIEVEMENTS THROUGH SEPTEMBER 2009

This section provides a summary of achievements by REC activity areas since the start of the project through September 2009.

Major achievements within the first REC component include forging a strong working relationship with MINEDUC; launching a monthly working group for education stakeholders; holding a major ICT in education conference in Kigali; and establishing partnerships with numerous local and international organizations around ICT in education activities.

Major achievements within the second REC component include the launch of a working group around ICT in education content; acquiring content from several external partners; conducting workshops in portal management and multimedia content design; establishing partnerships with local broadcast and newsprint institutions; and developing a beta online portal with a local partner.

Major achievements within the third REC component include the development of a TOR for a Technical Advisory Board to mobilize technology expertise towards the development of an AEC platform; the acceptance of invitations by private sector companies to join the TAB; and the exploration of new Commons initiatives in five African countries other than Rwanda.

Coordination

REC signed an MOU with MINEDUC and opened a management unit within the MINEDUC offices in January 2009. REC immediately undertook and completed an ICT in education mapping exercise to review and document past and ongoing ICT in education activities. The exercise resulted in a baseline matrix for MINEDUC of ICT in education activities that guided the development of policy.

REC launched the Education Stakeholder Working Group (ESWG) in January 2009¹. The group met monthly to learn about, promote, and guide REC activities. The ESWG provided input to the mapping exercise and the development of a training plan for developing multimedia curriculum. In September 2009, REC began preparations to upgrade the ESWG to an REC Advisory Group, a high-level group of leading education institutions, government, and donors, to facilitate and support the implementation of ICT in education partnerships and activities addressing areas prioritized in Rwanda ICT in education policy documents.

Policy Development

In June 2008, the Global Education Alliance (GEA), a consortium of private sector organizations convened by the World Economic Forum, met with MINEDUC, local education organizations, and donors in Kigali to design and prioritize activities in support of Rwanda's education sector. The lack of ICT in education policy documents was determined to be an obstacle to increased investment in ICT in education, and the GEA provided consultants to MINEDUC to facilitate the completion of these documents.

¹ The ESWG is composed of representatives from MINEDUC, KIE, NCDC, RDG, RDB, RITC, GeSCI, NUR, education colleges, and other education, technology, and communications organizations.

In January 2009, REC hired a Rwandan consultant and provided management unit staff time to ensure that the resulting policy sufficiently reflected Rwanda national objectives. This support was critical to the completion of a draft ICT in education policy, and further resulted in MINEDUC's decision to create an ICT in education coordination unit and hire the REC consultant to lead it.

In August 2009, the REC hired a consultant formerly based at UNESCO to assist MINEDUC with the development of a strategic plan and a costed implementation plan for the ICT in education policy. The clear articulation of priority areas for ICT in education as a result of the completion of these documents will enable Rwanda to attract suppliers of ICT in education solutions to meet sector demand.

Partnership Development

REC undertook a number of partnership outreach activities, including a GLP mission to Silicon Valley in March 2009 to meet with potential private sector partners. In June 2009, REC and MINEDUC coordinated a major ICT in education partnership-building conference in Kigali in June 2009, attended by more than 160 participants from five Rwanda ministries, donors, international ICT firms, Rwandan communication companies, NGOs, rectors, teacher trainers, teachers, and other stakeholders. These activities planted seeds that began to bear fruit in the third and fourth quarters of Y1². Concrete partnership initiatives resulting from outreach activities include:

- **Mindset Network** donated 160 GB of multimedia education content for distribution through REC channels in March 2009, the development of which is valued at USD \$3.5m. The content includes lessons in English, math, numeracy, information technology, science, financial literacy, health care, and health issues in print and video media.
- **Waterford Research Institute** (WRI), a non-profit research center specializing in English-language learning software, committed to launching a five-year pilot project to improve English-language skills at the primary level in September 2009. WRI will provide the hardware, software, and project management necessary to offer daily, computer-based supplemental English-language instruction to 100 students. REC and MINEDUC will select the pilot schools and provide start-up ground support.
- **Intel** contributed Intel Teach Elements, a series of high-interest, self-paced e-learning courses, for exclusive distribution through the REC online portal to provide professional development opportunities to teachers, in September 2009. The contribution marks the first time Intel has allowed the distribution of this product on a non-Intel platform.
- **The Rwanda National Examinations Council** (RNEC) contributed 200 MB of test preparation materials to be published as inserts in Rwanda newspapers, as well as through online channels, in September 2009. The materials will reach an estimated 2,700 teachers of primary six, secondary three, and secondary six students with little access to teaching materials, and will help students prepare for national end-of-year exams in math, science, and English.

² Potential partners with whom the REC is in discussions include Apple, Cisco, the Global e-Schools Initiative (GeSCI), Google, Intel, Mindset, Microsoft, Motorola, Open Learning Education (OLE), One Laptop Per Child (OLPC), Sun Microsystems, Teacher Education in Sub-Saharan Africa (TESSA), Teachers Without Borders (TWB), and the Waterford Research Institute.

- **The National Curriculum Development Center (NCDC)** contributed math, science, and English digital lesson plans and syllabi for online and offline use by primary 1-6 teachers in September 2009.
- **The Office Rwandais D'Information (ORINFOR)** agreed to partner with REC to deliver REC materials through existing audio and video channels (described below).

Content Development

REC launched a Content Working Group in August 2009, consisting of the REC Content Specialist and 7 subject specialists from NCDC. The working group will identify, review, acquire, and adapt content for distribution through REC channels. In September 2009, the working group completed a planning document for adapting external content for use in the Rwanda curriculum, and for producing teaching guides for this content. The review and adaptation of Mindset content for use by teachers was selected as an initial content development activity.

Capacity Development

REC capacity development activities to date have focused on MINEDUC and parastatal institutions, reinforcing skills in policy development and building new skills in portal design and multimedia curriculum development. The completion of these activities will empower local institutions to guide the use of ICT in education, and consequently REC will shift capacity-building activities to focus on end-users. Major initiatives to date include:

- Mindset Network was subcontracted to provide a 35-week course in multimedia curriculum design in August 2009. Eight teams of three participants (two subject specialists and one programmer)³ will attend face-to-face workshops and receive constant distance support to produce 6 interactive educational modules apiece, or 48 in total, for distribution via REC channels. Participants will learn to create multimedia materials, train developers to create multimedia materials, and train teachers in the use of these materials.⁴
- GLP launched the first of a series of open-source portal design and management workshops in August 2009. The workshop was conducted online via WebEx and supplemented by Skype audio by an instructor from Liferay, the open-source portal software that powers GLP portals. Eight participants⁵ attended the first workshop and learned to design, administer, and add content to open-source portals.

Platform Development

An online portal prototype, powered by Liferay, was near completion in September 2009, with main elements reviewed and approved. The portal prototype includes resource areas for teachers, learners, and policymakers, and will organize and make available content collected through the content development activity area. The portal was not planned for use in Y1.

³ Course participants represent KIE (8 subject specialists and 1 programmer), NCDC (8 subject specialists and 2 programmers), RDG (3 programmers), and RITC (4 programmers). The REC technology specialist provides occasional assistance to the group.

⁴ Upon completion of the course, participants will achieve competency in curriculum interpretation and mapping, content development, instructional design, production (Adobe Flash programming), and quality assurance and evaluation.

⁵ Workshop participants represent MINEDUC (2 participants), REC (2 participants), and RDG (3 participants).



In September 2009, the Office Rwandais d'Information (ORINFOR) came to an agreement to work in partnership with REC to deliver live English-language courses through radio and video broadcast channels. These materials will be designed to encourage a culture of reading and listening at primary levels.

Outreach and Expansion

In August 2009, GLP completed a Terms of Reference for a Technical Advisory Board (TAB) that will provide non-partisan, expert strategic and technical advice and guidance to the Global Learning Portal and its Alliance partners to assist in the development of the African Education Commons (AEC) platform. TAB members will provide recommendations and technical assistance with regard to the design, development and deployment of the AEC portal platform including architecture, technology and software choices. The TAB will also provide information on emerging trends and innovations in technology including platforms architecture, collaborative tool sets, applications development, collaborative media environments and the accelerating convergence of various information and communications technologies to guide the evolution of GLP. To date, GLP has confirmed participation of nine representatives⁶.

USAID missions in Ghana, Kenya, Mozambique, Senegal, and Uganda have requested information about the AEC towards the possible launch of new Commons initiatives.

E. OVERVIEW OF YEAR TWO

In its second year, REC will build on the accomplishments of the first year and launch several major new initiatives.

Towards the first goal of improving the climate for coordination and collaboration around the use of ICT in education, an REC Advisory Group will convene to engage with international and private sector organizations and launch a major ICT in education conference. REC will bring current partnerships to maturity and explore the development of new partnerships through the design and implementation of joint activities and the inclusion of partners in REC multi-stakeholder working groups.

Towards the second goal of improving teaching and learning through the cost-effective use of ICTs, REC will work through collaborative groups to amass a substantial store of educational materials, distribute them through online and offline channels, and promote a community of educators around their effective use. REC will launch an ambitious teacher training program to promote subject mastery at teacher training institutions around the use of multimedia materials.

Towards the third goal of launching new Commons initiatives, GLP will recruit two new positions to design and implement AEC activities, provide executive leadership to all Commons activities, and mobilize the Technical Advisory Group to provide expert guidance towards the development of an innovative and powerful technology platform.

⁶ Confirmed TAB members are: AED, Commonwealth of Learning, European Schoolnet (EUN), IBM, Intel, Microsoft, Mindset, MTN/Rwanda, USAID, and Stuart Gannes. Responses are expected from Apple, Cisco, Google, iEarn, the Hewlett Foundation, Nokia, Sun Microsystems, the University of Michigan, and the University of Witwatersrand.

F. REVISED MANAGEMENT PLAN

Components 1 and 2 of the REC will be implemented by the REC Management Unit, based in Kigali, Rwanda, with oversight from GLP staff in Washington, D.C. The REC Management Unit comprises a Program Coordinator, Technical Advisor, Content Specialist, Technologist, and Admin/Finance Specialist. GLP oversight will be provided by the Program Manager, with support from GLP staff.

Component 3 of the REC will be implemented by GLP staff in Washington, D.C., and Pretoria, South Africa. The AEC Program Director in Washington, D.C., will be responsible for the implementation of this component, with support from the AEC Outreach Specialist, AEC Education Advisor, and REC and GLP staff.

G. PLANNED ACTIVITIES

Coordination

- The second year of REC will develop mechanisms launched in the first. The ESWG will evolve into the REC Advisory Group, a high-level group⁷ that will meet quarterly and guide ICT in education activities in Rwanda, advise REC activities, and facilitate new partnerships. The contraction of the ESWG into a smaller and higher-level mechanism will create a flexible and influential decision-making body that will:
 - develop a planning document that sets goals and determines a strategy for achieving them;
 - engage with international and private sector partners around their support of solutions to priority areas defined in the Strategic Plan;
 - plan a major ICT in education conference, with the assistance of REC, around the goals identified in the planning document. The conference should fill a thematic niche in ICT in African education so that it may become an annual event.
- GLP will establish a database for the ICT in education mapping exercise completed in January 2009 to enable the MINEDUC ICT in education coordination unit to monitor and align activities.
- REC will support the development of the MINEDUC coordination unit by facilitating the development of decision support tools, such as guidelines for managing partnerships, templates for requests for proposals, and definitions of skills and competencies around ICT in education.

Policy Development

REC will support MINEDUC in the completion of a strategic plan and a costed implementation plan for its ICT in education policy, and will make these documents available on the REC online portal to guide activities. This will conclude REC policy development activities.

⁷ The new Board will consist of the (1) MINEDUC Permanent Secretary, (2) the Rector of KIE, (3) the Director of NCDC, (4) the Rector of the Kigali Institute of Science and Technology, (5) the Rector of the National University of Rwanda, (6) the Deputy CEO of IT for the Rwanda Development Board, (7) the head of the MINEDUC ICT in education coordination unit, (8) the REC Program Coordinator, as well as representatives from (9) USAID, (10) DFID, (11) the Teacher Service Commission, (12) the national broadcasting office (ORINFOR), and (13) the Teachers Union.

Partnership Development

The second year of REC will concretize partnerships established in the first year through the joint implementation of activities and the involvement of partners in REC-initiated working groups, and will continue to explore and develop new partnerships⁸. REC will work with partners including:

- **WRI** to ensure the successful launch of a computer software-based English-language learning pilot program targeting 100 students at 2-3 primary schools in Rwanda;
- **Peace Corps** to ensure the proper use of the English-language learning software at WRI pilot schools, and to explore joint activities around the use of volunteers to improve IT capacity at teacher training colleges;
- **Mindset, Intel, and NCDC** to ensure the value, delivery, and use of online courses and learning objects through REC channels;
- **ORINFOR** and **TSC** to develop REC online video channels and produce quality video content around good English language teaching practices (see below);
- **RNEC** to develop REC offline channels aimed at helping individual learners and teachers prepare for end-of-year examinations in math, science, and English at the primary 6, senior 3, and senior 6 levels.

REC will also seek to broker new partnerships between international and local organizations and between the public and private sector, in particular through a major ICT in education conference (see item under Coordination, above).

Content Development

- The REC Content Working Group will continue to review, select, identify and adapt content for the purpose of growing the REC content store to a target quantity of 1,000 learning objects by the end of Y2. These objects will be organized by type and level and tagged to ensure convenient online access, and distributed through the REC (outlined in the Platform Development section, below).
- The REC Content Working Group will adapt materials from Mindset and Intel to ensure its relevance to the Rwandan curriculum.
- REC will continue to facilitate the production of new, high-quality multimedia content through the Mindset workshops. A total of 48 multimedia modules will be developed by the end of Y2, with the expectation that participants from KIE, NCDC, RDG, and RITC and will continue to produce content modules upon the completion of the course.
- REC, in partnership with MINEDUC, NCDC, ORINFOR, and RNEC, will adapt existing test preparation materials and other educational materials for distribution via newspapers.
- REC, in partnership with MINEDUC, ORINFOR, and TSC, will develop video materials about good teaching practices featuring teachers at Rwandan Schools of Excellence, for distribution via broadcast television and online video channels.
- REC, in partnership with MINEDUC, will collect and organize relevant technology, communication, and education policy documents for online use.
- REC will identify a regional content partner to acquire educational materials that require little or no adaptation, for online and offline use.

⁸ Targeted partners for 2010 and beyond include Apple for content and platform expansion via iTunes University; Microsoft for training material; Motorola for last-mile connectivity solutions to schools; MTN for additional funding; and the Rwanda Utilities Regulatory Agency (RURA) for subsidized e-rates for teachers at RITA telecenters.

Capacity Development

- REC will design and launch the roll-out of a major teacher education initiative in Y2. REC, in collaboration with RITC and KIE, will begin the training of 8,000 teachers at teacher training colleges (TTCs) and teacher colleges of education (TCEs) to gain pedagogical and subject-specific knowledge through the use of online and offline materials, and through active participation in an online professional learning community.
- REC, through subcontracted instructors from Mindset Network, will complete the implementation of the 35-week course in multimedia curriculum design. The course will create capacity within KIE, NCDC, RDG, and RITC to develop multimedia curriculum, train staff to develop multimedia curriculum, and train teachers and learners to use multimedia content modules.
- GLP will conduct follow-up Liferay trainings to develop mastery of online portal software within MINEDUC and RDG.

Platform Development

The REC platform is the sum of its channels for distributing materials and creating collaboration opportunities for end users. A featured channel of the REC platform will be the online portal. While internet access can be expected to increase as the fiberoptic cable brings new communities online and increases the bandwidth for other communities, a small percentage of teachers and learners currently have reliable computer access and connectivity. Therefore the development of complementary offline channels is crucial to the success of the REC platform.

- REC will launch the beta version of its online portal in October 2009, and work with GLP through the first two quarters of Y2 to ensure the quality of its navigation, look and feel, functionality, and performance.
- REC will begin the distribution of offline materials through CDs, DVDs, and flash drives to TTCs and TECs, including multimedia education modules developed through the Mindset course.
- REC will begin the distribution of newsprint inserts designed to improve test preparation skills at three grade levels. The inserts will feature past exams from RNEC redesigned for a newsprint format, and distributed to primary and secondary schools via the Kinyarwanda-language weekly newspaper *Imvaho*.
- REC will explore the development of audio and video broadcast channels to distribute English-language learning materials to teachers, and the feasibility of introducing mobile learning channels with international technology companies.

Outreach and Expansion

The African Education Commons (AEC) initiative is gaining forward momentum and is poised for take-off. As detailed below, the GLP team is increasingly focusing on mobilizing partners and content, making the case for further USAID buy-ins, and cultivating new partnerships⁹. GLP aims to add at least one new USAID Mission buy-in and to mobilize additional content to expand access to education resources for African educators.

GLP staff have initiated preliminary discussions with USAID missions in Ghana, Kenya, Mozambique,

⁹ Targeted partners in 2010 include the Commonwealth of Learning (COL), a leading international education association; the International Youth Foundation (IYF), a recognized leader in education and youth development; IBM, to provide leadership, content, and eventually financial support; and LEGO, to develop pilot projects to bring LEGO educational resources to Africa where they are currently not widely available outside South Africa.



Senegal, and Uganda in response to their requests for information about the AEC and the possible launch of Commons initiatives. TDYs in October 2009 by USAID to Mozambique and by GLP to Ghana, Kenya, and South Africa will include the following activities:

- **Ghana:** AEC staff will present the AEC to USAID and potential partners and stakeholders with the goal of establishing AEC as a strong presence in West Africa, possibly linking cross-border among Anglophone Africa.
- **Kenya:** AEC staff will participate in a series of meetings with the Elimu Yetu Coalition (EYC), an association of more than 100 local and international organizations that is already functioning as an off-line education commons. AEC intends to finalize its partnership agreement with EYC and to develop a fundable proposal to build an EYC portal and launch a Kenya Education Commons.
- **South Africa:** AEC will hold follow-up meetings with potential private sector partners with the goal of marshalling local (South African) support for regional and sub-regional expansion.

GLP proposes to add two staff positions to drive the expansion of the AEC by identifying and launching Commons initiatives in additional countries. Their roles would be consistent with the description of the AEC in the program description especially the focus on planning, partnerships, and platform development. By providing technical leadership, notably in the fields of education and technology, the two new hires would provide critical support to the goal of creating a robust AEC platform. Their combined effort would identify and mobilize new partners that would support development of the platform, provide content, and create a mechanism to engage educators and other stakeholders.

H. COMMUNICATIONS STRATEGY

During the first year of the REC, donors and potential partners alike requested communication to provide clarity on REC objectives and up-to-date information on REC activities. Communications were provided upon request, but reactively and ad-hoc.

The second year of REC will issue communications proactively to interested parties. Specifically, REC will launch an online and printable blog where breaking news will be posted regularly by the REC Content Specialist and the GLP Communications Specialist.

Articles about REC activities were published periodically in English- and Kinyarwanda-language newspapers throughout the first year. Outreach to the print media will continue throughout the second year of REC to promote activities to potential end-users.

GLP, AEC, and REC staff will participate in conferences and meetings to showcase REC plans and initiatives.

I. MONITORING AND EVALUATION

The M&E process has three goals: (1) to monitor progress of REC development and to evaluate the results over time; (2) to provide the REC partnership with the tools to agree on, track, and adjust objectives and processes; and (3) to establish key baseline indicators that can be used to monitor longer-term progress in the development of ICT use to improve the quality of education



in Rwanda. The development and conduct of the monitoring and evaluation process is being carried out with the aim of ensuring that all relevant stakeholders are involved, and are committed to its design and goals.

M&E reports will be delivered in September of each year, beginning 2010. During 2009 the M&E framework and tools were being developed and refined with feedback from Rwanda education stakeholders. The M&E analyses will be carried out from the data obtained from three instruments: the M&E framework for monitoring progress against objectives (see Annex I), a qualitative longitudinal study, and a database on ICT and education activities (see Annex II).

The objective of the qualitative longitudinal survey is to capture areas of change over three years concerning ICT access and use, and some basic information about how ICT fits in with general views of the important features of quality education. Two surveys with the same cohort will be carried out, one in 2009 and another in 2011 or early 2012. The cohort to be surveyed includes all heads of TTCs and TCEs, as well as a cohort of teachers (science, math and technology) and a cohort of students in each college. A small sampling of two or three secondary schools in Kigali (school head, cohort of teachers and students) and a cohort of Ministry, KIE and NCDC personnel will also be included. The survey will be administered (in English and Kinyarwanda) by personnel hired for the purpose during October and November 2009, and the paper results will be delivered to REC along with keyed-in findings. The analytical instrument is in preparation.

The objectives of the database on ICT in education activities are (1) to monitor development in partnerships and in evolution of resources available through them for ICT in education, and (2) to provide a tool for MINEDUC and REB to issue, receive, evaluate, and prioritize proposals for the use of ICT in education that are coherent with national objectives and strategy.

**APPENDIX I:
MONITORING AND EVALUATION FRAMEWORK**

Key:

	M&E process
	Goal
	Activity area
	Outcome

Outcome 2010	Data source	Method	Schedule/ frequency	Output indicator	Analyst
Improved climate for coordination and collaboration around the use of ICTs in education					
Coordination					
REC Advisory Group	REC	Qualitative; End-of-year report	Single analysis 2010	Decisions and actions taken	Consultant
Complete ICT in education activity database	MINEDUC, REC	Published on line	Qualitative, September 2010	Database on line	Consultant
Policy Development					
Strategic plan	MINEDUC	Data and documents from Ministry and REC	September 2010	Strategic plan made public	Consultant
Costed implementation plan	MINEDUC	Qualitative: Policy document	September 2010	Plan made public	Consultant
Partnership Development					
New partnerships	REC	End-of-year report	September 2010	Number of new partnership activities and amount of resources committed and produced	Consultant
Improved teaching and learning through the cost-effective use of ICTs					
Content Development					
Content Working Group	REC	Qualitative review of monthly progress reports	September of 2010	Guidelines and decisions	Consultant
Content repository on REC	REC log, separated by content type	Platform review by REC Coordinator	On-going	Units of content uploaded on repository	Consultant

Outcome 2010	Data source	Method	Schedule/ frequency	Output indicator	Analyst
English language primary level pilot	REC platform	REC log of learners reached, qualitative survey	On going; analysis September 2010	Number of learners reached; number of schools scheduled for scaling-up	Consultant
Capacity Development					
Curriculum designers trained	Mindset evaluation materials	Attendance records, evaluation forms, survey	End of training	Number of designers trained and user satisfaction	Consultant
Teachers trained	REC	Attendance records, evaluation forms	On-going	Number trained, unit cost of training and satisfaction	REC
National portal development capacity	REC and GLP	Attendance records, evaluation forms		Number of users trained	REC
Platform Development					
Portal functioning	REC log	Qualitative; quantitative	End of 2010	Portal on line; visitors and distribution in last quarter 2010	Consultant
Educational broadcast	REC	Log of listeners	Every broadcast	Number of listeners; user feedback	Consultant
Off line learning materials	REC, separated by content type	Log of materials by type	End 2010	Number of people reached, unit cost	Consultant
New channels usage	REC	Log of materials by type	End 2010	Distribution of channels and materials	Consultant
AEC support personnel	AEC	Qualitative	End of year report 2010	Personnel in place	GLP
Definition and launch of new Commons initiatives					
Outreach and expansion					
Technical advisory board	AEC	Qualitative	End of year report 2010	Board functioning	GLP

APPENDIX II: MONITORING AND EVALUATION LONGITUDINAL INFORMATION

The REC M&E process will review each outcome of the initiative, by developing both qualitative and quantitative indicators. In addition, the M&E process aims to contribute to longitudinal information concerning the impact of ICT on education in Rwanda by two means: a qualitative longitudinal survey of ICT use in teacher education, and a database of ICT in education activities that will include information about partnerships and their functioning.

Baseline qualitative survey on ICT for education use and competency

A survey will be carried out in all institutions in Rwanda involved in teacher education to develop a baseline concerning presence, use, and competency of ICTs. This complements information gathered by the Kigali Institute of Science and Technology (KIST) on technological equipment of secondary schools. The first survey will be completed and analyzed before the end of 2009. A second survey will be carried out in late 2011 or early 2012. Results will capture the current situation and, in the second stage, reveal areas of change. Attribution of change to REC interventions and services will be attempted in institutions where REC has had specific contact or activities.

The objective of the survey is to capture the current situation concerning ICT access, use and competency among teacher trainers and teachers in training. It will be administered in person by people hired for the purpose. The cohort will consist of all heads of institutions, a group of teachers selected at random (with an emphasis on science and technology teachers), and all pupils of a science or technology class. The instrument has been developed and tested, and the schedule for carrying out the survey agreed with all partners. Analysis and reporting will take place in Q1 of Y2.

Schedule for survey

Task	Completion date
Final check of questionnaire	7 October
Writing of detailed instructions to surveyors	10 October
Preparation of analytical tool, and input file for surveyors	12 October
Translation into Kinyarwanda	15 October
Printing of questionnaires	20 October
Delivery of pens and USB keys to thank participants	20 October
Choice and hiring of surveyors	20 October
Survey in 24 locations plus MINEDUC and KIST, and return of input files	15 November
Analysis of survey	1 December
Writing report	15 December
Review and approval of report	31 December
Posting on REC	10 January



ICT in education activities database

The mapping exercise completed by REC in January 2009 will be adapted into an online database that will contain case descriptions of all identifiable ICT in Education projects in Rwanda. It will be fully searchable and will be subject to sorting by categories. REC will gather information on all current projects and prepare a draft that will be circulated for contact persons to verify and correct. The mapping template will then be used for gathering information on new proposals by MINEDUC. The entire mapping exercise will then be made publicly available on the MINEDUC website as part of REC contribution to MINEDUC capacity to issue, receive, evaluate, and prioritize proposals for the use of ICT in education that are coherent with national objectives and strategy.

**APPENDIX III:
GANTT CHART OF REC ACTIVITIES**

Task	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Coordination												
Identify and invite REC Advisory Group members	■	■	■									
Convene REC Advisory Group				■			■			■		
Develop REC Advisory Group planning document				■	■	■						
Plan and hold an ICT in education conference				■	■	■	■	■	■	■	■	■
Adapt the ICT in education mapping exercise to an online partnership database		■	■	■								
Policy Development												
Support the completion of the strategic plan	■	■										
Support the development a costed implementation plan	■	■										
Partnership development												
Support the launch of the WRI pilot program					■	■	■	■	■	■	■	■
Sign MOU with ORINFOR around the production and distribution of video education content				■								
Facilitate the capture of good teaching practices for video broadcast						■						
Identify and establish new REC partnerships	■	■	■	■	■	■	■	■	■	■	■	■
Content Development												
Identify and invite Content Working Group members	■											
Develop Content Working Group planning document	■	■										
Adapt Mindset content for REC distribution		■	■	■								
Adapt Intel content for REC distribution								■	■	■		
Design and launch 'good practice' video production activities									■	■	■	■
Capacity Development												
Conduct open-source portal management training				■								
Conduct multimedia curriculum design course	■	■	■	■	■	■	■	■				
Develop planning document for REC platform end-user training with RITC and KIE						■	■	■	■			
Launch end-user trainings with RITC										■		
Platform Development												
Launch REC portal versions 1.0 (beta) and 2.0	■						■					
Upload NCDC content				■	■	■	■					
Develop portal subject pages			■	■	■	■	■	■	■	■	■	■
Deliver offline education materials to TTCs and TECs			■	■	■	■	■	■	■	■	■	■
Deliver offline test preparation materials via newspapers	■										■	■
Outreach and Expansion												
AEC TDY to Ghana, Kenya, and South Africa	■											
Design of AEC activity plan		■	■									
Communication and M&E												
M&E baseline survey	■	■										
Y3 work plan preparation										■	■	