African Union Commission

THE AFRICAN REGIONAL ACTION PLAN ON THE KNOWLEDGE ECONOMY (ARAPKE) FLAGSHIP PROJECTS (PHASE ONE)

Economic Commission For Africa

AFRICAN UNION COMMISSION

Human Resources, Science & Technology Department
Science and Technology & ICT Division

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THE ARAPKE FLAGSHIP PROJECTS - PHASE ONE

ACKNOWLEDGEMENTS

This document has been developed as part of the process to disseminate the flagship projects of the African Regional Action Plan on the Knowledge Economy (ARAPKE) among partners and to serve as a reference document during the resource mobilization process of the flagship projects. The successful development of this document has been made possible due to a number of stakeholders, partners and persons who are acknowledged herewith.

The Human Resources, Science and Technology Department of the African Union Commission wishes to express its gratitude to the African Union Ministerial Conference of Ministers in charge of Communication and Information Technologies, the United Nations Economic Commission for Africa and the proponents of the ARAPKE flagship projects without whose contribution and involvement, the projects herein would not have been identified, defined and selected for implementation.

It is noteworthy to recognize the collaboration and coordination efforts between the project proponents and Mr. Moses Bayingana, ICT Expert (Policy & Project Management), under the guidance of Dr. Ahmed Hamdy (Head of Science & Technology and ICT) and the overall supervision of Dr. Abdul Hakim Elwaer, Director for the Human Resources, Science and Technology Department of the African Union Commission. Indeed this document is greatly as a result of this combined effort and coordination.

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Finally, with the expectation that as we move towards implementation of the African Regional Action Plan on the Knowledge Economy (ARAPKE), more stakeholders and partners will be forthcoming to provide the required resources and close the existing lacuna in this regard, advance appreciation is extended to all of the future partners.

THE AFRICAN REGIONAL ACTION PLAN ON THE KNOWLEDGE ECONOMY

I - INTRODUCTION

The African Regional Action Plan on the Knowledge Economy (ARAPKE) was developed upon request from the Second African Regional Preparatory Conference for the World Summit on the Information Society (WSIS), held in Accra, Ghana from 2-4 February 2005. ARAPKE is based on the Geneva Plan of Action adopted by the world leaders at the first phase of the WSIS and the "Accra Commitments for Tunis 2005" adopted by African Ministers responsible for Information Communication Technologies as well as on the vision defined by both the African Information Society Initiative (AISI) and the New Partnership for Africa's Development (NEPAD), under the leadership of the African Union.

Over the last years, many African countries have taken advantage of the opportunities provided by Information and Communication Technologies (ICTs) and have put in place National Information and Communication Infrastructure (NICI) Plans to support their socio-economic development efforts. These successes have been made possible thanks to the combined efforts of all stakeholders under the leadership of Governments and support from regional and international organizations as well as bilateral partners and the private sector. These efforts need to be strengthened and extended to remaining African countries to make them benefit from the knowledge economy. In this context, a coordinated and multi-pronged strategy at both the national and sub-regional levels is essential to rollout the knowledge economy in the continent. The ARAPKE which aims at building a region fully benefiting from ICT services by the year 2015 was adopted through several fora, under the aegis of the African Union Commission (AUC) and the technical coordination of the Economic Commission for Africa (ECA).

Notably, following the adoption of this Action Plan by African Ministers responsible for Information Communication Technologies in a meeting organized in Geneva as a side event to Prepcom3 of the WSIS in September 2005, the ARAPKE was also adopted by the African Union Conference of Ministers in charge of Communication and Information Technologies.

II- ARAPKE FLAGSHIP PROJECTS

Following adoption of the ARAPKE framework by the African ICT Ministers, ECA sent out a Request for Project Proposal (RfPP) to all African stakeholders. At the close of the Request for Project Proposals, a total of 89 proposals were received. In order to facilitate selection of ARAPKE flagship projects, the ARAPKE Steering Committee meeting held from 25-27 February 2007 in Cairo, discussed the need for each criterion, its scope and weight to be assigned a range of marks that will guide the selection process.

After a lengthy exchange of information and debate, members of the Steering Committee decided to classify the criteria, depending on their weight and relevance to the current selection exercise in the following three categories:

- core criteria
- secondary criteria
- other criteria

Following a thorough review of the draft ARAPKE Selection Criteria, the Steering Committee agreed on the following:

- The criteria related to regional impact, contribution to local vision and local socioeconomic development, economic feasibility, technicality and functionality, human resources development, should be considered as core criteria and will be assigned scores ranging from 0 to 5.
- The criteria related to approach in project preparation, risks and change management, replicability and adaptability, should be considered as secondary criteria and will be assigned scores ranging from 0 to 3.
- The criteria related to global policy, ARAPKE pillars, communication, monitoring and evaluation should not be taken into account during the selection process as the dimension on global policy and ARAPKE pillars form the basis of most proposals while project proponents were not required before the meeting to include dimension on communication, monitoring and evaluation in their project proposals.

Upon agreement on the selection criteria and subsequent proposal by the Chairperson of the Steering Committee, a Working Group on ARAPKE was established, with the immediate aim of studying, reviewing and selecting projects from ARAPKE based on the abovementioned criteria. After spending four weeks to review the project proposals assigned to them, the working group came up with ten flagship projects that received the highest marks. It should be noted that in keeping with the proposal by Egypt during the first Ministerial Conference on Communication and Information Technologies to develop the African Leadership Training Program, Egypt hosted a regional workshop from 6-7 June 2006 that brought together several African Countries as well as representatives of the African Union Commission and UNECA to develop the project proposal. To date there is a total of eleven flagship projects and Member States will be invited to furnish the African Union Commission with a list of new projects, which will be submitted, to the ARAPKE working group for the selection process of the 2nd phase of the ARAPKE flagship projects.

III- RESOURCE MOBILIZATION PROCESS

In light of the outcome of the second ordinary session of the African Union Ministerial Conference of Ministers in charge of Communication and Information Technologies held from 11-14 May 2008 that requested the African Union Commission and the United Nations Economic Commission for Africa to mobilize resources to accelerate the implementation of the selected ARAPKE flagship projects and that priority should be given to infrastructure development and capacity building, the African Union Commission has reformulated the ARAPKE projects and developed this booklet on the ARAPKE flagship projects as part of the resource mobilization process. The following projects contained herein the booklet are as endorsed by the African Union Ministerial Conference of Ministers in charge of Communication and Information Technologies held from 11-14 May 2008 in Cairo, Egypt.

No	Project Name	Estimated Budget Cost (US$)
1	The e-Schools Project	31,200,000
2	The African Leadership ICT Program	4,827,000
3	The ICT Broadband Network Infrastructure	4,750,000
4	The African Internet Exchange System	4, 064,120
5	Harnessing Information and Knowledge for Youth Development	3,325,000
6	Women's Capacity Building Centers in Rural Africa	2,730,070
7	e-Learning Mode of Distance Education	1,887,809
8	Educational Software, Multi-Lingual and Multimedia Dictionary	1,055,714
9	e-Learning Network	655,450
10	African Digital Initiatives and Financing Agency	524,925
11	Virtual Preparatory Classes for High School Students	39,312
	Total Cost	**55,059,900**

IV. AU Decisions on the African Regional Action Plan on the Knowledge Economy

1. Executive Council Decision EX.CL/Dec. 258(VIII), authorized the Commission to organize a Conference of the African Ministers in charge of Information and Communication Technologies with the participation of Regional Economic Communities (RECs) and Inter-Governmental Organizations involved in the decisions of the WSIS and the African Regional Action Plan of the Knowledge Economy (ARAPKE);

2. The Second Ordinary Session of the African Union Conference of Ministers in charge of Communication and Information Technologies

   - Requested the African Union Commission and the United Nations Economic Commission for Africa to work closely in mobilizing resources to accelerate the implementation of the selected ARAPKE flagship projects, considering that priority should be given to infrastructure development and capacity building;

   - Commended the efforts made by the African Union Commission under the EU-Africa partnership with regard to the selection and implementation of the three ARAPKE flagship projects;

   - Requested the African Union Commission to invite Member States to furnish the Commission with a list of new projects which will be submitted to the ARAPKE working group for the selection process of the 2nd phase of the ARAPKE flagship projects.

   - Called upon the African Union Commission and International Telecommunication Union to identify the mechanisms that will lead to the implementation of ARAPKE flagship

projects pursuant to the commitments made at the Connect Africa Summit, Kigali, October 2007.

- Invited the African Union Commission to submit an official proposal to the African Development Bank (AfDB) seeking support to establish Communication and Information Technologies funds before 2010 to foster the implementation of the ARAPKE.
- Endorsed the eleven ARAPKE projects

3. Executive Council Decision EX.CL/434 (XIII)

- Further endorsed the eleven (11) flagship projects of the African Regional Action Plan on Knowledge Economy (ARAPKE);
- Requested the Commission to submit an official proposal to the African Development Bank seeking support to establish a Communication and Information Technologies Fund before 2010 to foster the implementation of ARAPKE;
- Further requested the Commission to submit periodic reports on the implementation of this Decision to the Executive Council.

The ARAPKE Project
On
The e-Schools Initiative

BACKGROUND

The NEPAD e-Schools Initiative was adopted as a high priority NEPAD ICT project by the NEPAD Heads of State and Government Implementation Committee in March 2003. The overall aim of the Initiative is to harness ICT technology for the improvement of the quality of teaching and learning in African primary and secondary schools, whereby young Africans graduate from these schools with ICT skills and knowledge that will enable them to participate confidently and effectively in the global information society and knowledge economy.

DESCRIPTION

The NEPAD e-Schools Initiative aims to facilitate the transformation of 600,000 African primary and secondary schools into NEPAD e-Schools. A NEPAD e-School is a standard that harnesses ICTs to deliver high quality education based on NEPAD values to African school children thus empowering them to participate confidently and effectively in the global information society and knowledge economy. NEPAD e-Schools Initiative will be realized through a number of key projects namely:

- NEPAD e-Schools Demo Project (ongoing);
- Business Plan for NEPAD e-Schools Mass Rollout (currently undergoing final revisions);
- Implementation Framework (Capacity Building of National Implementing Agencies);
- Professional Development of Project Managers, School Administrators, Teachers and Technical Staff;
- Content Development;
- Connectivity Solution for Remote, Rural Schools (Satellite Network).

In the first phase as described in this document the NEPAD e-Africa Commission will facilitate the formation of the fundamental policies, strategies, institutional structures, capacity, content and instruments of interaction to lay the foundation for the rollout of NEPAD e-Schools across the African continent on a massive scale.

TIMEFRAME

Estimated Duration	10 years	Planned Start	2003

OBJECTIVES

Overall Goal

The NEPAD e-Schools Initiative will over a three-year (Phase 1) period facilitate the development of the fundamental policies, strategies, institutional structures, capacity, content and instruments of interaction to lay the foundation for the rollout of NEPAD e-Schools across the African continent on a massive scale.

The NEPAD e-Schools Initiative will, over a ten–year period from project inception, develop all African primary and secondary schools (estimated to be in excess of 600,000) so that they become NEPAD

e-Schools. Such schools will be equipped with necessary infrastructure, including ICT equipment; will have teachers that are appropriately trained and will have access to appropriate digital content, to ensure that ICTs play a meaningful role in enhancing education and health conditions among Africa's young people.

OBJECTIVES IN DETAIL

No.	Description of objective
1	The NEPAD e-Schools Business Plan has been adopted as a broad framework for national rollout of NEPAD e-Schools and each participating country has developed a national implementation plan in line with this framework.
2	Each participating country has established, empowered and equipped a national implementing agency or an alternative institutional framework, with a strong governance structure that incorporates stakeholders, for the implementation of NEPAD e-Schools.
3	For each NEPAD e-School in a participating country: All the education administrators, 25% of the teachers and three technical staff have been professionally developed to run a NEPAD e-School.
4	A content portal has been developed and each participating country has contributed at least five content items for distribution through the content portal.

ACTIVITIES AND ESTIMATED COST

Activity: Title and narrative description of each activity that is planned to fulfil the objectives
Deliverables: specific tangible and verifiable deliverables such as reports, minutes, policy documents, study reports etc.
Priority: 1 = obligatory/ critical (minimum requirement); 2 = necessary; 3 = nice to have

No.	Activity	Description	Deliverables	Priority	Est. Cost ($)
1	Formation of expert groups and Ministers' Meeting on national implementing agencies.	Expert groups on key policy areas will be formed and will meet in preparation for a Ministers of Education, ICT and Finance meeting to discuss the national implementation structures for national NEPAD e-Schools rollout.	• Expert group reports. • Ministers meeting report. • Resolutions on implementation of national implementation • structures	1	500,000

No.	Activity	Description	Deliverables	Priority	Est. Cost ($)
2	Regional Workshops for development of national plementation plans.	Workshops will be held in South, East, West, North and Central Africa to facilitate the review of ICT in education strategies and development of National NEPAD e-Schools implementation plans.	• Workshop report • National implementation plans.	1	1,000,000
3	Development and dissemination of NEPAD e-Schools standard.	The NEPAD e-Schools standard will be defined and widely disseminated to encourage public and privately-funded schools to adopt the standard.	• NEPAD e-Schools standard • Dissemination statistics	1	1,500,000
4	Capacity enhancement at NEPAD e-Africa Commission	Staff and expert resources will be recruited and developed to strengthen the NEPAD e-Schools Team at the NEPAD e-Africa Commission in the areas of: Coordination, Professional Development, Content Development and Technology.	• Recruitment report • Staff assessment reports	1	4,000,000
5	Capacity building for national plementation structures	A capacity building framework will be developed for national implementation structures including: Policy, Frameworks, Funding, Professional Development and Institutional Support.	• Agencies formed • Institutional support reports	1	5,000,000
6	Regional meetings for development of common standards	High level meetings will be organized on a regional basis towards the development and adoption of common standards for procurement of equipment, software and services for NEPAD e-Schools.	• Meeting reports • Procurement standards	1	1,000,000
7	Development of e-Schools Portal	An e-Schools demonstration portal for information dissemination and content distribution will be developed.	• Portal • Access statistics	1	1,500,000
8	Regional Training of Trainers Workshops	Training of trainers workshops will be organized South, East, West, North and Central Africa to support professional development of education administrators, teachers and technical staff.	• Meeting reports • Training statistics by country	1	2,500,000

No.	Activity	Description	Deliverables	Priority	Est. Cost ($)
9	Content development schools	Best practice models will be adopted from existing content development efforts. Content development schools, in collaboration with national content development agencies and national higher education institutions will be held to facilitate large scale content development using a 'Wiki' model.	• School reports • Content development statistics • Number of participating institutions / individuals	1	2,500,000
10	NEPAD e-Schools procurement joint negotiations	Each region will develop a plan of joint procurement needs and NEPAD e-Africa Commission will facilitate joint negotiation platforms and strategies for distribution of donated equipment.	• Regional Joint procurement plans	2	1,000,000
11	Feasibility study towards the development of of NEPAD e-Schools satellite network	A feasilbility study will be carried out to enable connectivity of remote schools to the NEPAD e-Schools Network. The study will cover the design of a Network Control Centre.	• Feasibility study	1	10,000,000
12	Publication and dissemination of NEPAD e-Schools Business Plan	A book and website of the NEPAD e-Schools experiences and the business plan.	• Publication • Dissemination statistics	2	500,000
13	Base line study and monitoring and evaluation	A base line study will be carried out to measure the current status of NEPAD e-Schools activities in participating countries and M&E follow up studies will be carried out every two years.	• Base Line Study Report • M&E Reports	1	700,000
				Grand Total	**31,200,000**

EXPECTED RESULTS

The following results are expected on successful implementation of the above activities:

- Countries participating in the NEPAD e-Schools initiative will have an ICT in education policy that is broadly aligned with the NEPAD e-Schools business plan framework. They will have clear policies and a plan towards the implementation and will have developed and capacitated the implementation structure needed to rapidly roll out NEPAD e-Schools.
- There will be vibrant professional development activities taking place at the regional level which will percolate down to national professional development activities.
- Regions will also be working together closely to cost-effectively procure equipment and services for the roll out. International development agencies and large corporations will assist with providing connectivity and equipment to the most disadvantaged schools.
- Existing content developers will have been harnessed into a powerful network of content development activities for African education. A portal will have been developed both to disseminate information and to deliver content. The portal will form an important marketing tool for NEPAD e-Schools.
- The NEPAD e-Africa Commission will have the capacity, resources and experience to support the national rollout of NEPAD e-Schools across the African continent.

PERFORMANCE INDICATIORS

Indicator 1

Number of countries that have established a national implementing agency or institutional structure for rollout of NEPAD e-Schools.

Indicator 2

Proportion of schools in each participating country that have achieved the NEPAD e-Schools standard.

Indicator 3

Number of users registered / daily hits on the NEPAD e-Schools portal.

Indicator 4

Proportion of rural / remote schools in participating countries that have broadband Internet access.

RISK FACTORS AND MITIGATION MEASURES

1. Funding

Lack of sufficient funding to implement activities successfully.

RISK: Medium

Proposed action(s) to address the risk factor

Project proposals to governments and international development agencies to obtain core funding.

2. Commitment to national implementation

Lack of sufficient commitment for national implementation of rollout.

RISK: Medium

Proposed action(s) to address the risk factor

High-level meeting of ministers to ensure support for national rollout.

3. Internal capacity to manage project

Lack of capacity with NEPAD e-Africa commission to support activities.

RISK: Medium

Proposed action(s) to address the risk factor

Ensure that organizational structure at NEPAD e-Africa commission is capacitated to support project.

4. Lack of political support

Lack of alignment of NEPAD e-Schools rollout with national objectives.

RISK: Medium

Proposed action(s) to address the risk factor

Countries with have already committed through the recent NEPAD e-Schools Permanent Secretaries Meeting resolutions will form the first cohort of countries to be approached.

IMPLEMENTATION ARRANGEMENTS

The NEPAD e-Africa Commission will facilitate all regional activities and implement and maintain the NEPAD e-Schools Portal. It will also act as a focal point for networks that are formed through the auspices of the NEPAD e-Schools initiative and support national activities when formally requested to do so by a national government.

MONITORING AND EVALUATION

Monitoring will be in line with procedures agreed between the AUC and the partners.

The ARAPKE Project On The African Leadership ICT Program

BACKGROUND

In line with Egypt's commitment to boost the development of the information and communication technology (ICT) sector in Africa, Egypt is proposing the development of an African Leadership ICT Program (ALICT) aiming at enhancing leadership skills in African countries for promising ICT professionals. The idea behind this proposal was first introduced by Egypt during the conference of Ministers responsible for Information and Communications Technologies of the African Union, First Ordinary Session, held in Cairo during the period 18-20 April 2006 and was well received by member states representatives attending the conference.

Respectively, and based on the initial proposal, Egypt's Ministry of Communications and Information Technology (MCIT) has organized a workshop during the period 6-7 June 2006 bringing together experts from a number of African countries and African regional organizations to share in the conceptual development and formulation of the proposed African Leadership ICT Program. The workshop's main objective was to encourage experience sharing and to solicit the inputs of all participating experts and professionals in order to formulate a challenging and robust program that addresses the main priority issues in the ICT sector in Africa with a focus on leadership and regional cooperation and that is at the same time customized to meet the needs and aspirations of the African continent and that builds on the extensive experiences of different talents and specialized local and regional organizations already functioning with a diversified portfolio of projects and activities.

The workshop was attended by participants from Mali, Mozambique, Mauritania, Kenya, Ghana and Egypt as well as representatives from the African Union Commission and the Economic Commission for Africa. Appendix A includes a list of the participants of the workshop. During the period of the two days workshop, the participants engaged in continuous participatory discussions on the framework of the African Leadership ICT Program and the identification of the format, program content, and criteria for the selection of the program trainers, training providers, trainees, and assessment among other elements. It is important to note that the diversity, experiences and background of the participants including experts from academia, the private sector, policy makers, the government and technical experts was invaluable in bringing a comprehensive understanding of how the program should be formulated, developed and implemented. The inputs of the participants greatly enriched the discussions and led to the formulation of an understanding and agreement on how the various elements related to the design and delivery of the program should be synergized to realize a maximum added-value to the participants directly and more specifically and to their community indirectly within a broader perspective.

DESCRIPTION

The structure of the program is set to be 5 weeks consisting of a number of modules that will be delivered in a selective variety of qualified training institutions around Africa's five regions (North Africa, East Africa, Central Africa, West Africa and Southern Africa).

The program main modules will include a variety of issues that are assessed as being crucial for developing a class of ICT leaders that can become agents for change in their own community and be catalysts for

regional cooperation in the domain of ICT both at the regional and sub-regional levels. The four main modules include

a) Information and Communication Technology Strategy Development
b) Leadership
c) Cross Cultural Integration and Regional Cooperation
d) The Impact of Public-Private Partnerships in Business and Socioeconomic Development

The program will start with a one-day (6 hours) overall seminar on the expectations of the program and an overview of the global drivers and issues that affect business and socioeconomic development in Africa. Invited speakers from different regional and international organizations will be invited to address these macro-level and global issues.

The leadership program will include an assessment of the capacities of the participants during the second week that should be re-visited again during the fifth week of the program to provide the participants with a chance to compare and assess their progress with respect to leadership related issues.

The fifth week will comprise a forum on Project Formulation and a Seminar dedicated to "Management of Technology Case Development". Detailed description of the modules is included in appendix B. One of the highlights of the final week is the case development for future ICT project implementation. The case will be formulated and developed by the participants themselves where they will have the chance to bring in their own experience and knowledge together with the input they got throughout the program and demonstrate how their communities can benefit from ICT through their suggested projects and ideas. Each group will be asked to present their project idea in the form of a business case in a session dedicated for project presentations; each group will be allocated 30 minutes. The final week will conclude with a wrap-up session, assessment of program content, organization and instructors as well as recommendations. A closing ceremony for group pictures and certificates distribution will take place during the final day of the fifth module.

Each week will comprise the following elements (more elements could be added according to the needs):

- Series of lecture sessions addressing conceptual foundations related to the topic covered (10-12 hours)
- Discussion of best practices and real-life cases studies; example from organizations and countries could be used (10-12 hours)
- Field visits; companies, factories, banks, etc (4-6 hours)
- Group presentation at the end of the module by the participants; each group will comprise 5 members addressing one of the issues discussed and demonstrating their views and inputs (each presentation 30 minutes)

TIMEFRAME

Estimated Duration	3 years	Planned Start	As soon as funds are available

OBJECTIVES

Overall Goal

To leverage the individual experiences and capacities of young promising mid-career potential leaders in African countries to become change agents in the ICT sector.

OBJECTIVES IN DETAIL

No.	Description of objective
1	Providing First Hand experience of the ICT sector in the five sub regions of Africa
2	Introducing the participants to Leadership skills and availing opportunities and mechanisms in the Continent for regional cooperation, solidarity and collaboration among African countries through regional cooperation.
3	Using ICTs to promote economic growth and enterprise development by harnessing the leadership skills of promising ICT leaders and policy makers, to ensure that the benefits of new technologies, especially information and communication technologies are available to all
4	Building effective leadership capacities in the ICT sector in Africa based on the knowledge acquired and shared through the ALICT professional development program
5	Learning from and sharing knowledge with other experiences in addition to capitalizing on various projects and initiatives which is an invaluable key for the effective success.
6	Developing a platform for investments and economic growth through human resource investment across different levels in the organization from top to bottom and addressing the different needs in terms of management, leadership, as well as project formulation and management.

ACTIVITIES AND ESTIMATED COST

Activity: Title and narrative description of each activity that is planned to fulfil the objectives

Deliverables: specific tangible and verifiable deliverables such as reports, minutes, policy documents, study reports etc.

Priority: 1 = obligatory/ critical (minimum requirement); 2 = necessary; 3 = nice to have

No.	Activity	Description	Deliverables	Priority	Est. Cost ($)
1	Program Promotion, Training Center Identification and Trainees Selection Costs	Advertisement of the program 2 ads per region in 5 regions Advertisements in leading global newspapers and magazines for the recruitment of trainers for the program** Advertisement for the recruitment of selected training centers/institutes 1 ad for each of the 5 regions Advertisement for the recruitment of selected candidates 2 ads per region in 5 regions	To attract the right calibre of students and instructors for the training program and ensure proper exposure.	2	52,500

No.	Activity	Description	Deliverables	Priority	Est. Cost ($)
2	Cost of Conducting 5-Week Training Program (2 Cohorts English/French)	Travel Expenses each cohort 25 candidates, Accommodation and Lodging, Per Diem per Participant, Visas, Travel insurance, Training Institution Expenses 3 sessions per day each 2 hours, Opening Reception, 2 Coffee Breaks/day Daily Lunch, Computing and Internet Facilities Instructor Fees, Program Facilitators, Travel Expenses for Program Instructors, Program Director Program Coordinators 1 in each region, Program Assessors Travel Expenses for Program Assessors, Curriculum Development and Cases Formulation, Training Material Translation, Training Material Reproduction, Books and Cases, Stationary, Bags, Pins, Mugs, etc…, Certificates Production	Developing a class of ICT leaders that can become agents for change in their own community and be catalysts for regional cooperation in the domain of ICT both at the regional and sub-regional levels. implementation plans.	1	1,472,875
3	Cost of Centrally Managing the 5-weeks Program	Travel Expenses Accommodation and Lodging Per Diem Visas Travel insurance	Managing and organizing the training program and supervising the modules	1	28,125
4	Technical Advisory Board Meeting	Travel Expenses one meeting per year Accommodation and Lodging, Per Diem, Visas, Travel insurance	The Technical Advisory Board will provide advice to the program director as well as program administrators in each of the program locations.	2	31,500

No.	Activity	Description	Deliverables	Priority	Est. Cost ($)
5	ALICT Alumni Association	Alumni Website and Maintenance Alumni Newsletter	Develop a mechanism through which participants of the Program can keep networking and exchanging knowledge and ideas beyond the duration of the program.	3	24,000
				TOTAL	**1,609,000**
				Total for 2 Years (100%) and 3rd Year (50%)	**4,022,500**
				Total 3rd year (50%) for Sponsorship and other Contributions	**804,500**
				Grand Total	**4,827,000**

EXPECTED RESULTS

- Well developed curriculum for the ICT Leadership Training Program.
- Leverage the individual experiences and capacities of young promising mid-career potential leaders in African countries to become change agents in the ICT sector.
- Disseminate knowledge and skills to identify and formulate different opportunities for African regional cooperation in the ICT sector.
- 50 participants from the five regions of Africa, successfully completing the ICT Leadership Training program.

PERFORMANCE INDICATORS

What are the performance indicators that will help measure the success of the project?

Indicator 1

Assessment outcome of the capacities of the participants during the second module (Detailed description of the modules is included in appendix B) that should be re-visited again during the fifth week of the program to provide the participants with a chance to compare and assess their progress with respect to leadership related issues.

Indicator 2

Quality of group presentation at the end of the module by the participants; each group will comprise 5 members addressing one of the issues discussed and demonstrating their views and inputs (each presentation 30 minutes).

RISK FACTORS AND MITIGATION MEASURES

1. Long Term Sustainability of the Program

- Risks related to the long term sustainability of the program. This could relate more to a number of elements including but not limited to financial sustainability as well as currency and regular updates of the course curriculum.

Risk : Medium

Proposed action(s) to address the risk factor

It is suggested that the first round of the program could be implemented based on a full scale sponsorship basis, whereby the project sponsors all the participants, the formulation of the professional development program as well as the development of the program material. During this phase of the project it is suggested to initiate discussions with different academic and executive development institutions to accredit the program as a professional certificate in order to be able to run it as an independent self-sustainable program in the future offerings. This could lead to the formulation of an invaluable initiative that can create a professional educational consortium among African countries to introduce a highly needed professional development program and also represent a solid platform for collaboration in one of the key building blocks in the ICT sector and that is the formulation of the future leaders of the ICT industry.

In that respect, it is suggested that the second round of the program would be co-funded by the respective countries. A mechanism could be formulated to identify who could be eligible as a sponsor of the program. However, it is suggested that it can include a blend of public and private sector organizations to set yet again a model for public private partnership. Following such model for 1-2 years, it is suggested that following programs would be totally funded by participating countries, whereby each country would sponsor its participants to the professional development program.

The above concept for sustainability requires the initiation of a political process at the beginning of the program whereby the African country would sign a Memorandum of Understanding highlighting their commitment to the program.

2. Selection of qualified participants

- Risks related to the recruitment of qualified participants and ensuring their commitment to the duration of the program. This is key because the participants represent the most important ingredient in the program and they reflect the outcome that based upon which the program will be regularly assessed and evaluated. In that respect, the process of recruitment should be well in place to ensure quality inputs and pave the way for quality outcomes.

Risk: Low

Proposed action(s) to address the risk factor

State the mitigation measures(proposed actions) to address the risk factor mentioned

Through the process of program promotion, training center identification and the trainee selection identified in the activities section this risk could be alleviated.

3. Identification of High Quality Training Institutions

- Risks related to the identification of high quality training institutions and that should be well formulated as a process and followed to the simplest details to guarantee the proper environment for professional development.

Risk: Low

Proposed action(s) to address the risk factor

The Technical Advisory board along with the board that will centrally manage the program would assess the training institutions and guarantee effective selection and the success of the program.

4. Identification of Qualified Lectures

- Risks associated with the identification of the qualified lecturers to guarantee the mix and blend of academic and market as well as industry-related experience needed to address the participants of the program.

Risk: Low

Proposed action(s) to address the risk factor

The Technical Advisory Board will provide advice to the program director as well as program administrators in each of the program locations. They will ensure the qualifications of the lecturers as well as the content of the program.

IMPLEMENTATION ARRANGEMENTS

A Technical Advisory Board (TAB) will be formulated from representatives of the five African regions nominated by each country's minister responsible for communications and information technology. The board will include 15 members representing the five regions in Africa in addition to Egypt. It is important to note that the nominated technical advisory board members be independent from the training providers nominated from the different ministers and eligible for selection to design and implement the African Leadership ICT Program. Appendix C demonstrates details for the selection of the technical advisory board.

A defined criterion for the qualification of different training institutions and/or consortiums will be the base for selection to deliver the program. Appendix D outlines the requirements that need to be met for different entities to be able to apply to deliver the program. All potential entities will be required to complete a questionnaire together with the submission of an interest and commitment letter for the implementation

of the 5-week program[1] During the final assessment phase, representatives of the technical advisory board will be conducting an on-site visit to assess the training providers and make the final selection.

A defined criterion for the instructors and trainers that are eligible for the delivery of the program is developed and detailed as shown in appendix E. It is advisable that the resource persons used be pooled from Africa as a first choice but should not be limited to it if world-class resource persons could be drawn from other regions or countries to contribute and provide added-value to the program. In addition to the instructors and trainers that will be delivering the content of the training program, facilitators could be perceived as vital resources to facilitate some of the discussions throughout the different phases of the program as well as during the development of case studies and project work.

It is recommended that the selection criteria for the participants of the program be based on a multi-tier phase demonstrated as follows:

- Ministers responsible for ICT or any other designated local authority will announce a national competition for the qualification to attend the program. Ads in newspapers, listing in electronic groups or any other media could be used to pool the best local resources.
- Candidates will be required to complete a questionnaire in addition to submitting a resume and two letters of recommendation from previous employers and acquaintances[2] within 2-4 weeks period. Moreover, candidates will be required to have 1500 words write-up reflecting project ideas formulated as a business case for possible future realization in their respective country/region including financial perspective, stakeholders and the role of each player, societal and economical implications of the project/idea.
- A local committee will be assigned to screen the questionnaires and short list 10 candidates from each country to be interviewed.
- All short-listed candidates should go through an interview process that would result in the nomination of 5 selected candidates per country.
- Details of the selected candidates should be forwarded through the minister responsible for communications and information technology in each country to the program director in Egypt who would coordinate with the program technical advisory board to make the final selection of 1-2 candidates per country – pending the program size, funding and the balanced representation of all groups as mentioned earlier.

MONITORING AND EVALUATION

It will be in line with procedures agreed between the AUC and the partners.

Appendices

Appendix A – Workshop Participants

The participants of the workshop on the Design of the African Leadership ICT Program included a group

[1] The questionnaire will be developed in English and French.
[2] Relatives should not be eligible to furnish recommendation letters to the potential candidates for the program.

of diversified professionals in the areas of information and communication technology, human resource development, networking, academia, and policy making among others and that included:

- Dr Ahmed Abdel Bassit, Ministry of Communications and Information Technology, Egypt
- Mr Essam Abulkhirat, ICT Senior Policy Officer, Human Resources, Science & Technology Department, African Union Commission
- Mr Yahaya Coulibaly, Ministry of Communications and Technology, Republic of Mali
- Mrs Nihad El Ghamry, Ministry of Communications and Information Technology, Egypt
- Mr Mohamed El Koury, Islamic Republic of Mauritania
- Mrs Ghada Howaidy, Ministry of Communications and Information Technology, Egypt
- Mrs Dorothy K. Gordon, Advanced Information Technology Institute (AITI), Republic of Ghana
- Mrs Salome Maloki, Director of Communications Commission of Kenya, Kenya
- Mrs Samia Moussa, Ministry of Communications and Information Technology, Egypt
- Mrs Eskedar Nega, UN Economic Commission for Africa
- Mr Stelios Papadakis, Ministry of Transport and Communications, Republic of Mozambique
- Ms May Ragab, Ministry of Communications and Information Technology, Egypt
- Dr Sherif Kamel, Workshop Facilitator

Appendix B – Details of Program Modules

Following is a detailed description of the African Leadership ICT Program according to its five modules

WEEK 1

One day seminar on Global ICT Trends and Issues and Africa (6 hours)

- Interoperability
- Convergence
- Glocalization
- Open Source
- Negotiation between the private and public sector
- Management style diversity

Information and Communication Technology Strategy for Development

Information and communications technologies (ICT) have now become an integral part and key enabler of today's development agenda. However, most developing counties do not have the human resources required to fully explore the technologies required for future advancement and development. The need for qualified human resources is highly required. This module creates the basis for ICT strategy in different countries to create a solid foundation for consistent progress and to enable information and communication technology to play a positive and tangible role in socioeconomic development. This module will be the cornerstone of the 5-weeks program.

Topics

- Strategy overview
- Strategy evaluation mechanisms
- Adapting ICT strategies to local contexts
- Strategy development workflow/process
- Managing strategy development
- Strategies for ICT addressing key issues including but not limited to poverty reduction, environment, education and health
- Assessing and building strategies for national ICT capacity development
- Overview and use of assessment tools for strategy and/or policy development
- Monitoring the impact of ICT strategy implementation
- Hands-on-Training: Project Management Software (such as Microsoft Project or Primavera)

WEEK 2

One day seminar on Leadership (6 hours)

- Concept of change and leadership
- Assessment of leadership style

Leadership

No leader becomes successful by working independently. Leaders rely on teams to help them achieve their objectives; develop new products, services, and directions; and find solutions to problems. Team members often work under significant time constraints and are challenged to minimize costs while maintaining quality. It is critical for leaders to be well-versed in strategies and implementation tactics for creating and maintaining high-impact teams. The program will challenge problems and provide top-quality, individual feedback on performance. Highly experiential and interactive, the program focuses on intra-team behavior (leadership, selection, communication, conflict) and inter-team dynamics (competition), as well as on compensation and networking. This second module aims at creating a generation of future leaders who have thorough understanding of the meaning of teams and the role innovative and emerging information and communication technologies can play in creating a strong team capable of realizing organizational objectives and meeting expectations.

Topics

- What is leadership? Who is a leader?
- Management versus leadership
- Leaders: made or born?
- Power of leaders - Getting the best out of people
- Managing social capital
- Motivation, commitment and team coaching

- Leadership and cultural diversity
- Credibility and capability of leaders
- Leading for change
- Leading in the global environment
- Quality leadership (influence, persuasion, etc.)
- Clash of traditional ethics among African participants with the demands of modern civilization and work cultures (example on the difficulty to reprimand poor performance in the workplace in some cultures)
- Delegation and empowerment and how they tie into the qualities of a leader
- Reflecting on the biographies/attributes of influential leaders

WEEK 3

Cross Cultural Integration and Regional Cooperation

Multi-cultural environments have the potential to create profitable synergies. However, this is only possible when the friction is reduced between people from various national and international cultures who are put together to work and produce. Ignoring cultural differences creates frictions and barriers. The need for reconciling cultural differences is reinforced when operating across borders. This module will align the already exposed participants to cross cultural issues with the possibilities and mechanisms for regional cooperation through mutually beneficial projects and activities with business and socioeconomic benefits. This will capitalize on the previous strategy and leadership modules with a spirit of glocalization blending regional exposure and cooperation with local cultures, norms and beliefs. The module will emphasize on the possibilities and opportunities enabled through the development of regional projects in different parts of the continent including the provision of a vehicle for knowledge dissemination and expertise collaboration through the different institutions available in Africa such as the African Development Bank, African Union, NEPAD and COMESA among others.

Topics

- Cross cultural barriers to regional integration in creating business partnerships
- Using new technologies for communication and cross cultural collaboration
- Participation in joint task groups for cultural integration
- Knowledge of regional economic bodies, regional projects and strategies
- Projects coordination and policies harmonization
- Resource mobilization and managing financial resources
- Governance and integration: institutional challenges
- Collaboration on ad-hoc basis
- Structural, operational and cultural integration
- Integration across borders
- Understanding interdependencies

WEEK 4

The Impact of Public-Private Partnerships in Business and Socioeconomic Development

Through community development, countries can improve their development and growth prospects and strengthen their ability to address many complex goals such as identifying business opportunities, poverty reduction, promoting peace and security and achieving sustainable socioeconomic development and growth. Community development plans will allow member countries to review and analyze the integrated policies that coincide with ongoing global development. This will also involve governance, gender, poverty and unemployment and population dynamics to community and human resource development. This module will help participants integrate their experience as well as their recently acquired skills to create a complete process to aid in the developmental process of their countries. Experiences of many countries in promoting public-private sector partnerships have yielded many success stories in the past and have also accumulated a body of knowledge and lessons learnt that represents guidelines for future implementations, this module stresses the importance and viability of PPP in business and socioeconomic development at both local and regional levels.

Topics

- Case studies on successful PPP
- Approaches to development (public/private sector cooperation)
- Roles played by different stakeholders in the PPP formula
- Potential impact on ICT development on Africa through the efforts/lobbying on the part of civil society organizations in issues related to the WTO (particularly on issues such as opening national procurement to international tenders, etc.)
- Corporate social responsibility and existing frameworks like the Global Compact
- Regulatory aspects and how they affect PPP (regulating partnership)
- Motivation for private sector alliance with the public sector in the ICT industry
- Proposition to have the East African Submarine Cable System (EASSy) Project as one of the case studies of the kinds of challenges that could face PPP and how countries collaborate to achieve ICT development.

WEEK 5

Forum on Project Formulation and Regional Cooperation Seminar on "Management of Technology Case Development" Conclusions and wrap-up

The final week will be set as a forum discussion on project formulation and a seminar on the development of a case study, from each of the represented countries. The case studies will represent a possible project that can be implemented as a pilot. This project will encompass the different areas discussed throughout the program as well as taking into consideration the specific problems facing each country and the needs in terms of information and communication technology building blocks including infrastructure, human resources, policies, financial vehicles, and managerial capacities amongst other elements.

Appendix C - Selection Criteria for the Technical Advisory Board

The technical advisory board should comprise a group of diversified ICT leaders that includes experts and professionals from different sectors comprising the industry, the business sector and academia with a portfolio of background that includes public-private partnerships, experience in regional cooperation in Africa, ICT for development and human resources capacities building among other expertise. Extensive experience and exposure in addition to fluency in English and/or French is mandatory.

Appendix D – Selection Criteria for Training Providers

Following is a list of the suggested elements that should be included in assessing the training providers to deliver the African Leadership ICT Program

The priority is intended to represent guidelines for the advisory board on identifying the major issues to be looking at when doing the assessment.

Appendix E – Selection Criteria for Trainers/Instructors

Following is a list of the suggested elements that should be included in assessing the trainers/instructors to deliver the African Leadership ICT Program

- Track record of accomplishments in training and human resource development
- Mastering English or French
- Varied experience (Private sector, government, academia)
- Preference to trainers with experience on Africa
- Knowledge of the ICT sector/applications, ICT for development
- At least 15 years of experience in any of the following fields: planning, strategy, leadership, socioeconomic development, cross culture issues, negotiation, project management and issues related to the proposed modules

Criteria	Priority
Premises and Facilities • Equipments (meeting rooms, Internet, PC labs) • Resources and utilities (safety precautions) • Access to an information center and/or libraries • Location and proximity to other facilities • Software licenses • Audiovisual capabilities	1

Criteria	Priority
Track Record • Regional activities conducted (market share locally and regionally) • Types of programs (customized, public, off-shelf) • Curricula • Locally developed (within the organization) • Provider of courseware materials (through purchasing or subcontracting) • Copyrights enforcement of course materials • Format of materials offered (session notes, PowerPoint presentations, cases, etc) • Training process and methodologies • Training volumes	2
Partnerships and alliances • International certifications • Professional accreditations • Affiliations to executive and academic institutions	3
Professionals and Staff • Professional environment • Management style • Organizational literature (communication material) • Instructors (in-house and part-time)	4
Access to facility (security and proximity)	5
Accommodating participants with disabilities	6

Appendix F - Selection Criteria for Trainees

Following is a list of the suggested elements that should be included in assessing the trainees that are eligible candidates to apply for enrolment in the African Leadership ICT Program

Criteria	Priority
Education Background (Minimum B.A or B.Sc) Master Degree is a preference	1
Demonstrated interest/commitment to ICT	
Industry Background (ICT related-activities and projects)	2
Age Bracket (30-40 years with 5-7 years of experience in the ICT sector	3
Managerial and Leadership skills and responsibilities • Ability to anticipate challenges and identify opportunities • Supervisory and training skills	4
Experience in regional projects and activities • Ability to communicate with diversified and multi-cultural audiences (interpersonal skills)	5

Language skills (Proficiency in English or French)	6
Reporting, presenting and communication skills	7
Medical Clearance	8

The priority is intended to represent guidelines for the advisory board on identifying the major issues to be looking at when doing the assessment. It is important to ensure that there is a mix of managerial and technical backgrounds to have a hybrid group of participants complementing each other.

Further elements that could be considered include:

- Ability to communicate with diversified and multi-cultural audiences (interpersonal skills)
- Good negotiations and listening skills (ability to build rapport)
- Ability to develop solutions and recommendations in response to problems
- Ability to work individually and within teams with the same level of proficiency
- Demonstrated self-management skills
- Sensitivity to cultural differences in the working environment
- Ability to anticipate challenges and identify opportunities
- Possesses interactive and creative abilities and skills

Appendix G – Budget Elements

The following represents the budget elements that should be included in the formulation of the cost structure of the 5-weeks program and they are divided into three main cost elements:

a. Cost related to identification of the training centers and the selection of the trainees to be enrolled in the training program
b. Cost of conducting each of the 5-weeks of the training program (total should then be multiplied by 5 and also adding the travel expenses)
c. Cost of centrally managing the 5-weeks training program

Following are the cost details for each of the three elements:

I. Program Promotion, Training Center Identification and Trainees Selection Costs

- 1 or 2 ads for the promotion of the training program in each of the designated countries 1 ad for the recruitment of potentially selected training centers/institutes
- 1 or 2 ads for the recruitment of candidates for the training program

II. Cost of conducting 1-week Training Program

a. Travel [3]
    - Travel Expenses
    - Accommodation and lodging

3 Travel elements should cover faculty members as well participants

- Per Diem per Participant
- Travel Management related costs (insurance, visas, etc)

b. Venue [4]

- Training Center/Institute Expenses
- Opening Reception
- 2 Coffee Breaks/day (total 10 coffee breaks)
- Daily Lunch (total 5 lunches)
- Computing and Internet facilities
- Instructor Fees

c. Administration

- Program Administration (personnel)
- Curriculum Development (and reproduction) or curriculum purchasing
- Books
- Cases
- Stationary (notepads, pens, name tags, etc)
- Participants (Bags, Pins, Mugs, etc)
- Certificates (attendance/ completion)

III. Cost of centrally managing the 5-weeks Training Program

- Venue Inspection and Program Assessment visits
  - Travel Expenses
  - Accommodation and lodging
  - Per Diem
  - Travel Management related costs (insurance, visas, etc)

Assumptions

Costs for each 5-weeks training program should be calculated based on the following assumptions

- 25 participants (each group)
- 5-7 faculty (in addition to 1-2 on-site facilitators per location)
- 5 program administrators (each in one of the 5 locations)
- 2-3 program assessors
- 15 members in the technical advisory committee
- 1 Program director (supported by 2 staff members)

4 The total costs per week should be multiplied by

The ARAPKE Project On The ICT Broadband Infrastructure Network

BACKGROUND

The NEPAD ICT Broadband Infrastructure programme aims to connect all African countries to one another and, in turn, to the rest of the world through broadband fibre-optic submarine cables. Such a network will provide abundant bandwidth, easier connectivity and reduced costs. It will help to integrate the continent by facilitating trade, social, and cultural exchange between countries.

DESCRIPTION

The NEPAD e-Africa Commission (NEPAD's ICT Task Team) has sought to realize the objectives of the programme through the development of two regional networks:

1. An ICT Broadband Infrastructure Network for Eastern and Southern Africa, including a submarine segment;
2. An ICT Broadband Infrastructure Network for Central, West and North Africa.

TIMEFRAME

Estimated Duration	10 years	Planned Start	2003

OBJECTIVES

Overall Goal

The NEPAD ICT Broadband Infrastructure programme aims to connect all African countries to one another with terrestrial optic- fibre infrastructure and, in turn, to the rest of the world through broadband fibre-optic submarine cables.

OBJECTIVES IN DETAIL

No	Description of objective
1	Reduce Africa's dependence on expensive satellite services by connecting all Africa countries to one another through broadband connections.
2	Increase broadband access to all African countries.
3	Connect Africa to the rest of the world through broadband submarine cable.
4	Reduce the cost of bandwidth to a level where Africa can compete in the global knowledge economy.
5	Facilitate regional and continental integration through improved, secure and affordable ICT connectivity.

ACTIVITIES AND ESTIMATED COST

Activity: Title and narrative description of each activity that is planned to fulfil the objectives

Deliverables: specific tangible and verifiable deliverables such as reports, minutes, policy documents, study reports etc.

Priority: 1 = obligatory/ critical (minimum requirement); 2 = necessary; 3 = nice to have

No.	Activity	Description	Priority	Est. Cost ($)
1	Define basic ICT broadband infrastructure network for Eastern & Southern Africa	Terms of Reference for study. Consultant's study report – June, 2004. Report of workshop – Johannesburg, July, 2004. Map of agreed basic ICT infrastructure for the region – August, 2004.		Completed
2	Define basic ICT broadband infrastructure network for West, Central and North Africa	ITU study report – May, 2005. Report of workshop – Dakar, July, 2005. Map of agreed basic ICT infrastructure for the region – July, 2004.		Completed
3	Carry out detailed feasibility study for submarine segment of network in Eastern and Southern Africa	Terms of Reference for study. Consultant's study report – February, 2005.		Completed: Funded through DBSA.
4	Carry out detailed feasibility study for terrestrial segment of network in Eastern and Southern Africa	Terms of Reference for study. Consultant's study report – expected Q4, 2008		750,000
5	Develop and implement terrestrial segment of network in Eastern and Southern Africa	Progress reports.		Costs to be borne by owners of network
6	Establish a group of African ICT Experts to determine Policy Principles under which network should be developed	Minutes of meetings of Experts. Recommendations by Experts.		Completed
7	Expand policy principles and develop policy & regulatory framework for the network	Reports of meetings of stakeholders.		Completed
8	Enshrine policy & regulatory framework in a regional protocol	Kigali Protocol – August 2006.		Completed
9	Get protocol signed and ratified	Signed copy of Kigali Protocol - August 2006. Instruments of Ratification.		Completed

No	Activity	Description	Priority	Est. Cost ($)
12	Harmonisation of national policy & regulatory frameworks	Report of Eastern and Southern Africa Regional Harmonisation workshop – September, 2007.		Completed: Funded by Dept. of Communications, RSA and ITU.
13	In-country workshops on harmonisation of national policy & regulatory frameworks	Workshop reports		2,000,000
14	Develop submarine segment of network (Uhurunet)	Technical Specifications. Request for Proposal. Preliminary Offering Memorandum. Progress reports.		-
15	Source quasi-equity for prospective shareholders in NEPAD Special Purpose Vehicle (SPV)	Memoranda of Understanding. Shareholders' Agreement.		-
16	Development of Project Information Memorandum – Submarine SPV.	Project Information Memorandum.		500,000
17	Development of Project Information Memorandum – Terrestrial SPV.	Project Information Memorandum.		500,000
18	Register NEPAD SPV	Certificate of Incorporation.		-
19	Carry out verification study of terrestrial ICT infrastructure in West, Central and North Africa	Terms of Reference for study – February, 2007. Consultant's study report – January, 2008.		Completed: Funded by AfDB.
20	Carry out detailed feasibility study for terrestrial segment of network in West, Central and North Africa	Terms of Reference for study. Consultant's study report.		1,000,000
21	Develop terrestrial segment of network in West, Central and North Africa	Report of feedback workshop - expected Q4 2008. Final map of agreed basic ICT infrastructure for the region. Progress reports.		-
			Grand Total	**4,750,000**

EXPECTED RESULTS

- A Terrestrial ICT Broadband Infrastructure Network for Eastern and Southern Africa.
- A Terrestrial ICT Broadband Infrastructure Network for West, Central and North Africa.
- A submarine cable that encircles the continent of Africa.

Performance Indicators

Indicator 1

Kigali Protocol signed.

Indicator 2

Kigali Protocol in force after ratification by more than 50% of signatory countries.

Indicator 3

Kigali Protocol extended to whole of Africa.

Indicator 4

More African countries accede to Kigali Protocol.

Indicator 5

Submarine cable that encircles the continent of Africa in place (Uhurunet submarine cable to be developed by Baharicom).

Indicator 6

Terrestrial Network for Eastern and Southern Africa in place (Umojanet).

Indicator 7

Terrestrial Network for West, Central and North Africa in place (Umojanet).

RISK FACTORS AND MITIGATION MEASURES

1. Lack of interest by African telecom operators

One of the major challenges is to mobilize sufficient numbers of African telecommunication operators to participate in the NEPAD SPV to achieve majority African ownership of Baharicom.

RISK: Medium

Proposed action(s) to address the risk factor

Develop Project Information Memorandum (PIM) – highlight attractiveness of project. Take PIM on road show to African telecom operators.

2. Insufficient political support from some countries

The ratification of the Kigali Protocol has moved at a slow pace in some countries as they follow different processes and face different challenges and priorities.

RISK: Low

Proposed action(s) to address the risk factor

Country visits to explain the Kigali Protocol and the benefits of the proposed networks. (Uhurunet and Umojanet).

3. Slow mobilisation of equity from African operators

African operators unable to readily raise capital for investment in project.

RISK: Low

Proposed action(s) to address the risk factor

Warehousing arrangements negotiated with Development Funding Institutions (DFIs) – Pan African Infrastructure Development Fund (PAIDF).

4. Competing submarine cable initiatives

The initiatives create the impression that there will be a glut of submarine cable capacity.

RISK: Low

Proposed action(s) to address the risk factor

Quick start to development of Uhurunet.

IMPLEMENTATION ARRANGEMENTS

The NEPAD e-Africa Commission is the implementing agency of the Kigali Protocol, and the Secretariat of the Inter-Governmental Assembly.

The NEPAD e-Africa Commission plays a facilitating role to ensure that stakeholders, including submarine and terrestrial network developers, ICT Policy Makers and ICT Regulators, as well as Development Funding Institutions (DFIs), achieve the NEPAD broadband network objectives.

Special Purpose Vehicles (SPVs) will be established that will develop, own operate, and maintain the segments of the broadband ICT network (Uhurunet and Umojanet). Independent professionals will manage the SPVs.

MONITORING AND EVALUATION

Monitoring will be in line with procedures agreed between the AUC and the partners.

The ARAPKE Flagship Project On The African Internet Exchange System

BACKGROUND

The Internet in Africa has been growing steadily over the past several years and is beginning to play a significant role in Africa's development, creating employment, providing opportunities for innovation and entrepreneurship, as well as acting as an enabler in the digital delivery of government services, education, radio, healthcare among others.

Unfortunately, the overall impact of the Internet as an enabler in Africa has been severely curtailed by a number of issues. Topping the list of these issues is the lack of efficient paths to carry growing local and regional traffic between Internet Service Providers (ISPs). This problem occurs both on a national as well as on a regional or inter-country scale. Independent analysis has shown that Africa pays over US$400 Million[1] to developed countries every year for inter-African telecommunications traffic exchange that is carried outside the continent.

Setting up an Internet Exchange Point (IXP) is neither expensive nor difficult. Latency will drop immediately from 900 milliseconds to 60 milliseconds. Costs for connectivity will plummet. Local hosting businesses will bring more revenue opportunities to ISPs, and enable more local content to be created and hosted locally at lower costs. Eventually the cost of Internet would be in the reach of the average person and then to the low-end markets.

Internet Exchange Points (IXPs) have been slow to appear in Africa, for two key reasons: (1) lack of trust among Internet Service Providers (ISP) owners, who are typically ferocious competitors with each other, and (2) resistance from the government, which is often fed by determined opposition from the state-owned monopoly telecom operator. Telecom monopolies fear IXPs because they make Internet vastly faster and less expensive, which, they fear, will further reduce international long-distance calling and, consequently, their already shrinking revenues from the international settlement regime. Achieving cooperation among competing ISP owners is often the most difficult challenge of all, since they have to be convinced that the economic case is unassailable, that the IXP will not simply become a mechanism for poaching customers, and that it is possible to apportion the set-up and ongoing costs of the IXP fairly, so that no ISP is subsidizing its competitors.

At the national level, Internet traffic between ISPs has been optimised in a number of countries with the introduction of Internet Exchange Points (IXPs), which allow ISPs to interconnect and offload correspondent traffic. Countries with exchange points clearing traffic at a national level include South Africa, Kenya, Mozambique, Egypt, Uganda, Tanzania, Nigeria,Democratic Republic of Congo, Benin, Botswana, Ghana, Malawi, Mali, Mauritius among others.

Increasing efficiency of regional traffic is an area that has thus far not been addressed, resulting in a slow and expensive exchange of African inter-country traffic via overseas hubs located mainly in the USA and Europe. This means that Africa is paying overseas carriers to exchange "local" (continental) traffic on our behalf. This is both a costly as well as an inefficient way of handling inter-country exchange of Internet traffic. It is therefore in the interests of all countries in Africa to find ways of optimising Internet traffic, building better and more robust networks to support intra-continental traffic flows and creating opportunities for private sector investment in these areas.

DESCRIPTION

This project aims to support the work of the African Internet Service Providers Association (AfrISPA) in facilitating the establishment of a truly African internet infrastructure through providing policy & regulatory reform, capacity building, technical assistance for ISP Associations and Internet Exchange Points in Africa.

AfrISPA has already mobilised two teams of African experts called The African Internet Exchange Task Force **(AFIX-TF @ http://afix.afrispa.org)** and the Enabling ISPAs Task Force **(http://enispa.afrispa.org).** These are operational arms that provide planning, scoping, implementation and delivery of the various project objectives. Both teams consist of approximately 40 resource people across the continent from all the major language groups. The teams have already been responsible for the establishment of a number of ISPAs and IXPs across the continent with funding from DFID's CATIA Programme which came to an end in August 2006.

This proposal seeks to build upon the progress made so far by mobilizing additional resource teams to targets new areas while extending the work of the teams, maintaining the momentum, and ensuring that relevant policies, actors and infrastructures are in place to enhance Africa's participation in the global information economy.

TIMEFRAME

Estimated Duration	3 years	Planned Start	As soon as funds are available

OBJECTIVES

Overall Goal

There are three goals associated with this project

A robust and fully redundant African Internet backbone infrastructure with exchange points at the core

A body of research data that can facilitate deeper study into trends of African data; mapping of impact of ongoing infrastructure development and growth in "local" traffic

A fully accredited and operationally relevant academic programme to support development of Internet technical capacity in Africa

OBJECTIVES IN DETAIL

No.	Description of objective
1	**To establish Internet exchange points in 44 African Countries:** Through the mobilization of an AFIX Task Force Set up AFIX Support Helpdesk Have the AFIX members conduct IXP workshops
2	**To establish 5 Regional Internet Hubs** By identifing suitable/appropriate neighboring countries to participate in regional hub By identifying the ideal location for main inter-country hub location By provide/procure equipment necessary for core internet hub functions such as. high-speed data switch
3	**To establish 4 Regional Internet Carriers** Through the preparation of Terms of Reference for Regional Internet Carrier RFP Through the launch of RIC RFP Through the final identification / award of the successful candidate(s)
4	**To establish 3 Continental Internet Carriers** Through the preparation of Terms of Reference for Continental Internet Carrier RFP Through the launch of CIC RFP Through the final identification / award of the successful candidate(s)
5	**To establish a real-time and historical traffic data accessible via web-based visualization system** By Determining specifications for expanded, continent-wide UNGANA internet traffic data monitoring system – **http://ungana.afrispa.org** By procuring equipment/services to facilitate rollout By the implementation and ongoing data analysis
6	**To develop a certificate curriculum on Internet Exchange technologies** Through the Identification of suitable academic partners Through the development of a curriculum in English, French & Portuguese Through the adoption & accreditation at suitable academic institutions

ACTIVITIES AND ESTIMATED COST

Activity: Title and narrative description of each activity that is planned to fulfil the objectives

Deliverables: specific tangible and verifiable deliverables such as reports, minutes, policy documents, study reports etc.

Priority: 1 = obligatory/ critical (minimum requirement); 2 = necessary; 3 = nice to have

No.	Activity	Description	Deliverables	Priority	Est. Cost ($)
1	Mobilizing the African Internet Exchange Task Force	An African Internet Exchange Taskforce will be mobilized and contracted to mainly; • Revise Workshop Curriculum and put it in complete Multimedia Toolkit Format • Conduct trainings at the planned 30 IXP workshops This activity will also include setting up a support helpdesk at each of the 30 IXP workshops, overall management by AFRISPA to conduct the 30 IXP workshops and shipping cost of the IXP training Kit	• Complete workshop curriculum in multimedia toolkit format • A support helpdesk at each of the 30 IXP workshops • Well conducted trainings at the 30 IXP Workshops	1	152,560
2	Conducting 30 IXP Workshops	This activity will include hiring of suitable venue, airfare travels, per diem, etc to successfully conduct 30 IXP workshops	• 30 IXP Workshops	1	384,000
3	Mobilizing the ISPA Team	The Internet Service Provider Association (ISPA) team will be mobilized and contracted to mainly; • Revise Workshop Curriculum and put it in complete Multimedia Toolkit Format • Conduct trainings at the planned 30 ISPA workshops This activity will also include setting up a support helpdesk at each of the 30 ISPA workshops, overall management by AFRISPA to conduct the 30 ISPA workshops	• Complete workshop curriculum in multimedia toolkit format • A support helpdesk at each of the 30 IXP workshops • Well conducted trainings at the 30 IXP Workshops	1	168,560

No.	Activity	Description	Deliverables	Priority	Est. Cost ($)
4	Conducting 30 ISPA Workshops	This activity will include hiring of suitable venue, airfare travels, per diem, etc to successfully conduct 30 ISPA workshops	30 ISPA Workshops	1	384,000
5	Establishment and Support of African Internet Exchange Systems Pilot Project (AXIS-Pilot)	This activity includes seed funding and support for the deployment of high capacity pipes linking key IXPs with the central hub in each of the five African Regions(North, West, Central, East and Southern) for 6 months to one year	5 Regional Internet Hubs	1	2,500,000
6	Research, Analysis and Reporting on traffic patterns, trends and scope	This activity includes refinement of software tools for collection, storage & analysis of traffic data via deployment of "sensor nodes" at key network points	A real-time and historical traffic data accessible via web-based visualization system	2	350,000
7	Development of Academic programme with African universities on Internet Exchange with research and development component	This activity includes engagement and interaction with key universities/colleges to design, structure and implement certification programme	A certificate curriculum on Internet Exchange technologies	3	125,000
				Grand Total	4,064,120

EXPECTED RESULTS

- 30 IXP Workshops.
- 30 ISPA Workshops.
- Policy & Regulatory Internet Exchange Point Toolkits.
- 44 African countries with Internet Exchange Points.
- 5 Regional Internet Hubs.
- 4 Regional Internet Carriers.
- 3 Continental Internet Carriers.
- Fully redundant African Internet Backbone.
- Real-time and historical traffic data accessible via web-based visualization system.
- Certificate Curriculum on Internet Exchange technologies.

PERFORMANCE INDICATORS

Indicator 1

Reduced cost of Internet access, increased quality of local access, increased number of local online applications.

Indicator 2

Maximum 200-400 millisecond delay/latency on packets between participating networks.

Indicator 3

Less than $500 per Megabit for cross-border regional access.

Indicator 4

Less than $500 per Megabit for trans-continental access.

Indicator 5

Ability to query, search and display traffic data:

- between ISP networks.
- between countries.
- between regions.

Multiples of the above combinations.

Indicator 6

4-5 universities and/or colleges and/or technical schools in different countries actively delivering training based on this curriculum.

RISK FACTORS AND MITIGATION MEASURES

1. Regulatory obstacles due to diverse jurisdictions and legal frameworks

Each African country has it's own communications regulatory framework and legal environment. In most cases there is no mutual recognition of licensees from one country to another. Additionally in some cases there are differences in frequency allocation tables, right of way procedures etc…

RISK : High

Proposed action(s) to address the risk factor

The project administrators will have to engage in close coordination with national and regional regulatory bodies e.g. WATRA, CRASA, ARICEA, EARPTO etc.. in order to ensure regulatory support in all the countries that will be covered by the network.

Lobby for mutual recognition of relevant license categories between neighbouring countries

2. Lack of or insufficient cross border infrastructure between African countries

Currently there is little or no communications infrastructure going across neighbouring African countries. The most recent multi-country network is the PANAFTEL which was commissioned in the 70s and consists largely of low capacity microwave. Other projects to link other countries such as COMTEL and SADCs SRII have either never taken off or are incomplete and stuck.

RISK : Medium

Proposed action(s) to address the risk factor

Close coordination and planning with regional network operators.

Presentation of business case(s) to support arguments in favour of investment into high capacity cross-border infrastructure.

3. Lack of political support

There is a risk that political leaders might not fully grasp the relevance or strategic importance of better integration of Internet infrastructure between their countries, thereby giving a lower priority to this against other priority issues.

RISK : Medium

Proposed action(s) to address the risk factor

Alignment with AU/NEPAD and Millennium development goals.

Regular high level feedback on progress, status, impacts and outcomes.

Participation and presentation in regional fora to maintain awareness.

4. Insufficient technical capacity to undertake research of this magnitude

AfrISPA and constituent organisations may lack the detailed research skills and capacity to undertake the many different assignments associated with a project of this scale.

RISK : **Low**

Proposed action(s) to address the risk factor

Partnership with well recognised and qualified research organisations that have experience with conducting large projects in multiple African countries.

5. Lack of tools and resources to collect and analyse data in real time

Due to the transient nature of internet traffic flows as well as varying traffic patterns depending on geography, demography and economy it is necessary to tap the data as close to the source as possible. This implies the placement of sensors and data collectors at key strategic points within operator networks. Such tools are available in one form or another but most lack the ability to integrate with a statistical back end and feed data from hundreds of operators simultaneously.

RISK : Medium

Proposed action(s) to address the risk factor

Refinement and deployment of AfrISPA's UNGANA toolkit which provides a complete, distributed collection and data storage platform for ISP/IXP traffic analysis.

6. Denial of access to network and system data by operators and service providers

Network and service providers generally tend to closely guard their network statistics and proprietary data due to competitive concerns and in some case privacy concerns. Additionally the general trend is a culture of competition rather than collaboration between ISPs and network operators.

RISK : Medium

Proposed action(s) to address the risk factor

Ensure top level buy-in from ISPs and network operators by involving their decision-makers at key stages of program development. This can be largely achieved via the AfrISPA member network and related institutions. The promotion of a culture of collaboration which boosts healthy competition.

7. Lack of suitable academic partner to facilitate curriculum development and certification

AfrISPA has gather a significant amount of experience and knowledge over the past 4-5 years with its efforts in promoting the establishment of IXPs in many different African countries. AfrISPA has also developed a training programme which has proven to be very effective in getting individual ISPs within a country both to understand and deploy their own national IXPs. However, most of this work has been

done largely by African internet engineers and professional who are not from an academic orientation. There is also a lack of industry-academia partnerships with which to facilitate this process.

RISK : Medium

Proposed action(s) to address the risk factor

Strengthen existing ties with institutions such as Sweden's Royal Institute of Technology (KTH).

Engage with existing ICT oriented programmes such as Net@Tel Africa and E-Poll network etc.

Establish relationships with progressive African academic institutions.

8. Failure to gain recognition amongst African Internet engineers and low perception of value within the African technical community

Since the technical personnel who operate African networks as well as students who are interested in pursuing careers in internetworking are the targets for this academic program it is critical that they be aware of the program and believe that it can help them obtain skills that would make them more marketable, proficient and informed.

RISK : Medium

Proposed action(s) to address the risk factor

Engage African Internet institutions such as the African Network Operators Group – AFNOG, African Network Information Centre – AfriNIC, African Top Level Domains Organisation – AFTLD and others to ensure visibility, buy-in and support from the technical community.

9. Lack of relevance due to rapid technological change in Africa's Internet industry

The Internet in Africa is experiencing significant changes due to; rapid growth of mobile telephony, multiple undersea cable projects which are bringing the costs of bandwidth down and increasing the amounts of available capacity, convergence of communications and broadcasting as well as shift from analogue to digital systems.

RISK : Medium

Proposed action(s) to address the risk factor

A curriculum development approach that is both dynamic as well as based on standards and principles that allow it to transcend flux within the environment.

IMPLEMENTATION ARRANGEMENTS

The project will be implemented using a model that involves an overall programme manager with Component Leaders responsible for key elements of the project. The Component Leaders would report to the Programme Manager while the Programme Manager reports to the Sponsoring organisation(s). The African Internet Services Provider Association would serve as Programme Manager in this respect and has the capacity to engage and mobilise competent Component Leaders through it's extensive network and linkages with key organisations and institutions across the continent. AfrISPA has also successfully demonstrated competence in programme management through the administration of Component 1A of DFID's Catalysing Access to ICTs in Africa project.

MONITORING AND EVALUATION

It will be in line with procedures agreed between the AUC and the partners.

The ARAPKE Project On Harnessing Information & Knowledge For Youth Development

BACKGROUND

On the 15th of March 2004, several African Youths from various countries living in Africa and the Diaspora came together on the African Youth Information Society Initiative discussion list. The Discussion List was an initiative of the United Nations Economic Commission for Africa (ECA) in the framework of the African Information Society Initiative (AISI).

The discussion aimed to create a platform for African youths to share experiences and knowledge in order to help develop innovative approaches to their needs and to establish a dialogue with public and other stakeholders in devising and implementing the WSIS action plan at country and regional levels. The points of discussion are: Policies/Strategies, Education, Employment, Entrepreneurship and The way forward. At the end of the online discussion it was agreed by the participants that African Youth ICT4D Network (AYIN) be formed to build a generation of young Africans empowered with ICTs to actively participate in the Information Society and invariably contribute to the development of the continent.

Thus on the 4th of February, 2005 the African Youth ICT4D Network (AYIN) was inaugurated during the African Regional Conference for the World Summit on the Information Society that took place in Ghana.

DESCRIPTION

Africa's youth population as a proportion of the total is increasing and projected to be over 50% by 2015. Youth currently account for 45% of the total labour force, and unlike other continents, Africa's population is becoming more youthful.

Therefore the pace, depth and scope of Africa's development in the 21st Century would depend on how best the continent's youth resources are nurtured and deployed. An area where young people have an edge is the emerging Information Society driven by new technologies. Young people are often the leading innovators in the use and spread of Information and Communications Technologies. They adapt quickly and are generally quite hungry for the great quantities of information, locally and globally, that can be provided through emerging Information and Communication Technologies.

As recognized in the WSIS Declaration, "Young people are the future workforce and leading creators and earliest adopters of ICTs. They must therefore be empowered as learners, developers, contributors, entrepreneurs and decision-makers. We must focus especially on young people who have not yet been able to benefit fully from the opportunities provided by ICTs. We are also committed to ensuring that the development of ICT applications and operation of services respects the rights of children as well as their protection and well-being". Young people shall remain an untapped resource if the mainstream ICT4D community does not integrate their knowledge, vision and experience.

The African Youth ICT4D Network (AYIN), which is the leading institution with a structure that has sub-regional representatives and support from multidisciplinary experts team, constitutes a regional network of its kind. It is expected to work with regional institutions (ECA, ITU, AUC) and Regional Economic Communities), national youth-led networks (including youth councils) and thematic networks to deliver its' goals.

The current project aims at harnessing the potential of knowledge and technology, and to find effective and innovative ways to put this potential at the service of African Youth development.

TIMEFRAME

Estimated Duration	3 years	Planned Start	As soon as funds are available

OBJECTIVES

Overall Goal

Description of overall goal

To harness the potential of knowledge and technology, and to find effective and innovative ways to put this potential at the service of African Youth development.

OBJECTIVES IN DETAIL

No.	Description of objective
1	To strengthen the institutional capacity of the African Youth ICT4D Network (AYIN) and national youth networks in participating countries and sub-regions;
2	To establish youth training and information centers (YTIC), community information centers (CIC), and support existing training centers for youth e-skill development.
3	To ensure youth input into Africa's Information Society interventions
4	To Identify potential youth organization partners and communities where the project can be implemented through the conduction of a National Youth Campaign in each participating countries;

ACTIVITIES AND ESTIMATED COST

Activity: Title and narrative description of each activity that is planned to fulfil the objectives

Deliverable: specific tangible and verifiable deliverables such as reports, minutes, policy documents, study reports etc.

Priority: 1 = obligatory/ critical (minimum requirement); 2 = necessary; 3 = nice to have

No.	Activity	Description	Priority	Est. Cost ($)
1	Call for Country Participation	Announcing AYIN's operations and calling for support (with Governments and other institutions) for AYIN activities in various countries – to make AYIN truly continental in scope.	1	12,000
2	Research Consultancy	Conducting baseline research on Youth and ICTs, capacity development needs' assessment and a pan-African ICT Youth Index	1	350,000
3	Secretariat	Establishing the AYIN Steering Committee, staff recruitment and AYIN secretariat establishment	1	105,000
4	Monitoring and Evaluation	Developing a sustainable Monitoring & Evaluation mechanism	1	26,500
5	Portal Development	Upgrade of AYIN website and development of ICT youth portal connecting to national portals	1	18,000
6	Feasibility Studies	Undertake feasibility studies and cost-benefits analysis for the creation of Youth Training and Information Centre (YTICs), Community Information Centres (CICs), Community Radio (CR) projects for youth development, and Community Multimedia Centres (CMCs) based on local languages	1	100,000
7	Best Practice Documentation	Make a series of 10 short movies in several countries in Africa to showcase Youth ICT entrepreneurship success stories	1	100,000
8	Events and Activities	Organize an annual African ICT Youth Festival (AIYF), regional ICT Quiz/Essay Competitions and National Information Society Youth Campaign	1	144,000

No.	Activity	Description	Priority	Est. Cost ($)
9	ICT Youth Incubation Funds	Design, setup and disbursement of ICT Youth Incubation Funds for selected incubator projects in at least 5 countries	1	550,000
10	ICT Centres with special focus on rural areas	Establishment of Youth Training and Information Centre (YTICs), Community Information Centres (CICs), Community Radio (CR) projects for youth development, and Community Multimedia Centres (CMCs) based on local languages	1	1,900,000
11	Audit	Conduct audit of AYIN activities	1	20,000
12	Contingency	Ad-hoc	1	
			Grand Total	**3,325,500**

EXPECTED RESULTS

- A functional framework for involving Youth in decision-making process related to building an inclusive Information Society in Africa established.
- Comprehensible network functional at national, sub-regional and global levels to foster Youth engagement in the Africa Information Society Initiative (AISI) and WSIS implementation and beyond.
- Five Sub-regional Centre well equipped established and functional.
- Youth Training and Information Centers (YTIC), Community Information Centers(CIC), and support existing training centers for youth e-skill development.

PERFORMANCE INDICATORS

Indicator 1

To strengthen AYIN and youth organisations in African countries and at the regional level:

(a) Number of outreach activities undertook by AYIN.

(b) Quality of AYIN website content.

(c) Quality of youth policies.

(d) Quality of monitoring and evaluation activities.

Indicator 2

To implement ICT training and establish Youth Knowledge Resources Centres:

(a) Quality of the infrastructure.

(b) Quality of the training programmes.

(c) Number of managers trained and positive response to knowledge assessment.

(d) Number of awareness-raising and training activities organised by ICT Clubs.

Indicator 3

To train critical mass of youth:

(a) Number of participants and number able to explain opportunities to harness ICTs for youth development.

(b) Number of Youth Index documents disseminated and feedback received.

(c) Statistics from website.

(d) Quality of the evaluation report and recommendations.

Indicator 4:

To promote ICT Youth Innovation:

(a) Number of ICT Youth led projects selected and supported.

(b) Quality of projects selected.

(c) Number of awardees and quality of their work.

RISK FACTORS AND MITIGATION MEASURES

1. Lack of funds

Insufficient budget can be the major hindrance of the project:

RISK: High

Proposed action(s) to address the risk factor

Securing funding for first few years (e.g. 3 to 5) of operations to ensure stability before the resumption of additional fundraising strategy.

2. Lack of political support

The project can face difficulties if there's lack of political support at sub-regional and national levels.

RISK: Medium

Proposed action(s) to address the risk factor

From our experience, successful projects are able to get political support after their success has become celebrated even beyond the borders of their operations. We, however, do not under-estimate the critical role of political support so we will keep political structures informed of the progress of our work.

3. Insufficient project staffing

The lack of experienced staff - trained and skilled - to develop and deliver the project's activities, and the fact that the network is presently led by volunteers.

RISK: High

Proposed action(s) to address the risk factor

The project need includes immediate engagement of full-time staff, while the coordinating bureau will also be entitled to periodic remuneration, as agreed by the oversight structures.

4. Lack of adequate involvement by the Project Steering Committee

When the project steering committee does not organize and fully participate in the designated periodic meetings so as to provide oversight and ensure that the project is on track.

RISK: Medium

Proposed action(s) to address the risk factor

Noting that AYIN is an ICT-friendly institution, we will encourage the use of new communication tools (e.g. VoIP, chat, eMail, etc) to stay in touch with the Project Steering Committee in order to prevent communication gaps.

IMPLEMENTATION ARRANGEMENTS

The project requires efficient and effective project management. A project management infrastructure including project initiation, administration, organisation and technical management, will include:

Project Steering Committee (PSC)

The PSC is the formal decision making body of the project and hence only the PSC has the authority to make global decisions within the project.

The Economic Commission for Africa (ECA), the main institution which supported the establishment of the African Youth ICT4D Network, will be the de facto Chair of the PSC. AYIN Coordinator will be the representative of the PSC within the Executive Committee. Other members of the PSC will include (upon their agreement), African Union (AU), International Telecommunication Union (ITU), UN Division of Sport, Representative from participant countries and youth reps from five regional Economic Communities

The PSC will meet regularly every six months. Additional meetings may be called by the project coordinator, or at the request of partners. Each of the partners will communicate with the PSC via his own PSC delegate. Associate partners and sub-contractors are fully represented by their respective partners. The PSC makes decisions by voting where each partner has one vote, independent of the number of delegates present at the meeting.

The PSC's primary role is:-

a. Definition, oversight and re-definition of work-plan, calendar and budget distribution revisions, if necessary.

b. Setting up of a resource plan for the project and monitoring effort expended. Financial budget control is devolved to the partners.

c. Setting up efficient partnership communication channels and web-site.

d. Defining the delegation, reporting and monitoring methodology to ensure efficient execution of work packages on time.

e. Applying the evaluation criteria to ensure quality of deliverables, meeting of deadlines, attendance at periodical meetings and usefulness of output for workshops.

f. Drafting of reports to the PSC and ensuring they are delivered on time.

Project Executive board (PEB)

The PEB will consist of AYIN Coordinator, the project coordinator and the project personnel. They are responsible for all aspects of the implementation of the adopted plan of action, recruitment of consultants, and partners in consultation with the PSC President.

National Implementation Management

A multi-stakeholder (government, business and civil society) country youth network shall be built upon the closest existing social structure to act as national implementing mechanisms in participating countries.

At the village level, a local youth organization, preferable a network or coalition of various smaller community-based groups shall be identified through the initial phase of the project to be frontline implementers and beneficiaries of the project. They shall be governed by a structure and mechanism that they themselves have identified and institutionalized.

MONITORING AND EVALUATION

It will be in line with procedures agreed between the AUC and the partners.

The ARAPKE Project On Women's Capacity Building Centers in Rural Africa

BACKGROUND

In a continent assuaged by biting poverty, the HIV/AIDS pandemic, women form over 50% of a population that is under very heavy pressures from a social organizational pattern that is inherently unprepared for an inclusive information society. These women who are mostly located in rural Africa are illiterate, lack resource rights, in particular rights to land and water, as well as access to credit, agricultural extension services and technology. Critical and useful is the fact that these women play a significant role in agriculture accounting for close to 70% of all labour in agriculture in Africa.

Yet, in an increasingly fluid yet increasingly integrated global economy, The Food and Agricultural Organization (FAO) recently noted that in the rural areas where the majority of the world's hungry live, women and girls produce most of the food consumed locally. Their contribution could be far greater if they had equal access to essential resources and services, including information. Rural women have even less access to information and technologies than men and are thus at a disadvantage when it comes to making informed choices about what to produce and how best to market their products. Lack of information also limits their influence in their communities and their ability to participate in decision-making.

Therefore to ensure enhanced access of women to information, the yawning knowledge gap between men and women in an already marginalized region coupled with the urban bias in ICT services provisioning, socio-cultural barriers as well as the high profit driven motive of operators that excludes women from accessing ICT facilities must be closed.

Noting that Women's ICT training needs are varied, reflecting the spectrum of women's level of ICT use, understanding and engagement, customised ICT training will be given. These needs include the need for a broad spectrum of technical training (from very basic computer skills training to more advanced skills training) as well as the need for women to fully understand the social impacts of ICTs and how they can influence change in the development of new technologies at the policy and decision-making level.

Drawing on this we have adopted the inclusive information society approach by sensitising rural women to the use of new ICTs and the benefits therein as well as setting up access and capacity building centres for women in rural communities of Africa.

It will further draw on the expertise, resources and experiences of Centre for Policy and Development, UNIFEM, the African women's Network on ICT for Development, the WSIS Gender Caucus, AMARC Africa and other ICT institutions in Nigeria.

DESCRIPTION

For women today, the greatest opportunity is in the windows that open into the virtual world, bringing new spaces for connecting and new platforms for solidarity (Anita Gurumurthy) in a global village ruled by knowledge and information; key resources that are critical determinants of socio-economic realities in the twenty first century.

However, the unequal power relations between men and women resulting in differential access, participation and involvement in the information society limits women from harnessing the potential of information communication technologies for their personal, communal and national development. This project therefore proposes the provision of access points that would also serve as capacity building centres for rural women in rural Africa.

A strategic, regionally inclusive and cascadable programme of engagement activities with grassroots women's organizations in Africa, the project aims to strengthen up the capacity and knowledge base of women on ICTs as enablers of socio-economic transformation and sustainable development. The project will further promote the use of ICTs amongst Rural Women with the goal of expanding rural women's access to knowledge, economic opportunities, and centers of decision making as well as facilitating the actualization of the millennium development goals in rural Africa.

Utilizing the machinery of women's networks in Africa, grassroots women's organizations, the media, parliamentarians, policy makers, ICT institutions and the private sector, the project will seek the establishment of pilot access and ICT capacity building centres in each of the five regions in Africa.

A Sensitisation, Consultation, Capacity Building For Transformation project in four (4) stages, the project further seeks to catalyse the development of a community of rural women ICT experts and trainers in Africa with the objectives of Building rural knowledge economies through active and knowledgeable participation of women in the global knowledge economy.

This project builds on existing structures, resources and programs targeted at bridging the gender digital divide in Africa as well as the growing partnership of many organisations and networks from the women's sector, the academe, governments and UN agencies with a track record in developing women's capacities in ICT.

OBJECTIVES

Overall Goal

To provide women's access and capacity building centres in rural Africa.

OBJECTIVES IN DETAIL

No	Description of objective
1	To set up 50 access and capacity building centers in 50 selected rural communities with 10 in each of the five sub regions in Africa.
2	To sensitize 1,500 rural women in 50 rural African communities on the use of ICTs with the goal of expanding rural women's access to knowledge, economic opportunities and centers of decision making.
3	To build and strengthen the capacity of 1,500 African rural women in 50 rural African communities on the use of ICTs as enablers of socio-economic transformation and sustainable livelihoods.
4	To provide hands on training on Internet use for socio-economic transformation
5	To provide hands on training on mobile telephony use for socio-economic transformation and sustainable livelihoods
6	To introduce 1,500 African rural women to basic computer literacy
7	To update and reprint 5,000 copies of Women, New ICTs and Socio-Economic Transformation, a beginners handbook to the Information Society
8	To publish 5,000 copies of The Rural Woman's Step-by-Step Guide to Mobile Telephony

ACTIVITIES AND ESTIMATED COST

Activity: Title and narrative description of each activity that is planned to fulfil the objectives

Deliverables: specific tangible and verifiable deliverables such as reports, minutes, policy documents, study reports etc.

Priority: 1 = obligatory/ critical (minimum requirement); 2 = necessary; 3 = nice to have

No	Activity	Description	Deliverables	Priority	Est. Cost ($)
1	Online Consultations with partners on scope and nature of project	An online introductory, consultative and information gathering meeting with regional partners to decide and plan the one-day strategic meeting.	Draft working document on identified needs, partners, resources, expertise and experiences. Agreed date and location for strategic planning meeting	1	3,000

No	Activity	Description	Deliverables	Priority	Est. Cost ($)
2	One-Day Strategic planning and implementation meeting of partners	A meeting by 15 members of the leading institution and partners of the project to deliberate on sourcing the equipment for the centres, identifying local partners whose communities will donate the required space for the centres resource persons within and outside the communities as well as the women to be trained	Agreed implementation strategy document by partners.	1	30,665
3	Publications	Women, New Information Communication Technologies and Socio-Economic Transformation A Beginners manual to basic computing and the Information Society. Very graphic easy to explain descriptions of how to use computers, connect to the Internet. The Rural Woman's Step-by-Step Guide to Mobile Telephony A how to use mobile phones as a communicative mechanism manual. A beginner learns how to use a mobile phone beyond receiving and making calls to using the device as an information gathering, dissemination and advocacy tool.	Readily available personal manual for use at any time of the day. Constant reminder of training received A ready and easily transferable reference Readily available personal manual for use at any time of the day. Constant reminder of training received A ready and easily transferable reference	2	175,454

No	Activity	Description	Deliverables	Priority	Est. Cost ($)
4	Setting up of 50 pilot access and capacity building centres	Each access and capacity building centre will comprise a radio, television, mobile phone, landline phone, a computer, a printer, a VCD, electricity generating set, furniture and Centre Manager. The Centres will facilitate gendered access, capacities and particiaption of rural women in the Information Society. The Women's access and capacity building centres will also build women's skills in entrepreneurship, health, positive cultures and leadership	Provide 1, 500 women in rural Africa with communicative mechanisms that would enable them access relevant, appropriate and timely devlopment information. Assist women in receiving, collecting and disseminating information on issues of concern to women in the rural areas like domestic violence, HIV/ AIDS and human rights abuses. Communicative mechanism to facilitate and generate indigenous knowledge that is vital in the empowerment agenda. Assist women leaders in Africa to generate knowledge that will boost their efforts to fight HIV/AIDS, Poverty, Illiteracy harmful traditional	1	1,272,878
5	Train-the-trainer workshops.	50 Sensitisation and capacity building workshops for 1, 500 African rural women drawn from 50 African communities. Hands on training on Internet use for socio-economic transformation and inclusion in the knowledge economy. Hands on training on mobile telephony use for socio-economic transformation and inclusion in the knowledge economy.	A pool of 1, 500 rural women trained as trainers within the five sub regions to train other rural women in Africa with facilities in their local communities. These same trainers will be available for replication of similar trainings within their sub regions	1	367,407

No	Activity	Description	Deliverables	Priority	Est. Cost ($)
6	Development, Updating and hosting of project website	The website will document all activities related to the project as well as indigenous knowledge and local best practices generated from the project.	A resource on rural African women's participation in the Information Society Global visibility Connect to global resources, experiences and expertise A platform for voicing out	2	21,944
7	Monitoring and Evaluation	To evaluate the project so that lessons learnt impact on other stages of the project.	Put project in perspective Ensure that partners and implementers are working towards a common objective	1	263,303
8	Communication				94,323
9	Documentation				72,500
10	Networking and Travel				72,500
		Sub Total			**2,373,974**
11	15% Administrative Charges				356,096
				Grand Total	**2, 730,070**

EXPECTED RESULTS

- 50 Access and Capacity Building Centres in Rural Africa, beginning with 20 pilot centres in the first two years, 2007 – 2008. The remaining 30 centres will be set up between 2009 and 2010.
- 1, 500 rural African women sensitised and trained as Trainers on ICTs as enablers of socio-economic transformation with 600 rural women trained in the first two years. 900 rural women will be trained between 2009 and 2010.
- Enhanced Capacities of 1, 500 rural African women on the use of ICTs as enablers of socio-economic transformation.
- Website on African women's access and capacity building centres developed and hosted by Kabissa. The website will document all activities related to the project as well as indigenous knowledge and local best practices generated from the project.

- 5, 000 copies of Women, New ICTs and Socio-Economic Transformation published and circulated amongst rural women in rural Africa.
- 5, 000 copies of The Rural Woman's Step-by-Step Guide to Mobile Telephony published and circulated amongst rural women in rural Africa.
- A Strategic planning and implementation meeting of project partners held.
- Progressive bridging of the gender digital divide in Africa.

PERFORMANCE INDICATORS

Indicator 1

- 50 access and capacity building centers in 50 selected rural communities with 10 in each of the five sub regions in Africa.
- 20 pilot centres between 2008 and 2010.
- 30 pilot centres between 2011 and 2012.

Indicator 2

- 1,500 rural women in 50 rural African communities sensitized on the use of ICTs.
- The capacities of 1,500 African rural women in 50 rural African communities on the use of ICTs as enablers of socio-economic transformation and sustainable livelihoods build and strengthened.
- Training on Internet use for socio-economic transformation for 1,500 rural women in 50 rural African communities.
- Hands on training on mobile telephony use for socio-economic transformation and sustainable livelihoods for 1,500 rural women in 50 rural African communities.
- 1,500 African rural women introduced to basic computer literacy.

Indicator 3

- 5,000 copies of Women, New ICTs and Socio-Economic Transformation, a beginners handbook to the Information Society updated and reprinted and circulated.
- 5,000 copies of The Rural Woman's Step-by-Step Guide to Mobile Telephony published and circulated.

Indicator 4

- 5 on-line consultative meetings.
- A one-day strategic planning meeting of partners.
- The African Women ICT4D website running.

RISK FACTORS AND MITIGATION MEASURES

1. Low literacy levels of rural women

In a continent assuaged by biting poverty, the HIV/AIDS pandemic, women form over 50% of a population that is under very heavy pressures from a social organizational pattern characterized by low illiteracy levels. Most affected are women and girls who are often excluded from educational opportunities on account of domestic chores and insufficinet resources for educational purposes.

Risk : Low

Proposed action(s) to address the risk factor

- Customised ICT training reflecting varied literacy levels and needs comprising very basic skills training as well as the need for women to fully understand the social and economic impacts of ICTs and how they can influence change in the development of new technologies at the policy and decision making levels. In addition, the training would incorporate the risk of illiteracy by working with a mix of both literate and illiterate women.
- Mobile telephony, the new ICT that challenges the link between literacy and technology will be used to mitigate the literacy challenge through the establishment of customized voice services on mobiles for disseminating and colecting pertinent development information in local languages.
- Secondly, the two training manuals, Women, New ICTs and Socio-Economic Transformation, and The Rural Woman's Step-by-Step Guide to Mobile Telephony are very graphic, with a lot of illustrations on how to use these technologies. The text is also basic directional text that their literate children can easily explain to them.
- In addition, the centres will be effectively tackled by the trained staff at the centre, who is also one of the women, except that she is a younger woman who has just left secondary school.

2. Lack of funding for implementation

Funding is a critical challenge in the development sector. Non governmental organisations trained and often experienced in innovative fund raising sometimes encounter challenges in accessing funds for very relevant projects. This makes it sometimes nearly impossible to implement very beneficial projects.

Risk: High

Proposed action(s) to address the risk factor

- Establish multistakeholder partnerships between ICT firms in Africa, development agencies, the government and communities on ownership of the access and capacity building centres.
- Run the centres owned by the communities coupled with sufficiently trained rural women and prudent management as income generating business centres.
- Attempt a partnership with the African Development Bank and the Gender Economic Empowerment program of the World Bank as well as ICT firms to fund it as a micro-credit to the communities repayable over a period of time. In this case, 10 pilot projects are suggested.

IMPLEMENTATION ARRANGEMENTS

The project will be managed by competent development and gender aware staff of the Centre for Policy and Development, and the leadership of the African Women's Network on ICT for Development as well as AMARC Africa, the WSIS Gender Caucus and UNIFEM.

MONITORING AND EVALUATION

It will be in line with procedures agreed between the AUC and the partners.

The ARAPKE Pilot Project On e-Learning Mode of Distance Education

BACKGROUND

Ethiopia's ability to actively participate in the new global economy (information/knowledge economy) and to solve the many social problems that it faces depends largely on the intellectual capacity and skills of its human resource. This suggests the need for having adequate number of professionals in the required quality from a broad range of disciplines with the necessary skill to use and adapt existing and new knowledge/information on changing local, national and international conditions. Further, for Ethiopia to expand access to quality education and produce significant number of professionals there must be a paradigm shift from the normal face to face education which is described as teacher-centered to distance learning particularly E-learning collaborative Education.

In spite of the recent advancement in the expansion of higher learning institutions in Ethiopia and high concern and priority given to ICT infrastructure in the form of school net by the Government, the demand for enrolment in these institutions has continuously surpassed the capacity of these institutions. There is also dire need on the part of the regional states for capacity building and continuous professionals' development to upgrade and update their personnel who are unable to follow the conventional face-to-face instruction because of their responsibility, working conditions and other many reasons. The Ministry of Capacity Building has also expressed its glaring need for skill and knowledge upgrading of the employees working in the education, health and other social sectors. In the education sector, for in stance, among 14,030 secondary school teachers only 5,469 are reported to have the necessary qualifications (BA/BSc) to teach at this level. That means 61% of secondary school teachers are under-qualified and need to be upgraded to the expected level. Equally important are the critically needed managerial, scientific and technological knowledge and skills for employees working in the various sectors of the economy, particularly in less developed regional states.

Moreover, the ever-expanding higher education institutes are facing critical shortage of qualified instructors, particularly in the areas identified, in this project, particularly at graduate level.

In general, the above situations call for Higher Learning Institutions to critically assess their system of education (mode of delivery) and immediately respond to such national issues. This is more so to Addis Ababa University (AAU) that has better experience in running variety of highly demanded programs at graduate level and to which the ministry of capacity building has entrusted with the mission of expanding the graduate programs in order to feed the other universities and colleges of the country for their manpower requirement. Though AAU is trying its best to meet those requirements, it was not satisfactory by all measurement. Among the different reasons that can be mentioned for such unsatisfactory performance to take advantage of such growing demand for its programs, the traditional method of learning and teaching (mode of delivery) the university is following (face to face and teacher centred) stands out to be the most important one. Many applicants are turned down on account of lack of classrooms, shortage of faculty members, shortage of library facilities and materials, and lack of accommodation when taken together requires the university to be physically larger and larger through additional investment.

DESCRIPTION

The purpose of this pilot project is to customize, deploy/implement and evaluate ICT based distance education learning model for selected undergraduate and graduate programs of the Addis Ababa University (AAU). Specifically, our objectives are:

- To develop E-learning platform for use by AAU in its distance education model by customizing already existing open source E-learning software.
- To build up and develop the skills necessary for instructors to design and develop course materials for E-learning.
- To assess the use of ICT to facilitate capacity building in support of educational system across Ethiopia.
- To support the teaching-learning process of regional Universities and colleges in areas where they lack expertise

This project extends the learning approaches in use so far by AAU and permits it to reach learners anywhere, anytime, in variety of forms of educational resource through the use of the internet technology in general and the Regional University net, school net, and worda-net infrastructure already in place by the Government of Ethiopia in particular. Initially some seven (7) selected programs will comprise the core of this project. On the basis of the evaluation result for the pilot programs, the project will then be roll over to the entire programs of AAU.

There are three target audiences for this E-learning program - the health practitioners working in the region, teachers in secondary and higher education institutions in the region, and business people and practitioners in Addis and in the regions.

The project is expected to take up to three years starting in September 2008 and completing in August 2010. There are four stages in this project - to customize and develop the learning model, deploy/implement the model at pilot level, evaluate the model, and start distance learning through E-learning at full scale. A basic principle adopted is that the proposed learning model and its associated courses will be developed, implemented and evaluated in iterations over time. This incremental approach allows the project team to introduce a few courses at a time, assess their effectiveness and refine the learning model as needed for the subsequent courses.

OBJECTIVES

Overall Goal

To customize, deploy/implement and evaluate ICT based distance education learning model for selected undergraduate and graduate programs of the Addis Ababa University (AAU)

OBJECTIVES IN DETAIL

No	Description of objective
1	To develop E-learning platform for use by AAU in its distance education model by customizing already existing open source E-learning software.
2	To build up and develop the skills necessary for instructors to design and develop course materials for E-learning.
3	To assess the use of ICT to facilitate capacity building in support of educational system across Ethiopia.
4	To support the teaching-learning process of regional Universities and colleges in areas where they lack expertise

ACTIVITIES AND ESTIMATED COST

Activity: Title and narrative description of each activity that is planned to fulfil the objectives

Deliverables: specific tangible and verifiable deliverables such as reports, minutes, policy documents, study reports etc.

Priority: 1 = obligatory/ critical (minimum requirement); 2 = necessary; 3 = nice to have

No.	Activity	Description	Deliverables	Priority	Est. Cost ($)
1	Team Set up	Organizing a Team of Top management from The Office of the Vice president for Graduate and Research, The Office of the Associate Vice president for Continuing and Distance Education and Information and Communication Technology Development Office	Terms of Reference for E-learning Team AAU	2	883
2	Platform Development	Identifying team of professionals to customize and create AAU's e-learning platform	E-learning Platform	1	20,944
3	Training Staff in E-learning Course Development	Staff from the identified programs will be given hands on training to convert their course materials for online education	Certified matériel Developer-matériels developed during the training	1	6,826

No.	Activity	Description	Deliverables	Priority	Est. Cost ($)
4	Staff training on online tutoring	Staff from the identified programs will be given hands on training on online tutoring	Quality e-learning facilitators	1	54,353
5	Resource and Infrastructures assessment	Identifying the existing resources and mobilizing new ones to provide educational access through he use of ICT	List of available infrastructure and necessary infrastructures	1	239,118
6	Setting Up the E- learning facility	Placing the customized platform into practice	A Working and tested e-learning platform at AAU	1	122,824
7	Identifying the programs	Choosing programs and areas of specializations to be offered in the project	Approved curriculum and program document	1	466,589
8	Material development	Commissioned staff and experts in media development will produce course materials to be published on the customized platform	Complete course materials	1	574,236
9	Admitting students to each program	Recruiting competent students who have the access for the technology		1	5,294
10	Running the program	The program coordinators and the team of professionals will make a follow up of the program		1	172,941
11	Research and Development	Sponsored PhD and other research will be conducted on education and technology	4 PhD and 10 research publications	1	216,389
12	Evaluation	Conducting timely progress and final evaluation of the projects output and direction	Quarterly evaluation document	1	7,412
				Grand Total	**1,887,809**

EXPECTED RESULTS

- Improved quality of education in the selected areas of education.
- Increased efficiency in the limited manpower utilization.
- Improved access to educational content, information, and knowledge.
- Eliminate disparities between rich and poor, girls and boys, and urban and rural dwellers.
- Postgraduate programs delivered to the teachers in regional universities and
- Paved way for wider programs to be implemented within the country and the Region at large.

PERFORMANCE INDICATORS

Indicator 1

Development of full flagged e-learning program in various field at Addis Ababa University and in Ethiopia at large.

Indicator 2

Providing education for the wider community–at least for 2000 people within the life time of the project.

Indicator 3

Having well trained instructional designers, material writers and e-learning tutors who can run the program across Africa.

Indicator 4

Having number of researches and publications on e- learning and related areas of Education and technology.

Indicator 5

Equal quality post graduate opportunity for all competent citizens.

RISK FACTORS AND MITIGATION MEASURES

1. Poor project management skills

Poor project management skills in regional colleges and universities and administrative support that may hamper the success of the project.

Risk : Medium

Proposed action(s) to address the risk factor

In order to address this risk the project should be run by team of professionals from different areas and the team has to be trained in e-learning program management to build its capacity at the beginning of the implementation.

2. Lack of top management commitment

Lack of top management commitment at all levels of colleges and universities to sustain the effect at regional school level;

Risk: Low

Proposed action(s) to address the risk factor

Including an incentive mechanism in the project and attracting professionals who could undergo through the paraprofessional development programs

3. Limited access to funding

Limited access to financial support to develop and implement project.

Risk: High

Proposed action(s) to address the risk factor

Once the project is able to secure the initial investment the out pot of the project(the e-learning program) will be marketed through out Africa and the Middle East so as to generate income

IMPLEMENTATION ARRANGEMENTS

The project will be managed by the Vice president for Graduate programs and research and the Associate Vice President for Continuing and Distance Education in collaboration with competent staff from the ICT development Office of the University. Department heads of the programs to be given in the project in the e learning program will be academic council members of the programs.

MONITORING AND EVALUATION

It will be in line with procedures agreed between the AUC and the partners

The ARAPKE Project On Educational Software, Multi-Lingual and Multimedia Dictionary

BACKGROUND

Many higher educational institutions as well as high schools are provided with systems facilities and are connected. The enduring issue is that of content which is grossly inadequate.

This project is consistent with the objectives of Pan-Africanism and multi-lingualism, and is intended to train the African citizens for economic and social development. This is not an utopia; rather it is a challenge. After all, didn't Europe also contend with the problem of multilingualism for economic and social development? It addresses the concerns of the African Union and the African Academy of Languages and is in line with the Africa's plan of action. It entails developing five widely used languages in furtherance of sustainable development in Africa.

DESCRIPTION

Starting from a single node, the software will develop into a tree-like structure comprising two major branches, namely: the software and dictionary with entries by language or by theme.

1 - Multiple, Multilingual and Multimedia Educational Software

Each software is multi-faceted, branching out into three elements, the content being an African language with a specific African language used as medium (element 1), French (element 2) and English (element 3). Element 1 is a literacy and practical training software designed for native speakers of the African language. The other two are language and culture learning softwares, respectively, for French and English speaking people. The bridging facilities allow for transition to the other languages treated. Audio sessions, still pictures, clickable images, mobile pictures and numerous interactive exercises make the product user-friendly.

2 - Multiple Multilingual dictionary

A multilingual dictionary with bridging facilities, that can be consulted by means of the table of letters in alphabetical order, by entry terms or entries, theme or random searching Bridging facilities enhance access to the dictionary entries in any of the languages Languages selected: Mandingue, Kiswahili, Fulani, Lingala, Arabic or Hausa/English, French (mediums for the educational software). Spanish and Portuguese offer equivalents in the electronic dictionary.

TIMEFRAME

Estimated Duration	30 Months	Planned start	As soon as funds are available

OBJECTIVES

Overall Goal

Description of Global objectives

- Enable Africans to :
  - Achieve functional literacy so as to participate in combating poverty and exercise activities geared to sustainable development
  - Acquire knowledge of Africa languages and cultures
  - Communicate, make themselves understood and work together to develop their countries and the Continent
- Facilitate the dissemination of African languages and cultures
- Enable Westerners to acquire knowledge of African languages and cultures and to cooperate more meaningfully with Africans.

OBJECTIVES IN DETAIL

No.	Description of Objectives
1	Educational Softwares • Data gathering • Documentation on poverty reduction strategies and sustainable development particularly on the internet • Preparation of texts (statements and dialogues) • Devising scenarios • Preparation/rehearsal by the players • Audio and verbal recordings : photographing and filming sessions • Creation of texts and exercise banks • Programming, creation of bridging facilities
2	Dictionaries • Documentary research and compilation • Creation of entry terms or entries • Translations into national language and English • Preparation of logical record • Programming, creation of the bridging facilities • Compilation • Meetings (at onset, mid-stream, final collective work) • Supervision (quaterly working visits) • Experimentation/ Appraisal • Validation • Secretariat • Communication

ACTIVITIES AND ESTIMATED COST

Activity: Title and narrative description of each activity that is planned to fulfil the objectives

Deliverables: specific tangible and verifiable deliverables such as reports, minutes, policy documents, study reports etc.

Priority: 1 = obligatory/ critical (minimum requirement); 2 = necessary; 3 = nice to have

No.	Activity	Description	Priority	Est. Cost ($)
1	Data acquisition	Information retrieval purchase and consultation of grammars and lexicons of the various African languages. Possible complementary research.	1	33,600
2	Establishment of the French and English reference frames	The texts of reference in French and English are guides and models as well in the study and the training of the African languages as in the development of lexicons and dictionaries in the fields of the contents and methodology.	1	
3	1st Meet Official launch	Study of the methodology of the model	1	38,672
4	Development of contents Creation of battery of exercises	Draftings of texts, linguistic rules, of: dialogs, of battery of exercises, scénarii in the various African languages	1	201,600
5	Preparation/ execution by the agents	repetition, sound recording, video recording video sequences		
6	Programming Creation of gateway Assembly	Data-processing part, development of the software architecture		18,000
7	Meeting	Work meetings, of harmonization		38,672
8	DICTIONARIES Documentation Terminological search	Census of all lexicographical and terminological work of the language		
9	Establishment of the nomenclatures and reference frames	Drafting of dictionnairic articles, development of terminologies linked to the practical activities		288,000

10	Drafting in African Languages	Complements and insertion of topics of the soil relating to the socio-economic activities	1	201,600
11	Programming - Links - Assemblies of regional work	Computational lexicography		18,000
12	Meetings Experimentation/ validation	(launching, semi course, end) Work visit: harmonization)	3	38,672
13	Secretariat, communication	Within each team: typing for the two shutters of the software		61,200
14	Responsibility Allowances	Responsibility Allowances		13,333
15	Overheads	10% of the Budget		104,365
			Grand Total	**1,055,714**

EXPECTED RESULTS

A product comprising five softwares, each made up of three educational softwares and a multiple, multilingual and multimedia electronic dictionary.

- Each software is multi-faceted, branching out into three elements, the content being an African language with that particular African language used as medium (element 1), French (element 2) and English (element 3). Element 1 is a literacy and practical training software designed for native speakers of the African language. The other two are language and culture learning softwares, respectively, for French and English speaking people.
- Multi-lingual electronic dictionary.

  For possible use in schools and universities, government departments, in the private sector, local communities (decentralized) and rural districts.
- Both native and non-native speakers of an African language are able to learn the language and penetrate African culture.
- They will be able to communicate and work together. This provides an answer to the question of African working language, and will facilitate the search for the identity and, indeed, the cultural unity of Africa.

PERFORMAMCE INDICATORS

Indicator 1

The student efficiently manipulates the computer, keyboard and mouse.

Indicator 2

He/She has absorbed and makes use the course content, and correctly executes the activities indicated.

Indicator 3

Teaching and learning of cross-border African languages become effective through multimedia.

Indicator 4

A communication tool is created ; and this promotes better understanding and rapprochement of African (and European) languages, cultures and peoples.

Indicator 5

A development tool is made available to the greatest number of users, especially neo-literates.

Indicator 6

Access to African languages literacy software available for the uneducated youth, members of the public that squandered schooling opportunity, the physically challenged and children in difficult situation. These people have access to alternative education for equal opportunity thanks to the EICT.

RISK FACTORS AND MITIGATION MEASURES

1. Team Work

Readiness of the teams to work together in the project. It will be needful for the consultants to meet in a specific country.

Proposed action(s) to address the risk factor

This constraint is fundamental, but should be eliminated with availability of funds

2. Telecommunication Infrastructure in Africa

Levels of telecommunication infrastructure in Africa, and the high cost of communication. The situation differs widely from one country to another and from institution to another

Proposed action(s) to address the risk factor

The craze for the information and communication technologies in Africa and in all components of the society (mobile phone and e-mail) is, to a certain extent, a guarantee of success and sustainability of the

outcomes of the research. Moreover, we intend to develop a CD-ROM version of the product alongside the version on the Internet.

IMPLEMENTATION ARRANGEMENTS

The software will operate under Windows and is written in HTML and Java Script format. The first is quite easy. The two combined facilitate access to the baseline programme. It also provides access to special characters in Word and text processing, with the possibility of producing texts in African languages.

1. Synoptic documents for preparation of base lists are developed after consultations at the level of the administration, schools and universities, grassroots educational structures, specialized educational institutions, legal establishments, local farmers (neo-literates), local craft persons, as well as political, economic and social circles, and the civil society
2. The product will be available on the website, and could also be presented in the form of CD-ROM It could be opened as freeware.
3. The product could also be integrated into the « localization » network to which I belong – « Africloc », thus allowing for its wide dissemination. In so doing, it will contribute to development of skills and know-how, especially in the field of applied research
4. Using this product as a tool for distance learning in educational/apprenticeship centers, both formal (public and private schools) and informal (community educational centers, literacy centers linked to NGOs and to the wider West African public, sub-regional institutions, the « Karanta » foundation for support to informal training policies – all these also a guarantee for its sustainability. It is indeed in this case that the monitoring and evaluation mechanism would function effectively.
5. Interactivity
    a) At technological level: This entails, as far as possible, going beyond mere clicking to perform optical reading; thus aligning the use of the keyboard and that of the mouse.
    b) Intellectual and Educational level: go beyond automatism, brainstorm and, depending on the case, provide assistance with the possibility of repeating the exercise.
6. Plateform and Practicalities

MONITORING AND EVALUATION

This will be in line with procedures agreed between the AUC and the partners

The ARAPKE Project On An e-Learning Network

BACKGROUND

The proposal focuses on the value added of ICT as a supplementary means for learning, to foster other activities and ways of learning in addition to the traditional ones. At the same time, online learning can make up for the lack of traditional tools. In fact, lack of infrastructure, lack of adaptation of the curriculum, use of foreign languages as language of instructions, not enough teachers, lack of training materials, cultural barriers for women, underserved rural regions, etc., are some of the main well known issues and obstacles to improve spreading of education.

As well as in other contexts, the "immaterial" nature of digital content makes it reproducible at no cost and therefore ready to be distributed, provided that it's freely accessible and an adequate hardware is available.

DESCRIPTION

This E-learning Network project is about creating and maintaining a sub-regional network from a framework based on the use of ICT for the production, distribution and effective use of e-Learning content within formal and non-formal educational institutions and structures for a better and more access to education in Africa. This project will provide a new way of participatory learning, stimulate collaborative work between teachers and students for the production of local educational digital contents for an overall economic development of the involved communities. The project will first start with one West African country (Senegal) and expand to cover all the other countries, It will promote collaborative work, exchange of knowledge between African schools through a sub-regional E-learning platform, using a website. For the first two years, tree countries will be involved.

OBJECTIVES

Overall Goal

To use ICT to increase access to education, production of local content in local languages, use of ICT as tools for education and school administration

OBJECTIVES IN DETAIL

No	Description of objective
1	To build a sub-regional network from a framework based on the ICT for the production, distribution and effective use of e-Learning content within formal and non-formal educational institutions and structures.
2	To enable capacity building for school teachers, staff and students in ICT for education through in house training.
3	To promote digital local content development for education and training in West Africa.
4	To produce content in local written and non-written languages for a larger distribution in educational contexts

5	To create the infrastructure for the E-learning network activities to enable collaborative online work using internet (use of a website with the produced contents) or local networks
6	To promote and spread the use of open source software in the sub-region through dedicated applications to fulfill local needs
7	To involve rural communities in the information society as actors in a meaningful use of ICT for development

ACTIVITIES AND ESTIMATED COST

Activity: Title and narrative description of each activity that is planned to fulfil the objectives

Deliverables: specific tangible and verifiable deliverables such as reports, minutes, policy documents, study reports etc.

Priority: 1 = obligatory/ critical (minimum requirement); 2 = necessary; 3 = nice to have

No.	Activity	Description	Deliverables	Priority	Est. Cost ($)
1	Recruitment process of management team, software developers and evaluator	Terms of reference for staff recruitment, public call for applications, selection and recruitment of staff. - 1 Program Manager, 1 Project Coordinator, & 1 Administrative and Financial Manager recruited; - 1 pedagogical advisor appointed by the Ministry of Education,	Terms of References, Call for Application and recruitment	1	0
2	Project Salaries	Salary of (1 Program Manager, 1 Project Coordinator, & 1 Administrative and Financial Manager), 2 software developers for 2 years; and stipend for pedagogical advisors	Employment Contracts	1	180, 000
3	Stipend for pedagogical advisors	One pedagogical advisor will be appointed by the Ministry of Education	Relevant Documentation	1	1,800
4	Procurement of equipment for administrative and software development work	Procurement of a Projector, Laser Printer for administrative work and two laptops plus a server for software development	Procurement procedure documents and the equipments	1	13,000

No.	Activity	Description	Deliverables	Priority	Est. Cost ($)
5	Procurement of equipment to be delivered to 7 selected schools	Procurement of 7 lots of equipment for each selected school. 1 lot consists of 10 PC, 1 server , 1 wireless switch, 1 digital camera, 1 laser printer, 1 scanner, accessories such as paper, cartridge, etc)	Procurement procedure documents and the equipments	1	201,250
6	Development of content for training students and teachers	Training will be conducted on content production, collaborative work, and computer maintenance. Awareness and sensitization for the local decision makers will be done to enable local buy-in for the project	Training and Awareness Sessions Reports	1	24,500
7	Monitoring & Evaluation	A consultant will be recruited to periodically (quarterly) evaluate the project activities. He will also undertake the baseline studies for the selected schools. One local consultant will be recruited per country	Terms of Reference for the Consultant and subsequent quarterly reports	1	30,000
8	Improvement of the developed platform to incorporate new features that are mainly interactive (Advanced Software Development)	In collaboration with pedagogical experts, teachers and students, the software developers will improve the developed software to incorporate new features that are mainly interactive	Improved platform and a detailed report on the improvement	1	5,000
9	Data & voice communication for the 7 selected schools	Internet & telephone expenses for the 7 selected schools	Internet Access by Schools	1	7,000
10	Data & voice communication for the project administration	Internet & telephone expenses for the project administration	Internet Access by the Project Staff	1	4,800

No.	Activity	Description	Deliverables	Priority	Est. Cost ($)
11	Staff visits to schools	At least 2 staff members will visit schools once week	Weekly Visit Reports	1	24,000
12	Replication of the project in two other countries in the sub-region	2 staff members will travel three times to two other countries to replicate the solution, Deployment of the application, testing of the e-learning platform, teachers training, evaluation and follow up. The team will spend 7 days for each trip	Mission Reports	1	33,000
13	Training of teachers and student in the two other countries	Two months training will be conducted for teachers and students in the two other countries	Training Content and Taining Reports	1	17,100
14	Publication in the media, bids, announcements, etc	It's estimated that there may be about 5 occurrences per country	Media Publication Copies	1	9,000
15	Sensitization and Evaluation workshops	3 sensitization workshops (1 per country) and 9 evaluation workshops (3 per country) will be organized	Workshop reports	1	45,000
16	Webhosting and Administration	Each country will host and administer a website for the project period of two years	Online Website for each country	1	6,000
17	Miscellaneous : currency fluctuation, inflation, etc	It's estimated that there will be miscellaneous expenses of US$ 5,000 each year for the project	Detailed Report on the Miscellaneous expenses	1	10,000
18	Office provision with utilities (electricity, water), maintenance, security, staff management	Bokk Jang will be responsible for these activities.			44,000
				Grand Total	**655,450**

EXPECTED RESULTS

- At least 7 rural schools involved in the project as startup and pilot case for replication (3 in Senegal, 2 in Mali and 2 in Burkina Faso) with local communities involved in the global framework of the project.
- A sub-regional e-learning platform for content delivery
- Production of different pedagogical digital contents in 3 different West African countries, at least 1 main subject per school (mathematics, science, literature, etc)
- Creation of a sub-regional website to host, publish the produced local contents and enable collaborative work among teachers and students.
- Networking of all the schools involved in the project : exchange of produced contents, collaborative work among students and/or teachers of different schools, different countries

PERFORMANCE INDICATORS

Indicator 1

Brief remarks on the indicator mentioned: To be meaningful, the project has be appropriated by local communities, the selected schools teachers, staff and students. Having 7 rural schools involved will create a critical mass of people sensitized in the field on ICTs for a better education.

Indicator 2

Brief remarks on the indicator mentioned: The creation of an operational E-learning platform network is among the most important indicators of success for this project as it is the medium for exchange and continuous communication between teachers, students and staff. It will allow storage, update and retrieval of digital content.

Indicator 3

Brief remarks on the indicator mentioned. Production of digital content is a big challenge in Africa. Achieving even one digital content related to one school subject will be rewarding and mainly in a rural area. It would be stimulating for other schools to do better and more.

Indicator 4

Brief remarks on the indicator mentioned: Sub-regional E-learning Web site where digital educational contents can be found, questions can be asked, and contributions can be made. It will be a very fascinating communication tool for teachers, students and any other person interested in learning.

Indicator 5

Brief remarks on the indicator mentioned: networking of all involved schools for contents production and sharing. Teachers, students from different schools, different countries, can work together on a single school project to make it more significant to the community. This will facilitate close collaboration, good relationship, peace and more productivity among the community, more digital content for Africa and more diversity for the internet.

RISK FACTORS AND MITIGATION MEASURES

1. Common perception of education as a waste of time in rural areas

In rural areas where labor is important in daily activities (agriculture), spending hours in a school is sometimes considered to be a waste of time. However, this perception is fading away with new generations of parents who are learning about the benefits of education via TV and are less reluctant to send their children to schools with very little furniture and digital textbooks.

RISK : Low

Proposed action(s) to address the risk factor

Use of ICT by the students for popularization of general themes and training on local productive activities; for example the use of the produced content to disseminate information about local concerns such as health issues, agriculture, and others as specified by the local communities, will help prevent such misperception of education.

2. Lack of / very little access to internet

Lack of internet access is a big issue in Africa and mainly in Rural areas. Provision of Cdroms with the digital educational content, will give opportunities to the "unconnected" to have access to the same data on the website. It will be more difficult for them to make new relationships with groups abroad and participating in a collaborative project will be even harder even though radio technology can allow remote participating work (mesh connectivity) within the same school.

RISK : Medium

Proposed action(s) to address the risk factor

The software architecture of tools for content use and production is key point to achieve feasibility and sustainability. In order to avoid problems on the communication side, such as lack of network, lack of connection, limited bandwidth, costs of continuous connection, etc., such tools will be able to provide the content both offline (i.e. physically resident in a standalone computer) and online (i.e. provided on demand by a remote web server) without any change. In other words, the content can be used locally without the requirement of a continuous connection, and when connected it can be automatically retrieved and stored from a remote server.

In this way, both contents and applications will be scalable from standalone to local networks and Internet. The implementation of the e Learning network will be incremental, starting with standalone computers, connecting them in local networks as the second step, and finally joining the Internet where available.

3. Equipment maintenance

The risk related to Equipment maintenance is due to the lack of expertise and of spare parts. Even when a school staff member is trained to be the local technical support, there should be incentives to keep him or her in duty. The Ministry of Education should make a budgetary provision for the spare parts availability.

Risk : Medium

Proposed action(s) to address the risk factor

One of the biggest problems related to computer use in Africa is maintenance. At least one staff member is trained in computer maintenance for technical trouble shouting in each school. In the selection criteria, their will be a provision to make sure the selected school will be able to face the upcoming spare parts replacement.

4. Difficulties linked to a sustained website and content hosting and management

Website hosting is key to the virtual network and should not be funded by a temporary source, it should be taken care of by the National budget for sustainability reasons. Another key to the network is updating the website and maintaining it. Teachers and children will be creating the content and therefore, teachers and staff can be in charge of the site maintenance and update,

Risk : Medium

Proposed action(s) to address the risk factor

The Ministries of Education of each country should provide means for hosting the website as part of their annual budget devoted to school manuals. The trained staff and teachers will be able to manage the content and update the website.

IMPLEMENTATION ARRANGEMENTS

The project will be managed by 3 teams, one in each country, coordinated by Bokk Jang, as follows:

1. Bokk Jang will provide a coordinating team of 1 program manager, 1 Administrative and financial assistant, 1 external evaluator and 2 full-time software developers
2. In each country, 1 project coordinator selected within an implementing partner institution, will follow up the activities

The management team will work in close collaboration with a pool of pedagogical advisors appointed by the different Ministries of Education in each country

MONITORING AND EVALUATION

It will be in line with procedures agreed between the AUC and the partners.

The ARAPKE Project On The African Digital Initiatives and Financing Agency

BACKGROUND

Information and Communication Technology (ICT) is a catalyst for change and improvement in the life of African people, to play a more meaningful role in globalization to achieve the goals of the millennium declaration through access to information and knowledge, which can to a large extent, transform their minds towards development and to negate the scourge of conflict, hunger, disease and poverty. This project is consistent with the African Regional Action Plan on the Knowledge Economy (ARAPKE), which is an outcome of the World Summit on the Information Society (WSIS) process from Geneva to Tunis, highlighting the road map - from policy to implementation – for transformation of the continent to a knowledge based society.

About 30 African countries have a National Information and Communication Policy (NICI), plans and strategies. The Africa Digital Initiative and Financing Agency (ADIFA), therefore intends to start its activities by assisting in project Identification and development and support, as a means to implement ARAPKE. In this context, ADIFA recognizes the need for the formulation of greater the number of ICT projects in Africa, the need for access to increased financial resources for implementation, to narrow Africa's digital divide, and ultimately, to improve the lives of African people.

TIMEFRAME

Estimated Duration	3 years	Planned Start	As soon as funds are available

OBJECTIVES

Overall Goal

Description of overall goal

The exclusive objective is to facilitate institutional mechanism to ongoing an organization that had already been set-up by a group of African Experts to consolidate the gains that have already been achieved in the continent in terms of ICT policy development., by assisting African Countries in the quest to outreaching financing from the donor community and also building partnership for support the implementation of ARAPKE.

OBJECTIVES IN DETAIL

No.	Description of Objectives
1	Establish ADIFA as an investment gateway to the ICT sector in Africa.
2	Establish close link with Africa Regional and Sub-regional organizations, Bilateral and multilateral bodies with interest in financing ICT development in Africa.
3	Monitor ICT initiative in Africa and assist countries in their effort to outreaching financial resources to implement projects and programs emanating from initiatives particularly e-Strategies.

No.	Description of Objectives
4	Assist African Countries in identifying projects and programs that have potential quality to meet the criteria of specific donors.
5	Assist African countries to take advantage of the WSIS declarations and Action plans.
6	Assist Governments, Civil Society, the private sector, women, youth and physically disadvantaged people in establishing relationship and partnership with financing mechanisms for information society development.
7	Promote Public Private Partnerships, Multi-Stakeholder partnerships and other forms of investments in the ICT sub-sector in Africa.
8	Promote African information society by harnessing the potential of ICT in African countries as a catalyst to meet Global development targets e.g. the MDGs, particularly in halving poverty by 2015.
9	Assist African Countries in identifying projects and programs that have potential quality to meet the criteria of specific donors.
10	Collaborate with the AU Commission, ECA and other stakeholders to organize Donors and Partnership conferences to mobilize resources to implement Information society projects and programs.
11	Encourage the Upholding of the principle of co-existence and equitable access to ICT resources by all African countries, in respect for the universal declaration of human rights.

ACTIVITIES AND ESTIMATED COST

Activity: Title and narrative description of each activity that is planned to fulfil the objectives

Deliverables: specific tangible and verifiable deliverables such as reports, minutes, policy documents, study reports etc.

Priority: 1 = obligatory/ critical (minimum requirement); 2 = necessary; 3 = nice to have

No.	Activity	Description	Deliverables	Priority	Est. Cost ($)
1	Staff recruitment and salaries for three yearsr	Recruitment of two Program officers, Administration and Finance officer, a Secretary, messenger and cleaner; plus remuneration of the executive director	Published vacancy announcements and signed letters of appointment	1	287,100

2	Office Furniture and equipments purchase	purchase of equipments (office equipment, office furniture and telecom equipment) will be undertaken through selective biding with quotations from three suppliers during the first month of project inception	Equipments in place	1	18,500
3	Utilities, rental of property and others expenses for three years	Operational expenses during three years including travel expenses, administrative consulting services...	Bills	1	208,000
4	Contingency	5 % of (2 & 3)	Bills	2	11,325
				Grand Total	**524,925**

EXPECTED RESULTS

A Fully operational ADIFA will guarantee the following:

- Structured ICT projects to implement NICI policies and underlying e-strategies and other initiatives.
- Increased Donor Interventions in the African ICT Sector.
- Partnerships designed to meet national set-targets and priorities.
- Models applicable under similar situations to defray transaction costs.
- Funding that explicitly build capacity for sustainability to achieving development goals of the Millennium Declaration and National PRSPs.
- Considerable e-Government projects implementation, to take advantage of financial resources in the Global market.
- Development partners ensured of high implementation rate in programs related to.
- ICT development in Africa.
- ICT Projects database for stocktaking and 'shop' for ICT projects in Africa, accessible through ADIFA.
- Increase investment in the ICT in Africa.

Performance Indicators

Indicator 1

Acquisition of budget items 1 – 4 and functional ADIFA

Indicator 2

Identify 53 focal points – one in each African Country

Indicator 3

Establish of ARAPKE ICT projects database for access to by partners within four months of operation

Indicator 4

Within the program period, 75% of total eligible ARAPKE project realise access to financing

RISK FACTORS AND MITIGATION MEASURES

1. Lack of grant financing to operationalize ADIFA

RISK: Low

Proposed action(s) to address the risk factor

ARAPKE flagship project with high potential for donor funding

2. Political interference and manipulation

RISK: Low

Proposed action(s) to address the risk factor

ADIFA registered as Civil Society organisation collaborating with the AU and ECA. A non partisan Regional Organisation.

3. Resistance to use ADIFA as a gateway to finance ICT projects in Africa.

RISK: Medium

Proposed action(s) to address the risk factor

Endorsement of ADIFA and support by the Conference of ICT Ministers of Africa and recognition of ADIFA by AU and ECA

IMPLEMENTATION ARRANGEMENTS

ADIFA is registered as a 'not for profit' organization under the Laws of the Gambia. The Secretariat will be located in the Gambia and suitable office location of the Secretariat has already been identified.

Funding for the establishment of The Secretariat is in accordance with the attached budget. The institutional mechanism and Board of Directors is contained in the constitution of the organization, which constitute experts in various domain in the ICT sector in Africa – Financing, Project Design and Implementation, Public Sector, Private Sector, ICT policy, Civil Society and International cooperation - who will advise and the guide the work of the Secretariat. The Secretariat is projected to start operation during the in 2008, subject to availability of financial resources through donor funding.

During the first three months of operation, the Executive Director who has already been identified among the pioneers of the organization will recruit two Program officers, Administration and Finance officer, a Secretary and ancillary staff, in consultation with the Chairman of the Board.

Furniture and fittings will be procured from the capital expenditure budgetary allocation. This together with purchase of equipment will be undertaken through selective biding with quotations from three suppliers during the first month of project inception.

Acquisition of logistics to set-up the secretariat will be done with the consent of the Chairman of the Board.

Regional Network

Through fora, consultations and other forms of contact, the Agency will identify focal points in each African country, suitable to carry out country level consultations and to further assist in the identification of projects and programs. Focal points established under the Regional Network will be linked to the Secretariat.

Monitoring and Evaluation

It will be in line with procedures agreed between the AUC and the partners.

The ARAPKE Project On Virtual Preparatory Classes for High School Students

BACKGROUND

Numerous studies have revealed that mass education development in the countries of the South can be achieved through distance learning techniques to increase the training choices and the chances of success of this type of training for young people. It is of vital importance to promote the emergence of multimedia educational curricula that has been devised in the very countries in which they will be used. With respect to higher education, especially the delicate transition from secondary to higher education and the choice of study discipline, there is practically no training facility or information which the high school student of the countries of the South could rely on. These observations have propelled us to define a project to enable us to meet the needs of young people, enhance the creation of multimedia educational curricula in Africa and strengthen the links between South-South secondary and higher educational institutions. To this end, we shall take advantage of multimedia and internet potentials to achieve all these objectives at the same time.

The objective of the interactive multimedia educational training for high school final year students in the countries of Central African Economic and Monetary Community (CEMAC) is to sensitize the greatest number of young people to information and communication technologies (ICT) as well as to scientific and technological studies in higher educational institutions. These courses of training will be dispensed by university and engineering college teachers, partners of the project, and will be recommended to secondary educational institutions as additional training for their students. The multimedia product will comprise :

- Courses on information search on the internet;
- Basic training in systems tools ;
- Exercises and problems for preparation of competitive examinations for admission into engineering colleges; and
- Various scientific courses illustrated with multimedia facilities.

These training projects are intended to offer to advanced level graduates and final year high school students from CEMAC Member Sates, a programme that will enable them to prepare for examinations and for the delicate transtion from the secondary to higher educational level. It relies on New Educational Technologies (NET). Furthermore, trainees will receive lessons on:

- Findings of academic circles;
- Institutions participating in the programme;
- Career paths as well as the career prospects offered by the training (the types of occupations for which the training prepares the trainees) in host countries;
- Various upgrading courses and their scientific and technological components.

This interactive multimedia training will be underpinned by a series of teaching modules harmoniously interwoven by a general theme and a related browsing system which articulates the modules, focusing among other things, on the engineer, teacher and researcher occupations, as well as scientific framework, host institutions and their training disciplines.

However, an eventual extension of this programme to other sectors is not, in any way, contradictory. It involves dispensing interactive training courses in secondary educational institutions with the objective of enabling youth access to the information highway and preparing them for competitive admission examinations and their curricula.

DESCRIPTION

The duration of this training project anchored on the New Educational Technologies (NTE) will be one year. Training courses will be dispensed by university and engineering college teachers, partners of the project, and will be offered to secondary educational institutions as additional training programme for their students, to prepare them for competitive examinations for admission into engineering colleges. The multimedia product will comprise: courses on information search on the internet; basic training in systems tools; exercises and problems for preparation of competitive examination for admission into engineering colleges; various scientific courses illustrated with multimedia facilities, exercises and problems for preparation of the competitive admission examinations.

To successfully conduct this training and avoid problems of connection and output, we have deemed it realistic to enter into partnership arrangements with the digital campuses in existence in the territories of CEMAC countries.

A module will be implemented in accordance with a classical planning schedule:

1. Developing a scenario
2. Designing teaching curricula
3. Multimedia development, and
4. Validation tests.

We present hereunder basic curricula which conform to the content of competitive examinations for admission into the national higher polytechnic of Yaoundé. This examination comprises a written component in Physics and also a written component in Mathematics. We attach thereto value units in Chemistry that could be of interest to candidates for other scientific examinations.

UV MATH 1 : Elementary Mathematics 1 – Linear Algebra

UV MATH 2 : Elementary Mathematics 2 – Analyse réelle

UV MATH 3 : Elementary Mathematics 3 – Analyse dans les espaces vectoriels de dimension finie

UV MATH 4 : Elementary Mathematics 4 – Géométrie dans le plan et dans l'espace

UV PHYS 1 : Physics 1 - Cinématique et dynamique du point et du solide

UV PHYS 2 : Physics 2 – Statique du solide et des fluides

UV PHYS 3 : Physics 3 – Phénomènes périodiques

UV PHYS 4 : Physics 4- Electricité et phénomènes corpusculaires

UV PHYS 5 : Physics 5 – Physical Optics

UV PHYS 6 : Physics 6 – Energy and Heat

UV CHIM 1 : Inorganic Chemistry

UV CHIM 2 : Organic Chemistry

UV CHIM 3 : Wet Chemistry

UV CHIM 4 : Thermo-Chemistry

We will include in the above value units, others subjects that we consider necessary for the training of the future engineer. The units in question are:

1. Basic Training in Systems Tools

This entails initiation to the internet and to basic softwares such as Word and Excel, together with a presentation on computer operation (basic courses on micro-computers and application software.

2. Work Methodology of the Student in a Higher Scientific or Technological Educational Institution

This is a cross-cutting teaching module which includes the work method that students have to adopt as from their first year so as to successfully conclude their higher educational studies.

3. Effective Grasp of Library Information and Tools

This programme involves preparing students to effectively use the library tools at their disposal: searching for books in a library, references, use of the index facility, table of contents, etc. As regards the resources on the internet, it will be needful to explain the functioning of a search engine, a data base and a browser and to discover the current possibilities and limitations of the internet

4. Professional Training

This generally involves inciting the student to ponder over his/her training and career path, his/her fundamental motivation to become a teacher, engineer or researcher, the demands of the profession, activities sub-sector, his/her capacity to work in a team, etc. The objective is to push the student to, as quickly as possible, become a player in his/her training, and to adopt an active attitude vis-à-vis the training. Several critical stages have been identified in this lengthy process: end of first cycle (choice of discipline); then, for engineers, choice of sub-sector after the first industrial attachment phase; for academicians, the choice of DEA (Higher Studies Diploma) or DESS (Secondary School Honour Graduation Diploma) and lastly the search for the first job. The development of a multimedia product (information on activity sectors, career development of old graduates and questionnaires for students' self-evaluation) is preferable to the classical +TD type training course designed to sensitize students on the need for this programme. By opening the room for reflection at the pre-higher education stage, we shall help high school trainees to more meaningfully define their expectations and formulate the reasons for their eventual decision to go for scientific and technological professions. In this regard, we shall provide pertinent information on these professions and, in a more detailed manner, on proposed career paths particularly in our own educational institutions.

General information on engineer, teacher and researcher profession (branch of activities and outputs etc), and on our institutions (conduct of studies, practical information etc) will be presented in this module.

The numerous documents prepared particularly by the communication services of our institutions and private businesses could be transcribed for presentation to high school trainees through CD support or the internet.

TIMEFRAME

Estimated Duration	4 Years	Planned Start	As soon as funds are available

OBJECTIVES

Overall Goal

Description of global objectives

The objective of the interactive multimedia training course for high school final year students in the countries of Central African Economic and Monetary Community (CEMAC) is to sensitize a big number of young people to information and communication technologies (ICT) as well as to scientific and technological studies in higher educational institutions

OBJECTIVES IN DETAIL

No.	Description of Objectives
1	Familiarize the students ith the use of the systems as a work tool, just as books, study aids, etc.
2	Utilize the possibilities offered by the computer for maximum illustration of courses, because our environment is modestly industrialized.
3	Make students have the capacity to learn by themselves. This is a prerequisite for higher education studies.
4	Share resources in the teaching field, given the fact that these resources are unequally distributed in the sub-region.
5	Make training available to all students including those whose parents did not have the means to send them to school, with a view to preparing them more effectively for competitive admission examinations.
6	Place at the disposal of secondary education, quality supplementary training necessary for success in competitive examinations and in higher education studies.
7	Avail students with information on higher educational institutions as well as data-based information on cost of living, associations, students' life, how to conduct bibliography research, how to run a project, etc.

ACTIVITIES AND ESTIMATED COST

Activity: Title and narrative description of each activity that is planned to fulfil the objectives

Deliverables: specific tangible and verifiable deliverables such as reports, minutes, policy documents, study reports etc.

Priority: 1 = obligatory/ critical (minimum requirement); 2 = necessary; 3 = nice to have

No.	Activity	Description	Deliverables	Priority	Est. Cost ($)
1	Design and development of multimedia pedagogical curricula + validation test	Development of course aids, multimedia exercises and problems using scenarios and the graphical charts that will be prepared.	Courses, multimedia exercises and problems, documents in aid of courses, software needed to operationalise the courses, validation test for the modules.	1	17,472
2	Negotiate partnership with digital campuses, counseling sessions.	Signing of partnership agreement with Francophone digital campuses, appointment of teachers likely to undertake counseling (student support, explanation of courses, conduct of guided assignments, responding to questions, the exercises and problems that will be developed	Partnership agreement signed; names of counselors.	1	7,800
3	Training of the trainers	Train secondary school teachers in the use of Information and Communication Technologies for Teaching (ICTT), in the assimilation of the courses, exercises and problems developed, effective grasp of the various stages of students' training with a view to their integration into higher education studies.	Training of counselors on digital campuses for sustainability of the project	1	7,800

No.	Activity	Description	Deliverables	Priority	Est. Cost ($)
4	Coordination of project creation	Verify that all the course aids, exercises and problems have been developed in accordance with the chart defined at the onset ; and if not, bring this to the attention of those responsible for each course ; ensure that the systems rooms are functional ; ensure that the counselors have been appointed and that the training has been effectively put in place; make sure that the training started on the effective date; enlist the reports and impressions of students and trainers alike and recommend improvement measures.	Reception of all the courses, exercises and problems; reception of the list of counselors; launch of the training process; ensure that the training courses have effectively started; receive reports from the partners; receive the impressions of the students and the counselors. For some of these points, travels will be imperative.	1, 2	6,240
				Grand Total	**39,312**

EXPECTED RESULTS

- The measurable outcomes expected from the project are :
- At the end of the training, trainees will have developed the skills and competences that could be exercised in a work situation at the University.
- The capacity to produce multimedia programmes in universities and higher colleges in CEMAC countries is enhanced.
- Training supply for youth in systems, science and technology is up-scaled in CEMAC countries.
- The conditions for youth access to the internet and preparations for their entry into the information society are improved ;
- High school youth prepare for competitive examinations and for admission into higher educational institutions ;
- Relationships and establishment of partnership network between secondary and higher educational institutions in Francophone countries will be fostered (first in CEMAC and thereafter in any other country)

Performance Indicators

Indicator 1

The number of institutions and of pupils admitted for distance training programmes

Indicator 2

The number of pupils, particularly girls, that successfully completed the training programme and passed the different end-of-year competitive examinations.

Indicator 3

Quality of the training and the number of pupils that used this platform for their orientation and success in higher educational studies.

Indicator 4

The quality of the program, the number of courses, the quality of information contained in the platform.

Indicator 5

The positive impressions of the pupils and counselors.

RISK FACTORS AND MITIGATION MEASURES

1. Vast Cultural Diversities

It is important to take special account of the constraints arising from the vast cultural diversities in target countries (role of women in the society, quality of the technological environment, etc). This constraint is critical for selection of the lead theme and the browsing system. It also comes into play in the illustrations of the various modules.

Proposed action(s) to address the risk factor

It is preferable to focus on universal themes or themes pertinent to the cultural context.

2. System Facilities in Host Countries

Constraints exist at the level of systems facilities in host countries: output of internet connections and cost of communications. The situation varies quite widely from one country to another and from institution to institution.

Proposed action(s) to address the risk factor

We intend to partially personalize the modules with a more or less systematic call for internet search and to develop a CD-ROM version of the product alongside the version available on the internet.

IMPLEMENTATION PROCEDURES

1. Opt for the Module platform which the ENSP is already using in dispensing Master's degree courses in telecommunications
2. Create a website dedicated to training.
3. Train the trainers especially to: (1) Develop on-line courses; (2) Operate the platform, (3) Initiate counseling programmes; (4) Harmonize organization of appraisals.
4. Advertisement for candidatures
5. Selection of candidates
6. Publication of course counseling planning
7. Publication of virtual practical work planning and tele-exercises.
8. Publication of appraisals planning
9. Signing of agreements with partners.

MONITORING AND EVALUATION

This will be in line with procedures agreed between the AUC and the partners.

ANNEX

TABLE OF ESTIMATED TRAINING COST

Year	Number of Students	Fees payable (€)	Coordination (10%)	Counseling Fees (45%)	Lump sum Digital Campus (25%)	Website Maintenance (10%)	Operational Costs (10%)
2009	150	60,000	6,000	27,000	15,000	6,000	6,000
2010	200	80,000	8,000	36,000	20,000	8,000	8,000
2011	250	100,000	10,000	45,000	25,000	10,000	10,000
2012	300	120,000	12,000	54,000	30,000	12,000	12,000

The Human Resources, Science and Technology Department has an ICT vision to contribute to the integration of Africa by building an all inclusive information society on the continent that is fully benefiting from ICT services as the African Union continues to integrate into the global economy which is an increasingly knowledge economy.

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